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The Electrical Standard Products (ESP) business and New Product Development (NPD) function of L&T Electrical & Automation (E&A) have been awarded the Deming Prize 2019, by JUSE (Union of Japanese Scientists and Engineers), Japan.

The Deming Prize is one of the highest awards on Total Quality Management (TQM) in the globe. It is presented to an organization that has implemented TQM suitable for its management philosophy, scope/type/scale of business and management environment.

The TQM activities of ESP were evaluated for establishment of customer oriented objectives and strategies & top management leadership, suitable utilisation and implementation of TQM, effects obtained regarding business objectives and demonstration of organizational capabilities.

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- **Rotary Switches**
- **Modular Remote Control Units & Indicating Units**
- **Timing Devices & Supply Monitors**
- **Cable Ducts & Load Break Switches**
- **Modular Switches and Sockets**
- **Medium Voltage AIS upto 36kV**
- **Agricultural Electrical Products**

**Note:** Product photographs shown, are for representative purposes only.







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### Customer Interaction Center (CIC)

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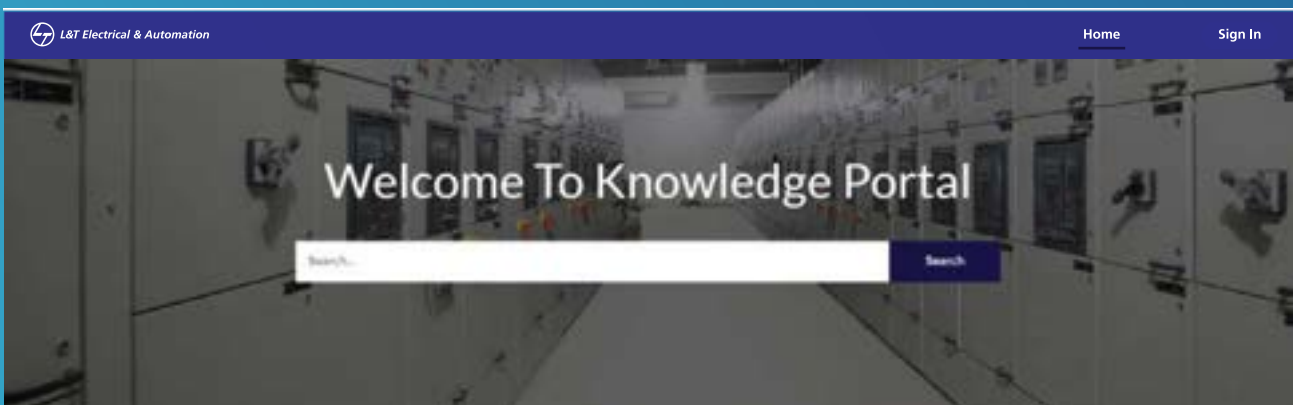
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# Contactors

## Power Contactors

### 1 Pole

- MR

### 2 Pole

- MNX
- MU-2P

### 3 Pole

- MO
- MNX
- MI
- MX Power
- ML
- MDX (DC Control/Electronic coil Control)

### 4 Pole

- MCX

## Control Relays (Auxiliary Contactors)

- MX0 (Mini) AC/DC
- MO0 AC/DC

## Capacitor Duty Contactors

- MO C

## MI Contactors 6-150A, AC-3 Rating

Optimum solution  
for your applications



Understanding customer requirements, we make sure that our range of contactors caters to their evolving needs. Considering the changing expectations of customers and a need for an optimum and reliable solution, we introduce MI range of contactors for applications upto 150 A AC3 rating.

### Features :

- Finger proof terminals upto 40A
- Can be used with existing MN Range of thermal overload relays
- Top mounting add-on blocks possible upto 80A
- Spares available for entire range
- Optimised for AC1/AC3 applications

### Applications :

- Street lighting
- VFD, Soft Starters applications
- UPS
- Solar and Wind inverters
- Resistive loads
- Battery charging
- Motor Starters

\* For accessories and more details please contact nearest branch.

### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

Type	Cat. No.	M.R.P. (₹) Per Unit
MI 6 (With 1 NO aux contact)	CS90401	Price on request*
MI 9 (With 1 NO aux contact)	CS90402	
MI 12 (With 1 NO aux contact)	CS90403	
MI 18 (With 1 NO aux contact)	CS90404	
MI 22 (With 1 NO aux contact)	CS90405	
MI 25	CS90406	
MI 32	CS90407	
MI 40	CS90408	
MI 45	CS90704	
MI 50	CS90705	
MI 70	CS90706	
MI 80	CS90707	
MI 95	CS90724	
MI 120	CS90725	
MI 150	CS90726	

### Notes:

- 1) Standard coil voltage: 110V, 220V, 240V and 415V, 50Hz
- 2) For ordering Suffix, please refer page No. 10





## 3 Pole Power Contactors - Type MNX

### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 650A AC-3
- Click fit type construction up to 40A
- Coil on top design in 95A and above
- Spares available for entire range



Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	9	25	MNX 9	1 NO	CS94106	1000	20
				1 NC	CS94107	1000	20
	12	30	MNX 12	1 NO	CS94108	1160	20
				1 NC	CS94109	1160	20
	18	30	MNX 18	1 NO	CS94100	1370	20
				1 NC	CS94101	1370	20
22	32	MNX 22	1 NO	CS94980	1580	20	
			1 NC	CS94981	1580	20	
Fr 2	25	45	MNX 25	#	CS94110	1630	20
	32	55	MNX 32	#	CS94111	3450	20
	40	55	MNX 40	#	CS94190	5380	20
Fr 3	50	85	MNX 50	#	CS97075	7240	1
	70	100	MNX 70	#	CS97076	10100	1
	80	100	MNX 80	#	CS97077	12500	1
Fr 4	95	160	MNX 95	2 NO + 2 NC	CS94136	19100	1
	110	160	MNX 110	2 NO + 2 NC	CS94137	23200	1
	140	160	MNX 140	2 NO + 2 NC	CS94138	29600	1
Fr 5	185	250	MNX 185	2 NO + 2 NC	CS94139	35700	1
	225	300	MNX 225	2 NO + 2 NC	CS94140	39300	1
	250	300	MNX 250	2 NO + 2 NC	CS94141	44300	1
Fr 6	300	400	MNX 300	2 NO + 2 NC	CS90280	53500	1
	400	425	MNX 400	2 NO + 2 NC	CS94144	75100	1
	550	650	MNX 550	2 NO + 2 NC	CS94145	110300	1
	650	800	MNX 650	2 NO + 2 NC	CS96327	168200	1

## 3 Pole Power Contactors - Type MO

### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A - 300A AC-3
- Range 140A-300A available with conventional / universal AC/DC electronic coil version
- Common coil for 50 & 60Hz application
- Low pick-up VA consumption
- Standardized accessories for 9A-110A and 140A-300A range
- Compact dimensions saving panel space
- Suitable for Lug as well as Lugless termination
- RoHS compliant



Size	AC 4 Rating (A)	AC 3e Rating (A)	AC 1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 0	9	9	30	MO 9	1NO+1NC	CS94833	1700	10
	12	12	32	MO 12	1NO+1NC	CS94834	1920	10
Fr 1	18	18	32	MO 18	1NO+1NC	CS94835	2150	10
	25	25	45	MO 25	#	CS94567	2410	10
	32	32	50	MO 32	#	CS94568	5110	10
	40	40	50	MO 40	#	CS94569	7760	10
	45	45	50	MO 45▲	#	CS94570	9900	10
	50	50	100	MO 50	#	CS94572	10500	1
Fr 2	60	60	100	MO 60	#	CS94573	11300	1
	70	70	100	MO 70	#	CS94574	14100	1
	80	80	125	MO 80	#	CS94576	17700	1
Fr 3	95	95	125	MO 95	#	CS94577	20200	1
	110	110	140	MO 110	#	CS94578	24500	1
	140	140	250	MO 140	2NO+2NC	CS95000	33900	1
Fr 4	185	185	275	MO 185	2NO+2NC	CS95001	39400	1
	225	225	275	MO 225	2NO+2NC	CS95002	43300	1
	140	140	250	MO 140	2NO+2NC	CS95042	45500	1
Fr 4*	185	185	275	MO 185	2NO+2NC	CS95047	56400	1
	225	225	275	MO 225	2NO+2NC	CS95052	60200	1
	250	250	400	MO 250	2NO+2NC	CS94441	48800	1
Fr 5	300	300	500	MO 300	2NO+2NC	CS94440	58800	1
	250	250	400	MO 250	2NO+2NC	CS94456	66000	1
Fr 5*	300	300	500	MO 300	2NO+2NC	CS94464	76500	1

### Notes:

- 1) # Add-on blocks can be ordered separately
- 2) For ordering MNX/MO, please refer page No. 8
- 3) For ordering MNX/MO surge suppressor and MNX/MO MIL kit, please refer page No. 9
- 4) For ordering Suffix, please refer page No. 10
- 5) Standard coil voltage: MNX/MO - 110V, 220V, 240V and 415V, 50Hz.

▲ If using 16 sq mm cable for MO 45 use of spreader link kit is mandatory

▲ For ordering spreader link kit for MO 45, Please refer page No. 9

\* Universal AC/DC electronic coil version

### Switching Solutions for all Utilization Categories from MO platform



## 2 Pole Power Contactors [8536]

## 3 Pole Power Contactors [8536]

### 2 Pole Power Contactors - Type MNX

#### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 650A AC-3
- DC ratings available
- Click fit type construction up to 40A
- Coil on top design in 95A and above
- Common spares and accessories as MNX 3P

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	9	25	MNX 9-2P	1 NO	CS90232	850	10
	12	30	MNX 12-2P	1 NO	CS90234	990	10
	18	30	MNX 18-2P	1 NO	CS90236	1160	10
	22	32	MNX 22-2P	1 NO	CS90238	1340	10
Fr 2	25	45	MNX 25-2P	#	CS90240	1390	10
	32	55	MNX 32-2P	#	CS90241	2930	10
	40	55	MNX 40-2P	#	CS90242	4570	10
Fr 3	50	85	MNX 50-2P	#	CS94061	6150	1
	70	100	MNX 70-2P	#	CS94062	8590	1
	80	100	MNX 80-2P	#	CS94063	10600	1
Fr 4	95	160	MNX 95-2P	#	CS94064	16200	1
	110	160	MNX 110-2P	#	CS94065	19700	1
	140	160	MNX 140-2P	#	CS94066	25200	1
Fr 5	185	250	MNX 185-2P	2 NO + 2 NC	CS94978	30300	1
	225	300	MNX 225-2P	2 NO + 2 NC	CS94979	33400	1
	250	300	MNX 250-2P	2 NO + 2 NC	CS90301	37700	1
Fr 6	300	400	MNX 300-2P	2 NO + 2 NC	CS90346	45500	1
	400	425	MNX 400-2P	2 NO + 2 NC	CS94069	63800	1
	550	650	MNX 550-2P	2 NO + 2 NC	CS90243	93800	1
	650	800	MNX 650-2P	2 NO + 2 NC	CS90578	143000	1

### 3 Pole Power Contactors - Type MDX

#### Features

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Range from 9 - 110A AC-3
- Built in surge suppressor for MDX 9 - 110



MDX 25



MDX 38



MDX 110

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1 (DC Control Coil)	9	25	MDX 9	1 NO	CS96564	2060	1
	12	28	MDX 12	1 NO	CS96565	2430	1
	18	32	MDX 18	1 NO	CS96566	2840	1
Fr 2 (DC Control Coil)	25	32	MDX 25	1 NO	CS96567	3940	1
	32	56	MDX 32	#	CS96552	7610	1
Fr 3 (Electronic Coil-AC/DC)	38	56	MDX 38	#	CS96553	10400	1
	50	90	MDX 50	#	CS91584	15100	1
Fr 3 (Electronic Coil-AC/DC)	65	110	MDX 65	#	CS91585	17100	1
	80	125	MDX 80	#	CS91586	21200	1
	95	125	MDX 95	#	CS91857	25400	1
	115	125	MDX 115	#	CS91858	28300	1

#### Notes:

- 1) # Add-on blocks can be ordered separately.
- 2) For ordering MDX/MNX add-on aux contact blocks, please refer page No. 8
- 3) For ordering MNX surge suppressor and MIL kit, please refer page No. 9
- 4) For ordering Suffix, please refer page No. 10
- 5) Standard coil voltage: MDX - 24V, 48V, 110V and 220V DC
- 6) Standard coil voltage: MNX 2P - 240V, 50Hz
- 7) For DC power ratings refer catalogue
- 8) For MDX side add-on and top add-on can not be mounted together

## 3 Pole Power Contactors [8536]

### 3 Pole Power Contactors - Type MX Mini

#### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- AC/DC Contactor in 45mm width
- Base as well as DIN Rail mounting facility
- Built-in Surge Suppressor in MX DC



MX 06

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For AC control (Std. Coil Voltage - 24, 110, 240, 415V, 50Hz)</b>						
6A	20A	MX 06	1 NO	CS94012	1210	10
6A	20A	MX 06	1 NC	CS94013	1210	10
9A	20A	MX 09	1 NO	CS94014	1250	10
9A	20A	MX 09	1 NC	CS94015	1250	10
12A	20A	MX 12	1 NO	CS94016	1390	10
12A	20A	MX 12	1 NC	CS94017	1390	10
<b>For DC control (Std. Coil Voltage - 24, 110, 220V)</b>						
6A	20A	MX 06	1 NO	CS94021	1900	10
6A	20A	MX 06	1 NC	CS94022	1900	10
9A	20A	MX 09	1 NO	CS94023	1980	10
9A	20A	MX 09	1 NC	CS94024	1980	10
12A	20A	MX 12	1 NO	CS94025	2180	10
12A	20A	MX 12	1 NC	CS94026	2180	10

### 3 Pole Power Contactors - Type ML

#### Features

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Range from 25 - 300A AC-3
- Robust and suitable for hostile applications



ML 1.5



ML 3



ML 6



ML 12

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	25	25	ML 1.5	2 NO + 2 NC	SS91851	4490	1
	32	40	ML 2	2 NO + 2 NC	SS90701	8340	1
Fr 2	40	45	ML 3	2 NO + 2 NC	SS90721	12300	1
	70	100	ML 4	2 NO + 2 NC	SS90910	20100	1
Fr 3	110	125	ML 6	2 NO + 2 NC	SS90921	31800	1
	300	400	ML 12	2 NO + 2 NC	SS91010	72000	1

#### Notes:

- 1) For ordering MX add-on aux contact blocks, please refer page No. 8
- 2) For ordering ML add-on aux contact blocks, please refer page No. 9
- 3) For ordering MX surge suppressor and MIL kit, please refer page No. 9
- 4) For Ordering Suffix, please refer page No. 10
- 5) Standard Coil Voltage : ML 1.5/2/3 - 110V, 240V and 440V, 50 Hz  
ML 4/6/12 - 110V, 240V and 415V, 50 Hz

4 Pole Power Contactors - Type MCX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 16A – 800A AC-1
- Wide operating band up to 130A AC-1



MCX 22



MCX 34



MCX 47

Size	AC-1 Rating (A)	Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	18	MCX 01	#	CS97009	1200	10
	25	MCX 02	#	CS97010	1270	10
	32	MCX 03	#	CS97011	1350	10
	40	MCX 04	#	CS97012	1880	10
Fr 2	55	MCX 11	#	CS97013	2490	1
	63	MCX 12	#	CS97014	4880	1
	80	MCX 13	#	CS97015	8100	1
Fr 3	105	MCX 22	#	CS97017	10800	1
	130	MCX 23	#	CS97018	12800	1
Fr 4	160	MCX 32	2 NO + 2 NC	CS97020	21100	1
	200	MCX 33	2 NO + 2 NC	CS97021	25800	1
	255	MCX 34	2 NO + 2 NC	CS97022	31700	1
Fr 5	325	MCX 41	2 NO + 2 NC	CS97023	52000	1
	360	MCX 42	2 NO + 2 NC	CS97024	56000	1
	400	MCX 43	2 NO + 2 NC	CS97025	65000	1
	560	MCX 44	2 NO + 2 NC	CS97026	82300	1
	600	MCX 45	2 NO + 2 NC	CS97027	97400	1
	700	MCX 46	2 NO + 2 NC	CS97028	109300	1
	900	MCX 47	2 NO + 2 NC	CS94291	144000	1

Automatic Transfer Controllers (ATC)



AuXC-2000 Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-2000 Controller	ATC20000000	31600	1
AuXC-2100 Controller** with Optional RS485	ATC21000000	63000	1
RS485 Module for AuXC-2100 Controller**	ETACONRS485	12600	1

Can be used along with ACB, Motorised MCCBs, MCX contactors & Motorised Changeover switches

\*\* Note: RS485 expansion module needs to be ordered with AuXC-2100 for communication

For AuXC 2000/2100 programming videos and more details please scan the QR code or click here



Notes for MCX :

- 1) # Add on blocks can be ordered separately.
- 2) For ordering MCX add-on aux contact blocks, please refer page No. 8
- 3) For ordering MCX surge suppressor and MIL kit, please refer page No. 9
- 4) For Ordering Suffix, please refer page No. 10
- 5) Standard Coil Voltage: MCX - 220V, 240V and 415V 50Hz
- 6) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors
- 7) MCX 01-04 and MCX 11-13 available in 48V DC coil. Contact nearest branch for more details.
- 8) MCX 01-04 available with 2NO+2NC power contacts. Contact nearest branch for more details.

To avoid coil failure due to neutral floating, it is recommended to use 415V coil

Control Relays (Auxiliary Contactors) [8536]

Type MX0 AC



MX0 40E

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Available with AC or DC control in same dimension
- Inbuilt Surge Suppressor in MX DC

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz</b>				
AC-15 4A at 415V	MX0 40E (4 NO)	CS94018	1460	10
	MX0 31E (3 NO + 1 NC)	CS94019	1460	10
	MX0 22E (2 NO + 2 NC)	CS94020	1460	10
	MX0 13E (1 NO + 3 NC)	CS94041	1460	10
	MX0 04E (4 NC)	CS94042	1460	10

Type MX0 DC

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For DC control std. Coil Voltage - 24, 110, 220V</b>				
AC-15 4A at 415V	MX0 40E (4 NO)	CS94027	1910	10
	MX0 31E (3 NO + 1 NC)	CS94028	1910	10
	MX0 22E (2 NO + 2 NC)	CS94029	1910	10
	MX0 13E (1 NO + 3 NC)	CS94043	1910	10
	MX0 04E (4 NC)	CS94044	1910	10

- Notes: 1) For Ordering Suffix, please refer page No. 10  
 2) 5 NC & above combinations are not recommended for MX0 DC Control Contactors  
 3) 1 NO + 3 NC, 4 NC add on block combinations are not recommended for MX0 DC Control Contactors.

Type MO0 AC



MO0 AC

Features

- Same add-on aux. contact block in MO0 as of MO power contactors
- Common coil for 50 & 60Hz application

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz</b>				
AC-15 4A at 415V	MO0 40E (4NO)	CS91623	935	10
	MO0 31E (3NO + 1NC)	CS91624	935	10
	MO0 22E (2NO + 2NC)	CS91625	935	10

Note: 6NC & above combination is not recommended for MO0 AC  
 For ordering add-on contact blocks of MX0, MO0, please refer page no.8

Type MO0 DC



MO0 DC

Features

- Same add-on aux. contact block in MO0 as of MO power contactors
- Inbuilt Surge Suppressor in MO0 DC

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For DC control std. Coil Voltage - 24, 48, 110, 220</b>				
AC-15 4A at 415 V	MO0 40E (4NO)	CS90045	2090	10
	MO0 31E (3NO + 1NC)	CS90046	2090	10
	MO0 22E (2NO + 2NC)	CS90047	2090	10

Note: 5NC & above combination is not recommended for MO0 DC  
 For ordering add-on contact blocks of MX0, MO0, please refer page no.8

# Capacitor Duty Contactors [8536]

## Capacitor Duty Contactors - Type MO C



MO C25



MO C50



MO C100

Size	kVAr Rating @ 440V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	3	MO C3	1NO	CS96146	2120	1
	5	MO C5	1NO	CS96127	2220	1
	8.5	MO C8.5	1NO	CS96320	2490	1
	10	MO C10	1NO	CS96156	2650	1
	12.5	MO C12.5	1NO	CS96321	2780	1
	15	MO C15	1NO	CS90019	3750	1
	20	MO C20	1NO	CS90021	4220	1
	25	MO C25▲	1NO	CS96322	4860	1
Fr 2	30	MO C30\$	1NO	CS96148	7360	1
	40	MO C40	1NO	CS96147	12200	1
	50	MO C50	1NO	CS96324	13400	1
Fr 3	60	MO C60\$	1NO	CS96149	14700	1
	75	MO C75	1NO	CS96150	17800	1
	85	MO C85	1NO	CS96157	19200	1
	100	MO C100\$	1NO	CS96158	19800	1

### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- MO C Range available from 3 - 100 kVAr, AC-6b
- Delatching type early make contacts
- Separate termination for damping resistors
- Encapsulated damping resistor assembly
- Common coil for 50 & 60Hz application
- Low pick-up VA consumption
- Standard accessories throughout the range in line with MO contactor
- Suitable for Lug as well as Lugless termination
- RoHS compliant

**For Power Quality Solutions,  
please refer page No. 68-73**

### Note :

- 1) For ordering add-on aux. contact block, please refer page No. 8
- 2) For ordering suffix, please refer page No.10
- 3) For ordering spare coils, please refer page No. 11
- 4) Standard coil voltage : 240V, 50/60 Hz
- 5) For ordering MO C surge suppressor, please refer page No. 9

- ▲ If using 16 sq mm cable use of spreader link kit is mandatory
- ▲ For ordering spreader link kit, Please refer page No. 9
- \$ Spreader link along with phase barrier included in packing

# Definite Purpose Contactors [8536]

## Single Pole Contactors - Type MR

### Features

- Wide and chatter free operating band
- High AC-1 rating for single phase applications



MR 11W  
(Wide band coil)



MR 13



MR 11NW  
SPN (Wide band coil)

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
25A	MR 11W	CS94176	1200	10
25A	MR 11NW	CS94178	1280	10
40A	MR 13	CS94992	1310	40

### Note:

- 1) Ordering Suffix B000 - 240V, 50Hz
- 2) For ordering add-on aux. contact block, please refer page No. 9

## Two Pole Contactors - Type MU-2P

### Features

- Wide band potted coil
- Neutral isolation



MU 16-2P

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16A	MU16-2P	CS90117	990	10
25A	MU25-2P	CS90118	1210	10
40A	MU40-2P	CS90119	1535	10

### Note:

- 1) Coil voltages available for MU-2P are 220V, 240V, wide band coil 160-220V
- 2) Ordering suffix for wide band coil of MU-2P is NO00
- 3) For ordering add-on aux. contact block, please refer page No. 8



# Accessories - Add-on Auxiliary Contact Blocks [8538]

	MNX 9-80	MNX 95-650	MO 9-110	MO 140-300	ML	MX	MDX 9-110	MCX 01-23	MCX 32-47	MX0	MO0	MO C	MR	MU-2P
Front add-on possible	Yes	No	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Side add-on possible	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes	No	No

**Note:** 1) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors  
2) Accessories are common for MNX 2P & MNX 3P contactors

## Front Mounting Add-on aux. Contact Block



**MNX / MCX**  
Front Add-on  
aux. contact Block



**MO / MO0**  
Front Add-on  
aux. contact Block



**MDX Front**  
Add-on  
aux. contact Block



**MX Front**  
Add-on  
aux. contact Block



**MU-2P**  
Front Add-on  
aux. contact Block

Front Mounting	Suitable for									
	MNX 9-80 / MCX 01-23	M.R.P. (₹) Per Unit	MO 9-110 / MO0	M.R.P. (₹) Per Unit	MDX# 9-110	M.R.P. (₹) Per Unit	MX 0/6/9/12	M.R.P. (₹) Per Unit	MU-2P	M.R.P. (₹) Per Unit
4 NO	CS94112 <sup>^</sup>	625	CS94594 <sup>^</sup>	625	-	-	CS94033 <sup>^</sup>	590	-	-
3 NO + 1 NC	CS94113 <sup>^</sup>	625	CS94595 <sup>^</sup>	625	-	-	CS94034 <sup>^</sup>	590	-	-
2 NO + 2 NC	CS94114 <sup>^</sup>	625	CS94596 <sup>^</sup>	625	CS96569 <sup>~</sup>	820	CS94035 <sup>^</sup>	590	-	-
1 NO + 3 NC	CS94115 <sup>^</sup>	625	CS94597 <sup>^</sup>	625	CS90906 <sup>~</sup>	820	CS94036 <sup>^</sup>	590	-	-
4 NC	CS94116 <sup>^</sup>	625	CS94598 <sup>^</sup>	625	-	-	CS94037 <sup>^</sup>	590	-	-
2 NO	CS94117 <sup>^</sup>	415	CS94591 <sup>^^</sup>	415	-	-	CS94030 <sup>^</sup>	380	CS90692 <sup>^</sup>	415
1 NO + 1 NC	CS94118 <sup>^</sup>	415	CS94592 <sup>^^</sup>	415	CS96568 <sup>~</sup>	480	CS94031 <sup>^</sup>	380	CS90693 <sup>^</sup>	415
2 NC	CS94119 <sup>^</sup>	415	CS94593 <sup>^^</sup>	415	-	-	CS94032 <sup>^</sup>	380	CS90694 <sup>^</sup>	415
1 NO	CS94120 <sup>^</sup>	215	CS94585 <sup>^^</sup>	215	CS96586 <sup>~</sup>	265	-	-	CS90695 <sup>^</sup>	215
1 NC	CS94121 <sup>^</sup>	215	CS94586 <sup>^^</sup>	215	-	-	-	-	CS90696 <sup>^</sup>	215

# For MDX Side add-on and top add-on can not be mounted together

## Side Mounting Add-on aux. Contact Block



**MNX/MCX**  
Side Add-on aux. contact Block



**MO/MO C**  
Left Add-on aux. contact Block

Side Mounting	Suitable for								
	Aux Contact	MNX 9-40/ MCX 01-04	M.R.P. (₹) Per Unit	MCX 11-13	M.R.P. (₹) Per Unit	MNX 50-80/ MCX 22-23	M.R.P. (₹) Per Unit	MO 9-110/ MO C 3-100	M.R.P. (₹) Per Unit
First left	1 NO + 1 NC	CS94220 <sup>^</sup>	665	CS94201 <sup>^</sup>	715	CS94201 <sup>^</sup>	715	CS94580 <sup>^</sup>	665
First Right	1 NO + 1 NC	CS94221 <sup>^</sup>	665	CS94202 <sup>^</sup>	715	CS94202 <sup>^</sup>	715	CS94581 <sup>^</sup>	665
Second Left	1 NO + 1 NC	-	-	-	-	CS94203 <sup>^</sup>	715	CS94582 <sup>^</sup>	665
Second right	1 NO + 1 NC	-	-	-	-	CS94204 <sup>^</sup>	715	CS94583 <sup>^</sup>	665

**Note:** Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors  
For MO 9-18, only First left and Second left side add-on is allowed.

## Side Mounting Add-on aux. Contact Block



**MO**  
Left Add-on aux. contact Block



**MDX**  
Side Add-on aux. contact Block

Side Mounting	Suitable for						
	Aux Contact	MNX 95-650/ MCX 32-47	M.R.P. (₹) Per Unit	MO 140-300	M.R.P. (₹) Per Unit	MDX# 9-110	M.R.P. (₹) Per Unit
First left	1 NO + 1 NC	CS94205 <sup>^</sup>	815	CS95033 <sup>^</sup>	815	ST94985 <sup>^</sup>	980
First Right	1 NO + 1 NC	CS94206 <sup>^</sup>	815	CS95034 <sup>^</sup>	815		
Second Left	1 NO + 1 NC	CS94207 <sup>^</sup>	815	CS95035 <sup>^</sup>	815	-	-
Second right	1 NO + 1 NC	CS94208 <sup>^</sup>	815	CS95036 <sup>^</sup>	815	-	-

# For MDX Side add-on and top add-on can not be mounted together

~ Standard Packing is 1 ^Standard Packing is 10 ^^Standard Packing is 20

# Accessories - Add-on Auxiliary Contact Blocks [8538]

## Side Mounting Add-on aux. Contact Block - ML



ML Add-on aux. contact Block

Side Mounting	Suitable for				
	Aux Contact	ML 4/6	M.R.P. (₹) Per Unit	ML 12	M.R.P. (₹) Per Unit
Left	1 NO + 1 NC	SS91494 <sup>^</sup>	1010	-	-
Right	1 NO + 1 NC	-	-	SS91474 <sup>^</sup>	1010

Note: Ordering Suffix for Add-on aux. contact blocks : OOOO

## Add-on aux. Contact Block - MR



MR 1NO

Description	For Contactor	Contacts Type	Cat. No.	M.R.P. (₹) Per Unit
Top add-on single pole	MR	1 NO	CS94179 <sup>^</sup>	315

~ Standard Packing is 1 <sup>^</sup>Standard Packing is 10 <sup>^^</sup>Standard Packing is 20

# Accessories - Surge Suppressors [8538]

## For MX, MNX, MCX, MO & MO C



MNX S1

MX - S1

MO/MO C/MO0-SS

Ordering Suffix \* 110-240V: BOOO, 415V: DOOO

# 110V: AOOO, 220-240V: BOOO, 360-525V: DOOO

^ 110V: AOOO, 220-320V: BOOO, 360-415V: DOOO

MDX 9-110, MNX 550-650, MCX 45-47, MX DC, MX0 DC & MO0 DC have built in surge suppressor

For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX 06 to MX 12 / MX 0 AC (S1)	CS94039 <sup>*</sup>	530	10
MNX 9 - 40 / MCX 01 - 04 (S1)	CS94166 <sup>*</sup>	535	10
MNX 50 - 80 / MCX 11 - 23 (S3)	CS94163 <sup>*</sup>	595	10
MNX 95 - 250 / MCX 32 - 34 (S4)	CS94164 <sup>#</sup>	1960	10
MNX 300 - 400 / MCX 41 - 44 (S6)	CS94165 <sup>#</sup>	2650	10
MO Frame 0/1, MO C Frame 1, MO0 Control	CS91706 <sup>^</sup>	535	10
MO/MO C - Frame 2	CS91707 <sup>^</sup>	595	10
MO/MO C - Frame 3	CS91708 <sup>^</sup>	1960	10
MO Frame - 4/5	CS91854 <sup>^</sup>	2650	10

# Accessories - Mechanical Interlock Kits & Spreader Link Kit [8538]

## Mechanical Interlock Kit for MX, MO, MDX, MNX & MCX



MNX M1 (MNX 9-40)



MCX M3 (MCX 22)



MO MI Kit (MO 9-110)



MX-M1 (MX0 / MX06-MX09)

For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX 06 to MX 12 / MX 0	CS94038	530	10
MO 9 - 110*	CS94584	750	10
MDX 9 - 38	CS96572	595	1
MDX 50 - 110	CS96573	1820	1
MNX 9 - 40	CS94126	430	10
MNX 50 - 80	CS94197	3030	1
MNX 95 - 140	CS94198	4710	1
MNX 185 - 250	CS94199	5370	1
MNX 300 - 650	CS94200	6080	1
MCX 01 - 04	CS94126	430	10
MCX 11 - 13	ST50540	850	10
MCX 22 - 23	CS93095	4000	1
MCX 32 - 34	SS94992	4130	1
MCX 41 - 47	CS94301	6820	1

Note:

1) Ordering Suffix for Mechanical Interlock Kits : OOOO

2) \* MO MIL Kit contains inbuilt 2 NC Contacts

3) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors

4) MIL kit for MNX 50-80 comes with 2 left & 2 right side add-on aux. contact blocks i.e. 4 NO + 4 NC

5) MIL kit for MCX 22/23 comes with 2 left & 2 right side add-on aux. contact blocks i.e. 4 NO + 4 NC

## MO / MO C Spreader Link Kit



For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MO 9 - 45 / MOC 3 - 30	CS94274	500	10
MO 50 - 70 / MOC 40 - 60	CS94093	790	10
MO 80 - 110 / MOC 75 - 100	CS94094	1140	1
MO 140 - 225	CS91057	3200	1
MO 250 - 300	CS90940	4990	1

Note:

1) If using 16 sq mm cable for MO 45/MO C25 use of spreader link is mandatory

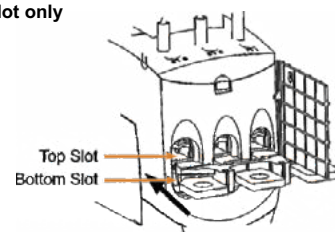
2) Spreader Link Kit consists of six terminals along with phase barrier

(Not applicable for MO 250-300)

3) In MO C 30, MO C 60 & MO C 100 spreader link is included in packing

4) Ordering Suffix: OOOO

⚠ 5) Insert spreader link in top slot only



# Accessories - Connecting Links [8538]

## DOL Starter - Link



DOL Starter



Contactor MPCB Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	<b>CS90396 #</b>	<b>415</b>	10
MOG H1/S1 with MO 25-45	<b>CS90391 #</b>	<b>415</b>	10

## Reversing DOL Starter - Link



RDOL Starter



Reversing Starter



Paralleling Link



Contactor MPCB Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	<b>CS90548 #</b>	<b>1040</b>	10
MOG H1/S1 with MO 25-45	<b>CS90546 #</b>	<b>1040</b>	10

## Star Delta Starter - Link



Star Delta Starter



Reversing / star delta Link



Paralleling Link



Contactor MPCB Link

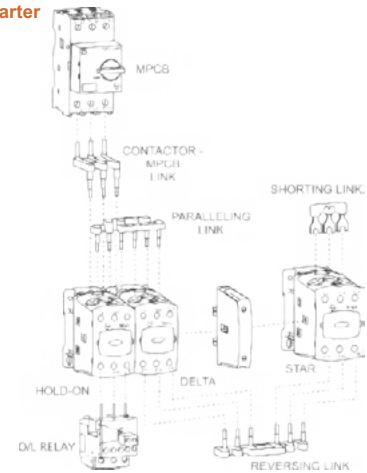


Shorting Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	<b>CS90549 #</b>	<b>1250</b>	10
MOG H1/S1 with MO 25-45	<b>CS90547 #</b>	<b>1250</b>	10

# Ordering Suffix OOOO

## Example of Star Delta Starter Connection with Link



# Accessories - Mechanical Latch [8538]

## Mechanical Latch

### Features

- Keeps contactor in closed condition even after removal of coil supply
- Ideal for logical operations
- Suitable for sites where voltage fluctuation is frequent
- Saves energy as coil supply can be removed once contactor is picked up

Suitable For	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MO 9-70A, MO 0 control	Mechanical Latch	<b>CS90136</b>	<b>2780</b>	10

For Ordering Suffix refer below table

Standard Coil Voltage of Mechanical Latch is 24V AC, 110V AC & 240V AC

## Ordering Suffix for Standard Coil Voltages

Ordering Suffix for Standard Coil Voltages			
AC Control		DC Control*	
Voltage (V)	Suffix	Voltage (V)	Suffix
24	G000	24	4000
110	A000	48	5000
220	K000	110	1000
240	B000	220	2000
415	D000		
440	P000		

Ordering suffix for Electronic coil Contactor		
AC / DC control		
Voltage (V)	Suffix	Contactor
20-48	J000	MDX 50-110
60-110	A000	MDX 50-110
110-240	B000	MDX 50-110 & MO 140-300
240-415	D000	MO 140-300

### Note:

1) \* For MX DC, MDX 9-38, MX0 DC, MO0 DC

2) For other coil voltages please contact nearest branch office

Spare Contact Kit and Spare Coil



ML Spare Kits



ML Spare Coils

Spare Contact kit			Spare Coil	
Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
ML 1.5	SS95305 <sup>^</sup>	2320	SS90873 <sup>^</sup>	925
ML 2	SS95307 <sup>^</sup>	4240	SS90545 <sup>^</sup>	1700
ML 3	SS95309 <sup>^</sup>	7150		
ML 4	SS95311 <sup>^</sup>	11100	SS91258 <sup>~</sup>	3250
ML 6	SS95313 <sup>^</sup>	19600		
ML 10	SS95315 <sup>~</sup>	40000	SS91011 <sup>~</sup>	7120
ML 12	SS95317 <sup>~</sup>	43100		
MR	-	-	CS94102 <sup>^</sup>	700
MU16-2P	CS90217 <sup>^</sup>	290	CS90793 <sup>^</sup>	385
MU25-2P	CS90218 <sup>^</sup>	380		
MU40-2P	CS90219 <sup>^</sup>	550		
MO 0 AC	-	-	CS94841 <sup>^</sup>	500

**Note:**  
 1) Coil voltages available for MU-2P are 220V, 240V, wide band coil 160-220V  
 2) Ordering suffix for wide band coil of MU-2P is NOOO

MO C Spare Coils		
Type	Cat. No.	M.R.P. (₹) Per Unit
MO C3 - 30	CS96317 <sup>^</sup>	620
MO C40 - 60	CS96318 <sup>^</sup>	1870
MO C75 - 100	CS96319 <sup>^</sup>	3240

Front housing & Moving bridge kit and Combination coil with timer for ML contactor



Front housing and moving bridge kit		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 1.5	ST28734 <sup>~</sup>	840
ML 2/ ML 3	ST23866 <sup>~</sup>	1150
ML 4/ ML 6	ST28735 <sup>~</sup>	2090
Combination coil with timer		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 2	SS90650 <sup>~</sup>	3950

**Note :**  
 1) Ordering Suffix for Spare Contact kit - OOOO  
 2) For Spare Coil Ordering Suffix refer page No. 10

~ Standard Packing is 1  
<sup>^</sup> Standard Packing is 5  
<sup>^</sup> Standard Packing is 10  
<sup>~</sup> Standard Packing is 50

Spare Contact Kit and Spare Coil



MNX Spare Coils

MCX Spare Kits

	Spare Contact kit			Spare Coil		
	Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
MO Contactors	MO 9 (1 NO + 1 NC)	CS94843 <sup>^</sup>	555	CS94841 <sup>^</sup>	500	
	MO 12 (1 NO + 1 NC)	CS94844 <sup>^</sup>	720			
	MO 18 (1 NO + 1 NC)	CS94845 <sup>^</sup>	790			
		MO 9	CS96380 <sup>^</sup> ~	555	CS96317 <sup>^</sup>	620
		MO 12	CS96381 <sup>^</sup> ~	720		
		MO 18	CS96382 <sup>^</sup> ~	790		
		MO 25	CS96383 <sup>^</sup> ~	905		
		MO 32	CS96384 <sup>^</sup> ~	2050		
		MO 40	CS96385 <sup>^</sup> ~	3460		
		MO 45	CS96386 <sup>^</sup> ~	3500		
		MO 50	CS96387 <sup>^</sup> ~	3540		
		MO 60	CS96388 <sup>^</sup> ~	4580		
		MO 70	CS96389 <sup>^</sup> ~	5090		
		MO 80	CS96390 <sup>^</sup> ~	7000	CS96318 <sup>^</sup>	1870
		MO 95	CS96391 <sup>^</sup> ~	8830		
		MO 110	CS96392 <sup>^</sup> ~	12900	CS96319 <sup>^</sup>	3240
		MO 140	CS90357 <sup>~</sup>	15500		
		MO 185	CS90358 <sup>~</sup>	18600	CS90356 <sup>~</sup>	7530
		MO 225	CS90359 <sup>~</sup>	21300		
		MO 250	CS94444 <sup>~</sup>	25600	CS94442 <sup>~</sup>	11200
		MO 300	CS94443 <sup>~</sup>	28900		
		MO 140 (electronic coil)	CS90357 <sup>~</sup>	15500	CS90855 <sup>~</sup>	13600
		MO 185 (electronic coil)	CS90358 <sup>~</sup>	18600		
		MO 225 (electronic coil)	CS90359 <sup>~</sup>	21300		
		MO 250 (electronic coil)	CS94444 <sup>~</sup>	25600	CS90738 <sup>~</sup>	13700
		MO 300 (electronic coil)	CS94443 <sup>~</sup>	28900		
	MVO	MVO	-	-	CS90174 <sup>~</sup>	32000
	MNX Contactors	MNX 9	CS94123 <sup>^</sup>	555	CS94105 <sup>^</sup>	500
		MNX 12	CS94124 <sup>^</sup>	720		
		MNX 18	CS94125 <sup>^</sup>	790		
MNX 22		CS94269 <sup>^</sup>	835			
MNX 25		CS94127 <sup>^</sup>	905			
		MNX 32	CS94128 <sup>^</sup>	2050	CS94192 <sup>^</sup>	1870
		MNX 40	CS94147 <sup>^</sup>	3460		
		MNX 50	CS94150 <sup>^</sup>	3540		
		MNX 70	CS94151 <sup>^</sup>	5090		
		MNX 80	CS94152 <sup>^</sup>	7000		
		MNX 95	CS94153 <sup>~</sup>	8830	CS94196 <sup>~</sup>	3240
		MNX 110	CS94154 <sup>~</sup>	12900		
		MNX 140	CS94155 <sup>~</sup>	15500	CS94194 <sup>~</sup>	7530
		MNX 185	CS94156 <sup>~</sup>	18600		
		MNX 225	CS94157 <sup>~</sup>	21300		
		MNX 250	CS90310 <sup>~</sup>	25600	CS94195 <sup>~</sup>	11200
		MNX 300	CS90283 <sup>~</sup>	28900		
		MNX 400	CS94161 <sup>~</sup>	42400	CS94193 <sup>~</sup>	22700
		MNX 550	CS94162 <sup>~</sup>	55900		
		MNX 650	CS96336 <sup>~</sup>	86500		
MCX Contactors	MCX 01-04	-	-	CS94105 <sup>^</sup>	500	
	MCX 11	CS94077 <sup>^</sup>	1800	CS94009 <sup>^</sup>	695	
	MCX 12	CS94078 <sup>^</sup>	3530			
	MCX 13	CS90307 <sup>^</sup>	5410			
		MCX 22	CS94331 <sup>~</sup>	6340	ST91291 <sup>^</sup> ~	1650
		MCX 23	CS90078 <sup>~</sup>	7930		
		MCX 32	CS94082 <sup>^</sup>	12300	CS94196 <sup>~</sup>	3240
		MCX 33	CS94083 <sup>^</sup>	15900		
		MCX 34	CS94084 <sup>^</sup>	18000	CS94195 <sup>~</sup>	11200
		MCX 41	CS94295 <sup>~</sup>	28100		
		MCX 42	CS94296 <sup>~</sup>	33000		
		MCX 43	CS94297 <sup>~</sup>	39600		
		MCX 44	CS94298 <sup>~</sup>	48600		
		MCX 45	CS94299 <sup>~</sup>	51800	CS94193 <sup>~</sup>	22700
	MCX 46	CS94300 <sup>~</sup>	60200			
	MCX 47	CS90308 <sup>~</sup>	81400			

\* Ordering Suffix for 240V AC - FOOO, 415V AC - ROOO

## Type MN - Suitable for MNX Contactor

### Features

- Available in 3 frame sizes from 0.2-570 A
- Ambient temperature compensated up to 55°C
- Built-in Single Phasing protection
- Manual and auto reset mode
- Conforms IS/IEC 60947-4-1 & IEC 60947-4-1



MN 2

MN 5

MN 12

MN 12L

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN 2 (Directly Operated)	<b>Direct Mounting on MNX 9 - 40</b>			
	0.2 - 0.33	SS941410OEO	1690	10
	0.3 - 0.5	SS941410OGO	1690	10
	0.45 - 0.75	SS941410OJO	1690	10
	0.6 - 1	SS941410OKO	1690	10
	0.9 - 1.5	SS941410OMO	1700	10
	1.4 - 2.3	SS941410OPO	1700	10
	2 - 3.3	SS941410OQO	1700	10
	3 - 5	SS941410OSO	1700	10
	4.5 - 7.5	SS941410OUO	1700	10
	6 - 10	SS941420OVO	1700	10
	9 - 15	SS941420OBO	1710	10
	14 - 23	SS941440ODO	1860	10
	20 - 33	SS941450OEO	2740	10
24 - 40	SS941450OFO	2880	10	
MN 5 (Directly Operated)	<b>Direct Mounting on MNX 50 - 80</b>			
	9 - 15	SS941350OBO	3410	10
	14 - 23	SS941350ODO	3410	10
	20 - 33	SS941360OEO	3410	10
	30 - 50	SS941360OGO	4200	10
	36 - 60	SS941360OTO	4520	10
MN 12 (CT Operated)	<b>Separate Mounting</b>			
	28 - 46.5	SB942110OGO	8060	1
	42 - 69	SS941380OHO	8060	1
	60 - 100	SS941380OKO	8060	1
	90 - 150	SS941380OMO	8060	1
	135 - 225	SS941380OPO	10100	1
MN 12L # (CT Operated)	<b>Separate Mounting</b>			
	180 - 300	SS941390OQO	10600	1
	270 - 450	SS941390ORO	13300	1
	42 - 69	SS941270OHO	25900	1
	60 - 100	SS941270OKO	25900	1
	90 - 150	SS941270OMO	25900	1
135 - 225	SS941270OPO	25900	1	
180 - 300	SS941270OQO	25900	1	
340 - 570	SS941270OSO	25900	1	

# For motors with longer starting time (Trip class 30)

## Type RTO - Suitable for MO Contactor

### Features

- Ambient temperature compensated upto 55°C
- Built-in Single Phasing protection
- Manual and auto reset mode
- Front access to START and STOP/RESET buttons
- Sealable in OFF condition
- Conforms IS/IEC 60947-4-1 & IEC 60947-4-1



RTO 1

RTO 2

RTO 3

RTO 4

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO - 1 (Directly Operated)	<b>Direct Mounting on MO 9 - 45</b>			
	0.23 - 0.41	CS963550OFO	2280	10
	0.31 - 0.55	CS963550OGO	2280	10
	0.55 - 0.85	CS963550OJO	2280	10
	0.78 - 1.2	CS963550OLO	2280	10
	1.2 - 2.0	CS963550ONO	2280	10
	1.9 - 2.8	CS963550OPO	2310	10
	2.4 - 3.6	CS963550OQO	2310	10
	3.5 - 5.2	CS963550OSO	2310	10
	4.6 - 6.7	CS963550OTO	2310	10
	6.7 - 9.7	CS963550OVO	2310	10
	8.5 - 12.5	CS963550OAO	2350	10
	12.5 - 18.5	CS963560OCO	2350	10
	17 - 25.5	CS963560ODO	2500	10
	25 - 37	CS963560OEO	3680	10
	35 - 45	CS963560OGO	3870	10
RTO - 2 (Directly Operated)	<b>Direct Mounting on MO 50 - 70</b>			
	5 - 7.5	CS963660OUO	4510	1
	7 - 11	CS963660OVO	4510	1
	10.5 - 16	CS963660OBO	4510	1
	15 - 21	CS963660OCO	4510	1
	20 - 31	CS963660OEO	4640	1
	30 - 43	CS963660OFO	5600	1
	40 - 57	CS963660OSO	6210	1
RTO - 3 (Directly Operated)	<b>Direct Mounting on MO 80 - 110</b>			
	50 - 75	CS963670OJO	6490	1
	23 - 30	CS908730OEO	7550	1
	29 - 38	CS963030OQO	7840	1
	37 - 49	CS963040OGO	8090	1
	47 - 62	CS963120OTO	8240	1
RTO - 4 (CT Operated)	<b>Separate Mounting</b>			
	60 - 78	CS963130OJO	9710	1
	75 - 110	CS963140OKO	10600	1
	23.4 - 36	CS970960OGO	11100	1
	36 - 60	CS970960OJO	11100	1
	57 - 84	CS970960OKO	11100	1
	72 - 108	CS970960OLO	11100	1
	105 - 156	CS970960OMO	11100	1
RTO - 4 (CT Operated)	<b>Separate Mounting</b>			
	138 - 201	CS970960ONO	13700	1
	201 - 291	CS970960OQO	14300	1
255 - 375	CS970960ORO	17600	1	



# Thermal Overload Relays [8536]

## Type RX



### Features

- Direct mounting on MX contactor
- Built-in single phasing protection
- Front access to START and STOP/RESET buttons

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RX (Directly Operated)	0.23-0.41	CS963570OFO	1370	10
	0.45-0.78	CS963570OJO	1370	10
	0.78-1.2	CS963570OLO	1370	10
	1.2-1.9	CS963570ONO	1370	10
Direct Mounting on MX Contactors	1.8-2.8	CS963570OPO	1370	10
	2.6-3.6	CS963570OQO	1370	10
	3.6-5.2	CS963570OSO	1370	10
	4.8-7	CS963570OTO	1370	10
	6.4-9.7	CS963570OVO	1370	10
	8.2-12.1	CS963570OAO	1370	10

## Type ML



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
ML 1 (Directly Operated)	<b>Direct Mounting on ML 1.5 Contactors</b>			
	0.15 - 0.25	SS918580ODO	3110	10
	0.25 - 0.4	SS918580OFO	3110	10
	0.4 - 0.65	SS918580OHO	3110	10
	0.6 - 1	SS918580OKO	3110	10
	1 - 1.6	SS918580OMO	3110	10
	1.5 - 2.5	SS918580OPO	3110	10
	2.5 - 4	SS918580ORO	3110	10
	4 - 6.5	SS918580OTO	3110	10
	6 - 10	SS918580OVO	3110	10
	10 - 16	SS918580OBO	3110	10
	11 - 18	SS918580OCO	3110	10
ML 2 / ML 3 (Directly Operated)	<b>Direct Mounting on ML 2/3 Contactors</b>			
	9 - 14	SS918590OAO	4590	10
	13 - 21	SS918590OCO	4590	10
	20 - 32	SS918590OEO	4590	10
	28 - 42	SS918590OFO	4590	10

## Type MU-2P (2 Pole)



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Direct Mounting on MU-2P Contactor	<b>MU 2P (2 Pole)</b>				Direct Mounting on MU-2P Contactor	<b>MU 2P (2 Pole)</b>			
	1 - 1.6A	CS902070OMO	715	1		11 - 18A	CS902070OCO	800	1
	1.5 - 2.5A	CS902070OPO	715	1		13 - 22A	CS902070ODO	800	1
	2.5 - 4A	CS902070ORO	715	1		16 - 26A	CS902070OBO	800	1
	4 - 6.5A	CS902070OTO	715	1		20 - 32A	CS902070OEO	1000	1
	6 - 10A	CS902070OVO	715	1		26 - 40A	CS902070OFO	1000	1
	9 - 14A	CS902070OAO	715	1					

# Accessories for Thermal Overload Relays [8538]

## Accessories for Thermal Overload Relays



Relay Mounting Kit    Kit for Mounting MN5 Relay    Din Rail Mounting Kit MN2 Relay

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Push button extn. unit for MN 2 Relays	SS949680000	65	100
Kit for Mounting MN 2 Relay on ML 1.5 contactor	SS947010000	225	50
Kit for Mounting MN 2 Relay separately (Direct Mounting Type)	SS947000000	225	50
Kit for Mounting MN 5 Relay on MNX 95 / 110 / 140 contactor	SS946380000	360	20
Kit for Mounting MN 5 Relay on ML 2 / ML 3 contactor	SS941510000	235	20
Kit for Mounting MN5 Relay on ML 4 / ML 6 contactor	SS941520000	320	20
DIN Rail Mounting Kit Relay on MN 2 Relay	SS918870000	175	50

## Relay Reset Cord for MN & RTO relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN Relay reset cord - 400mm	SB942070000	820	1
MN Relay reset cord - 650mm	SB942080000	850	1
MN Relay reset cord - 900mm	SB942090000	875	1
MN Relay reset cord - 1200mm	SB942100000	980	1
RTO Relay reset cord - 400mm	CS909410000	820	1
RTO Relay reset cord - 650mm	CS909420000	850	1
RTO Relay reset cord - 900mm	CS909430000	875	1
RTO Relay reset cord - 1200mm	CS909440000	980	1

## Separate Mounting Kit for RTO Relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO-1 Relay Separate Mounting Kit	CS963350000	305	1
RTO-2 Relay Separate Mounting Kit	CS963060000	725	1
RTO-3 Relay Separate Mounting Kit	CS963070000	1030	1



# Electronic Motor Protection Relay [8536]

## Type REO - Electronic Overload Relay

### Features

- Protections:
  - Overload
  - Single Phasing, Phase unbalance
  - Locked Rotor
  - Earth Fault in REO 1.1G & REO 4G
- Trip indication
- Selectable Trip class - 10A, 10, 20, 30 as per IEC 60947-4-1
- Conforms IS/IEC 60947-4-1 & IEC 60947-4-1



To Experience the Benefits of REO Electronic Overload Relay



Click or Scan

Model	Type of Mounting	Relay Range (A)	Without earth fault protection		Model	With in-built earth fault protection		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	
REO 1.1	Direct Mounting on MO 9-45	0.15-0.75	CS904180OJO	5360	REO 1.1G	CS904230OJO	8940	10
		0.6-3	CS904180OQO	5360		CS904230OQO	8940	10
		2.4-12	CS904180OLO	5360		CS904230OLO	8940	10
		9-45	CS904180OGO	6030		CS904230OGO	9250	10
REO 4	Separate Mounting	18-90	CS904180OUO	15900	REO 4G	CS904230OUO	16400	1
		72-360	CS904180ORO	23300		CS904230ORO	23500	1

## New Type REO - Electronic Over Current Relay

Electronic Overcurrent Relay (EOCR) is a type of Electronic relay that has tripping based on Definite mean time characteristics. The tripping of relay is decided by trip time selected by user.

### Features

- Protections:
  - Overload
  - Single Phasing, Phase unbalance
  - Locked Rotor
- Settable start time (5s, 10s, 20s, 40s) and trip time (2s, 4s, 8s, 16s)
- Trip indication
- Conforms IS/IEC 60947-4-1 & IEC 60947-4-1



## Accessories for REO - Electronic Overload Relay

Model	Type of Mounting	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
REO 1.1c	Direct Mounting on MO 9-45	0.15-0.75	CS919110OJO	7450	1
		0.6-3	CS919110OQO	7450	1
		2.4-12	CS919110OLO	7450	1
		9-45	CS919110OGO	7450	1

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
REO Relay Reset Cord - 400mm	CS904250000	820	1
Separate Mounting Kit for REO 1.1/1.1G/1.1c Relay	CS963350000	305	1

## MPR200nX Electronic Motor Protection Relay



- Protections:
  - Overload
  - Locked Rotor
  - Single Phasing, Current Unbalance, Phase Sequence Reversal
  - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 60947-4-1

Model	Aux. supply	Thermal O/L Range (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR200nX	240V AC	1 - 2.75	49, 51LR, 37, 46,	MPR200BE010	3600
		2 - 5.5		MPR201BE020	4200
		4 - 11		MPR202BE040	4800
		8 - 22		MPR203BE080	5400
		16 - 44		MPR204BE160	6000
		32 - 88		MPR205BE320	6600
		1 - 2.75		MPR200BB010	3600
	110V AC	2 - 5.5		MPR201BB020	4200
		4 - 11		MPR202BB040	4800
		8 - 22		MPR203BB080	5400
		16 - 44		MPR204BB160	6000
		32 - 88		MPR205BB320	6600

## MPR300 Electronic Motor Protection Relay With in-built Earth Fault Protection



- Protections:
  - Overload
  - Earth Fault
  - Locked Rotor
  - Single Phasing, Current Unbalance, Phase Sequence Reversal
  - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 60947-4-1

Model	Aux. supply	Thermal O/L Range (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR300	240V AC	1 - 2.75	49, 51LR, 64, 37, 46,	MPR300BE010	7900
		2 - 5.5		MPR301BE020	8500
		4 - 11		MPR302BE040	9100
		8 - 22		MPR303BE080	9700
		16 - 44		MPR304BE160	10300
		32 - 88		MPR305BE320	10900
		1 - 2.75		MPR300BB010	7900
	110V AC	2 - 5.5		MPR301BB020	8500
		4 - 11		MPR302BB040	9100
		8 - 22		MPR303BB080	9700
		16 - 44		MPR304BB160	10300
		32 - 88		MPR305BB320	10900

Note: MPR200nX / MPR300 must sense Line current in case of Star-Delta Starter.



# Electronic Motor Protection Relay [8536]

## MPR300 with Fail safe logic

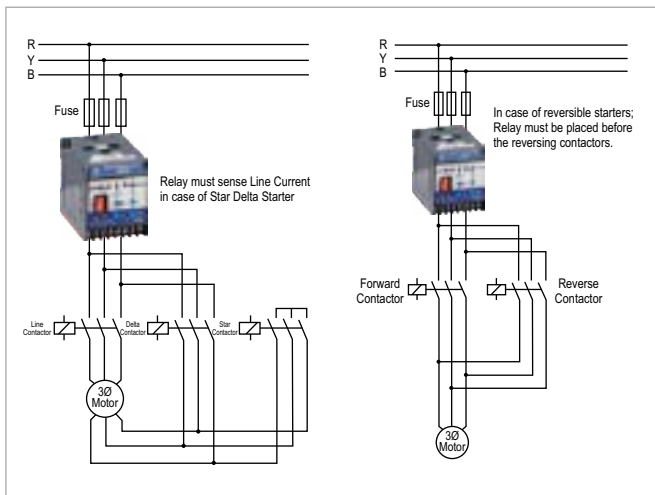
MPR300 with Fail safe logic will trip the Motor in case of Aux. supply failure



Model	Aux. Supply	Thermal Over load range	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR300	240 VAC	1 - 2.75	49, 51LR, 64, 37, 46	MPR300BF010	7900
		2 - 5.5		MPR301BF020	8500
		4 - 11		MPR302BF040	9100
		8 - 22		MPR303BF080	9700
		16 - 44		MPR304BF160	10300
		32 - 88		MPR305BF320	10900

**Note :** MPR300 must sense line current in case of Star-Delta Starter.

## MPR200nX / MPR300 Application Diagram



## MPR200nX / MPR300 Trip Time Characteristics

Trip class	Trip time delay		
	I = 120% of Im	I = 150% of Im	I = 720% of Im
10A	< 2 hours	< 2 min	2 - 10 secs
10	< 2 hours	< 4 min	4 - 10 secs
20	< 2 hours	< 6 min	6 - 20 secs
30	< 2 hours	< 12 min	9 - 30 secs

Im - Motor Full Load Current  
I - Actual current drawn by the Motor

## MC2-30M / MC2-30MW

**Comprehensive Motor Protection Relay for Medium and Large Sized Induction Motors**

- Modbus RTU / IEC870-5-103 Communication Protocol
- MC2-30M offers Current based protections whereas, MC2-30MW offers Current + Voltage based protections



Product	Aux. Supply	CT Secondary	Cat. No.	M.R.P. (₹) Per Unit
**MC2-30M	24 to 110VAC/DC	1 / 5 Ampere Site selectable	MC230MAOOO	140000
	80 to 220VAC/DC		MC230MBOOO	140000
**MC2-30MW	24 to 110VAC/DC		MC230MWAOO	150000
	80 to 220VAC/DC		MC230MWBOO	150000

\*\* MC2-30M & MC2-30MW are long lead items. Contact nearest branch for delivery schedule & technical specs before ordering.

\*\* Available till stock last

## Compact Motor Protection Relay - MM10

### Features:

- Flush Mounting with display
- Last trip data recording
- Protections:
  - Thermal Overload with pre- alarm
  - Short Circuit
  - Earth fault
  - Phase loss, Unbalance, Phase reversal
  - Under Current
  - Prolong starting, Locked Rotor



Model	Aux. Supply	CT secondary	Device code	Cat. No.	M.R.P. (₹) Per Unit
MM10	110 - 240 V AC / DC	5 Amp	37, 46, 49, 50 / 51, 51LR, 64	MM10240E005	29000



# Your partner in digital transformation



## iMMR - Intelligent Motor Management Relay

Display Unit



"Besides control, protection and diagnostics, iMMR provides accurate real time data for analytics and insights into the performance of plant and process"



iMMR Main Unit



CT Unit



### Intelligent MCC's for enhanced plant efficiency and safety

#### TI - Motor Control Center

- Modular MCC's designed as per IEC 61439-1 & 2
- Internal arc resistance design of 70kA- 500msec.

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)



# iMMR - Intelligent Motor Management Relay [8536]



iMMR is a comprehensive Motor protection, control and monitoring relay for intelligent MCC's

"Besides control, protection and diagnostics, iMMR provides accurate real time data for analytics and insights into the performance of plant and process"

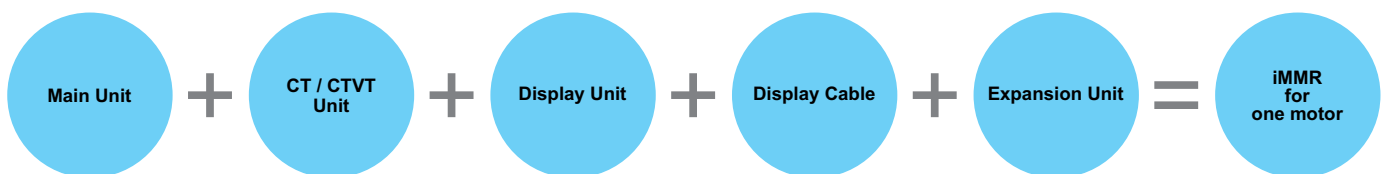
## Features

- Comprehensive Current & Voltage based Protections
- 20 nos. of last trip records, 100 event records and 20 IRF Records are available
- Preprogrammed Starter logics reduces manufacturing and commissioning time
- Software iMMR Suite is available for Easy and effective configuration and monitoring
- Modbus RTU, Modbus TCP/IP and Profibus-DP protocols available for seamless integration with DCS/PLC

Product	Description	Cat. No.	M.R.P. (₹) Per Unit
Main Unit	iMMR MODBUS RTU 85-265 VAC/DC	CS912440000	17800
	iMMR PROFIBUS-DP 85-265 VAC/DC	*Available On Request	
	iMMR MODBUS TCP/IP 85-265 VAC/DC	*Available On Request	
CT Unit	CT1 (0.3-3A) with 15 cm cable	CS912450000	4750
	CT2 (2.5-25A) with 15 cm cable	CS912460000	6300
	CT3 (7-70A) with 15 cm cable	CS912470000	10000
CTVT Unit	CT1 (0.3-3A) + VT with 15 cm cable	CS912490000	11000
	CT2 (2.5-25A) + VT with 15 cm cable	CS912500000	13000
	CT3 (7-70A) + VT with 15 cm cable	CS912510000	17000
Display Unit	iMMR Display unit without cable	CS912530000	10000
Display Cable	iMMR Display Cable - 1 meter	XK131280000	1000
	iMMR Display Cable - 2 meter	XK131290000	1500
Expansion Unit	4DI + 2DO with 10 cm cable	*Available On Request	
	Earth Leakage + 2DI + 2DO with 10 cm cable	*Available On Request	
	2AI + 1AO with 10 cm cable	*Available On Request	

\* Please contact our nearest branch for details

## iMMR selection guide



Select **Main Unit** based on required communication protocol.

For Current based protection select **CT Unit**.  
For Current & Voltage based protection select **CTVT Unit**.

Select a panel mounted **Display Unit & Cable** for monitoring and parametrization.

Add up to 5 **Expansion Unit** based on DI/DO & AI/AO requirement.

Complete package selection of **iMMR**.



## Cat.no. selection guide

### Modbus RTU communication and **Current** based protection and metering

Motor Rating	Main Unit - Modbus RTU	CT Unit	Display Unit	Display Cable - 2 meter
<1.1 KW	CS912440000	CS912450000	CS912530000	XK131290000
1.1 KW to 11 KW	CS912440000	CS912460000	CS912530000	XK131290000
11 KW to 37 KW	CS912440000	CS912470000	CS912530000	XK131290000
>37 KW	CS912440000	CS912460000*	CS912530000	XK131290000

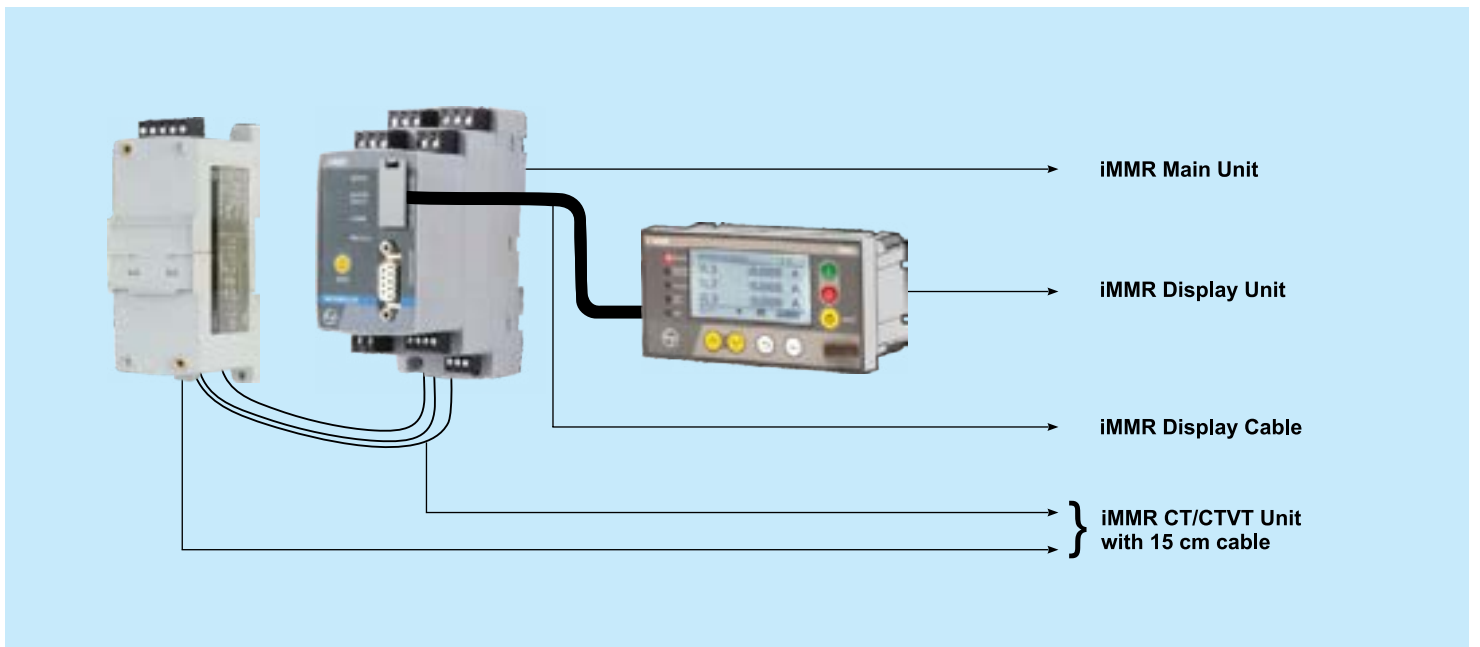
\* with External Protection class CT's of -/5Amp

### Modbus RTU communication and **Current + Voltage** based protection and metering

Motor Rating	Main Unit - Modbus RTU	CTVT Unit	Display Unit	Display Cable - 2 meter
<1.1 KW	CS912440000	CS912490000	CS912530000	XK131290000
1.1 KW to 11 KW	CS912440000	CS912500000	CS912530000	XK131290000
11 KW to 37 KW	CS912440000	CS912510000	CS912530000	XK131290000
>37 KW	CS912440000	CS912500000*	CS912530000	XK131290000

\* with External Protection class CT's of -/5Amp

## Selection guide





## Rocker Type

- MOG-S1: upto 32A
- Short circuit + Overload protection
- Icu=100kA upto 10A, Icu=50kA for 13A & Icu=25kA for 16-32A

## Rotary Type

- MOG-H1M: upto 32A
- MOG-H2M: 32A-63A
- Short circuit protection
- Icu=100kA upto 13A & Icu=50kA from 16A-63A

## Rotary Type

- MOG-H1: upto 32A
- MOG-H2: 32A-63A
- Short circuit + Overload protection
- Icu=100kA upto 13A & Icu=50kA from 16A-63A

Rocker type and Rotary Type Motor Protection Circuit Breaker conforms to IEC 60947-4-1 & 60947-2

✓ Short circuit protection


✓ Over current protection

✓ Overload protection

✓ Phase loss protection

✓ Wide range of current adjustment dial

✓ Ambient temperature compensation



**MPCB**

✓ Compact

✓ High breaking capacity

✓ Short circuit protective coordination

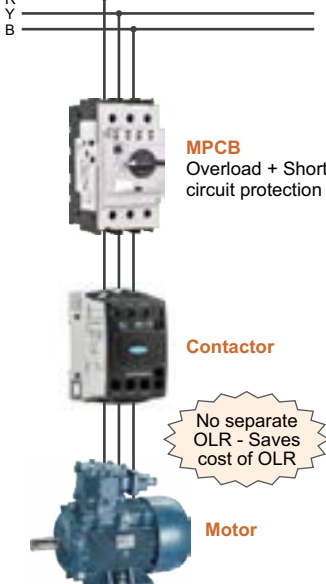
✓ Reduction in wiring work

✓ High switching durability

✓ Padlocking feature available even without extended rotary handle

✓ Stand alone motor protection

✓ Common accessories



**MPCB**  
Overload + Short circuit protection

**Contactor**

No separate OLR - Saves cost of OLR

**Motor**

## Type MOG-S1 (Rocker Type)

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	2.1	ST418890000	2870	1
0.25	0.06	0.16 - 0.25	3.3	ST418900000	2870	1
0.40	0.09	0.25 - 0.40	5.2	ST418910000	2870	1
0.63	0.12	0.40 - 0.63	8.2	ST418920000	3260	1
1.00	0.25	0.63 - 1.00	13	ST418930000	3260	1
1.60	0.55	1.00 - 1.60	20.8	ST418940000	3280	1
2.50	0.75	1.60 - 2.50	32.5	ST418950000	3280	1
4.00	1.50	2.50 - 4.00	52	ST418960000	3400	1
6.30	2.20	4.00 - 6.30	81.9	ST418970000	3400	1
10.00	4.00	6.30 - 10.00	130	ST418980000	3630	1
13.00	5.40	9.00 - 13.00	169	ST418990000	4090	1
16.00	7.50	11.00 - 16.00	208	ST419000000	4470	1
20.00	9.00	14.00 - 20.00	260	ST419010000	4700	1
25.00	12.50	19.00 - 25.00	325	ST419020000	4940	1
32.00	15.00	24.00 - 32.00	416	ST419030000	8790	1

Breaking capacity: Icu = 100kA upto 10A, Icu = 50kA for 13A & Icu = 25kA for 16-32A

## Type MOG-H1 (Rotary Type) - Frame1

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	2.1	ST419040000	3650	1
0.25	0.06	0.16 - 0.25	3.3	ST419050000	3650	1
0.40	0.09	0.25 - 0.40	5.2	ST419060000	3650	1
0.63	0.12	0.40 - 0.63	8.2	ST419070000	4080	1
1.00	0.25	0.63 - 1.00	13	ST419080000	4080	1
1.60	0.55	1.00 - 1.60	20.8	ST419090000	4210	1
2.50	0.75	1.60 - 2.50	32.5	ST419100000	4210	1
4.00	1.50	2.50 - 4.00	52	ST419110000	4290	1
6.30	2.20	4.00 - 6.30	81.9	ST419120000	4330	1
10.00	4.00	6.30 - 10.00	130	ST419130000	4610	1
13.00	5.40	9.00 - 13.00	169	ST419140000	5110	1
16.00	7.50	11.00 - 16.00	208	ST419150000	5500	1
20.00	9.00	14.00 - 20.00	260	ST419160000	5930	1
25.00	12.50	19.00 - 25.00	325	ST419170000	6170	1
32.00	15.00	24.00 - 32.00	416	ST419180000	10000	1

Breaking capacity: Icu = 100kA upto 13A & Icu = 50kA from 16A - 32A

**Note:** Extended rotary handle cannot be fitted with MOG - S1

# Motor Protection Circuit Breakers [8536]

## Type MOG-H1M (Rotary Type) - Frame 1

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	2.1	ST419230000	3280	1
0.25	0.06	3.3	ST419240000	3280	1
0.40	0.09	5.2	ST419250000	3280	1
0.63	0.12	8.2	ST419260000	3710	1
1.00	0.25	13	ST419270000	3780	1
1.60	0.55	20.8	ST419280000	3780	1
2.50	0.75	32.5	ST419290000	3810	1
4.00	1.50	52	ST419300000	3850	1
6.30	2.20	81.9	ST419310000	3850	1
10.00	4.00	130	ST419320000	3970	1
13.00	5.40	169	ST419330000	4150	1
16.00	7.50	208	ST419340000	4150	1
20.00	9.00	260	ST419350000	4360	1
25.00	12.50	325	ST419360000	4490	1
32.00	15.00	416	ST419370000	7390	1

Breaking capacity: Icu = 100kA upto 13A & Icu = 50kA from 16A - 32A

## Type MOG-H2 (Rotary Type) - Frame 2

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	24.00 - 32.00	416	ST419190000	12800	1
40.00	20.00	28.00 - 40.00	520	ST419200000	14100	1
50.00	25.00	35.00 - 50.00	650	ST419210000	17600	1
63.00	34.00	45.00 - 63.00	819	ST419220000	17900	1

Breaking capacity: Icu = 50kA from 32A - 63A

## Type MOG-H2M (Rotary Type) - Frame 2

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	416	ST419380000	12300	1
40.00	20.00	520	ST419390000	12400	1
50.00	25.00	650	ST419400000	12700	1
63.00	34.00	819	ST419410000	13000	1

Breaking capacity: Icu = 50kA from 32A - 63A

# Accessories for MOG [8538]



Short Circuit Alarm



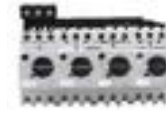
Auxiliary + Alarm



Extended Rotary Handle



Shunt Trip



MPCBs with bus bar connection



Connecting Busbar link



3 Phase Feed in terminal

Mounting Position *	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
F1/F2	Auxiliary Contact Front mtg. 1NO	ST419420000	565	10
F1/F2	Auxiliary Contact Front mtg. 1NC	ST419430000	565	10
L	Auxiliary Contact Left side mtg. 2NO	ST419440000	780	1
L	Auxiliary Contact Left side mtg. 1NO + 1NC	ST419450000	780	1
L	Auxiliary Contact Left side mtg. 2NC	ST419460000	780	1
F2	Trip Alarm Contact Front mtg. 1NO	ST419470000	1010	10
F2	Trip Alarm Contact Front mtg. 1NC	ST419480000	1010	10
L	Auxiliary + Alarm Left side mtg. 2NO	ST419490000	1070	1
L	Short circuit alarm Left side mtg. 1NO + 1NC	ST419500000	1070	1
R	Shunt trip 24V DC	ST419510000	2060	1
R	Shunt trip 110V, 50Hz	ST419520000	2170	1
R	Shunt trip 230V, 50Hz	ST429520000	2170	1
R	Under Voltage release, 110V, 50Hz	ST419530000	2170	1
R	Under Voltage release, 415V, 50Hz	ST419540000	2170	1
-	External operating handle, (Black) Frame 1	ST419550000	1250	1
-	External operating handle, (Black) Frame 2	ST419560000	1250	1

\* F1- Front left slot F2- Front right slot L- Left side R- Right side

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Connecting Busbar link</b>			
2 MPCB 45 mm width w/o acc	ST419570000	655	5
3 MPCB 45 mm width w/o acc	ST419580000	720	5
4 MPCB 45 mm width w/o acc	ST419590000	775	5
5 MPCB 45 mm width w/o acc	ST419600000	990	5
2 MPCB 45 mm width with one acc 9 mm	ST419610000	765	5
3 MPCB 45 mm width with one acc 9 mm	ST419620000	825	5
4 MPCB 45 mm width with one acc 9 mm	ST419630000	890	5
5 MPCB 45 mm width with one acc 9 mm	ST419640000	950	5
2 MPCB 55 mm width w/o acc	ST419660000	1190	1
3 MPCB 55 mm width w/o acc	ST419670000	1360	1
4 MPCB 55 mm width w/o acc	ST419680000	1630	1
2 MPCB 55 mm width with one acc 9 mm	ST419690000	1300	1
3 MPCB 55 mm width with one acc 9 mm	ST419700000	1470	1
4 MPCB 55 mm width with one acc 9 mm	ST419710000	1740	1
2 MPCB 55 mm width with two acc 18 mm	ST419720000	1520	1
4 MPCB 55 mm width with two acc 18 mm	ST419730000	1690	1
Feed in terminal for 45 mm width Busbar	ST419650000	765	1
Feed in terminal for 55 mm width Busbar	ST419740000	1320	1
Bus bar safety cover 45 mm width Busbar	ST419750000	330	10
Bus bar safety cover 55 mm width Busbar	ST419760000	355	10

acc: Accessories

# Motor Starters [8536]

## Direct-on-Line Starters

in Sheet-Steel Enclosure Type MN / ML  
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MN 16



MN 45



ML 3

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
10.0	7.5	9 - 15	MN 16 DOL	SS94351	4940	1
15.0	11.0	14 - 23	MN 25 DOL	SS94352	7540	1
20.0	15.0	20 - 33	MN 32 DOL	SS94353	12200	1
30.0	22.5	30 - 50	MN 45 DOL	SS94017	20800	1
45.0	33.5	45 - 75	MN 65 DOL	SS94018	28500	1
30.0	22.5	28 - 42	ML 3 DOL	SS90722	25600	1

## Fully Automatic Star-Delta Starters [8536]



MN 16F

in Sheet-Steel Enclosure Type MN / ML  
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
17.5	13.0	9 - 15	MN 16 FASD	SS94362	16600	1
30.0	22.5	14 - 23	MN 25 FASD	SS94364	18600	1
40.0	30.0	20 - 33	MN 32 FASD	SS94366	30600	1
50.0	37.5	30 - 50	MN 45 FASD	SS94021	49100	1
75.0	55.0	45 - 75	MN 65 FASD	SS94022	81400	1
90.0	67.5	45 - 75	MN 80 FASD	SS94705	88900	1
150.0	110.0	66 - 110	MN 110 FASD	SS94706	116400	1
180.0	132.0	90 - 150	MN 140 FASD	SS94707	121900	1
50.0	37.5	28 - 42	ML3 FASD	SS90730	61700	1
75.0	55.0	45 - 75	ML4 FASD	SS90913	105700	1
125.0	90.0	66 - 110	ML6 FASD	SS90923	173300	1

## Spares for MN Starters [8538]

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Bracket for Mounting cont. MNX 25 - 32	SS940300000	155	20
MN DOL/FASD Push Button	SS939410000	265	10

## Timers

### Electronic Timers Type ST 100 [9107]



ST 100

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
<b>240 / 360 / 415V, 50Hz for</b>			
3 - 30 secs.	ST803280000	1960	1
12 - 120 secs.	ST803290000	1960	1

**Note:** ST 100 supplied with Mounting Kit, suitable for ET 100 replacement.  
For Complete range of Timing Devices, please refer the Panel Accessories Price List.

## Ordering Suffix for ML & MN Starters

Coil Voltages	Relay Range (A)	
	ML	MN
B - 240 V	A : 9 - 14	B : 9 - 15
C - 360 V	B : 10 - 16	D : 14 - 23
D - 415 V	C : 13 - 21	E : 20 - 33
P - 440 V	E : 20 - 32	G : 30 - 50
	F : 28 - 42	J : 45 - 75
	G : 30 - 50	K : 66 - 110
	J : 45 - 75	Q : 2 - 3.3
	K : 66 - 110	S : 3 - 5
	M : 90 - 150	T : 36 - 60
	P : 135 - 225	U : 4.5 - 7.5
	Q : 180 - 310	V : 6 - 10
	R : 2.5 - 4	M : 90 - 150
	T : 13 - 21	



# Selection as per Type 2 Co-ordination

All our type 2 charts are available on **Knowledge Portal & ProductWhiz.**



Access E&A's Knowledge Portal from  
[www.lntebg.com/KP](http://www.lntebg.com/KP)



L&T Electrical & Automation,  
ESP BizWhiz and ProductWhiz from  
Google Play Store/Apple App Store

## Following combination of Type 2 Charts available

Fuse Based Charts		Fuseless Charts			
IE2/IE3	IE2/IE3	IE2	IE2	IE3	IE3
DOL	SD	DOL	SD	DOL	SD
FN	FN	MPCB/MCCB	MPCB/MCCB	MPCB/MCCB	MPCB/MCCB
MNX/MO	MNX/MO	MNX/MO	MNX/MO	MNX/MO	MNX/MO

Charts available at Iq of

- 50kA
- 65kA
- 80kA
- 100kA

MCCB charts are available with  
Microprocessor Releases too



# DIGITAL SINGLE PHASE CONTROLLER

*The power of flexibility and versatility*



## Basic version

## FEATURES

## Auto version

- |  |                                  |
|--|----------------------------------|
| ● Microcontroller Based Solution               | ● All features of Basic Version  |
| ● Dry Run Protection                           | ● Inbuilt Water Level Controller |
| ● UV/OV Protection                             | ● Water tank status indication   |
| ● Current, Voltage Metering & Periodic Display | ● WLC bypass feature             |
| ● Start & Run Capacitor                        | ● Auto start capacitor switching |
| ● Bypass Mode (For bore cleaning)              | ● Power on delay                 |
| ● Off Timer                                    | ● Dry run auto reset timer       |
| ● Digital Display                              | ● Auto & Manual mode             |
| ● Capacitor cut-off                            | ● RTC based daily ON/OFF timer   |
| ● Water Tank Status Indication                 | ● Timer count down display       |
| ● Automatic Current Setting                    | ● Cyclic timer                   |
|  | ● Timer Compensation             |

• Refer Agricultural Electrical Product Pricelist for Agricultural Electrical Product Range



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# Digital Enabled Smart Agriculture



- ★ Digital Products for effective monitoring & remote operation
- ★ Agri products for all seasons and all crops
- ★ Complete protection from all faults
- ★ Maintenance free product life







## Complete your panel with our panel accessories



**Rotary Switches & Cable Ducts**



**Timing Devices & Supply Monitors**



**Modular Remote Control Units**



**Digital Panel Meters**

For Cam operated Rotary switches, Cable ducts, Load break switches, Timers, Time switches, Supply monitors, Ø22.5 mm range of Modular remote control & Indicating units please refer Panel Accessories Price List.

For Digital Panel Meter details please refer Pg.76

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# Enclosed Automatic Transfer Switch

Automatic Solution | Pre-wired | Flexible Settings



## Switch to **ATS**

Now, experience seamless transfer between two power sources...



### Convenience

- Ample Space for Cable Termination
- Ease of Generator Control(ON-OFF, Cooling Cycle Self-Test)
- Cyclic Event Logger: Logs 100 Events



### Performance

- Wide range: 125A to 630A, 415V ac.
- Double-Break Contact System offering High Short-time Withstand (I<sub>cw</sub>)
- High Mechanical and Electrical Life: Double than requirement of IS/IEC standard
- Suitable for Aluminum Termination



### Flexibility

- Priority Source Selection
- Adjustable Time Delay(0.1sec to 3 hours)
- Suitable for 3-Phase as well as 1-Phase Sources



### Safety

- Protections: UV/OV, Phase Sequence, Single Phasing, Frequency
- Authorized Access Control through Password Protection
- Terminal Shrouds, Phase Barriers & Source Separator

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Enclosed ATS, Frame 2, 125A	125A	<b>CK90161BSOO</b>	<b>80200</b>	1
Enclosed ATS, Frame 2, 160A	160A	<b>CK90162BSOO</b>	<b>88500</b>	1
Enclosed ATS, Frame 2, 200A	200A	<b>CK90163BSOO</b>	<b>95900</b>	1
Enclosed ATS, Frame 3, 250A	250A	<b>CK90164BSOO</b>	<b>109600</b>	1
Enclosed ATS, Frame 3, 315A	315A	<b>CK90165BSOO</b>	<b>117200</b>	1
Enclosed ATS, Frame 4, 400A	400A	<b>CK90166BSOO</b>	<b>129900</b>	1
Enclosed ATS, Frame 4, 630A	630A	<b>CK90167BSOO</b>	<b>157800</b>	1

Chapter ID [8537]

For AuXC 2000 programming videos and more details please scan the QR code or click here



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# On Load Changeover Switch - Disconnectors [8536]

## Changeover Switch-Disconnecter (Conforms to IEC 60947-3 , IS/IEC 60947-3)

### Features offered by Manual Changeover

- Range 63A to 2000A, 415V, AC 23A, 4P
- Enclosure version does not require separate cable gland box
- Terminal Shrouds, Source Separator and Phase Barriers included
- Staggered Terminals make cable termination easy
- Suitable for horizontal as well as vertical mounting



Open execution



SS enclosure



Motorised Changeover



Manual CO with fuse mounting kit\*

### Features offered by Motorised Changeover

- Range 40 A to 2000A, 415V, AC 23A, 4P (Control Voltage 240 Vac)
- No change in HxWxD dimension of motorised and manual changeover switch
- Padlocking in OFF position
- Option for selection between manual and auto mode

Size	Rated Current (A)	Manual Changeover Open Execution			Manual Changeover In Sheet Steel Enclosure#		Motorised Changeover Open Execution		Std. Pkg. (Nos.)
		Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	40	CO1-40	-	-	-	-	CK90944B000	24300	1
	63	CO1-63	CO106300000	5390	CO106300S00	8320	CK90945B000	25800	1
	63	CO1-63	CO10630000D ▲	5300			CK90946B000	31500	1
	100	CO1-100	CO110000000	7140	CO110000S00	10500	CK90947B000	33500	1
	100	CO1-100	CO11000000D ▲	6880					
125	CO1-125	CO112500000	9290	CO112500S00	13400	CK90161B000	40900	1	
Fr 2	125	CO2-125	CO212500000	11100	CO212500S00	15900	CK90162B000	50000	1
	160	CO2-160	CO216000000	12100	CO220000S00	19900	CK90163B000	54500	1
	200	CO2-200	CO22000000A	14700	CO325000S00	27000	CK90164B000	67200	1
Fr 3	250	CO3-250	CO325000000	20600	CO331500S00	28400	CK90165B000	70300	1
	315	CO3-315	CO331500000	21600	-	-	CK90166B000	83100	1
Fr 4	400	CO4-400	CO440000000	31800	CO463000S00	48000	CK90167B000	99200	1
	630	CO4-630	CO463000000	37100	-	-	CK90168B000	106700	1
Fr 5	630	CO5-630 <sup>α</sup>	CO563000000 <sup>α</sup>	44100	CO580000S00	77700	CK90169B000	142700	1
	800	CO5-800	CO580000000	52900	CO510000S00	125800	CK90170B000	187100	1
	1000	CO5-1000	CO510000000	94400	-	-	CK90081B000	231200	1
Fr 6	1250	CO6-1250	CO612500000	126600	-	-	CK90082B000	283800	1
	1600	CO6-1600	CO616000000	149700	-	-	CK90083B000	338500	1
	2000	CO6-2000	CO620000000	230300	-	-	-	-	1

▲ Direct handle version # Sheet Steel Enclosure version is with CO with extended handle \* Fuse mounting kit to be purchased separately. Refer below table  
<sup>α</sup> Fuse mounting kit CX563000000 is suitable for mounting on CO5-630 Changeover Switch

## Spares & Accessories for Changeover S-D [8538]



Auxiliary Contact



Operating Handle (63A to 200A)



Flip-able Handle (250A to 2000A)



Castell Type Lock

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (2 sets of C/O contact)	CO1-(63-125A)	CX100020000	470	1
	CO2-(125-200A)	CX200020000	890	1
	CO3-(250-315A)	CX300020000	1270	1
	CO4-(400-630A)	CX400020000	1350	1
	CO5-(630-1000A)	CX500020000	1530	1
	CO6-(1250-2000A)	CX600020000	1700	1
Operating Handle Kit (handle + shaft + center bush + bush clip)	CO1-(63-125A)	CX100010000	780	1
	CO2-(125-200A)	CX300010000	1590	1
	CO3-(250-315A)	CK903920000	1690	1
	CO4-(400-630A)	CX400010000	1730	1
	CO5-(630-1000A)	CX500010000	1860	1
Operating Handle	CO6-(1250-2000A)	CX600010000	2110	1
Castell Type Lock <sup>§</sup>	CO-(125-1000A)	CX400040000	2790	1
	CO6-(1250-2000A)	CX600040000	2790	1
Output shorting link	CO1-(63-125A) Top Side	CX10005000T	820	1
	CO1-(63-125A) Bottom Side	CX10005000B	820	1
Operating Handle for Motorised Changeover	C/O Frame 2 & 3 (125-315A)	CK903740000	1480	1
	C/O Frame 4 & 5 (400-1000A)	CK903780000	1860	1
	C/O Frame 6 (1250-2000A)	CK906450000	4620	1

§ Chapter ID [8301]

## Automatic Transfer Controllers (ATC) for Motorised Changeover [8538]



AST Controller with wire harness



AuXC-2000 Controller with wire harness



Illuminated Push Button assembly

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Automatic Transfer Controllers	AST Controller with wire harness	CK901920000	19800	1
	AuXC-2000 Controller** with wire harness	AuXC-2000 <sup>β</sup> wire harness	ATC200000000	31600
			CK900990000	4040
Control Accessories	Illuminated Push Button assembly with Wire harness	CK901950000	4030	1

<sup>β</sup> Chapter ID [9032]

\*\* Note: For communication version of AuXC controller refer page no-6

## Fuse Mounting Kit [8538]



Description	Suitable fuse-link	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fuse Mounting Kit	HF 14x51	CO1-63	CX106300OCO	2500	1
	HN Size 000	CO2-125	CX212500ODO	4880	1
	HN Size 00	CO2-160	CX216000ODO	6930	1
	HN Size 1	CO3-250	CX325000ODO	9480	1
	HN Size 1	CO3-315	CX331500ODO	9920	1
	HN Size 2	CO4-400	CX440000ODO	14200	1
	HN Size 3	CO5-630	CX563000ODO	28700	1
	HN Size 3	CO5-800	CX580000ODO	32600	1










**New** **CZ Bypass Switches**


**125A to 630A**


Bypass Switches are meant for special application and help to maintain continuity of power supply to the load by simply 'bypassing' UPS or Servo stabilizer. Removal of the UPS or Servo, for maintenance or repair is safe, as it is isolated from both input and output sides in the 'bypass' mode.


 **Time-Saving Convenient solution**  
No hassle of operating multiple devices for safe and positive isolation on both sides of Servo/UPS

 **Phase Barriers**  
Easy to fit and long phase barriers for complete isolation between phases

 **Suitable for Aluminum Termination**  
Entire range is suitable for Aluminum cable/link termination as per the size prescribed by the standards

 **Safety interlock and padlocking**  
Door interlock is provided in ON position with defeat feature. Also, Bypass Switch can be padlocked in OFF position; upto 3 padlocks can be fitted

 **Mounting flexibility**  
Suitable for mounting in horizontal as well as vertical orientation. Also, the shaft is 'cut-able' and can be adjusted to suit different panel depth requirements.

 **Finger proof protection (IP30)**  
Terminal Shrouds provide protection against accidental contact with live terminals. As it is swivellable, there is no need to remove during termination/inspection

4P, Open Execution with extended handle				
Frame	Rating 440Vac, AC 23A	Cat No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1	125A	CK908130000	17200	1
CZ1	160A	CK908140000	19400	1
CZ1	200A	CK908150000	20500	1
CZ1	250A	CK908160000	29200	1
CZ1	315A	CK908170000	33300	1
CZ2	315A	CK908750000	36800	1
CZ2	400A	CK908760000	44900	1
CZ2	630A	CK908770000	53500	1

Accessories for CZ Bypass switch				
Frame	Description	Cat No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1/ CZ2	Auxiliary Contact Kit* (1 C/O contact)	CK908050000	510	1

**Chapter ID [8538]**  
\* Upto 2 C/O contacts can be installed for status /indication

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Chapter ID [8536]



# Multiple Applications, One Solution

## New CZ Switch Disconnectors



- ▶ Compact 2P, 3P & 4P configurations
- ▶ **1250Vac** Insulation Voltage
- ▶ **AC-23A** @ 690Vac without derating
- ▶ Suitable for 50°C ambient temperature
- ▶ **Direct termination** without the need of any extended links
- ▶ Extra assurance with visible contact system
- ▶ High electrical and mechanical life (double than requirement in IS/IEC standards)
- ▶ Terminal shrouds and phase barriers are provided as standard offering along with the product
- ▶ Higher ground clearance ensure safety at all times

Tc p q m l q 8 4 7 . T - 6 . . T \_ a z / . . . T b a z / 3 . . T b a

### Typical Applications



Switching of feeders in power distribution network



Switching of Machinery/Motors



VFD panels for switching and isolation of VFD (AC as well DC)



Isolation in String Inverter as well as Central Inverter Solar Systems



Battery Charging

4P AC Switch Disconnector					
Frame	Rating 690V, AC 23A	Handle Type	CAT No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1	125A	Extended	CK907690000	7400	1
CZ1	160A	Extended	CK907700000	9350	1
CZ1	200A	Extended	CK907710000	10890	1
CZ1	250A	Extended	CK907720000	12840	1
CZ1	315A	Extended	CK907730000	13600	1
CZ2	315A	Extended	CK908570000	15090	1
CZ2	400A	Extended	CK908580000	19310	1
CZ2	630A	Extended	CK908590000	24200	1
CZ1	125A	Direct	CK907990000	7100	1
CZ1	160A	Direct	CK908000000	8930	1
CZ1	200A	Direct	CK908010000	10350	1
CZ1	250A	Direct	CK908020000	12200	1
CZ1	315A	Direct	CK908030000	12920	1
CZ2	315A	Direct	CK908720000	14340	1
CZ2	400A	Direct	CK908730000	18340	1
CZ2	630A	Direct	CK908740000	22990	1

Chapter ID [8536]

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

4P AC Switch Disconnector in SS enclosure (with extended handle)				
Frame	Rating 690V, AC 23A	CAT No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1	125A	CK908190000	13320	1
CZ1	160A	CK908200000	15430	1
CZ1	200A	CK908210000	17420	1
CZ1	250A	CK908220000	19900	1
CZ1	315A	CK908230000	21080	1
CZ2	315A	CK908780000	24900	1
CZ2	400A	CK908790000	29160	1
CZ2	630A	CK908800000	34120	1

Chapter ID [8536]

Accessories for CZ Switch Disconnector				
Frame	Description	CAT No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1/CZ2	Auxiliary Contact Kit (1 C/O contact)	CK908050000	510	1

Chapter ID [8538]

#### Notes:

- 2P and 3P versions are also available. Please contact our nearest branch office for further details
- Separate versions suitable for DC applications (1000Vdc and 1500Vdc) also available. Please contact our nearest branch office for further details
- Please refer next page for details on offerings for Solar applications



# Dawn of a New Era...

New

## CZ Switch Disconnectors

- Designed for tough conditions at **solar sites**
- Separate versions for **800Vac** string inverter systems and upto **1500Vdc** for central inverter systems
- Suitable for Aluminum termination of double the size recommended by IEC standards
- **1250Vac** Rated Insulation Voltage
- **Direct termination** without the need of any extended links
- Terminal shrouds and phase barriers are provided as standard offering along with the product



AC SD

▶ Operational Voltage upto 800Vac



DC SD

▶ Operational Voltage 1000Vdc & 1500Vdc

### 800Vac, 3P Switch Disconnectors

Frame	Rating	Handle Type	Cat. No.	M.R.P. (₹) Per Unit
CZ1	125A	Direct	CK907570000	*
CZ1	160A	Direct	CK907580000	*
CZ1	200A	Direct	CK907590000	*
CZ1	250A	Direct	CK907600000	*
CZ1	315A	Direct	CK907610000	*
CZ2	315A	Direct	CK908510000	*
CZ2	400A	Direct	CK908520000	*
CZ2	630A	Direct	CK908530000	*
CZ1	125A	Extended	CK907630000	*
CZ1	160A	Extended	CK907640000	*
CZ1	200A	Extended	CK907650000	*
CZ1	250A	Extended	CK907660000	*
CZ1	315A	Extended	CK907670000	*
CZ2	315A	Extended	CK908540000	*
CZ2	400A	Extended	CK908550000	*
CZ2	630A	Extended	CK908560000	*

### DC Switch Disconnectors

Frame	Rating	Voltage	No. of Poles	Handle Type	Cat. No.	M.R.P. (₹) Per Unit
CZ1	125A	1000Vdc	2	Direct	CK907930000	*
CZ1	160A	1000Vdc	2	Direct	CK907940000	*
CZ1	200A	1000Vdc	2	Direct	CK907950000	*
CZ1	250A	1000Vdc	2	Direct	CK907960000	*
CZ1	315A	1000Vdc	2	Direct	CK907970000	*
CZ2	315A	1000Vdc	2	Direct	CK908690000	*
CZ2	400A	1000Vdc	2	Direct	CK908700000	*
CZ2	630A	1000Vdc	2	Direct	CK908710000	*
CZ1	125A	1500Vdc	2	Direct	CK907870000	*
CZ1	160A	1500Vdc	2	Direct	CK907880000	*
CZ1	200A	1500Vdc	2	Direct	CK907890000	*
CZ1	250A	1500Vdc	2	Direct	CK907900000	*
CZ1	315A	1500Vdc	2	Direct	CK907910000	*
CZ2	315A	1500Vdc	3	Direct	CK908660000	*
CZ2	400A	1500Vdc	3	Direct	CK908670000	*
CZ2	630A	1500Vdc	3	Direct	CK908680000	*

Chapter ID [8536]

Chapter ID [8536]

\*Available on Request

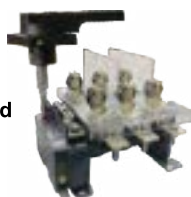
### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

## Type TPN S-D-F suitable for DIN fuse-link (TPN & FP) in open execution

### Features offered by FN S-D-F

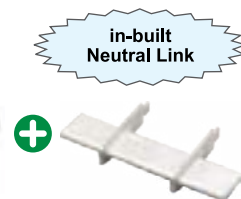
- Range 32A to 800A, 415V, AC 23A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Terminal Shrouds on both sides and Phase Barriers included
- Telescopic shaft for depth adjustment
- TPN SDF has isolable neutral
- 4P SDF has Switched Neutral Pole and is 100% rated
- Door interlock & padlock facility



FN - TPN S-D-F  
(Open Execution)



FN - 4P S-D-F  
(Open Execution)



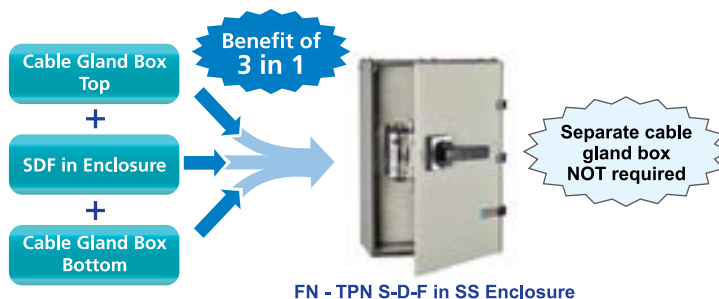
Size	Rated Current (A)	Suitable HRC fuse-link		Open Execution Type FN (TPN) S-D-F suitable for DIN fuse-link			Std. Pkg. (Nos.)	Open Execution Type FN S-D-F suitable for DIN fuse-link (4P)			Std. Pkg. (Nos.)
		Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit		Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF Size 14x51	2 to 32	FN 32 TPN / FP	SK95518	2810	1	FN 32 TPN/FP	SK95518	2810	1
	32	HF Size 14x51	2 to 32	FN 32 TPN / FP CE*	SK95703*	2460	1	FN 32 TPN/FP CE*	SK95703*	2460	1
	63	HF Size 14x51	2 to 63	FN 63 TPN / FP	SK95421	3730	1	FN 63 TPN/FP	SK95421	3730	1
	63	HF Size 14x51	2 to 63	FN 63 TPN / FP CE*	SK95704*	3330	1	FN 63 TPN/FP CE*	SK95704*	3330	1
Fr 2	100	HN Size 000/00	63 to 100	FN 100 TPN	SK95568	7070	1	FN 100 FP	SK90496	8040	1
	125	HN Size 000/00	63 to 125	FN 125 TPN	SK95001	9160	1	FN 125 FP	SK90497	10000	1
	160	HN Size 000/00	63 to 160	FN 160 TPN	SK95713	9860	1	FN 160 FP	SK90498	11200	1
Fr 3	200	HN Size 0	80 to 200	FN 200 TPN	SK95418	13300	1	FN 200 FP	SK90471	16000	1
	250	HN Size 1	125 to 250	FN 250 TPN	SK95642	15200	1	FN 250 FP	SK90472	18300	1
Fr 4	315	HN Size 1	125 to 315	FN 315 TPN	SK95461	18200	1	FN 315 FP	SK90473	22200	1
	400	HN Size 2	200 to 400	FN 400 TPN	SK95481	22000	1	FN 400 FP	SK90480	24500	1
Fr 5	630	HN Size 3	315 to 630	FN 630 TPN	SK95521	36800	1	FN 630 FP	SK90481	41300	1
	800	HN Size 3	315 to 800	FN 800 TPN	SK95679	39600	1	FN 800 FP	SK90482	46500	1

\* 'CE' handle has door interlock facility without defeat feature

## FN- TPN S-D-F in SS Enclosure

### Features offered by FN S-D-F in SS Enclosure:

- Range 32A to 800A, 415V, AC 23A
- Spacious Sheet Steel Enclosure
- Separate cable gland box not required
- Terminal Shrouds on both sides and Phase Barriers included
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Suitable for Cylindrical/DIN fuse-link
- Door interlock & padlock facility



Size	Rated Current (A)	Suitable HRC fuse-link		In Sheet Steel Enclosure Type FN (TPN) S-D-F suitable for DIN fuse-link			Std. Pkg. (Nos.)
		Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF Size 14x51	2 to 32	FN 32 TPN / FP CE*	SK90483*	6480	1
	63	HF Size 14x51	2 to 63	FN 63 TPN / FP CE*	SK90484*	7740	1
Fr 2	100	HN Size 000/00	63 to 100	FN 100 TPN	SK90485	12700	1
	125	HN Size 000/00	63 to 125	FN 125 TPN	SK90486	14400	1
	160	HN Size 000/00	63 to 160	FN 160 TPN	SK90487	15100	1
Fr 3	200	HN Size 0	80 to 200	FN 200 TPN	SK90488	21600	1
	250	HN Size 1	125 to 250	FN 250 TPN	SK90489	23800	1
Fr 4	315	HN Size 1	125 to 315	FN 315 TPN	SK90490	27500	1
	400	HN Size 2	200 to 400	FN 400 TPN	SK90491	30900	1
Fr 5	630	HN Size 3	315 to 630	FN 630 TPN	SK90492	48000	1
	800	HN Size 3	315 to 800	FN 800 TPN	SK90493	51000	1

\* 'CE' handle has door interlock facility without defeat feature

### Notes:

- 1) Type FN S-D-F range (Bolted fuse-link) suitable for harsh environment is also available. Please contact nearest branch office for further details
- 2) For 690V AC application, please contact nearest branch office
- 3) The prices for S-D-F range are without HRC fuses
- 4) The SDF units in SS enclosure version can be replaced with FN TPN SDF open execution units. Please refer point 5 for replacement of 250A unit
- 5) For replacement of FN 250 SDF unit in sheet steel enclosure version (Cat. No. SK904890000 & SK956810000), order Cat. No. ST978950000
- 6) Please refer Pg. 34 for Switch-Disconnectors
- 7) Add suffix "0000" to all cat nos.





## Type FN S-D-F suitable for DIN fuse-link (2P) in open execution

Also for 220Vdc & 240Vac application

### Features offered by FN S-D-F

- Range 32A to 630A, 415V, **AC 23A**
- Conforms to IEC 60947-3, IS/IEC 60947-3
- **Terminal Shrouds on both sides and Phase Barriers included**
- **Telescopic shaft for depth adjustment**
- Door interlock & padlock facility



FN 2P S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Type FN (2P) S-D-F suitable for DIN fuse-link			Std. Pkg (Nos.)
			Open Execution			
			Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF Size 14x51	FN 32 2P	<b>SK95594</b>	<b>2210</b>	1
	63	HF Size 14x51	FN 63 2P	<b>SK95595</b>	<b>3070</b>	1
Fr 2	100	HN Size 000/00	FN 100 2P	<b>ST35086</b>	<b>5410</b>	1
	125	HN Size 000/00	FN 125 2P	<b>ST35087</b>	<b>7730</b>	1
	160	HN Size 000/00	FN 160 2P	<b>ST35088</b>	<b>8060</b>	1
Fr 3	200	HN Size 0	FN 200 2P	<b>ST35089</b>	<b>10200</b>	1
	250	HN Size 1	FN 250 2P	<b>ST31674</b>	<b>12200</b>	1
Fr 4	315	HN Size 1	FN 315 2P	<b>ST38930</b>	<b>15100</b>	1
	400	HN Size 2	FN 400 2P	<b>ST31676</b>	<b>17000</b>	1
Fr 5	630	HN Size 3	FN 630 2P	<b>ST35090</b>	<b>28500</b>	1

\*Add suffix "OOOO" to all cat nos.

## Type FN S-D-F suitable for BS fuse-link (TPN) in open execution

### For BOLTED fuse-link

### Features offered by FN S-D-F

- Range 32A to 630A, 415V, **AC 23A**
- Conforms to IEC 60947-3, IS/IEC 60947-3
- **Terminal Shrouds on both sides and Phase Barriers included**
- **Telescopic shaft for depth adjustment**
- Door interlock & padlock facility



FN - TPN S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Type FN (TPN) S-D-F suitable for BOLTED fuse-link			Std. Pkg (Nos.)
			Open Execution			
			Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	A1L	FN 32 TPN	<b>SK95653</b>	<b>2620</b>	1
	63	A1L	FN 63 TPN	<b>SK95651</b>	<b>3530</b>	1
Fr 2	100	A4	FN 100 TPN	<b>SK95570</b>	<b>6930</b>	1
	125	A4	FN 125 TPN	<b>SK95009</b>	<b>8840</b>	1
	160	A4	FN 160 TPN	<b>SK95714</b>	<b>9620</b>	1
Fr 3	200	B1 / B2	FN 200 TPN	<b>SK95588</b>	<b>13100</b>	1
	250	B2 / B3	FN 250 TPN	<b>SK95682</b>	<b>15100</b>	1
Fr 4	315	B3	FN 315 TPN	<b>SK95590</b>	<b>18100</b>	1
	400	B4	FN 400 TPN	<b>SK95591</b>	<b>21700</b>	1
Fr 5	630	C2	FN 630 TPN	<b>SK95592</b>	<b>36600</b>	1

## Type FNX S-D-F suitable for DIN fuse-link in open execution

### Features offered by FNX S-D-F

- Range 32A to 800A, 415V, **AC 23A**
- TPN and 4P version
- Suitable for Cylindrical / DIN fuse-link
- Telescopic shaft for depth adjustment
- DIN rail mounting up to 100A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility
- FNX 4-Pole with in-built Neutral Link



FNX TPN S-D-F



FNX 4P S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Range (A)	Open Execution Type FNX (TPN) S-D-F suitable for DIN fuse-link				Open Execution Type FNX (4P) S-D-F suitable for DIN fuse-link				Std. Pkg. (Nos.)
				Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Fr 1	32	HF Size 14x51	2 to 32	FNX 32 TPN / FP	<b>SK96903</b>	*	1	FNX 32 TPN / FP	<b>SK96903</b>	*	1	
	63	HF Size 14x51	2 to 63	FNX 63 TPN / FP	<b>SK96904</b>	*	1	FNX 63 TPN / FP	<b>SK96904</b>	*	1	
Fr 2	100	HN Size 000	63 to 100	FNX 100 TPN / FP	<b>SK96906</b>	*	1	FNX 100 TPN / FP	<b>SK96906</b>	*	1	
Fr 3	125	HN Size 000/00	63 to 125	FNX 125 TPN	<b>SK95806</b>	*	1	FNX 125 FP	<b>SK95814</b>	*	1	
	160	HN Size 000/00	63 to 160	FNX 160 TPN	<b>SK95807</b>	*	1	FNX 160 FP	<b>SK95815</b>	*	1	
Fr 4	200	HN Size 0	80 to 200	FNX 200 TPN	<b>SK95808</b>	*	1	FNX 200 FP	<b>SK95816</b>	*	1	
	250	HN Size 1	125 to 250	FNX 250 TPN	<b>SK95809</b>	*	1	FNX 250 FP	<b>SK95817</b>	*	1	
Fr 5	315	HN Size 1	125 to 315	FNX 315 TPN	<b>SK95810</b>	*	1	FNX 315 FP	<b>SK95818</b>	*	1	
	400	HN Size 2	200 to 400	FNX 400 TPN	<b>SK95811</b>	*	1	FNX 400 FP	<b>SK95819</b>	*	1	
Fr 6	630	HN Size 3	315 to 630	FNX 630 TPN	<b>SK95812</b>	*	1	FNX 630 FP	<b>SK95820</b>	*	1	
	800	HN Size 3	315 to 800	FNX 800 TPN	<b>SK95813</b>	*	1	FNX 800 FP	<b>SK95821</b>	*	1	

\* Available on request

- Notes :** 1) For 690V AC application, please contact nearest branch office.  
 2) The prices for S-D-F range are without HRC fuses  
 3) Add suffix "OOOO" to all cat nos.

## Features offered by HRC fuse link

- Conforms to IEC 60269-2, IS 13703 part 2
- Range: 2A to 800A, 415V, AC 50Hz
- Type: Cylindrical (2A to 63A), DIN (63A to 800A) & Bolted (2A to 630A)
- High breaking capacity: 100kA for type HN and 80kA for type HF/HG/HQ

## Cylindrical fuse links Type HF



Size	Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
14 X 51	2	Suitable for Type FN 32 / 63 / FNX 32 / 63 S-D-F & for HCO 32 Fuse base	SF90144	146	30
	4		SF90145	146	30
	6		SF90146	146	30
	8		SF90147	146	30
	10		SF90148	146	30
	16		SF90150	146	30
	20		SF90151	146	30
	25		SF90152	146	30
	32		SF90142	146	30
	40		SF90143	160	30
14 X 51	50	Suitable for Type FN 63 / FNX 63 S-D-F & for HC 63 Fuse base	SF90158	355	30
	63		SF90159	430	30

## DIN Type Fuse Links Type HN



Size	Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
000	63	Suitable for Type FN 100/125/160 / FNX 100/125/160 S-D-F & for HB 160 Fuse base	SF94940	460	3
	80		SF94941	475	3
	100		SF94942	490	3
	125		SF94946	535	3
00	63	Suitable for Type FN 100/125/160 / FNX 125/160 S-D-F & for HB 160 Fuse base	SF94027	585	3
	80		SF94028	585	3
	100		SF94029	585	3
	125		SF94030	600	3
	160		SF94939	615	3
0	80	Suitable for Type FN 200 / FNX 200 S-D-F & for HB 250 Fuse base	SF94128	750	3
	100		SF94129	750	3
	125		SF94130	750	3
	160		SF94131	760	3
	200		SF94132	795	3
1	125	Suitable for Type FN 250/315 / FNX 250/315 S-D-F & for HB 250 Fuse base	SF94230	800	3
	160		SF94231	815	3
	200		SF94232	860	3
	250		SF94233	905	3
	315		SF94234	1120	3
2	200	Suitable for Type FN 400 / FNX 400 S-D-F & for HB 800 Fuse base	SF94332	1165	3
	250		SF94333	1170	3
	315		SF94334	1230	3
	400		SF94335	1255	3
3	315	Suitable for Type FN 630/800 / FNX 630/800 S-D-F & for HB 800 Fuse base	SF94434	1750	1
	400		SF94435	1845	1
	500		SF94436	1895	1
	630		SF94437	1995	1
	800		SF94938	2470	1

## Fuse holders & Fuse bases suitable for Cylindrical / DIN fuse-links



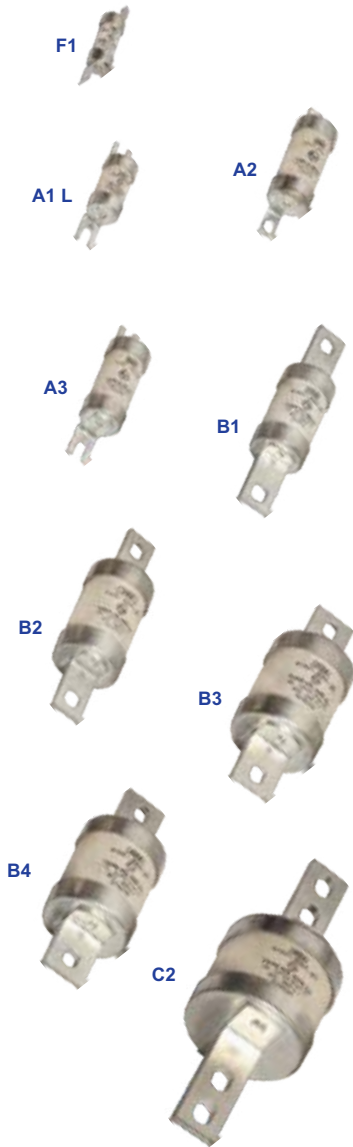
Rated Current (A)	Type	Description	Suitable fuse-link		Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
			Type	Range (A)			
32	HCO 32	Fuse holder	HF	2-32	SK91314	290	10
63	HC 63	Fuse holder	HF	2-63	SK91043	325	10
160	HB 160	Fuse base	HN-Size 000 & 00	63-160	SK90405	435	12
250	HB 250	Fuse base	HN-Size 0 & 1	80-250	SK90406	965	3
800	HB 800	Fuse base	HN-Size 2 & 3	200-800	SK91051	1885	3

Notes : 1) Add suffix "OOOO" to all cat nos.





## Bolted fuse links: Type HG and HQ



Type	Fixing Method	Size	Rating (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HG	Offset, staggered	F1	2	Suitable for type HD 20H/20P/20B, HD 32H/32P/32B fuse base	ST30725	61	24
			4		ST30726	61	24
			6		ST30727	61	24
			10		ST30728	61	24
			16		ST30729	71	24
			20		ST30730	71	24
			25		ST30731	76	24
			32		ST30732	76	24
HQ	Offset	A1L	20	Suitable for type FN 32/63 S-D-F	ST34527	120	15
			25		ST34528	120	15
			32		ST34529	120	15
			50		ST35827	150	15
			63		ST35828	150	15
		A2	4	Suitable for type HK 32H/32B fuse base	ST30747	105	12
			6		ST30748	105	12
			10		ST30749	105	12
			16		ST30750	105	12
			20		ST30751	105	12
			25		ST30752	105	12
			32		ST30753	105	12
	A3	35	Suitable for type HK 63B/63H Fuse base	ST30759	155	12	
		50		ST30760	165	12	
		63		ST30761	175	12	
	A4	80	Suitable for type FN 100/125/160 S-D-F & for HK 125H/125B Fuse base	ST30767	335	12	
		100		ST30768	335	12	
		125		ST30769	385	12	
		160		ST35829	440	12	
	Centre Tag, 2 holes	B1	80	Suitable for type FN 200 S-D-F	ST30774	380	12
			100		ST30775	380	12
			125		ST30776	460	12
		B2	125	Suitable for type FN 200/250 S-D-F	ST30777	480	3
			160		ST30778	485	3
200			ST30779		525	3	
B3		250	Suitable for type FN 250/315 S-D-F	ST30781	780	3	
		315		ST30782	805	3	
B4		355	Suitable for type FN 400 S-D-F	ST30783	1130	3	
		400		ST30784	1170	3	
Centre Tag, 4 holes		C2	400	Suitable for type FN 630 S-D-F	ST30785	2210	1
			500		ST30786	2330	1
	630		ST30787		2650	1	

## Fuse holders suitable for Bolted fuse-links



Rated Current (A)	Type	Connection Method	Fuse Type	Suitable Fuse Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
20	HD 20H	Both side cable (Front)	F1	2-20	ST30772	165	12
	HD 20P	Both side busbar (Back)	F1	2-20	ST30773	245	12
	HD 20B	Top busbar & bottom cable	F1	2-20	ST30766	225	12
32	HD 32H	Both side cable (Front)	F1	2-32	ST30733	180	12
	HD 32P	Both side busbar (Back)	F1	2-32	ST30734	250	12
	HD 32B	Top busbar & bottom cable	F1	2-32	ST30735	240	12
	HK 32H	Both side cable (Front)	A2	4-32	ST30754	305	12
	HK 32B	Top busbar & bottom cable	A2	4-32	ST30755	370	12
63	HK 63H	Both side cable (Front)	A3	35-63	ST30762	390	6
	HK 63B	Top busbar & bottom cable	A3	35-63	ST30763	470	6
125	HK 125H	Both side cable (Front)	A4	80-125	ST30770	1120	3
	HK 125B	Top busbar & bottom cable	A4	80-125	ST30771	1295	3

Notes : 1) Add suffix "OOO" to all cat nos.

# Switch-Disconnecter Units [8536]

## Type FN & C-Line Switch Disconnecter (2P/TPN/4P)



FN 2P S-D



FN TPN S-D

### Features offered by S-D

- Range 32A to 2000A, 415V, AC 23A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility

- Telescopic shaft for depth adjustment
- Flip-able handle 1000A and above
- Terminal shrouds on both sides

Size	Rated Current (A)	Open Execution 2P S-D			Std. Pkg. (Nos.)	Open Execution TPN S-D*			Std. Pkg. (Nos.)
		Type	Cat. No.	M.R.P. (₹) Per Unit		Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	FN 32 2P	SK904180000	2070	1	FN 32 TPN / 4P	SK955410000	2720	1
	63	FN 63 2P	SK904190000	2590	1	FN 63 TPN / 4P	SK955400000	3270	1
Fr 2	100	FN 100 2P	SK904200000	4670	1	FN 100 TPN	SK955710000	6020	1
	125	FN 125 2P	SK904210000	5840	1	FN 125 TPN	SK954050000	7590	1
Fr 3	200	FN 200 2P	SK904500000	9580	1	FN 200 TPN	SK956070000	11600	1
	250	FN 250 2P	SK904540000	10400	1	FN 250 TPN	SK956830000	13100	1
Fr 4	315	FN 315 2P	SK904650000	13700	1	FN 315 TPN	SK956090000	15500	1
	400	FN 400 2P	SK904660000	15000	1	FN 400 TPN	SK956100000	18300	1
Fr 5	630	FN 630 2P	SK904670000	24500	1	FN 630 TPN	SK956110000	29000	1
	800	FN 800 2P	SK904680000	26300	1	FN 800 TPN	SK955510000	31100	1
	1000	FN 1000 2P	SK904690000	33900	1	FN 1000 TPN	SK957100000	49300	1
Fr 6	1000	-	-	-	-	C-Line SD 1000 4P <sup>§</sup>	COS10000040	56300	1
	1250	-	-	-	-	C-Line SD 1250 4P <sup>§</sup>	COS12500040	70200	1
	1600	-	-	-	-	C-Line SD 1600 4P <sup>§</sup>	COS16000040	88400	1
	2000	-	-	-	-	C-Line SD 2000 4P <sup>§</sup>	COS20000040	113700	1

§ For C-Line SD 3P (1000A to 2000A), please contact nearest branch office

\* For Switched Neutral Pole in FN TPN S-D, order Switched Neutral Kit separately. Refer 'Spares & Accessories for type FN' table

## Spares & Accessories for type FNX [8538]

## Spares & Accessories for type FN [8538]



Castell Type Lock



DIN Rail Assembly



Auxiliary Contact Kit



Handle Assembly



Handle Assembly



Earthing Link



Switched Neutral Kit



Auxiliary Contact Kit



Castell Type Lock

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FNX 32 / 63	SK91537	*	1
	FNX 100	SK91538	*	1
	FNX 125 / 160	SK91539	*	1
	FNX 200 / 250	SK91540	*	1
	FNX 315 / 400 / 630 / 800	SK91541	*	1
Handle Assembly	FNX 32 / 63 / 100	SK91524	*	1
	FNX 125 / 160 / 200 / 250	SK91525	*	1
	FNX 315 / 400 / 630 / 800	SK91526	*	1
Castell Type Lock <sup>§</sup>	FNX 32 / 63 / 100	SK91530	*	1
	FNX 125 / 160 / 200 / 250	SK91531	*	1
	FNX 315 / 400 / 630 / 800	SK91531	*	1
DIN Rail Assembly	FNX 32 / 63 / 100	SK91617	*	1

\* Available on request

## Fuse pulling handle [8538]



For Type HN fuse-link



For Type HF fuse-link

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fuse pulling handle for HF Fuse-link from 2A-63A	SK91185	230	1
Insulated fuse pulling handle for Type HN fuse-link from 63A-800A	SF90126	820	1

## Spares & Accessories for type COS Switch-Disconnecter [8538]

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1 sets of C/O contact)	CXS6002	985	1
Operating Handle	CXS6001	2110	1
Castell Type Lock <sup>§</sup>	CX60004	2790	1

§ Chapter ID [8301]

# Also suitable for Switch-Disconnecter FN 1000


Notes : 1) Add suffix "OOOO" to all cat nos. of Spares and Accessories.

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Auxiliary Contact Kit (1NO + 1 NC)	FN 32 / 63	SK91302	590	1	
	FN 100 / 125 / 160	SK91328	705	1	
	FN 200 / 250	SK91329	945	1	
	FN 315 / 400 / 630	SK91330	1000	1	
	FN 800	CK91034 <sup>#</sup>	1000	1	
2 <sup>nd</sup> Aux. Contact (1NO + 1NC)	FN 32 / 63	SK90670	640	1	
	FN 100 to FN 1000	SK90696	735	1	
Earthing Link	FN 32 to FN 1000 <sup>@</sup>	CK90396	565	1	
Terminal Shroud Kit	FN 32 / 63	SK91190	200	1	
	FN 100 / 125 / 160	SK91137	250	1	
	FN 200 / 250	SK91335	715	1	
	FN 315 / 400	SK91346	735	1	
	FN 630 / 800	SK91347 <sup>#</sup>	775	1	
Handle Assembly - A	FN 32 / 63	SK91257	555	1	
	FN 100 to FN 250	SK91258	1190	1	
	FN 315 / 400 / 630 / 800	SK91259 <sup>#</sup>	1310	1	
Handle Assembly - B	FN 32 / 63	SK91277	555	1	
	FN 100 to FN 250	SK91278	1190	1	
	FN 315 / 400 / 630 / 800	SK91279 <sup>#</sup>	1310	1	
Handle Assembly - CE	FN 32 / 63	SK91337	325	1	
Interphase Barrier Kit	FN 200	SK91343	505	1	
	FN 315 / 400	SK91344	525	1	
	FN 630 / 800	SK91345 <sup>#</sup>	535	1	
Castell Type Lock <sup>§</sup>	FN 100 / 125 / 160 / 200 / 250	A	SK00333	2790	1
		B	SK00334	2790	1
		C	SK00335	2790	1
		D	SK00336	2790	1
	FN 315 / 400 / 630 / 800	A	SK00345 <sup>#</sup>	2790	1
		B	SK00346 <sup>#</sup>	2790	1
		C	SK00347 <sup>#</sup>	2790	1
		D	SK00348 <sup>#</sup>	2790	1
Switched Neutral Kit	FN 100 / 125 / 160	SK95233	5290	1	
	FN 200 / 250	SK95516	5640	1	
	FN 315 / 400	SK95517	6100	1	
	FN 630 / 800	SK95546 <sup>#</sup>	8560	1	

@For terminating earth busbar upto 25mm width. Order Qty 1 for 10 earthing links



Communication  
Total Selectivity  
Advanced Protections  
Energy Metering

Choose the superhero. Choose  MCCB


 MCCBs



**Features**

Range: 20A to 1250A  
Breaking capacity: 25/36/50/70/100kA  
Variants: 3P/4P


Our new advanced MTX3.0 release fosters Energy Management along with most advanced protections. It also enables communication of various parameters for this automation era.

 range can now make Total Selectivity possible for uninterrupted healthy power network.

**Why wait? Contact us today.**

**Customer Interaction Center (CIC)**


BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)

 -DZ MCCBs



**Features**

Range: 16A to 800A  
Breaking capacity: 36/50/80/120/200kA  
Operating Voltage: 415/690/800V AC  
Variants: 3P/4P  
Plug-in available from: 16A to 800A  
Drawout available from: 250A to 800A  
Motor Operator available from: 16A to 800A

Our new  -DZ range offers wide range of adjustable overload and short circuit setting with range of internal and external accessories



## DU/DY With Thermal - Magnetic Release :

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250	320	400	
Icu (kA)																
10	DY125U										DY250U1					
18	DU100D								DU125D							
25																
30	DU100H										DU125H					
36																
50													DU250		DU400N	

## DY125U MCCBs



- Conforms to IS/IEC 60947-2, IEC 60947-2 & EN 60947-2
- Range: 16A to 125A, 2P/3P/4P
- Ics=100% of Icu
- High Electrical & Mechanical life
- Thermal Magnetic Release
- No Load-Line Bias
- ON-TRIP-OFF indication
- Suitable for Isolation
- Common SS Enclosure for 3P & 4P

Type	Current Rating (A)	Breaking Capacity Icu (kA)	2 Pole		Breaking Capacity Icu (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DY125U	16	AC : 25kA @ 240V AC, 50 Hz/60 Hz DC : 10kA @ 250V DC (2P in series)	EM90982O0BO	1830	AC : 10kA @ 415V AC, 50 Hz/60 Hz DC : 10kA @ 250V DC (3P in series)	EM90983O0BO	2290	EM90984O0BO	3070	1
	20		EM90982O0CO	1830		EM90983O0CO	2290	EM90984O0CO	3070	1
	25		EM90982O0DO	1830		EM90983O0DO	2290	EM90984O0DO	3070	1
	32		EM90982O0EO	1830		EM90983O0EO	2290	EM90984O0EO	3070	1
	40		EM90982O0FO	1830		EM90983O0FO	2290	EM90984O0FO	3070	1
	50		EM90982O0GO	1830		EM90983O0GO	2290	EM90984O0GO	3070	1
	63		EM90982O0HO	1780		EM90983O0HO	2220	EM90984O0HO	2980	1
	80		EM90982O0JO ▲	1960		EM90983O0JO ▲	2500	EM90984O0JO ▲	3450	1
			EM90812O0JO	1780		EM90813O0JO	2220	EM90814O0JO	2980	1
	100		EM90982O0KO ▲	1960		EM90983O0KO ▲	2500	EM90984O0KO ▲	3450	1
			EM90812O0KO	1780		EM90813O0KO	2220	EM90814O0KO	2980	1
125	EM90982O0LO ▲	2750	EM90983O0LO ▲	3670	EM90984O0LO ▲	4570	1			

▲ - Spreader Terminals are included

Note: 2 Pole in 3 Pole frame size

Phase barriers are supplied with all MCCBs

## Accessories for DY125U MCCBs [8538]



Auxiliary/Trip Alarm Contact



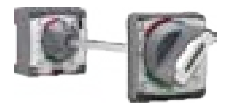
Shunt Release



Spreader Terminals



Direct ROM



Extended ROM

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary/Trip Alarm Contact</b>			
1C/O	EM90966O000	705	1
<b>Shunt Release</b>			
Short Rated 110/240/415V AC	EM90520OMOO	930	1
<b>Under Voltage Release</b>			
240V AC	EM90518B000	2820	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals</b>			
2 Pole (upto 100A)	CM97785O002	285	Set of 4
3 Pole (upto 100A)	CM97785O000	435	Set of 6
4 Pole (upto 100A)	CM97921O000	685	Set of 8
<b>Rotary Handle</b>			
Direct ROM	EM90969O000	1390	1
Extended ROM	EM90970O000	2040	1
<b>SS Enclosure</b>			
Size I Enclosure for 3P & 4P	CM90996O000	2400	1





# DU MCCB Range [8536]

## 3 Pole / 4 Pole MCCBs

### DU100D/DU125D MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 125A, 3P & 4P
- Ics=100% of Icu
- Compact size
- Common SS Enclosure for 3P & 4P
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

Kindly refer page no. 45 for cost effective MCCB for motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU100D	16-20	18	CM90517OOCO	5020	CM90518OOCO	6340	1
	20-25		CM90517OODO	5020	CM90518OODO	6340	1
	25-32		CM90517OOEO	5020	CM90518OOEO	6340	1
	32-40		CM90517OOF0	5020	CM90518OOF0	6340	1
	40-50		CM90517OOGO	5020	CM90518OOGO	6340	1
	50-63		CM90517OOHO	4870	CM90518OOHO	6160	1
	63-80		CM90517OOJO	4870	CM90518OOJO	6160	1
	80-100		CM90517OOKO	4870	CM90518OOKO	6160	1
DU125D	100-125		CM90676OOL0	5900	CM90677OOL0	7810	1

Note: DIN rail kit available as an accessory. Please refer DU100D/DU125D accessories table.

## 2 Pole / 3 Pole / 4 Pole MCCBs

### DU100H/DU125H MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 125A, 2P, 3P & 4P
- Compact size
- Common SS Enclosure for 2P, 3P & 4P
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

For DC application please refer catalogue

Type	Thermal Release Range (A)	Breaking Capacity Icu (kA)	2 Pole		Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU100H	16-20	AC : 65kA @ 240V AC, 50Hz	CM97898OOC2	3820	30	CM97894OOC2	5450	CM97933OOC2	7320	1
	20-25		CM97898OOD2	3820		CM97894OOD2	5450	CM97933OOD2	7320	1
	25-32		CM97898OOE2	3820		CM97894OOE2	5450	CM97933OOE2	7320	1
	32-40		CM97898OOF2	3820		CM97894OOF2	5450	CM97933OOF2	7320	1
	40-50	DC : 15kA @ 250V DC, (2P in Series) L/R < 15 msec.	CM97898OOG2	3820		CM97894OOG2	5450	CM97933OOG2	7320	1
	50-63		CM97898OOH2	3710		CM97894OOH2	5290	CM97933OOH2	7110	1
	63-80		CM97898OOJ2	3710		CM97894OOJ2	5290	CM97933OOJ2	7110	1
	80-100		CM97898OOK2	3710		CM97894OOK2	5290	CM97933OOK2	7110	1
DU125H	100-125		CM91198OOL0	5770		CM90678OOL0	6390	CM90679OOL0	8320	1

Note: 2 Pole in 3 pole frame size

DIN rail kit available as an accessory. Please refer DU100H/DU125H accessories table.

## Accessories for DU100D/DU125D/DU100H/DU125H MCCBs [8538]



Auxiliary Contact



ATAC



Shunt Release



UV Release



Spreader Terminals



Direct ROM



Extended ROM

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact</b>			
1 C/O - Right	CM97886OOOO	1100	1
2 C/O - Right	CM97887OOOO	1950	1
<b>Trip Alarm Contact</b>			
1 C/O - Right	CM97888OOOO	1100	1
2 C/O - Right	CM97889OOOO	1950	1
<b>Auxiliary + Trip Alarm Contact</b>			
1 C/O + 1C/O - Right	CM97890OOOO	1880	1
<b>Shunt Release</b>			
24V DC - Left	CM91402O4OO	2180	1
110V AC - Left	CM97883OAOO	2180	1
240/415V AC - Left	CM97883OMOO	2180	1
<b>Under Voltage Release</b>			
240V AC - Left	CM97892BOOO	3620	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals</b>			
DU100H - 2 Pole	CM97785OOO2	285	Set of 4
DU125H - 2 Pole	CM91199OOL0	365	Set of 4
DU100D/DU100H - 3 Pole	CM97785OOOO	435	Set of 6
DU125D/DU125H - 3 Pole	CM90687OOL0	565	Set of 6
DU100D/DU100H - 4 Pole	CM97921OOOO	685	Set of 8
DU125D/DU125H - 4 Pole	CM90688OOL0	815	Set of 8
<b>Rotary Handle</b>			
DU100D/DU125D/ Direct ROM	CM97895OOOO	1410	1
DU100H/DU125H Extended ROM	CM97896OOOO	1820	1
<b>DIN rail kit</b>			
DU100D/DU125D/DU100H/DU125H	CM90944OOOO	160	1
<b>SS Enclosure</b>			
Size I Enclosure	CM90996OOOO	2400	1

Note: Phase Barriers are supplied along with all MCCBs



# DU/DY MCCB Range [8536]

## 2 Pole / 3 Pole / 4 Pole MCCBs DY250U1/DU250C/DU250/DU400N MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 160A to 400A, 2P, 3P & 4P
- Common SS Enclosure for 2P, 3P & 4P\*
- Compact size
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

Kindly refer page no. 46 for cost effective MCCB for motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu (kA)	2 Pole		Breaking Capacity Icu (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
New DY250U1	125-160	-	-	-	10	CM9819500MO▲	6420	CM9819600MO▲	8820	1
	160-200					CM9819500NO▲	7610	CM9819600NO▲	9880	1
	200-250					CM9819500PO▲	10300	CM9819600PO▲	13500	1
DU250C	125-160	-	-	-	25	CM9063100MO	8550	CM9063400MO	10900	1
	160-200					CM9063100NO	10300	CM9063400NO	13100	1
	200-250					CM9063100PO	11400	CM9063400PO	15000	1
DU250	125-160	AC : 65kA @ 240V AC, 50Hz DC : 15kA for DU250 @250V DC & 25kA for DU400N @ 250V DC, (2P in Series) L/R < 15 msec.	CM9090500MO	6990	36	CM9806200OO	9770	CM9806500MO	12100	1
	160-200		CM9090500NO	8080		CM9806100OO	12000	CM9806500NO	16200	1
	200-250		CM9090500PO	9050		CM9806000OO	13400	CM9806500PO	17900	1
DU400N	250-320		CM9088600OQO	16400	50	CM9840200OQO	20400	CM9840400OQO	25000	1
	320-400		CM9088600ORO	16400		CM9840200ORO	20400	CM9840400ORO	25000	1

▲ - Spreader Terminals are included  
Note: 2 Pole in 3 Pole frame size \* For DU250/DU250C

## Accessories for DY250U1/DU250/DU250C MCCBs [8538]

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact</b>			
1 C/O - Right	CM9788600OO	1100	1
2 C/O - Right	CM9788700OO	1950	1
<b>Trip Alarm Contact</b>			
1 C/O - Right	CM9788800OO	1100	1
2 C/O - Right	CM9788900OO	1950	1
<b>Auxiliary + Trip Alarm Contact</b>			
1 C/O + 1C/O - Right	CM9789000OO	1880	1
<b>Shunt Release</b>			
24V DC - Left	CM9140204OO	2180	1
110V AC - Left	CM978830AOO	2180	1
240/415V AC - Left	CM978830MOO	2180	1
<b>Under Voltage Release</b>			
240V AC - Left	CM97892BOOO	3620	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals</b>			
DU250 - 2 Pole	CM9096000OO	1460	Set of 4
DU250C/DU250 - 3 Pole	ST9805300OO	1870	Set of 6
DU250C/DU250 - 4 Pole	CM9200700OO	2480	Set of 8
<b>Rotary Handle</b>			
Direct ROM	CM9804000OO	1510	1
Extended ROM	CM9804100OO	1940	1
<b>SS Enclosure</b>			
Size II Enclosure	CM9100300OO	5510	1

Note: Phase Barriers are supplied along with all MCCBs

## Accessories for DU400N MCCBs [8538]



Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact</b>			
1 C/O	CM9980100OO	1280	1
2 C/O	CM9980200OO	2480	1
<b>Trip Alarm Contact</b>			
1 C/O - Right	CM9980300OO	1350	1
<b>Auxiliary + Trip Alarm Contact</b>			
1 C/O + 1C/O - Right	CM9980400OO	2480	1
<b>Shunt Release</b>			
110/240/415V AC, 220V DC	CM9980500OO	3220@	1
24V DC	CM9897604OO	3220@	1
<b>Under Voltage Release</b>			
240V AC - Left	CM99986BOOO	4470	1



Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals</b>			
2 Pole	CM9096400OO	2280	Set of 4
3 Pole	ST9806500OO	3620	Set of 6
4 Pole	ST9806600OO	5200	Set of 8
<b>Rotary Handle</b>			
Direct ROM	CM9986000OO	2330	1
Extended ROM	CM9986100OO	3830	1

Note: Phase Barriers are supplied along with all MCCBs  
All internal accessories & ROMs are common for 2P MCCBs  
@ - 'NO' of control contactor to be connected in series for DC control supply



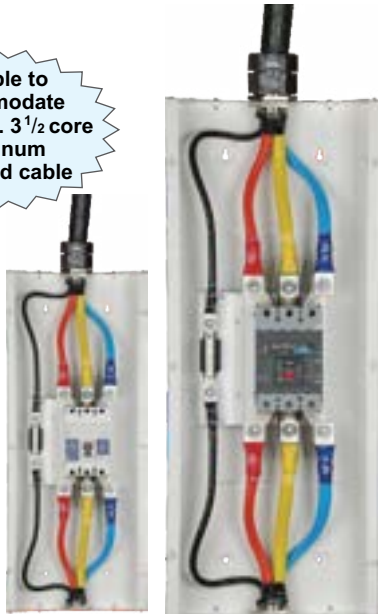
# SS Enclosure for MCCBs [8538]

## Perfect home for your MCCB

Separate cable gland box NOT required

Suitable to accommodate 185 sq. mm. 3 1/2 core Aluminum armoured cable

Suitable to accommodate 70 sq. mm. 3 1/2 core Aluminum armoured cable



Size I & Size II Enclosures

- Superior Aesthetics
- Common Enclosure for 3P and 4P MCCBs
- Generous space for cable termination
- In-built neutral Link for TPN system
- IK08 and IP30 Protection
- Mounting holes for easy wall mounting
- Louvers for better heat dissipation
- Effortless Installation
- Size I suitable up to 125A MCCBs, 36kA
- Size II suitable from 160A to 250A MCCBs, 50kA



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Size I Enclosure for DU100H/DU125H/ DU100D/DU125D/DN0/DY125U	CM909960000	2400	1
Size II Enclosure for DY250U1/DU250C/DU250/DN1	CM910030000	5510	1

Note: Pictorial is for representation purpose only. Does not include cabling. MCCB to be purchased separately.



Easy wall Mounting



In-built Neutral Link



Better Heat Dissipation

# Ground Fault Module [8538]



- Provides protection against ground fault
- GF Module for ground fault protection can be used with all Thermal Magnetic MCCBs
- Adjustable ground fault sensitivity selection: 10% - 50% of In
- Adjustable time delay: 100ms / 200ms
- Test facility to check healthiness of ground fault protection system without tripping MCCB
- Suitable for 3 phase 3 wire & 3 phase 4 wire electrical distribution network with cable termination
- LED for earth fault indication

Ground Fault Protection					
Type	Range (A)	Cat. No.	M.R.P. (₹) Per Unit	CT	Std. Pkg. (Nos.)
GF1	100 - 200A	ST277450000	10800	Built in CBCT	1
GF2	200 - 400A	ST277460000	16500	Built in CBCT	1
GF11	up to 800A	ST285940000	9960 #	External CT required	1

# External CTs of 5P10 class with secondary rating of 1A or 5A

**d sine** With Thermal - Magnetic Release :

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630
Icu=Ics (kA)*																	
25	DN0-100C								DN1-C								
36	DN0-100D/125D											DN3B					
36/50	DZ1																
36/50/70	DN2											DN3					



dsine TM

- Conforms to IS/IEC 60947-2
- 20A to 630A, 3P & 4P
- 25kA, 36kA, 50kA & 70kA breaking capacities
- Ics= 100% of Icu\*
- Adjustable overload settings: 0.8 - 1.0 x In
- Adjustable short-circuit settings: 6 - 10 x In\*\*
- Manual, Rotary and Motorised versions available@
- Wide range of accessories



dsine-DZ1 TM

- Conforms to IS/IEC 60947-2
- 16A to 160A, 3P & 4P
- 36kA & 50kA breaking capacities
- Ics= 100% of Icu
- Adjustable overload settings: 0.67 - 1.0 x In
- Adjustable short-circuit settings: 6 - 12 x In\*\*\*
- Transparent sealable release cover
- Compact size
- Wide range of accessories

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN0-100D*	16-20	36	CM978930OC2OG	8920	CM979190OC2OG	12500	1
	20-25		CM978930OD2OG	8920	CM979190OD2OG	12500	1
	25-32		CM978930OE2OG	8920	CM979190OE2OG	12500	1
	32-40		CM978930OF2OG	8920	CM979190OF2OG	12500	1
	40-50		CM978930OG2OG	8920	CM979190OG2OG	12500	1
	50-63		CM978930OH2OG	8660	CM979190OH2OG	12100	1
	63-80		CM978930OJ2OG	8660	CM979190OJ2OG	12100	1
	80-100		CM978930OK2OG	8660	CM979190OK2OG	12100	1
DN0-125D*	100-125		CM906800OLOOG	10600	CM906810OLOOG	14100	1
DN0-100C	16-20	25	CM916120OCCOOG	9270	CM917120OCCOOG	13000	1
	20-25		CM916120ODDOOG	9270	CM917120ODDOOG	13000	1
	25-32		CM916120OEOOG	9270	CM917120OEOOG	13000	1
	32-40		CM916120OFOOG	9270	CM917120OFOOG	13000	1
	40-50		CM916120OGOOG	9270	CM917120OGOOG	13000	1
	50-63		CM916120OHOOG	9000	CM917120OHOOG	12600	1
	63-80		CM916120OJOOG	9000	CM917120OJOOG	12600	1
	80-100		CM916120OKOOG	9000	CM917120OKOOG	12600	1
DN1-250C	100-125		CM906380OLO	13000	CM906420OLO	15900	1
	125-160		CM906380OMO	16900	CM906420OMO	20500	1
	160-200		CM906380ONO	21200	CM906420ONO	24600	1
	200-250		CM906380OPO	24200	CM906420OPO	28000	1

Kindly refer page no. 46 for cost effective MCCB for motor starter application

**Note:**  
 Breaking Capacity : C = 25kA, D = 36kA, N = 50kA, S = 70kA  
 @ Motorised version available for DN2 and DN3 frames (please refer page No. 46)  
 \* DN0-100D/125D : Ics= 50% Icu  
 \*\* For DN0, DN1, DN3B-Short Circuit Setting: 9In  
 For DN1-250N (50kA) please contact nearest branch office  
 \*\*\* From 16A to 50A, Fixed Magnetic setting (375A)



dsine With Thermal - Magnetic Release :

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit		
DZ1-160D	11-16	36	DZ1T0016DXC1A	12000	DZ1F0016DXC1A	15400	1	
	14-20		DZ1T0020DXC1A	12000	DZ1F0020DXC1A	15400	1	
	17-25		DZ1T0025DXC1A	12000	DZ1F0025DXC1A	15400	1	
	22-32		DZ1T0032DXC1A	12000	DZ1F0032DXC1A	15400	1	
	27-40		DZ1T0040DXC1A	12000	DZ1F0040DXC1A	15400	1	
	34-50		DZ1T0050DXC1A	12000	DZ1F0050DXC1A	15400	1	
	43-63		DZ1T0063DXD1A	11700	DZ1F0063DXD1A	14900	1	
	54-80		DZ1T0080DXD1A	11700	DZ1F0080DXD1A	14900	1	
	67-100		DZ1T0100DXD1A	11700	DZ1F0100DXD1A	14900	1	
	84-125		DZ1T0125DXD1A	13500	DZ1F0125DXD1A	16600	1	
	108-160		DZ1T0160DXD1A	17700	DZ1F0160DXD1A	21000	1	
DN2-250D	100-125	36	CM92008OOL1OG	17700	CM92108OOL1OG	21900	1	
	125-160		CM92008OOM1OG	23400	CM92108OOM1OG	27800	1	
	160-200		CM92009OON1OG	25200	CM92109OON1OG	32200	1	
	200-250		CM92009OOP1OG	28300	CM92109OOP1OG	34100	1	
DN3B-400D	250-320		CM984010OQOOG	34100	CM984030OQOOG	41600	1	
	320-400		CM984010OROOG	34100	CM984030OROOG	41600	1	
DN3-400D	250-320		CM940050OQ1OG	*	CM941050OQ1OG	*	1	
	320-400		CM940050OR1OG	*	CM941050OR1OG	*	1	
DN3-630D	400-500		CM940060OS1OG	47000	CM941060OS1OG	58100	1	
	500-630		CM940060OT1OG	47000	CM941060OT1OG	58100	1	
DZ1-160N	11-16		50	DZ1T0016NXC1A	15600	DZ1F0016NXC1A	19100	1
	14-20	DZ1T0020NXC1A		15600	DZ1F0020NXC1A	19100	1	
	17-25	DZ1T0025NXC1A		15600	DZ1F0025NXC1A	19100	1	
	22-32	DZ1T0032NXC1A		15600	DZ1F0032NXC1A	19100	1	
	27-40	DZ1T0040NXC1A		15600	DZ1F0040NXC1A	19100	1	
	34-50	DZ1T0050NXC1A		15600	DZ1F0050NXC1A	19100	1	
	43-63	DZ1T0063NXD1A		15100	DZ1F0063NXD1A	18500	1	
	54-80	DZ1T0080NXD1A		15100	DZ1F0080NXD1A	18500	1	
	67-100	DZ1T0100NXD1A		15100	DZ1F0100NXD1A	18500	1	
	84-125	DZ1T0125NXD1A		20100	DZ1F0125NXD1A	23200	1	
	108-160	DZ1T0160NXD1A		22800	DZ1F0160NXD1A	27300	1	
DN2-250N	100-125	50	CM92005OOL1OG	24600	CM92105OOL1OG	29900	1	
	125-160		CM92005OOM1OG	26900	CM92105OOM1OG	35200	1	
	160-200		CM92006OON1OG	27800	CM92106OON1OG	37600	1	
	200-250		CM92006OOP1OG	30400	CM92106OOP1OG	38900	1	
DN3-400N	250-320		CM940030OQ1OG	37200	CM941030OQ1OG	45600	1	
	320-400		CM940030OR1OG	37200	CM941030OR1OG	45600	1	
DN3-630N	400-500		CM940040OS1OG	50300	CM941040OS1OG	63700	1	
	500-630		CM940040OT1OG	50300	CM941040OT1OG	63700	1	
DN2-250S	100-125		70	CM92002OOL1OG	33800	CM92102OOL1OG	39900	1
	125-160			CM92002OOM1OG	36100	CM92102OOM1OG	42600	1
	160-200			CM92003OON1OG	40200	CM92103OON1OG	47700	1
	200-250	CM92003OOP1OG		42200	CM92103OOP1OG	50800	1	
DN3-400S	250-320	CM940010OQ1OG		44800	CM941010OQ1OG	53100	1	
	320-400	CM940010OR1OG		44800	CM941010OR1OG	53100	1	
DN3-630S	400-500	CM940020OS1OG		59500	CM941020OS1OG	71500	1	
	500-630	CM940020OT1OG		59500	CM941020OT1OG	71500	1	

For DC application please refer catalogue

Kindly refer page no. 46 for cost effective MCCB for motor starter application

\* Price on request Note: Add suffix as "OOOO" to all DZ1 cat. nos.

**General Information**

- Use of phase barriers is mandatory. These are supplied along with MCCBs
- It is recommended to use spreader terminals for enhancing termination capacity
- Spreader terminals are available as accessories, unless otherwise specified against cat. nos.

**Special Applications**

- dsine/DU/DY MCCBs with TM release can be used for DC application (2P/3P/4P)
- dsine/DU MCCBs can be used for Capacitor back-up protection
- For Motor back-up protection, use 'M' series of MCCBs such as DN0-M, DZ1-N, DN1-M, DN2-M, DN3-M
- For isolator applications, use SD version (without protection release)



d sine With Microprocessor Release :

Rating (A)	40	63	100	160	250	400	630	800	1000	1250	
Icu (kA) 36/50	DZ1										
36/50/70/100	DN2					DN3					
50/70/100								DN4			

d sine With Microprocessor Release MTX1.0 & iTRP1 :



dsine MTX1.0

- Conforms to IS/IEC 60947-2
- 40A to 1250A, 3P & 4P
- 36kA, 50kA, 70kA and 100kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.4 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 8 x Ir
- Inbuilt instantaneous Protection
- Switchable thermal memory
- Variable trip class
- Front LED Indication
- Manual, Rotary and Motorised versions available@
- Wide range of accessories



dsine-DZ iTRP1

- Conforms to IS/IEC 60947-2
- 16A to 160A, 3P & 4P
- 36kA & 50kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.25 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 12 x Ir
- OR Instantaneous setting from 1.5 to 12 x In
- Switchable thermal memory
- Variable trip class
- Transparent sealable release cover
- Compact size
- Wide range of accessories

Type	Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit		
DZ1-160D#	10-40	36	DZ1T0040DXF1A	20500	DZ1F0040DXF1A	25700	1	
	16-63		DZ1T0063DXF1A	20500	DZ1F0063DXF1A	25700	1	
	25-100		DZ1T0100DXF1A	20500	DZ1F0100DXF1A	25700	1	
	40-160		DZ1T0160DXF1A	25900	DZ1F0160DXF1A	36000	1	
DN2-250D	16-40		CM92063O000X1	24800	CM92155O000X1	31100	1	
	25-63		CM92071O000X1	24800	CM92154O000X1	31100	1	
	40-100		CM92051O000X1	24800	CM92153O000X1	31100	1	
	63-160		CM92074O000X1	31400	CM92152O000X1	43600	1	
	100-250		CM92054O000X1	35400	CM92151O000X1	48500	1	
DN3-400D	160-400		CM93001O000X1	43500	CM93003O000X1	53800	1	
DN3-630D	250-630		CM93005O000X1	48500	CM93007O000X1	63100	1	
DZ1-160N#	10-40		50	DZ1T0040NXF1A	24400	DZ1F0040NXF1A	32600	1
	16-63			DZ1T0063NXF1A	24400	DZ1F0063NXF1A	32600	1
	25-100			DZ1T0100NXF1A	24400	DZ1F0100NXF1A	32600	1
	40-160			DZ1T0160NXF1A	31900	DZ1F0160NXF1A	40300	1
DN2-250N	16-40			CM92064O000X1	29500	CM92160O000X1	38500	1
	25-63	CM92072O000X1		29500	CM92159O000X1	38500	1	
	40-100	CM92052O000X1		29500	CM92158O000X1	38500	1	
	63-160	CM92075O000X1		38600	CM92157O000X1	47600	1	
	100-250	CM92055O000X1		40200	CM92156O000X1	51900	1	
DN3-400N	160-400	CM93002O000X1		47600	CM93004O000X1	61500	1	
DN3-630N	250-630	CM93006O000X1		52300	CM93008O000X1	68200	1	
DN4-1250N	320-800	CM96021O000X1		77100	CM96111O000X1	98000	1	
	400-1000	CM96022O000X1		109900	CM96112O000X1	159100	1	
	500-1250	CM96023O000X1		137200	CM96113O000X1	185600	1	
DN2-250S	16-40	70		CM92065O000X1	31400	CM92165O000X1	40000	1
	25-63			CM92073O000X1	31400	CM92164O000X1	40000	1
	40-100		CM92059O000X1	31400	CM92163O000X1	40000	1	
	63-160		CM92076O000X1	42300	CM92162O000X1	53500	1	
	100-250		CM92056O000X1	46400	CM92161O000X1	60000	1	
DN3-400S	160-400		CM94053O000X1	59100	CM94153O000X1	76100	1	
DN3-630S	250-630		CM94079O000X1	62500	CM94179O000X1	86900	1	
DN4-1250S	320-800		CM96025O000X1	93600	CM96115O000X1	119100	1	
	400-1000		CM96026O000X1	134700	CM96116O000X1	196600	1	
	500-1250		CM96027O000X1	164900	CM96117O000X1	224300	1	

Note: dsine-V Version (Icu=Ics=100kA) MCCBs are available on request.

@ Motorised version available for DN2, DN3 and DN4 frames (please refer page No. 46)

Add suffix as "O000" to all DZ1 cat. nos. # For 25A, please contact nearest branch office



d sine With Microprocessor Release MTX2.0 & iTRP3 :



dsine MTX2.0

- Conforms to IS/IEC 60947-2
- 40A to 1250A, 3P & 4P
- 36kA, 50kA, 70kA and 100kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.4 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 8 x Ir
- Inbuilt instantaneous Protection
- Inbuilt ground fault protection from 20%-50% of In
- Adjustable neutral overload protection from 50% to 150% of Ir
- Switchable thermal memory
- Variable trip class
- Front LED Indication
- Panel mounted display for current metering & trip record
- Manual, Rotary and Motorised versions available@
- Wide range of accessories



dsine-DZ iTRP3

- Conforms to IS/IEC 60947-2
- 16A to 160A, 3P & 4P
- 36kA & 50kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.25 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 10 x Ir
- Adjustable Instantaneous setting, 6 In & 12 In
- Inbuilt ground fault protection from 20%-70% of In
- Adjustable neutral overload protection from 50% to 200% of Ir
- Switchable thermal memory
- Provision for release testing
- Individual fault indication LEDs
- Transparent sealable release cover
- Compact size
- Wide range of accessories

Type	Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit		
DZ1-160D#	10-40	36	DZ1T0040DXH1A	36100	DZ1F0040DXH1A	41300	1	
	16-63		DZ1T0063DXH1A	36100	DZ1F0063DXH1A	41300	1	
	25-100		DZ1T0100DXH1A	36100	DZ1F0100DXH1A	41300	1	
	40-160		DZ1T0160DXH1A	41500	DZ1F0160DXH1A	51600	1	
DN2-250D	16-40		CM920630000AG	42400	CM921550000AG	48800	1	
	25-63		CM920710000AG	42400	CM921540000AG	48800	1	
	40-100		CM920510000AG	42400	CM921530000AG	48800	1	
	63-160		CM920740000AG	46900	CM921520000AG	57600	1	
	100-250		CM920540000AG	48800	CM921510000AG	60500	1	
DN3-400D	160-400		CM930010000AG	58900	CM930030000AG	68200	1	
DN3-630D	250-630		CM930050000AG	63800	CM930070000AG	78000	1	
DZ1-160N#	10-40		50	DZ1T0040NXH1A	40000	DZ1F0040NXH1A	48200	1
	16-63			DZ1T0063NXH1A	40000	DZ1F0063NXH1A	48200	1
	25-100			DZ1T0100NXH1A	40000	DZ1F0100NXH1A	48200	1
	40-160			DZ1T0160NXH1A	47500	DZ1F0160NXH1A	55900	1
DN2-250N	16-40			CM920640000AG	46100	CM921600000AG	55000	1
	25-63	CM920720000AG		46100	CM921590000AG	55000	1	
	40-100	CM920520000AG		46100	CM921580000AG	55000	1	
	63-160	CM920750000AG		51700	CM921570000AG	61100	1	
	100-250	CM920550000AG		52100	CM921560000AG	63900	1	
DN3-400N	160-400	CM930020000AG		62400	CM930040000AG	73100	1	
DN3-630N	250-630	CM930060000AG		67800	CM930080000AG	87400	1	
DN4-1250N	320-800	CM960210000AG		108700	CM961110000AG	130300	1	
	400-1000	CM960220000AG		140000	CM961120000AG	187400	1	
	500-1250	CM960230000AG		164000	CM961130000AG	212200	1	
DN2-250S	16-40	70		CM920650000AG	48200	CM921650000AG	57400	1
	25-63			CM920730000AG	48200	CM921640000AG	57400	1
	40-100		CM920590000AG	48200	CM921630000AG	57400	1	
	63-160		CM920760000AG	57900	CM921620000AG	69000	1	
	100-250		CM920560000AG	63600	CM921610000AG	80600	1	
DN3-400S	160-400		CM940530000AG	78500	CM941530000AG	98300	1	
DN3-630S	250-630		CM940790000AG	85000	CM941790000AG	118900	1	
DN4-1250S	320-800		CM960250000AG	126400	CM961150000AG	158000	1	
	400-1000		CM960260000AG	169800	CM961160000AG	229800	1	
	500-1250		CM960270000AG	201500	CM961170000AG	264400	1	

Note: dsine-V Version (Icu=Ics=100kA) MCCBs are available on request.  
 @ Motorised version available for DN2, DN3 and DN4 frames (please refer page No. 46)  
 Add suffix "OOOO" to all DZ1 cat nos.  
 # For 25A, please contact nearest branch office  
 \*Price on request

Accessories for MTX2.0 [8538]

Modules for MTX2.0 release	Cat. No.	M.R.P. (₹) Per Unit
Current Metering Module (Display & Metering Module)	CM956980000	33100
Cable (2m length)	CM011960000	1690
Power Supply Module	CL907220000	*
UNCO Module for Status Indication & Control through communication	CL908520000	13800

Current Metering & latest trip record



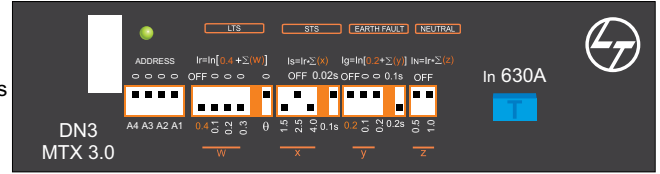
Display Module Metering Module

MTX2.0 with current metering module

d sine With Microprocessor Release MTX3.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA / 100kA breaking capacities
- Ics = 100% Icu
- Suitable for Isolation
- Adjustable Over Load from 0.4 - 1.0 x In
- Adjustable Short Circuit from 1.5 - 8 x Ir with selectable time delay
- Instantaneous protection with fine settings
- Inbuilt ground fault protection from 10% - 50% of In
- Adjustable neutral overload protection available : 50% to 150% of Ir
- Advanced Current, Voltage, Frequency & Power based protections
- Other Protections like Maximum Demand, Phase Sequence, THD etc.
- Comprehensive Current, Power, Energy, PF, MD, THD metering
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 1.5 Ir, 6 Ir & 7.2 Ir
- Front LED indication of Over Load, short circuit & earth fault
- Panel mounted display available for advanced protections & metering
- Communication capable release
- Manual, Rotary or Motorised versions available @
- For 3 phase 4 wire system, External neutral CTs available for 3P MCCBs
- Wide Range of snap fit Internal and External Accessories



Type	Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN2-250D	16 - 40	36	CM920630000BG	*	CM921550000BG	*	1
	25 - 63		CM920710000BG		CM921540000BG		1
	40 - 100		CM920510000BG		CM921530000BG		1
	63 - 160		CM920740000BG		CM921520000BG		1
	100 - 250		CM920540000BG		CM921510000BG		1
DN3-400D	160 - 400	CM930010000BG		CM930030000BG		1	
DN3-630D	250 - 630	CM930050000BG		CM930070000BG		1	
DN2-250N	16 - 40	50	CM920640000BG	*	CM921600000BG	*	1
	25 - 63		CM920720000BG		CM921590000BG		1
	40 - 100		CM920520000BG		CM921580000BG		1
	63 - 160		CM920750000BG		CM921570000BG		1
	100 - 250		CM920550000BG		CM921560000BG		1
DN3-400N	160 - 400	CM930020000BG		CM930040000BG		1	
DN3-630N	250 - 630	CM930060000BG		CM930080000BG		1	
DN4-1250N	320 - 800		CM960210000BG		CM961110000BG		1
	400 - 1000		CM960220000BG		CM961120000BG		1
	500 - 1250		CM960230000BG		CM961130000BG		1
DN2-250S	16 - 40	70	CM920650000BG	*	CM921650000BG	*	1
	25 - 63		CM920730000BG		CM921640000BG		1
	40 - 100		CM920590000BG		CM921630000BG		1
	63 - 160		CM920760000BG		CM921620000BG		1
	100 - 250		CM920560000BG		CM921610000BG		1
DN3-400S	160 - 400	CM940530000BG		CM941530000BG		1	
DN3-630S	250 - 630	CM940790000BG		CM941790000BG		1	
DN4-1250S	320 - 800		CM960250000BG		CM961150000BG		1
	400 - 1000		CM960260000BG		CM961160000BG		1
	500 - 1250		CM960270000BG		CM961170000BG		1

Note: dsine-V Version (Icu=Ics=100kA) MCCBs are available on request.  
 @ Motorised version available for DN2, DN3 and DN4 frames (please refer page No. 46)

Accessories for MTX3.0 [8538]

Modules for MTX3.0 release	Cat. No.	M.R.P. (₹) Per Unit
Communication Module	CM956800000	
Voltage Module	CM956850000	*
Display Module	CM956760000	
Power Supply Module	CL907220000	*
UNCO Module for Status Indication & Control through communication	CL908520000	13800

\* Price on request

MCCB with MTX3.0 release



MTX3.0 with all modules



**d sine** MCCBs for Motor back-up Protection:



- Range: 32A to 630A, 50kA
- Suitable for isolation
- Wide Range of snap fit Internal and External Accessories

**Cost effective solution for motor starter protection**

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V. AC, 50Hz. (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DN0-100M	32	50	CM98944OOEO	6020	1
	40		CM98944OOF0	6020	1
	50		CM98944OOGO	6020	1
	63		CM98944OOHO	6020	1
	80		CM98944OOJO	6020	1
	100		CM98944OOKO	6020	1
DZ1-160N	100		DZ1T0100NXM1A	8590	1
	125		DZ1T0125NXM1A	8740	1
	160		DZ1T0160NXM1A	10370	1
DN1-160M	100		CM90345OOKO	10040	1
	125		CM90345OOLO	10220	1
	160		CM90345OOMO	12130	1
DN2-250M	200		CM92171OONOG	15540	1
	250		CM92171OOP0OG	20780	1
DN3-400M	320		CM945160OQOOG	26270	1
	400		CM945160OR0OG	27560	1
DN3-630M	500		CM945150OSOOG	30340	1
	630		CM945150OTOOG	30860	1



Representative Application Image

**Note:** Please contact nearest branch office for fuseless type 2 co-ordination selection chart  
 For lower HP motors, Please select MPCB. Details are given on page no. 18  
 Add suffix as "OOOO" to all DZ1 cat. nos.

# Give your motor the right protection

dsine-M is compact and it comes with a wide range of snap-fit accessories. Why settle for anything else?

**Cost Effective**

**d sine**  
dsine-M range

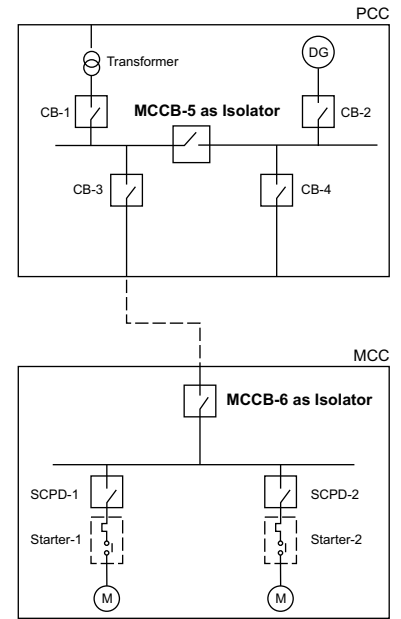


d sine Switch Disconnecter - SD (MCCBs without protection release):



- Used as switching devices for isolation
- Range: 32A to 1250A, 3P & 4P
- Suitable for isolation
- Wide Range of snap fit Internal and External Accessories

Type	Current Rating (A)	3 Pole		4 Pole		Std. Pkg. (Nos.)
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN0-160SD	32	CM907160OEO	6880	CM907170OEO	9200	1
	63	CM907160OHO	6880	CM907170OHO	9200	1
	100	CM907160OKO	8210	CM907170OKO	10700	1
	125	CM907160OLO	9080	CM907170OLO	11900	1
	160	CM907160OMO	9820	CM907170OMO	12700	1
DN2-250SD	200	CM968140ONOG	19500	CM968150ONOG	26000	1
	250	CM968020OPOG	20800	CM968030OPOG	28100	1
DN3B-400SD	320	CM984100OQOG	31100	CM984120OQOG	40000	1
	400	CM984100OROG	31100	CM984120OROG	40000	1
DN3-630SD	500	CM968060OSOOG	35300	CM968070OSOOG	47700	1
	630	CM968060OTOOG	35300	CM968070OTOOG	47700	1
DN4-1250SD	800	CM930410OUO	72300	CM930420OUO	89200	1
	1000	CM930410OVO	96000	CM930420OVO	122900	1
	1250	CM930410OAO	128000	CM930420OAO	158300	1



Representative Application Image

## Automatic Source Transfer System (ASTS)

- 128x80 pixel, backlit LCD screen with 4 grey levels
- Advanced programmable I/O function
- Management of automatic generator start/stop
- Controls of UV, OV, phase loss, asymmetry, minimum frequency, maximum frequency, with independent enabling and time delay

### Automatic Transfer Controllers (ATC) [9032]

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-2000 controller**	ATC20000000	31600	1

Can be used along with ACB, Motorised MCCBs, MCX contactors & Motorised Changeover switches

\*\* Note: For communication version of AuXC controller refer page no-6



AuXC-2000

2 d sine MCCBs + 2 SE-EOM + 2 ATAC + 1 MIL kit

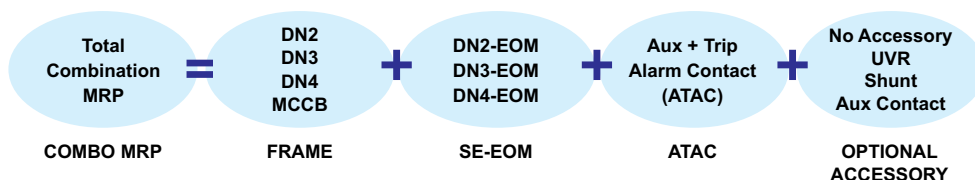
For AuXC 2000/2100 programming videos and more details please scan the QR code or click here



Frame	Accessories	Total Set M.R.P. (₹)	Remarks
DN2	2 Nos : SEOMs with Aux + Trip Alarm Contact	110960	Add MRPs of Similar 2 MCCBs of DN2 of desired no. of Poles, Breaking Cap. & Release to arrive at ASTS Solution.
DN3-400	+ 1 No. : MIL	131760	Add MRPs of Similar 2 MCCBs of DN3 of desired no. of Poles, Breaking Cap. & Release to arrive at ASTS Solution.
DN3-630	+ 1 No. : AuXC2000	132660	

Note: Picture shown is for representation purpose only, MCCB + EOM + ATAC combination, MIL kit & AuXC-2000 to be purchased separately & assembled at site.

## d sine Motorised MCCB MRP Computation



Note:  
Default MCCB Combination includes → MCCB + SEEOM + ATAC  
For SE-EOM & its accessories MRPs refer to page no. 47



# Accessories for MCCBs [8538]



Auxiliary Contact



TAC



Shunt Release



UV Release



Neutral CT



Direct ROM



Extended ROM



Key Lock

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact [8538]</b>			
DN0, DN1 - 1 C/O - Right	CM978860000	1100	1
DN0, DN1 - 2 C/O - Right	CM978870000	1950	1
DN2, DN3B, DN3, DN4 - 1 C/O	CM998010000	1280	1
DN2, DN3B, DN3, DN4 - 2 C/O	CM998020000	2480	1
<b>Trip Alarm Contact [8538]</b>			
DN0, DN1 - 1 C/O - Right	CM978880000	1100	1
DN0, DN1 - 2 C/O - Right	CM978890000	1950	1
DN2, DN3B, DN3, DN4 - 1 C/O - Right	CM998030000	1350	1
<b>Auxiliary 1 C/O + TAC 1 C/O [8538]</b>			
DN0, DN1 - Right	CM978900000	1880	1
DN2, DN3B, DN3, DN4 - Right	CM998040000	2480	1
<b>Shunt Release [8538]</b>			
DN0, DN1 - 24V DC - Left	CM914020400	2180	1
DN0, DN1 - 110V AC - Left	CM978830A00	2180	1
DN0, DN1 - 240/415V AC - Left	CM978830M00	2180	1
DN2, DN3 - 110V DC - Left	CM998070000	3860	1
DN2, DN3B, DN3, DN4 - 110/240/415V AC, 220V DC	CM998050000	3220@	1
DN2, DN3B, DN3 - 24V DC	CM989760400	3220@	1
<b>Under Voltage Release [8538]</b>			
DN0, DN1 - 240V AC - Left	CM97892B000	3620	1
DN2, DN3B, DN3 - 240V AC - Left	CM99986B000	4470**	1
DN4 - 240V AC - Left	CM999060000	5100**	1

New

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Rotary Handle [8538]</b>			
DN0 Direct ROM	CM978950000	1410	1
DN1 Direct ROM	CM980400000	1510	1
DN2 Direct ROM	CM998290000	1560	1
DN3B, DN3 Direct ROM	CM998600000	2330	1
DN0 Extended ROM	CM978960000	1820	1
DN1 Extended ROM	CM980410000	1940	1
DN2 Extended ROM	CM998300000	2350	1
DN3B, DN3 Extended ROM	CM998610000	3830	1
DN4 Extended ROM	CM998840000	4860	1
<b>Panel door mounted Key lock for Extended ROM # [8301]</b>			
Type 1	CM99958T0000	6360	1
Type 2	CM99958T000A	6360	1
Type 3	CM99958T000B	6360	1
Type 12	CM99958T000C	6360	1
Type 23	CM99958T000D	6360	1

# - Can be used with dsine & DU new look extended ROM



Spreader Terminals



MIL Kit - Base Mounted

@ - 'NO' of control contactor to be connected in series for DC control supply  
 \*\* Use these UV Cat. Nos. with Grey look MCCBs only  
 \$ For other voltages, please contact nearest branch office  
 \* For additional accessories of DZ1 MCCBs, please contact nearest branch office

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>External Neutral CT [8504]</b>			
DN2 - 40A	CM999460000	1910	1
DN2 - 63A	CM999470000	1910	1
DN2 - 100A	CM999480000	1910	1
DN2 - 160A	CM999490000	2730	1
DN2 - 250A	CM999500000	2730	1
DN3 - 400A	CM999540000	5580	1
DN3 - 630A	CM999550000	5580	1
DN4 - 800A	CM998890000	8560	1
DN4 - 1000A	CM998900000	8930	1
DN4 - 1250A	CM998910000	9900	1
<b>Adaptor kit for External Neutral CT [8538]</b>			
DN2 - 250	CM999940000	820	Set of 2
DN3 - 400	CM999950000	1650	Set of 2
DN3 - 630	CM999970000	1660	Set of 2
DN4 - 800	CM999960000	2860	Set of 2
DN4 - 1000	CM909660000	6050	Set of 4
DN4 - 1250	CM999980000	10300	Set of 2
<b>Stored Energy Electrical Operating Mechanism [8538]</b>			
DN2-240V AC*	CM981320000	33600	
DN3-240V AC*	CM981300000	42100	
DN4-240V AC*	CM902840000	64900	

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals [8538]</b>			
DN0-100 - 3 Pole	CM977850000	435	Set of 6
DN0-125D - 3 Pole	CM9068700LO	565	Set of 6
DN1, DN2 - 250 - 3 Pole	ST980530000	1870	Set of 6
DN3B/DN3 - 400 - 3 Pole	ST980650000	3620	Set of 6
DN3-630 - 3 Pole	ST980540000	4190	Set of 6
DN4-800 - 3 Pole	CM9116100UO	8830	Set of 6
DN4-1000 - 3 Pole	CM9116100VO	17700	Set of 12
DN4-1250 - 3 Pole	CM9116100AO	34900	Set of 6
DN0-100 - 4 Pole	CM979210000	685	Set of 8
DN0-125D - 4 Pole	CM9068800LO	815	Set of 8
DN1, DN2 - 250 - 4 Pole	CM920070000	2480	Set of 8
DN3B/DN3-400 - 4 Pole	ST980660000	5200	Set of 8
DN3-630 - 4 Pole	CM920040000	5320	Set of 8
DN4-800 - 4 Pole	ST903620000	11300	Set of 8
DN4-1000 - 4 Pole	CM9006400VO	22500	Set of 16
DN4-1250 - 4 Pole	ST980580000	44700	Set of 8
<b>Mechanical Interlock Kit - Base Plate [8538]</b>			
DN2-250	CM997310000	7200	1
DN3-400	CM997320000	11000	1
DN3-630	CM998540000	11900	1
<b>DIN rail kit [8538]</b>			
DN0	CM909440000	160	1

\* Available as customised factory-fitted solution, please contact nearest branch office  
 Note: For arriving at Motorised MCCB MRPs refer to page no. 46

Note: Phase Barriers are supplied along with MCCBs

## Accessories for DZ1 MCCBs [8538]



Auxiliary Contact / TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact / Trip Alarm Contact [8538]</b>			
1 C/O	EM901100000	1100	1
<b>Shunt Release [8538]</b>			
415V AC	EM900320POO	2920	1
240V AC	EM900320BOO	2920	1
110V AC	EM900320A00	2920	1
48V AC	EM900320J00	2920	1
24V AC	EM900320G00	2920	1
220V DC	EM900320200	2920	1
110V DC	EM900320100	2920	1
48V DC	EM900320500	2920	1
24V DC	EM900320400	2920	1
12V DC	EM900320300	2920	1
<b>Under Voltage Release [8538]</b>			
415V AC	EM90031POOO	3680	1
240V AC	EM90031BOOO	3680	1
110V AC	EM90031EOOO	3680	1
48V AC	EM90031JOOO	3680	1
24V AC	EM90031GOOO	3680	1



Direct / Extended ROM



Key Lock



Spreaders



Rear Terminals

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Rotary Handle [8538]</b>			
Direct ROM	EM902070000	1540	1
Extended ROM	EM902090000	2080	1
<b>Panel door mounted Key lock for Extended ROM [8301]</b>			
Type 1	EM990310000	5900	1
Type 2	EM99031000A	5900	1
Type 3	EM99031000B	5900	1
Type 12	EM99031000C	5900	1
Type 23	EM99031000D	5900	1
<b>Spreader Terminals [8538]</b>			
3 Pole	EM906090000	1760	Set of 6
4 Pole	EM906100000	2310	Set of 8
<b>Rear Termination Kit - [8538]</b>			
3 Pole Full Kit	EM911760000	4720	Set of 6
4 Pole Full Kit	EM911770000	6740	Set of 8

Note: Phase Barriers are supplied along with MCCBs



Neutral CT



Electrical Operating Mechanism



Plug-In Kit



MIL - Front Slider



MIL - Base Plate + cable

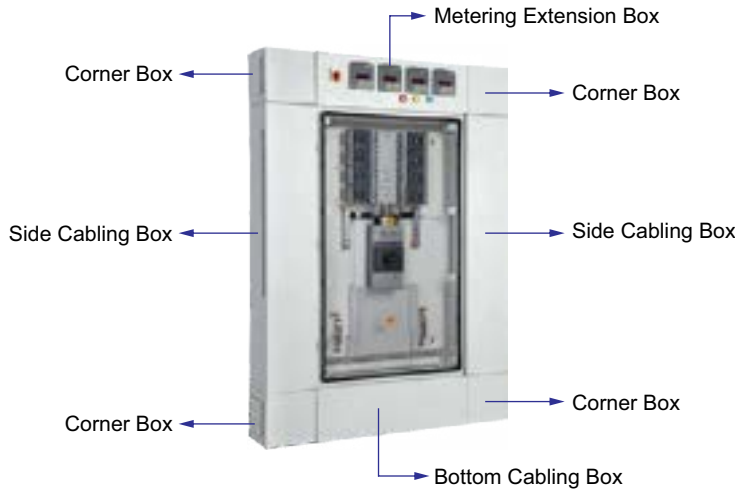
Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>External Neutral CT [8504]</b>			
40A, 63A	EM905070000	2190	1
100A, 160A	EM905080000	2190	1
<b>Adaptor kit for External Neutral CT [8538]</b>			
40-160A	CM999400000	820	Set of 2
<b>Electrical Operating Mechanism [8538]</b>			
240V AC	EM90490B000	35900	1
<b>Plug-In [8538]</b>			
3 Pole Full Kit	EM902010000	9780	1
4 Pole Full Kit	EM902020000	13400	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Mechanical Interlock Options: [8538]</b>			
Front Slider MIL	EM903960000	3800	1
<b>MIL - Base Plate + Cable (for MCCBs without Rear Terminals)# :</b>			
Base Plate \$	EM904040000	6810	1
L Cable (1m length) \$	EM004710000	1770	1
L Cable (3m length) \$	EM004740000	2680	1
L Cable (5m length) \$	EM004770000	3700	1
<b>MIL - Base Plate + Cable (for MCCBs with Rear Terminals)# :</b>			
Base Plate RT \$	EM904010000	7500	1
M Cable (1m length) \$	EM004720000	1770	1
M Cable (3m length) \$	EM004750000	2680	1
M Cable (5m length) \$	EM004780000	3700	1

\$ - 2 Nos of Base Plate & 1 No of suitable length of Cable must be ordered together along with 2 Nos of MCCBs.

# - Common for 3P & 4P MCCBs.





### Range Highlights

- Sub Main Distribution Board (SMDB) with MCCB as incomer and MCCBs as outgoing devices
- Conforms to IEC 61439-2
- DEKRA and ASTA certified
- Rating up to 630 A
- Short-time withstand current
  - 250A & 400A SMDB - 36 kA 1s
  - 630A SMDB - 50 kA 1s
- Ingress protection - IP 43
- Choice in number of outgoing ways - 4, 8, 12 and 16
- Ready to use, off the shelf solution
- Suitable for [cd sine](#) range of MCCBs
- Metering & cabling extensions are available as accessories

### ENERSYS-S SMDB

Description	Cat. No.	No of ways		M.R.P. (₹) Per Unit	Height (H) (mm)	Width (W) (mm)	Depth (D) (mm)
		250A	100A				
SMDB - TN250D, O/G 100A 4 ways	DA20D1044CZZ0	-	4	53760	637	670	208.5
SMDB - TN250D, O/G 100A 8 ways	DA20D1084CZZ0	-	8	65385	787	670	208.5
SMDB - TN250D, O/G 100A 12 ways	DA20D1124CZZ0	-	12	82245	937	670	208.5
SMDB - TN250D, O/G 100A 16 ways	DA20D1164CZZ0	-	16	96655	1087	670	208.5
SMDB - TN400D, O/G 100A 4 ways	DA40D1044CZZ0	-	4	60240	937	670	208.5
SMDB - TN400D, O/G 100A 8 ways	DA40D1084CZZ0	-	8	68640	1087	670	208.5
SMDB - TN400D, O/G 100A 12 ways	DA40D1124CZZ0	-	12	88255	1237	670	208.5
SMDB - TN400D, O/G 100A 16 ways	DA40D1164CZZ0	-	16	104025	1387	670	208.5
SMDB - TN630D, O/G 100A 8 ways	DA60D1084CZZ0	-	8	113810	1287	870	208.5
SMDB - TN630D, O/G 100A 12 ways	DA60D1124CZZ0	-	12	153700	1507	870	208.5
SMDB - TN630D, O/G 100A 16 ways	DA60D1164CZZ0	-	16	168475	1507	870	208.5
SMDB - TN630D, O/G 250A 4 ways	DA62D1044CZZ0	4	-	110840	1067	870	208.5
SMDB - TN630D, O/G 250A 8 ways	DA62D1084CZZ0	8	-	124140	1287	870	208.5
SMDB - TN630D, O/G 250A 12 ways	DA62D1124CZZ0	12	-	159610	1507	870	208.5
SMDB - TN630D, O/G 250A 16 ways	DA62D1164CZZ0	16	-	178825	1727	870	208.5
SMDB - TN630D, O/G COMBI 4 ways	DA6AD1044CZZ0	2	2	108625	1067	870	208.5
SMDB - TN630D, O/G COMBI 8 ways	DA6AD1084CZZ0	2	6	118230	1287	870	208.5
SMDB - TN630D, O/G COMBI 12 ways	DA6AD1124CZZ0	2	10	156650	1507	870	208.5
SMDB - TN630D, O/G COMBI 16 ways	DA6AD1164CZZ0	2	14	172905	1507	870	208.5

Incoming Device [8536]			
SMDB Type	Description	Cat. No.	M.R.P. (₹) Per Unit
TN250D*	DN1-250C 3 Pole MCCB - 160A	CM90638OOMO	16900
	DN1-250C 3 Pole MCCB - 200A	CM90638OONO	21200
	DN1-250C 3 Pole MCCB - 250A	CM90638OPO	24200
TN400D	DN3-400D 3 Pole MCCB - 320A	CM94005OOQ1OG	36700
	DN3-400D 3 Pole MCCB - 400A	CM94005OOR1OG	36700
TN630D	DN3-630D 3 Pole MCCB - 500A	CM94006OOS1OG	47000
	DN3-630D 3 Pole MCCB - 630A	CM94006OOT1OG	47000

**Note:**

- While ordering SMDB, incoming and outgoing MCCBs have to be ordered separately.
- Prices of MCCBs are not included in SMDB prices.
- \* TN250D - Suitable for DN1-250N, DU250 & DU250C MCCB as incomer.

Outgoing Device [8536]			
SMDB Type	Description	Cat. No.	M.R.P. (₹) Per Unit
TN250D, TN400D & TN630D	DN0-100C 3 Pole MCCB - 20A	CM91612OOCOOG	9270
	DN0-100C 3 Pole MCCB - 25A	CM91612OODOOG	9270
	DN0-100C 3 Pole MCCB - 32A	CM91612OOEOOG	9270
	DN0-100C 3 Pole MCCB - 40A	CM91612OOF0OG	9270
	DN0-100C 3 Pole MCCB - 50A	CM91612OOG0OG	9270
	DN0-100C 3 Pole MCCB - 63A	CM91612OOHOOG	9000
	DN0-100C 3 Pole MCCB - 80A	CM91612OOJOOG	9000
	DN0-100C 3 Pole MCCB - 100A	CM91612OOKOOG	9000
TN630D	DN1-250C 3 Pole MCCB - 160A	CM90638OOMO	16900
	DN1-250C 3 Pole MCCB - 200A	CM90638OONO	21200
	DN1-250C 3 Pole MCCB - 250A	CM90638OPO	24200

DN0, DU100D & DU100H MCCBs are suitable as outgoing devices up to 100 A  
 DN1-250N, DU250 & DU250C MCCBs are suitable as outgoing devices up to 250 A



## Metering, Bottom Cabling & Corner Box

- Provision of 3 nos of 1-phase ammeter (96\*96), 1 nos of 1-phase voltmeter (96\*96) with selector switch and indicating lamps.

SMDB Type	Description	Cat. No.	M.R.P. (₹) Per Unit
TN250D & TN400D	Metering Extension Box	CM9043900PO	8300
	Bottom Cabling Box	CM904370000	7780
TN630D	Metering Extension Box	CM9106400TO	8750
	Bottom Cabling Box	CM910620000	8230
TN250D, TN400D & TN630D	Corner Box	CM910890000	2890
	Mounting base	CM702600000	3900



### Note:

- Ammeter, voltmeter, selector switch and indicating lights have to be ordered separately.
- Mounting base to be used without bottom cabling box.

## Side Cabling Box

SMDB Type	No. of Ways		Left		Right	
	250A	100A	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
TN250D	-	4	CM910850DOO	7960	CM910860DOO	7960
	-	8	CM910850FOO	10280	CM910860FOO	10280
	-	12	CM910850HOO	12320	CM910860HOO	12320
	-	16	CM910850KOO	14380	CM910860KOO	14380
TN400D	-	4	CM910870DOO	12320	CM910880DOO	12320
	-	8	CM910870FOO	14380	CM910880FOO	14380
	-	12	CM910870HOO	15750	CM910880HOO	15750
	-	16	CM910870KOO	17800	CM910880KOO	17800
TN630D	-	8	CM911200OFO	14920	CM911210OFO	14920
	-	12	CM911200OHO	17380	CM911210OHO	17380
	-	16				
	4	-	CM911200ODO	13370	CM911210ODO	13370
	8	-	CM911200OFO	14920	CM911210OFO	14920
	12	-	CM911200OHO	17380	CM911210OHO	17380
	16	-	CM911200OKO	18940	CM911210OKO	18940
	2	2	CM911200ODO	13370	CM911210ODO	13370
	2	6	CM911200OFO	14920	CM911210OFO	14920
	2	10	CM911200OHO	17380	CM911210OHO	17380
	2	14				



## Engineered to the Highest Standards



### Presenting Ti & Enersys – the new, design-verified power distribution solution from L&T Electrical & Automation (E&A)

The Ti & Enersys range of distribution boards are backed by many years of knowledge and experience in systems and switchgear, as well as feedback from consulting engineers, electrical contractors and end-users. With Ti & Enersys, you are assured of cutting-edge performance, superior safety, higher reliability, effective use of your capital and space, and high-class protection for your power distribution systems.

Ti & Enersys are design verified solution complying with latest IEC-61439 standard and available up to 5000A & 4000A rating respectively. It offers unique blend of quality, safety and standardization.

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#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lnitebg.com](mailto:cic@Lnitebg.com) Web: [www.Lnitebg.com](http://www.Lnitebg.com)





# SmartComm Power Management Solutions

Digitally connect, operate, and optimize with our cutting-edge SCADA-based platform, designed to improve operational efficiency and promote sustainable operations



Seamless Integration from Plant floor assets to real-time dashboards



Holistic view of Power Distribution Network using intuitive Single-Line Diagram (SLD)



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U-POWER

## OMEGA Range of Air Circuit Breakers

Air Circuit Breakers

- Complete range conforms to IS/IEC 60947-2 & IEC 60947-2
- Current Rating from **400A to 6300A in 3 Frame sizes** for application voltages **upto 690V AC**
- Special ACB range available for Voltage Applications **upto 800V AC and 1000V AC<sup>#</sup>**
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed/Draw-out version
- Common Height & Depth across the range
- High short time fault withstand capacity,  $I_{cu} = I_{cs} = I_{cw}$  for 1 sec for total selectivity
- High mechanical and electrical operating life
- Neutral pole is 100% rated, option of 50% & 200% rated neutral also available
- Available in standard NRYB & RYBN/NBYR/BYRN configurations in 4 Pole ACBs **with on-site change facility**
- In-built Electrical & Mechanical Anti-Pumping
- Modular & snap-fit accessories
- Ease of on-site conversion from Fixed to Draw-out version
- Pollution Degree 4 suitability
- Best in Class Overlap with Bus bars
- Break Time of 25msec
- RoHS Compliant

### Matrix Protection & Control Units:

- Available in versions - MTX1.0/1G/1Gi/1.5G/1.5Gi, MTX3.5/3.5EC/3.5H & MTX4.5
- Unique O-LED display for metering
- Touch screen technology in UW-MTX4.5
- Unique withdrawable Communication & Power metering modules
- Dual protection curve settings & Password protection
- Soft-rating plug for precise protection at lower load currents
- Provision for on-load self-diagnosis of Releases & modules
- Data communication on Modbus, Profibus & wireless Zigbee protocols
- Power & Harmonics measurement
- Temperature rise monitoring & protection
- Easy to integrate with HMI & PLC
- Add-on modules for advance protections
- Protection Releases conform to EM/EMC standard



UW-MTX1.0



UW-MTX1G



UW-MTX1Gi



UW-MTX1.5G



UW-MTX1.5Gi



UW-MTX3.5/3.5EC/3.5H



UW-MTX4.5

### Breaking Capacities Offered:

at 415V/440V AC (Please refer Catalogue for Breaking Capacities above 440V AC)

		I <sub>cu</sub> = I <sub>cs</sub> = I <sub>cw</sub> for 1 sec									
Rated current		800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
Frame-1	N : 50kA	■	■	■	■	■	■	■	■	■	■
	S : 65kA	■	■	■	■	■	■	■	■	■	■
	H : 80kA	■	■	■	■	■	■	■	■	■	■
		UW1-08	UW1-10	UW1-12	UW1-16	UW1-20	UW1-25				
Frame-2	N : 50kA	■	■	■	■	■	■	■	■	■	■
	S : 65kA	■	■	■	■	■	■	■	■	■	■
	H : 80kA	■	■	■	■	■	■	■	■	■	■
		UW2-08	UW2-10	UW2-12	UW2-16	UW2-20	UW2-25	UW2-32	UW2-40		
Frame-3	H : 80kA	■	■	■	■	■	■	■	■	■	■
	V : 100kA	■	■	■	■	■	■	■	■	■	■
		UW3-08	UW3-10	UW3-12	UW3-16	UW3-20	UW3-25	UW3-32	UW3-40	UW3-50	UW3-63

Note: 400A & 630A ACBs are also available on request. # Please contact the nearest branch office for more details of 1000V AC ACBs



## OMEGA ACB ordering information:

Air Circuit Breakers

**UW 1 08 N X D 1 2 9 0 0# UW1 800N 3P ED 1.5G BotV**

Frame Size	
Frame - I	1
Frame - II	2
Frame - III	3

Current Ratings	
400A	04
630A	06
<b>800A</b>	<b>08</b>
1000A	10
1250A	12
1600A	16
2000A	20
2500A <sup>(4)</sup>	25
3200A	32
4000A	40
5000A	50
6300A	63

Selection for Breaking Capacity (I <sub>cu</sub> =I <sub>cs</sub> ) <sup>(1)</sup>	
50kA (Fr-I upto 2000A & Fr-II upto 3200A)	N
65kA (Fr-I & Fr-II)	S
80kA (Fr-I, Fr-II & Fr-III)	H
100kA (Fr-III)	V

**Please Note :**

- <sup>(1)</sup> For I<sub>cu</sub> values please refer product catalogue
- <sup>(2)</sup> Other options of control voltage are available as accessory
- <sup>(3)</sup> Temperature protection is available in UW-MTX3.5/3.5EC/3.5H/4.5
- <sup>(4)</sup> For Fr-1, 2500A selection, please contact the nearest branch office
- <sup>(5)</sup> For system requiring 690V metering, kindly order separate Power Metering module with MTX 3.5 (refer page 60)

Selection for Termination (For Drawout ACBs Only)	
Standard Termination	0
For Top Horizontal (Long), Bottom Vertical for Fr2 & Fr3	X
For Top & Bottom Horizontal (Long) for Fr3	Y

Note: X is applicable for 4000A (Fr2 & Fr3) and 5000A (Fr3).  
Y is applicable for 4000A (Fr3) & 5000A (Fr3).  
X & Y recommended for Buscoupler only.

Temperature Rise Monitoring <sup>(3)</sup>	
Not Required	0
Required	1

Selection for P&C Units	
B/C (w/o protection)	0
UW - MTX1.0	7
UW - MTX1G	8
UW - MTX1Gi	B
<b>UW - MTX1.5G</b>	<b>9</b>
UW - MTX1.5Gi	C
UW-MTX3.5	3
UW-MTX3.5EC <sup>(5)</sup>	4
UW-MTX4.5	5
UW-MTX3.5H	6

Selection for control voltage <sup>(2)</sup>	
For Manually Operated	0
<b>240V AC/DC ECD &amp; CR + 240V AC/DC SR</b>	<b>1</b>
240V AC/DC ECD & CR + 24V DC SR	2
110V AC/DC ECD & CR + 110V AC/DC SR	3
240V AC/DC ECD & CR + 110V AC/DC SR	4

Version	
Draw-out	D
Fixed	F

Selection for No. of Poles	
<b>3 Pole</b>	<b>X</b>
4 Pole 100% N	F
4 Pole 50% N (in Fr-III only)	H
4 Pole 200% N (upto 2500A)	D

## OMEGA ACBs are offered with following standard features:

Air Circuit Breakers

- Draw-out Version :** Omega ACBs with UW-MTX release will have inbuilt-  
Current Metering (MTX 1.5G/1.5Gi/3.5/3.5EC/3.5H/4.5), Common Fault Indication microswitch, 4NO+4NC Aux. contacts, Smart-racking shutter, Safety shutter assembly, Racking Handle, Door sealing frame, Pad-locking arrangement for ON/OFF button, Rating Error Preventer, Arc shield.
- A) For ratings upto 1600A, one side vertical terminal adaptors (Bottom) for Frame 1, 2 & 3.
  - B) For ratings 2000A & above, both side vertical terminal adaptors (Top & Bottom) for Frames 1, 2 & 3.
  - C) For rating 4000A and above operation counter inbuilt for Frames 2 & 3 both.
- Fixed Version :** Omega ACBs with UW-MTX release will have inbuilt-  
Current Metering (1.5G/1.5Gi/3.5/3.5EC/3.5H/4.5), Common Fault Indication microswitch, 4NO+4NC Aux. contacts, Door sealing frame & Pad-locking arrangement for ON/OFF push button.
- A) For ratings upto 1600A, one side vertical terminal adaptors (Bottom) for Frames 1, 2 & 3.
  - B) For ratings 2000A & above, both side vertical terminal adaptors (Top & Bottom) for Frames 1, 2 & 3.
  - C) For ratings 4000A & above, operation counter inbuilt for Frames 2 & 3 both.
- Electrically operated ACB includes ECD, CR & SR as per selection of above mentioned control voltage options.

# Please contact the nearest branch office for more details of 1000V AC ACBs



## 3 Pole ACBs upto 690V AC with UW-MTX1G (LSING - BCD Switches) [8536]



Current Rating	Version	3 Pole Manual Draw-out ACB with UW-MTX1G							
		N (50kA @ 415 AC)		S (65kA @ 415 AC)		H (80kA @ 415 AC)		V (100kA @ 415 AC)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MDO	UW108NXD01800	*	UW108SXD01800	*	UW108HXD01800	*	UW308VXD01800	*
1000A		UW110NXD01800		UW110SXD01800		UW110HXD01800		UW310VXD01800	
1250A		UW112NXD01800		UW112SXD01800		UW112HXD01800		UW312VXD01800	
1600A		UW116NXD01800		UW116SXD01800		UW116HXD01800		UW316VXD01800	
2000A		UW120NXD01800		UW120SXD01800		UW120HXD01800		UW320VXD01800	
2500A		UW225NXD01800		UW225SXD01800		UW225HXD01800		UW325VXD01800	
3200A		UW232NXD01800		UW232SXD01800		UW232HXD01800		UW332VXD01800	
4000A		<b>New</b> UW240NXD01800		UW240SXD01800		UW240HXD01800		UW340VXD01800	
4000A		-		-		UW340HXD01800		UW340VXD01800	
5000A		-		-		UW350HXD01800		UW350VXD01800	
6300A	-	-	UW363HXD01800	UW363VXD01800					

3 Pole Manual Fixed ACB with UW-MTX1G									
Current Rating	Version	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MF	UW108NXF01800	*	UW108SXF01800	*	UW108HXF01800	*	UW308VXF01800	*
1000A		UW110NXF01800		UW110SXF01800		UW110HXF01800		UW310VXF01800	
1250A		UW112NXF01800		UW112SXF01800		UW112HXF01800		UW312VXF01800	
1600A		UW116NXF01800		UW116SXF01800		UW116HXF01800		UW316VXF01800	
2000A		UW120NXF01800		UW120SXF01800		UW120HXF01800		UW320VXF01800	
2500A		UW225NXF01800		UW225SXF01800		UW225HXF01800		UW325VXF01800	
3200A		UW232NXF01800		UW232SXF01800		UW232HXF01800		UW332VXF01800	
4000A		<b>New</b> UW240NXF01800		UW240SXF01800		UW240HXF01800		UW340VXF01800	
4000A		-		-		UW340HXF01800		UW340VXF01800	
5000A		-		-		UW350HXF01800		UW350VXF01800	
6300A	-	-	UW363HXF01800	UW363VXF01800					

M.R.P. changes for product customization	M.R.P. (₹) Per Unit
MDO to EDO or MF to EF Conversion kit (ECD + CR + SR)	*
Buscoupler (without protection release)	
UW-MTX1.0 (LSI - BCD Switches)	
UW-MTX1Gi (LSING + Inbuilt ZSI - BCD Switches)	
UW-MTX1.5G (LSING + Current Metering - BCD Switches)	
UW-MTX1.5Gi (LSING + Current Metering + Inbuilt ZSI - BCD Switches)	
UW-MTX3.5 (LSING + Current Metering) + can be upgraded for Power Metering & Communication	
UW-MTX3.5EC (LSING + Power Metering + Communication)	
UW-MTX3.5H (LSING + Power Metering + Harmonic Metering)	
UW-MTX4.5 (LSING + Power Metering + Harmonic Metering + Communication with Touch Screen navigation + UW-PS Module)	
UW-PS (Auxiliary power supply module for display in No-load or OFF condition) <sup>§</sup>	
COM Module (MODBUS) for communication <sup>§</sup>	
PM Module for power metering <sup>§</sup>	

\* Available on request

§ Chapter ID [8538]

## 4 Pole ACBs upto 690V with UW-MTX1G (LSING - BCD Switches) [8536]



Current Rating	Version	4 Pole Manual Draw-out ACB with UW-MTX1G							
		N (50kA @ 415 AC)		S (65kA @ 415 AC)		H (80kA @ 415 AC)		V (100kA @ 415 AC)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MDO	UW108NFD01800	*	UW108SFD01800	*	UW108HFD01800	*	UW308VFD01800	*
1000A		UW110NFD01800		UW110SFD01800		UW110HFD01800		UW310VFD01800	
1250A		UW112NFD01800		UW112SFD01800		UW112HFD01800		UW312VFD01800	
1600A		UW116NFD01800		UW116SFD01800		UW116HFD01800		UW316VFD01800	
2000A		UW120NFD01800		UW120SFD01800		UW120HFD01800		UW320VFD01800	
2500A		UW225NFD01800		UW225SFD01800		UW225HFD01800		UW325VFD01800	
3200A		UW232NFD01800		UW232SFD01800		UW232HFD01800		UW332VFD01800	
4000A		<b>New</b> UW240NFD01800		UW240SFD01800		UW240HFD01800		UW340VFD01800	
4000A		-		-		UW340HFD01800		UW340VFD01800	
5000A		-		-		UW350HFD01800		UW350VFD01800	
6300A	-	-	UW363HFD01800	UW363VFD01800					

4 Pole Manual Fixed ACB with UW-MTX1G									
800A	MF	UW108NFF01800	*	UW108SFF01800	*	UW108HFF01800	*	UW308VFF01800	*
1000A		UW110NFF01800		UW110SFF01800		UW110HFF01800		UW310VFF01800	
1250A		UW112NFF01800		UW112SFF01800		UW112HFF01800		UW312VFF01800	
1600A		UW116NFF01800		UW116SFF01800		UW116HFF01800		UW316VFF01800	
2000A		UW120NFF01800		UW120SFF01800		UW120HFF01800		UW320VFF01800	
2500A		UW225NFF01800		UW225SFF01800		UW225HFF01800		UW325VFF01800	
3200A		UW232NFF01800		UW232SFF01800		UW232HFF01800		UW332VFF01800	
4000A		<b>New</b> UW240NFF01800		UW240SFF01800		UW240HFF01800		UW340VFF01800	
4000A		-		-		UW340HFF01800		UW340VFF01800	
5000A		-		-		UW350HFF01800		UW350VFF01800	
6300A	-	-	UW363HFF01800	UW363VFF01800					

\* Available on request

## Accessories of OMEGA Air Circuit Breakers [8538]

### Terminal Adaptor configuration upto 690V AC



Draw-out ACBs Terminal Adaptors



Fix ACBs Terminal Adaptors

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Terminal Adaptor for Draw-out Omega ACBs</b>		
Frame-1 400-2000A N/S/H (Vertical / Horizontal)	CL609630000	*
Frame-1 2500A S/H (Vertical)	CL609640000	
Frame-2 400-3200A N/S/H (Vertical / Horizontal)		
Frame-2 4000A N/S/H (Vertical)	CL604200000	
Frame-2 4000A N/S/H (Horizontal)	CL603160000	
Frame-3 400-4000A H/V (Vertical) #	CL601280000	
Frame-3 400-4000A H/V (Horizontal-Long)	CL600730000	
Frame-3 5000A H/V (Horizontal-Long)	CL609660000	
Frame-3 5000A H/V (Vertical)#	CL600670000	
Frame-3 6300A H/V (Vertical) #	CL609650000	

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Terminal Adaptor for Fixed Omega ACBs</b>		
Frame-1 400-2000A N/S (Vertical / Horizontal)	CL609670000	*
Frame-1 400-2000A H (Vertical / Horizontal)	CL609680000	
Frame-1 2500A S/H (Vertical)	CL609760000	
Frame-2 400-2500A N/S (Vertical / Horizontal)	CL601220000	
Frame-2 400-3200A H, 3200A N/S (Vertical / Horizontal)	CL609770000	
Frame-2 4000A S/H (Vertical)	CL604170000	
Frame-3 400-4000A H/V (Vertical)#	CL604180000	
Frame-3 5000A H/V (Vertical)#	CL603470000	
Frame-3 400-5000A H/V (Horizontal-Long)	CL603730000	

# : Please consider 4 terminal adaptors per phase.

# : Please consider 4 terminal adaptors per phase.





## 800V AC ACBs with UW-MTX1G (LSING - BCD Switches) [8536]

Breaking Capacity @ 800V AC (Icu=Ics=Icw for 1s)



800V AC Manual Fix/Draw-out ACB with UW-MTX1G										
Current Rating	Frame	Breaking Capacity @ 800V AC	3P				4P			
			Fix		Draw-out		Fix		Draw-out	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	1	50kA	UW108NXF0180ZM	*	UW108NXD0180ZM	*	UW108NFF0180ZM	*	UW108NFD0180ZM	*
1000A			UW110NXF0180ZM		UW110NXD0180ZM		UW110NFF0180ZM		UW110NFD0180ZM	
1250A			UW112NXF0180ZM		UW112NXD0180ZM		UW112NFF0180ZM		UW112NFD0180ZM	
1600A			UW116NXF0180ZM		UW116NXD0180ZM		UW116NFF0180ZM		UW116NFD0180ZM	
2000A			UW120NXF0180ZM		UW120NXD0180ZM		UW120NFF0180ZM		UW120NFD0180ZM	
2000A	2	50kA	UW220NXF0180ZM	*	UW220NXD0180ZM	*	UW220NFF0180ZM	*	UW220NFD0180ZM	*
2500A			UW225NXF0180ZM		UW225NXD0180ZM		UW225NFF0180ZM		UW225NFD0180ZM	
3200A			UW232NXF0180ZM		UW232NXD0180ZM		UW232NFF0180ZM		UW232NFD0180ZM	
4000A			-		UW240NXD0180ZM		-		UW240NFD0180ZM	
3200A	3	50kA	UW332NXF0180ZM	*	UW332NXD0180ZM	*	UW332NFF0180ZM	*	UW332NFD0180ZM	*
4000A			UW340NXF0180ZM		UW340NXD0180ZM		UW340NFF0180ZM		UW340NFD0180ZM	
5000A			UW350NXF0180ZM		UW350NXD0180ZM		UW350NFF0180ZM		UW350NFD0180ZM	
3200A	3	65kA	UW332SXF0180ZM	*	UW332SXD0180ZM	*	UW332SFF0180ZM	*	UW332SFD0180ZM	*
4000A			UW340SXF0180ZM		UW340SXD0180ZM		UW340SFF0180ZM		UW340SFD0180ZM	
5000A			UW350SXF0180ZM		UW350SXD0180ZM		UW350SFF0180ZM		UW350SFD0180ZM	

Note: 1. Above mentioned Cat. No. of ACBs are without Terminal Adaptors. Please consider Terminal Adaptors from below table.

2. Phase-Barrier is mandatory to be used with 800V AC ACBs:

(a) For Draw-out ACBs, Phase-Barrier is provided as standard supply along with ACBs

(b) For Fix ACBs, kindly consider Phase-Barrier from below table

M.R.P. changes for product customization	M.R.P. (₹) Per Unit
Buscoupler (without protection release)	*
UW-MTX1.0 (LSI - BCD switch for selection)	
UW-MTX1G (LSING - BCD switch for selection)	
UW-MTX1.5G (LSING + display - BCD switch for selection)	
UW-MTX3.5 (LSING + Display + Option for other features)	
UW-TM - Temperature Rise Module ( for MTX3.5)	
<b>MDO to EDO or MF to EF Conversion kit (ECD + CR + SR)</b>	
COM Module (MODBUS) for communication	
UW-PS (Auxiliary power supply module for display in No-load or OFF condition)	

## Terminal Adaptors for 800V ACBs [8538]

Current Rating	Frame	Fix			Draw-out		
		Cat. No.	M.R.P. (₹) Per Unit	Qty (3P/4P)	Cat. No.	M.R.P. (₹) Per Unit	Qty (3P/4P)
630A	1	CL609670000	*	(6/8)	CL609630000	*	(6/8)
800A		CL609670000		(6/8)	CL609630000		(6/8)
1000A		CL609670000		(6/8)	CL609630000		(6/8)
1250A		CL609670000		(6/8)	CL609630000		(6/8)
1600A		CL609670000		(6/8)	CL609630000		(6/8)
2000A		CL601220000		(6/8)	CL609640000		(6/8)
2000A	2	CL609770000	*	(6/8)	CL609640000	*	(6/8)
2500A		CL603180000		(6/8)	CL609640000		(6/8)
3200A		CL604170000		(6/8)	CL604190000		(6/8)
4000A		-		-	CL604200000		(6/8)
3200A	3	CL604180000	*	(12/16)	CL601280000	*	(12/16)
4000A		CL604180000		(12/16)	CL600670000		(12/16)
5000A		CL603470000		(12/16)	CL609650000		(12/16)



## Phase-Barrier for 800V AC Fix ACBs [8538]

Cat. No.	Type	Pole	M.R.P. (₹) Per Unit	Qty. per ACB
CL912580000	Fix	3P	*	2
CL912590000	Fix	4P		2

Note: Please contact the nearest branch office for more details of 1000V AC ACBs

\* Available on request



# Accessories of OMEGA Air Circuit Breakers

Air Circuit Breakers



Operation Counter



Door Interlock



Closing Release



Shunt Release



UV Release

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Other Accessories [8538]</b>		
Operation Counter	CL909830000#	*
Door Interlock	CL909780000	
Electrical Position Indication (EPI)	CL958260000	
<b>Microswitches for Indication [8536]</b>		
Microswitch for Common Fault Indication (CFI)	CL909490000	*
Microswitch for Ready To Close Indication (RTC)	CL909530000^	
Microswitch for Shunt Release	CL909510000	
Microswitch for Undervoltage Release	CL909470000	
Microswitch for Spring Charging Indication	ST426720000	

^ Cradle SIC block CL958250000 needs to be ordered separately, If EPI not installed in same ACB

# Operation Counter inbuilt for rating 4000A to 6300A



R-Lock



C-Lock

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Mechanical Interlock using Key &amp; Lock\$</b>		
R - Lock Type - 1	CL006590000	*
R - Lock Type - 2	CL006600000	
R - Lock Type - 3	CL006610000	
R - Lock Type - 12	CL006620000	
R - Lock Type - 23	CL006630000	
Locking arrangement for OFF button with R - Lock (on breaker)	CL908150000	
Locking arrangement for ISO position with R - Lock (on Cradle)	CL908650000	
Locking arrangement for ANY position with R - Lock (on Cradle)	CL909270000	
C - Lock Type - S	CL006640000	
C - Lock Type - T	CL006650000	
C - Lock Type - ST	CL006660000	*
C - Lock Type - SS	CL006670000	
C - Lock Type - TT	CL006680000	
Locking arrangement for OFF button with C - Lock (on breaker)	CL908140000	
Locking arrangement for ISO position for C - Lock (on Cradle)	CL909820000	
Locking arrangement for ANY position with C - Lock (on Cradle)	CL909810000	

**Note:** For Mechanical Interlock using Key & Lock please order combination of Lock and Locking arrangement.

\* Available on request \$ Only locks [8301] Locking arrangement [8538]

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Electrical Charging Device (ECD) [8501]</b>		
24-30V DC	CL903620000	*
48/60V DC	CL903630000	
110V AC / 110-125V DC	CL903600000	
220V AC / 200V DC	CL903640000	
240V AC / 250V DC	CL903590000	
415V AC / 400V DC	CL903610000	
<b>Closing Release (CR) [8538]</b>		
24-30V DC	CL908174000	*
48/60V DC	CL908175000	
110V AC / 110V DC	CL90817A000	
125/127V DC	CL908171000	
220 - 240V AC / 220 - 250V DC	CL90817B000	
415V AC	CL90817D000	
<b>Shunt Release (SR) [8538]</b>		
24-30V DC	CL908160400	*
48/60V DC	CL908160500	
110V AC / 110V DC	CL908160A00	
125/127V DC	CL908160100	
220 - 240V AC / 220 - 250V DC	CL908160B00	
415V AC	CL908160D00	
<b>Under Voltage Release (UVR) with time delay (0-1-3-5 sec) [8538]</b>		
24-30V DC	CL908184000	*
48V DC	CL908185000	
110V AC / 110V DC	CL90818A000	
240V AC / 220V DC	CL90818B000	
415V AC	CL90818D000	



NCT

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>External Neutral CT for UW-MTX Releases [8504]</b>		
Frame-1, 2 & 3 400-800A	CL007170000	*
Frame-1, 2 & 3 1000-1600A	CL007180000	
Frame-1 2000-2500A	CL007190000	
Frame-2 & 3 2000-4000A	CL007200000	
Frame-3 5000-6300A	CL007210000	

## Automatic Transfer Controllers (ATC) [9032]



AuXC-2000 Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-2000 controller**	ATC20000000	31600	1

Can be used along with ACB, Motorised MCCBs, MCX contactors & Motorised Changeover switches

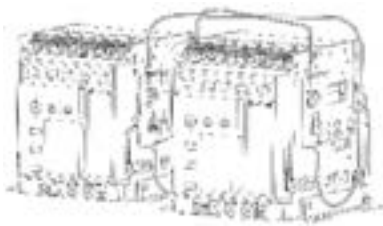
\*\* Note: For communication version of AuXC controller refer page no-6



For AuXC 2000/2100 programming videos and more details please scan the QR code or click here



U-POWER  
Accessories of **OMEGA** Air Circuit Breakers  
Air Circuit Breakers



**Mechanical Interlock using Bowden Cable [8538]**

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Mechanical Interlock using Bowden Cable (5 meters length)</b>		
Between 2 Incomers	CL906630000	*
Between 3 Incomers	CL906640000	
Between 2 Incomers & 1 Standby	CL906650000	
Between 2 Incomers & 1 Buscoupler	CL906660000	
<b>Mechanical Interlock using Bowden Cable (3 meters length)</b>		
Between 2 Incomers	CL906590000	*
Between 3 Incomers	CL906600000	
Between 2 Incomers & 1 Standby	CL906610000	
Between 2 Incomers & 1 Buscoupler	CL906620000	
<b>Mechanical Interlock using Bowden Cable (2 meters length)</b>		
Between 2 Incomers	CL908100000	*
Between 3 Incomers	CL908110000	
Between 2 Incomers & 1 Standby	CL908120000	
Between 2 Incomers & 1 Buscoupler	CL908130000	

**Note:** Common from 400A to 6300A and can be interlocked between Fixed / Draw-out / Mixed version

\* Available on request



**MODBUS Module**



**Power Metering Module**

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>MATRIX Releases &amp; Modules [8538]</b>		
UW-MTX1.0	CL919660000	*
UW-MTX1G	CL919710000	
UW-MTX1Gi	CL905620000	
UW-MTX1.5G	CL919650000	
UW-MTX1.5Gi	CL905520000	
UW-MTX3.5	CL906450000	
UW-MTX3.5EC	CL906440000	
UW-MTX3.5H	CL906460000	
UW-MTX4.5	CL906470000	
Power supply module	CL907220000	
Relay Module	CL907160000	
MODBUS Module	CL907090000	
Profibus Module	CL902950000	
Matrix Smart Card Module	CL907050000	
Power Metering Module (415V)	CL906490000	
Power Metering Module (690V)	CL906850000	
ZSI Module	CL907180000	
TCS Module	CL907190000	
EL Module	CL907200000	
REF Module	CL907210000	
Simulation Kit	CL907240000	

For Energy Management Communication Software Please contact the nearest branch office

## Upgrade to the new-age OMEGA ACB with Minimal Modifications



**Pre-Engineered Retrofit Solution**  
Upgrade E&A CNCS ACB to OMEGA ACB



### Presenting the pre-engineered L&T Electrical & Automation (E&A) CNCS to OMEGA Retrofit kit

The E&A CNCS to OMEGA Retrofit kit is a pre-engineered solution which allows you to upgrade from the old CNCS ACB to the advanced E&A OMEGA ACB - with minimal modification. All installations are done by trained Engineers from the nearest E&A Authorised Service Centre to ensure total reliability and minimum shut-down time.

#### Specifications

- ETP grade Copper links with Silver Plating
- CNCS to OMEGA Retrofit solution is available from 800A to 3200A



For more details please scan the QR code or click here

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

For retrofitting of any ACB to Omega ACB please contact the nearest branch office

# C-POWER Air Circuit Breakers

## C-POWER S1 Range of Air Circuit Breakers

- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Current rating from 400A to 3200A
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- High short time withstand capacity,  $I_{cu} = I_{cs} = I_{cw}$  for 1 sec for total selectivity
- High mechanical and electrical operating life
- 100% rated neutral pole
- Common height and depth across the range
- Protection through Thermal - Magnetic (DN1) & Microprocessor releases (SR18G, SR18G+D & SR18Gi+D)
- Self diagnostic Microprocessor based Releases with on-load testing through TEST button
- Inbuilt thermal memory
- Protection Releases conform to EMI/EMC standards
- Breaker Status and Control through MODBUS protocol (UN-CO module)



C-POWER S1 ACB



C-POWER ACB

## C-POWER Range of Air Circuit Breakers

- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Current rating from 800A to 6300A
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- High short time fault withstanding capacity,  $I_{cu} = I_{cs} = I_{cw}$  for 1 sec for total selectivity
- High mechanical and electrical operating life
- 100% rated neutral pole
- Protection through Thermal - Magnetic (DN1) & Microprocessor releases (SR18G, SR18G+D, SR18Gi+D & SR71)
- Self diagnostic Microprocessor based Releases with on-load testing through TEST button
- Inbuilt thermal memory
- Protection Releases conform to EMI/EMC standards
- Data communication & Power Management
- Breaker Status and Control through MODBUS protocol (UN-CO module)

## C-POWER HE ACBs for Harsh Environment

- Designed to operate at peak efficiency in Sulphur-rich environments
- Range 1250A to 5000A, 415/690V ac
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed and Draw-out versions
- Protection through Microprocessor release
- Operates reliably in 3C4 environmental conditions of SO<sub>2</sub> and H<sub>2</sub>S

Please contact the nearest branch office for Details & product Selection



C-POWER HE Range

## Breaking Capacities Offered:

		I <sub>cu</sub> = I <sub>cs</sub> = I <sub>cw</sub> for 1 sec										
		630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
CN-CS : E / G		50kA	50kA	50kA	50kA	50kA	50kA					
	Frame-1											
CN-CS : S1		50kA	50kA	50kA	50kA	50kA	50kA	60kA	60kA			
	Frame-1							Frame-2				
CN-CS : C			50kA	50kA	50kA	50kA	55kA	60kA			95kA	95kA
CN-CS : H			65kA	65kA	65kA	65kA	75kA	75kA				
CN-CS : H2									75kA	75kA		
CN-CS : H / H1									100kA	100kA		
CN-CS : HE					50kA		60kA		75kA		95kA	
	Frame-1				Frame-2		Frame-3		Frame-4			

For technical & dimension details please refer product catalogue. 400AACB also available on request.





## C-POWER S1 3 & 4 Pole Draw-out ACBs

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
630A	50kA	MDO
		EDO
800A	50kA	MDO
		EDO
1000A	50kA	MDO
		EDO
1250A	50kA	MDO
		EDO
1600A	50kA	MDO
		EDO
2000A	50kA	MDO
		EDO
2500A	60kA	MDO
		EDO

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL96041	204200	SL96061	256200
SL96051	254900	SL96071	306900
SL96042	204200	SL96062	256200
SL96052	254900	SL96072	306900
SL96043	212400	SL96063	268400
SL96053	263100	SL96073	319100
SL96044	234300	SL96064	295600
SL96054	285000	SL96074	346300
SL96045	267200	SL96065	328600
SL96055	317900	SL96075	379300
SL96046	313800	SL96066	385500
SL96056	364500	SL96076	436200
SL96047	387900	SL96067	467500
SL96057	438600	SL96077	518200

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95331	199200	SL95351	251200
SL95341	249900	SL95361	301900
SL95332	199200	SL95352	251200
SL95342	258100	SL95362	301900
SL95333	207400	SL95353	263400
SL95343	258100	SL95363	314100
SL95334	229300	SL95354	290600
SL95344	280000	SL95364	341300
SL95335	262200	SL95355	323600
SL95345	312900	SL95365	374300
SL95336	308800	SL95356	380500
SL95346	359500	SL95366	431200
SL95337	382900	SL95357	462500
SL95347	433600	SL95367	513200

Note : Add a Suffix "OOOO" for all the above mentioned cat. nos.

## C-POWER S1 3 & 4 Pole Fixed ACBs

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
630A	50kA	MF
		EF
800A	50kA	MF
		EF
1000A	50kA	MF
		EF
1250A	50kA	MF
		EF
1600A	50kA	MF
		EF

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95561	125300	SL95581	159700
SL95571	175300	SL95591	209700
SL95562	125300	SL95582	159700
SL95572	175300	SL95592	209700
SL95563	136900	SL95583	172700
SL95573	186900	SL95593	222600
SL95564	157600	SL95584	197000
SL95574	207600	SL95594	247000
SL95565	174800	SL95585	224800
SL95575	224800	SL95595	274700

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95481	120300	SL95501	154700
SL95491	170300	SL95511	204700
SL95482	120300	SL95502	154700
SL95492	170300	SL95512	204700
SL95483	131900	SL95503	167700
SL95493	181900	SL95513	217600
SL95484	152600	SL95504	192000
SL95494	202600	SL95514	242000
SL95485	169800	SL95505	219800
SL95495	219800	SL95515	269700

Note : Add a Suffix "OOOO" for all the above mentioned cat. nos.

M.R.P. changes for product customization w.r.t. SR18G ACB M.R.P.		M.R.P. (₹) Per Unit
Bus - Coupler (w/o protection)	Reduce	13000
Microprocessor based SR18G+D (LSING + Current Metering)	Add	15000
Microprocessor based SR18Gi+D (LSING + Current metering + ZSI)	Add	18000

**C-POWER S1 Draw-Out ACBs** will have inbuilt - 2NO+2NC Aux contact for MDO & 6NO+6NC Aux contact for EDO breakers, Safety shutter assembly, Racking handle, Door sealing frame, Push-button cover & Rating error preventor.

**C-POWER S1 Fixed ACBs** will have inbuilt - 2NO+2NC Aux contact for MF & 6NO+6NC Aux contact for EF breakers, Door sealing frame & Push-button cover.

Electrical version includes 240V AC Shunt trip coil, Closing coil and Motor for electrical charging.

**Note:** 1 NO Aux contact in manual version & 2NO+2NC in electrical version breakers will be pre-wired with accessories mounted in breaker.

In electrically operated breaker with DN1 release, either earth fault or undervoltage protection can be used.

## CN-CS...E Range 3 Pole Manual Fixed

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
400A	50kA	3P MF
630A	50kA	3P MF
800A	50kA	3P MF
1000A	50kA	3P MF
1250A	50kA	3P MF
1600A	50kA	3P MF
2000A	50kA	3P MF

Thermal-Magnetic Release Type DN1	
Cat. No.	M.R.P. (₹) Per Unit
SL957210000	82300
SL957220000	83000
SL957230000	87900
SL957240000	90100
SL957250000	118100
SL957260000	124300
SL932970000	142700



# C-POWER Air Circuit Breakers [8536]



## C-POWER 3 & 4 Pole Draw-out ACBs

Rating	Breaking Capacity I <sub>cu</sub> =I <sub>cs</sub> =I <sub>cw</sub> (1 sec)	Version	Type	Microprocessor Based SR18G				Thermal-Magnetic DN1			
				3 Pole		4 Pole		3 Pole		4 Pole	
				Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	65kA	MDO	H	SL95311	342700	#	444100	#	337700	#	439100
		EDO	H	SL95321	393400	#	494800	#	388400	#	489800
1000A	65kA	MDO	H	SL95312	349000	#	472000	#	344000	#	467000
		EDO	H	SL95322	399700	#	522700	#	394700	#	517700
1250A	65kA	MDO	H	SL95313	381600	#	506100	#	376600	#	501100
		EDO	H	SL95323	432300	#	556800	#	427300	#	551800
1600A	65kA	MDO	H	SL95314	429400	#	557200	#	424400	#	552200
		EDO	H	SL95324	480100	#	607900	#	475100	#	602900
2000A	75kA	MDO	H	SL95315	483700	#	611400	#	478700	#	606400
		EDO	H	SL95325	534400	#	662100	#	529400	#	657100
2500A	75kA	MDO	H	SL95316	493900	#	595900	#	488900	#	590900
		EDO	H	SL95326	544600	#	646600	#	539600	#	641600
3200A	75kA	MDO	H2	SL94822	492400	SL94826	604300	SL94814	487400	SL94818	599300
		EDO	H2	SL94824	543100	SL94828	655000	SL94816	538100	SL94820	650000
4000A	75kA	MDO	H2	SL94823	570000	SL94827	739400	SL94815	565000	SL94819	734400
		EDO	H2	SL94825	620700	SL94829	790100	SL94817	615700	SL94821	785100
5000A	95kA	MDO/EDO	C	#	*	#	*	#	*	#	*
6300A	95kA	MDO/EDO	C	#	*	#	*	#	*	#	*

**Note:** For higher breaking capacities & 690V AC application please contact the nearest branch office  
Add a Suffix "OOOO" for all the above mentioned cat. nos.

## C-POWER 3 & 4 Pole Manual Fixed ACBs

Rating	Breaking Capacity I <sub>cu</sub> =I <sub>cs</sub> =I <sub>cw</sub> (1 sec)	Version	Type	Microprocessor Based SR18G				Thermal-Magnetic DN1			
				3 Pole		4 Pole		3 Pole		4 Pole	
				Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	50kA	MF	C	*				*			
1000A	50kA			*				*			
1250A	50kA			*				*			
1600A	50kA			*				*			
2000A	55kA			*				*			
2500A	60kA			*				*			
				SL97635	240200	#	311600	SL93005	235200	#	306600
				SL97636	264700	#	356800	SL93006	259700	#	351800

**Note:** For higher breaking capacities & 690V AC application please contact the nearest branch office  
Add a Suffix "OOOO" for all the above mentioned cat. nos.

M.R.P. changes for product customization w.r.t. SR18G M.R.P.		M.R.P. (₹) Per Unit
Bus-Coupler (w/o protection)	Reduce	13000
Microprocessor based SR18G+D (LSING + Current Metering)	Add	15000
Microprocessor based SR18Gi+D (LSING + Current metering + ZSI)	Add	18000
Microprocessor based SR71 (LSING + Current metering + Advance protection + PS Module)	Add	*
Communication Module (MODBUS) for SR71 release (SR71 - COM) <sup>§</sup>	SL94698OOOO	
Power Metering Module for SR71 release (SR71 - PM) <sup>§</sup>	SL94699OOOO	

<sup>§</sup> Chapter ID [8538]

**C-POWER Draw-Out ACBs** will have inbuilt - 6NO+6NC Aux contact, Safety shutter assembly, Racking handle, Door sealing frame, Push-button cover & Rating Error preventor. Option of horizontal & vertical termination upto 4000A also available. Operation counter for 4000A & above.  
EDO version includes 240V AC Shunt trip coil, Closing coil and Motor for electrical charging.

**C-POWER Fixed ACBs** will have inbuilt - 6NO+6NC Aux contact, Door sealing frame & Push-button cover. Operation counter for 4000A & above.

**Note:** 1 NO Aux contact in manual version & 2NO+2NC in electrical version breakers will be pre-wired with accessories mounted in breaker.  
In electrically operated breaker with DN1 release, either earth fault or undervoltage protection can be used.

**Note:** Electrical Fixed type breakers are available on request.

# Available on "Made to order" basis. \* Available on request



# Accessories of C-POWER Air Circuit Breakers

## Accessories (Common for C-POWER Family)



AN1 Module



LTPB



LIP



Shunt Release



UV Release

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Lockable Trip Push Button (LTPB) [8301]</b>		
Type AA	SL93148000A	4800
Type BB	SL93148000B	4800
Type CC	SL93148000C	4800
Type DD	SL93148000D	4800
Lockable Trip Push Button kit (3 I/C & 2 B/C)	SL919360000	24000
<b>Locking of ACB in Isolated position (LIP) [8301]</b>		
Type A	SL93146000A	4800
Type B	SL93146000B	4800
Type C	SL93146000C	4800
Type D	SL93146000D	4800
<b>Locking of ACB in Any position (LAP) [8301]</b>		
Type A	SL93147000A	4800
Type B	SL93147000B	4800
Type C	SL93147000C	4800
Type D	SL93147000D	4800
<b>Racking Interlock [8301]</b>		
Type AA	SL93149000A	6610
Type BB	SL93149000B	6610
Type CC	SL93149000C	6610
Type DD	SL93149000D	6610
<b>Padlock [8301]</b>		
Racking Padlock Assembly	CL900250000	2240
<b>Other Accessories [8538]</b>		
Door Interlock	SL931500000	3520
Mechanical Operation Counter*	XM808370000	3480
Mounting Kit for Front Mounted Counter	SL958820000	1230
Spring Charge Indication Microswitch	SL960000000	2790

\* For mounting the Operation counter, mounting kit "SL958820000" needs to be ordered separately. Operation Counter inbuilt for rating 4000A to 6300A.



Vertical Terminal Adaptor

Description & Rating	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Vertical Terminal Adaptors for Draw out C-POWER ACB [8538]</b>			
400-1250 S1/800-1000 C	SL932810000	5980	1
1600-2000 S1/1250-1600 C/800-1600 H	SL932820000	7260	1
2000 C	SL932840000	10700	1
2000 H/2500 C/H	SL932850000	11200	1
2500 S1	SL932890000	11200	1
3200 S1	SL932860000	13800	1
3200H2/H1, 4000H2/H	SL932880000	33400	1

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Shunt Release (SR) [8538]</b>		
Type EA : 24/48V DC	SL927180400	3750
Type EA : 110V DC	SL927180100	3750
Type EA : 220V DC	SL927180200	3750
Type EA1 : 110V AC	SL927180A00	3750
Type EA1 : 240V AC	SL927180B00	3750
Type EA1 : 415V AC	SL927180D00	3750
<b>Under Voltage Release (UVR) [8538]</b>		
Type MV : 24V DC	ST368770000	5410
Type MV : 240V AC	SL92720B000	5410
Type MV : 415V AC	SL92720D000	5410
<b>Earth Fault Release ( for DN1) [8538]</b>		
Type EF1 (10%, 20% In )	SL913400000	4790
Type EF2 (30%, 40%, 50% In)	SL913410000	4790
<b>Remote Fault Indication [8538]</b>		
AN1 Remote Annunciation Module for SR18G/SR18G+D/SR18Gi+D : 240V AC	SL946540000	11600
<b>Microswitches for Indication [8536]</b>		
Microswitch for Voltmetric Releases (2) each	SL927030000	2970
Microswitch for Common Indication of O/L & S/C (3) each	SL927040000	2970
Microswitch for Separate Indication of O/L & S/C (3) each (for DN1 release)	SL927050000	4960
Service Position Microswitch - Right (2)	SL931420000	2010
Service Position Microswitch - Left (2)	SL931430000	2010
Test or Isolated Position Microswitch - Right (2)	SL931440000	2010
Test or Isolated Position Microswitch - Left (2)	SL931450000	2010

### Note :

- The Numerical in brackets, against various accessories indicate the SICs required for wiring purpose in Draw-Out breakers
- Shunt release requires one set of auxiliary contacts
- Maximum 24 SICs can be fitted on an ACB. In Electrical ACBs 5 SICs are prewired for control circuit purpose



UN-CO module [8538]

### Features

- Remote Status & Control of ACB
- Communicates on MODBUS Protocol
- Inbuilt RS485 Port

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
UN-CO module for Breaker control	CL908520000	13800	1

# Spares of C-POWER Air Circuit Breakers

## Protection Releases



SR71



SR18G+D/SR18Gi+D



SR18G



DN1



Universal Test Kit



CT

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Protection Releases [8538]</b>		
Microprocessor based type SR71	<b>On Request</b>	
Microprocessor based type SR18Gi+D	SL948130000	63000
Microprocessor based type SR18G+D	SL948120000	60000
Microprocessor based type SR18G	SL960300000	45000
Thermal-Magnetic Release type DN1	SL931520000	40000
Universal Test Kit	CL904620000	110400

### Universal Test Kit

#### Compatible with following L&T Protection Releases:

- SR protection releases of C-Power ACB family
- UNRS protection releases of U-Power ACB family
- MTX and RC releases of D-Sine MCCB family

#### Upgrade to high end communicable Release SR71

Retrofit kit solutions are available

For further details please contact the nearest branch office

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>CTs for SR18G / SR18G+D / SR18Gi+D [8504]</b>			
400 S1 Fix & Draw-out	SL015230000	7070	1
630 S1 Fix & Draw-out	ST374950000	7070	1
800 C/H/S1 Fix & Draw-out	SL018570000	7070	1
1000 C/H/S1 Fix & Draw-out	SL018580000	7070	1
1250 C/H/S1 Fix & Draw-out	SL905710000	8560	1
1600 C/H/S1 Fix & Draw-out	SL905720000	8560	1
2000 C/H Fix & Draw-out	SL905650000	9490	1
2000 S1 Draw-out	SL932100000	9490	1
2500 C/H Fix & Draw-out	SL905660000	9490	1
2500 S1 Draw-out			
3200 H2/H1 Draw-out	SL017400000	10900	1
4000 H2/H Draw-out	SL017390000	13100	1

For External Neutral C.T.s please use the above Cat. No.

## Protect your equipment in Sulphur-rich environments



### C-POWER HE Air Circuit Breaker

- Range 1250A to 5000A, 415/690V ac
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- Protection through Microprocessor release



### FN BOLTED HE Switch-Disconnecter-Fuse

- Range 32A to 630A, 415V ac, AC 23A
- TPN version suitable for Bolted Fuse Link
- Door Interlocking & Padlocking facility



L&T Electrical & Automations HE range of Air Circuit Breakers (ACBs) and Switch-Disconnecter-Fuse (S-D-F) are designed to ensure that they operate at peak efficiency for their entire lifespan in harsh, Sulphur-rich environments.

For more details please scan the QR code or click here



### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

Cic@9/10/12/2015





# Where continuity is crucial

The S-Line Busbar Trunking System from L&T Electrical & Automation provides reliable, safe and economic distribution solutions for commercial spaces.



Copy/1201439

## Key Features:

- Minimum transmission loss when compared to cables
- Current Rating: 250A to 6300A
- Rated Insulation Voltage - 1000V
- Class-F Halogen free insulation with RoHS compliance
- Maintenance free block set joints
- Enclosure: G.I. or Aluminium
- Ingress protection: IP-54, IP-55, IP-66
- Plug-in boxes with interlocking
- Excellent short circuit ratings up to 100kA

**S-Line**  
Busbar Trunking System

## Customer Interaction Center (CIC)

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Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com





# ENGINEERED FOR ENDURANCE BUILT TO WITHSTAND TOUGH CONDITIONS



## LTXL Capacitor

-  Designed to operate at Temperature upto 70°C
-  3 x In Over Current withstand capacity
-  Highest 500 x In Inrush current withstand capacity.
-  Special Stainless Steel Earthing pad corrosion proof.
-  Glazed ceramic bushing provide better protection.
-  Enhanced Durability

**Customer Interaction Center (CIC)**  
BSNL/MTNL(toll free):1800 233 5858 Reliance (toll free):1800 200 5858  
Tel: 022 6774 5858 Email:cic@Lntbg.com Web: Lntbg.com



## Power Factor Correction Capacitors [8532]

Parameters	Standard Duty		Heavy Duty		HD Plus Gas Filled	Super Heavy Duty	APP	LTXL Ultra Heavy Duty	
	Cylindrical	Box	Cylindrical	Box	Cylindrical	Cylindrical	Box	Cylindrical	Box
Over current withstand capability	1.5 x In	1.5 x In	1.8 x In	1.8 x In	1.8 x In	2.5 x In	2.5 x In	3 x In	3 x In
Operating losses	0.45 W/kVAr	0.45 W/kVAr	0.5 W/kVAr	0.35 W/kVAr	0.35 W/kVAr	0.45 W/kVAr	0.5 W/kVAr	0.45 W/kVAr	0.35 W/kVAr
Peak Inrush current withstand capability	200 x In	200 x In	250 x In	300 x In	250 x In	350 x In	300 x In	500 x In	500 x In
Number of switching operations per year	5000	5000	7500	8000	8000	15000	10000	18000	20000
Max. Temperature	55°C	55°C	55°C	55°C	55°C	65°C	55°C	65°C	70°C
Operating life	100000 hrs.	100000 hrs.	130000 hrs.	150000 hrs.	150000 hrs.	200000 hrs.	200000 hrs.	300000 hrs.	300000 hrs.

### Standard Duty Capacitors

#### Features :

- Finger proof Sigut terminal in Cyl capacitor
- 150% continuous current carrying capacity
- Self-Healing property
- Soft resin as coolant
- Inbuilt Over Pressure Disconnecter (OPD)



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical 1 to 6 kVAr - Series : LTCCF 7.5 to 33.1 kVAr - Series : LTCCD	1 to 25	440	266
	1.2 to 27.7	480	266
	1.3 to 33.1	525	266
Box 1 to 6 kVAr - Series : LTBCF 7.5 to 33.1 kVAr - Series : LTBCD	1 to 30	440	304
	11.1 to 27.7	480	304
	13.2 to 33.1	525	304

### Heavy Duty Capacitors

#### Features :

- 180% continuous current carrying capacity
- Self-Healing property
- Soft resin as coolant
- Inbuilt over pressure disconnecter (OPD)
- Finger proof Sigut terminal in Cyl capacitor
- Low losses



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical Series: LTCCH	1 to 4	440 V	508
	5 to 15		467
	20 to 30		455
	5.5 to 16.6	480 V	467
	22.1 & 27.7		455
	6.6 to 16.6	525 V	467
	20 to 33.1		455
Box Series: LT BCH	1 to 4	440 V	565
	5 to 15		479
	20 to 50		469
	5.5 to 15	480 V	503
	20 to 27.7		493
	6.6 to 15	525 V	503
	20 to 33.1		493

### HD Plus Gas Filled Capacitor

#### Features :

- High inrush current carrying capacity 300 x In
- Inert gas as coolant (Non-flammable)
- Self-Healing property
- Inbuilt Over Pressure Disconnecter (OPD)
- Finger proof Sigut terminal in Cyl capacitor
- Long life



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical Series: LTCCN	3 to 5	440	606
	7.5 to 15		495
	20 & 25		460
	7.5 to 15	480	495
	20 to 30		460
	7.5 to 15	525	495
	20 to 33.1		460

## \*\*Super Heavy Duty Capacitors



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
**Cylindrical Series: LTCCR	3 to 5	440 V	613
	7.5 to 15		501
	20 & 25		474
	1.2 to 5.5	480 V	556
	11.1 & 15		548
	20 to 27.7		497
	1.3 to 5	525 V	656
	6.6 to 15		558
20 to 33.3	507		

## APP Capacitors

### Features :

- High over current withstand capacity 2.5 x In
- High Inrush current withstand capacity 300 x In
- Glazed ceramic bushing
- Tinned Copper studs



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Box Series: LTBCP	5 to 15	440 V	808
	20 to 50		782
	5.5 to 13.8	480 V	808
	16.6 to 55.3		782
	6.6 & 13.2	525 V	808
	16.6 to 66.2		782

## LTXL - Ultra Heavy Duty Capacitors

### Features :

- High over current withstand capacity 3 x In
- High Inrush current withstand capacity 500 x In
- Glazed ceramic bushing (In box type capacitor)
- Lower thermal impedance
- Designed to operate at temperature up to 70°C



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
**Cylindrical Series : LTCCU	5 to 15	440V	1034
	20 & 25		1017
	7.5 to 15	480V	1034
	20		1017
	7.5 to 15	525V	1034
20	1017		
Box Series: LTBCU	5 to 15	440V	1169
	20 to 50		1146
	7.5 to 15	480V	1169
	20 to 30		1146
	7.5 to 15	525V	1169
	20 to 33.1		1146

## Ordering Information for Capacitors

C - Cylindrical, B - Box

Duty: D/F – Standard\*

M - Standard duty Box with MCB & LED Indication

H - Heavy

N - Gas Filled

R - Super Heavy

P - APP

U - Ultra Heavy

**Sample ratings**

01 - 1 kVAr

07 - 7.5 kVAr

10 - 10 kVAr

12 - 12.5 kVAr

**Voltages:** B-440V, C-480V, M- 525V

\*\* F - 1 to 6 kVAr. D - 7.5 kVAr & above

L

T

C

3

2

Catalogue Number

\*\* SHD (LTCCR) & LTXL Cyl (LTCCU) are long lead items. Contact nearest branch for delivery schedule & technical specs before ordering .

Capacitor Series	kVAr ratings		
	440 V	480 V	525 V
LTCCF	1, 2, 3, 4, 5, 6	1.2, 2.2, 3.3, 4.4, 5.5	1.3, 2.6, 3.9, 5.3, 6.6
LTBCF	1, 2, 3, 4, 5, 6	-	-
LTCCD/LTBCD	7.5, 8.33, 10, 12.5, 15, 20, 25, 30*	11.1, 13.8, 16.6, 22.1, 27.7	13.2, 16.6, 20, 26.5, 30, 33.1
LTBCM	5, 7.5, 8.33, 10, 12.5, 15, 20, 25	-	-
LTCCH	1, 2, 3, 4, 5, 7.5, 10, 12.5, 15, 20, 25, 30	5.5, 11.1, 13.8, 16.6, 22.1, 27.7	6.6, 13.2, 16.6, 20, 26.5, 30, 33.1
LTBCH	1, 2, 3, 4, 5, 7.5, 8.33, 10, 12.5, 15, 20, 25, 30, 50	5.5, 11.1, 15, 20, 25, 27.7	6.6, 13.2, 15, 20, 25, 30, 33.1
LTCCN	3, 4, 5, 7.5, 8.33, 10, 12.5, 15, 20, 25	7.5, 12.5, 15, 20, 25, 30	7.5, 12.5, 15, 20, 25, 30, 33.1
LTCCR	3, 4, 5, 7.5, 8.33, 10, 12.5, 15, 20, 25	1.2, 2.2, 3.3, 4.4, 5.5, 11.1, 15, 20, 25, 27.7	1.3, 2.6, 3.9, 5, 6.6, 13.2, 15, 20, 25, 30, 33.3
LTBCP	5, 7.5, 10, 12.5, 15, 20, 25, 50	5.5, 11.1, 13.8, 16.6, 22.1, 27.7, 55.3	6.6, 13.2, 16.6, 20, 26.5, 30, 33.1, 66.2
LTCCU	5, 7.5, 8.33, 10, 12.5, 15, 20, 25	7.5, 10, 12.5, 15, 20	7.5, 10, 12.5, 15, 20
LTBCU	5, 7.5, 8.33, 10, 12.5, 15, 20, 25, 30, 50	7.5, 10, 12.5, 15, 20, 25, 30	7.5, 12.5, 15, 20, 25, 30, 33.1

\* Only LTBCD is available at 30 kVAr



## Detuned Reactors, 440 V, 50 Hz [8504]

- Copper & Aluminium wound reactors
- H-class insulation
- Lower operating losses
- 180% linearity\*
- Thermal cut off
- Better Harmonic Blocking Capability [Quality Factor > 35]



kVAr Rating	7% Copper Reactor		7% Aluminium Reactor		14% Copper Reactor		14% Aluminium Reactor	
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
1	LTFR0701B2	9185	LTAL0701B2	6665	LTFR1401B2	17855	LTAL1401B2	11000
2	LTFR0702B2	10030	LTAL0702B2	7270	LTFR1402B2	19465	LTAL1402B2	11980
3	LTFR0703B2	11370	LTAL0703B2	8235	LTFR1403B2	22075	LTAL1403B2	13575
4	LTFR0704B2	12085	LTAL0704B2	8755	LTFR1404B2	23470	LTAL1404B2	14440
5	LTFR0705B2	13075	LTAL0705B2	9465	LTFR1405B2	25375	LTAL1405B2	15620
10	LTFR0710B2	18535	LTAL0710B2	13435	LTFR1410B2	35970	LTAL1410B2	23500
12.5	LTFR0712B2	20340	LTAL0712B2	14740	LTFR1412B2	39460	LTAL1412B2	25685
15	LTFR0715B2	22995	LTAL0715B2	17685	LTFR1415B2	42220	LTAL1415B2	30690
20	LTFR0720B2	25930	LTAL0720B2	19500	LTFR1420B2	50285	LTAL1420B2	34885
25	LTFR0725B2	27435	LTAL0725B2	19875	LTFR1425B2	53215	LTAL1425B2	35820
50	LTFR0750B2	43525	LTAL0750B2	31535	LTFR1450B2	84440	LTAL1450B2	52035
75	LTFR0775B2	64695	LTAL0775B2	46895	LTFR1475B2	125515	LTAL1475B2	77365
100	LTFR0700B2	88945	LTAL0700B2	64440	LTFR1400B2	172435	LTAL1400B2	106325

\* Prices of 200% linearity reactors are available on request.

For industries with High Voltage Harmonics, special solutions are available on request. Contact your nearest sales office for the customised solutions.

## Selection of capacitors for detuned harmonic filter application

Step Size & Reactor rating (kVAr)	With 7% detuned reactor			With 14% detuned reactor		
	Capacitor series	480 V Capacitor (kVAr)	525 V Capacitor (kVAr)	Capacitor series	525 V Capacitor (kVAr)	
1	LTCCF, LTCCR	1.2	1.3	LTCCF, LTCCR	1.3	
2	LTCCF, LTCCR	2.2	2.6	LTCCF, LTCCR	2.6	
3	LTCCF, LTCCR	3.3	3.9	LTCCF, LTCCR	3.9	
4	LTCCF	4.4	5.3	LTCCF	5.3	
	LTCCR		5	LTCCR	5	
5	LTCCF, LTCCH, LTCCR, LT BCH, LTBCP	5.5	6.6	LTCCF, LTCCH, LTCCR, LT BCH, LTBCP	6.6	
	LTCCN, LTCCU, LTBCU	7.5	7.5	LTCCN, LTCCU, LTBCU	7.5	
10	LTCCD, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP	11.1	13.2	LTCCD, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP	13.2	
	LTCCN, LTCCU, LTBCU	12.5	12.5	LTCCN, LTCCU, LTBCU	12.5	
12.5	LTCCN, LTCCR, LTCCU, LT BCH, LTBCU	15	15	LTCCN, LTCCR, LTCCU, LT BCH, LTBCU	15	
	LTCCD, LTCCH, LTBCD, LTBCP	13.8	16.6	LTCCD, LTCCH, LTBCD, LTBCP	16.6	
15	LTCCN, LTCCR, LTCCU, LT BCH, LTBCU	20	20	LTCCD, LTCCN, LTCCH, LTCCR, LTCCU, LTBCD, LT BCH, LTBCP, LTBCU	20	
	LTCCD, LTCCH, LTBCD, LTBCP	16.6				
20	LTCCN, LTCCR, LT BCH, LTBCU	25	25	LTCCN, LTCCR, LT BCH, LTBCU	25	
	LTCCD, LTCCH, LTBCD, LTBCP	22.1	26.5	LTCCD, LTCCH, LTBCD, LTBCP	26.5	
	LTCCU	7.5 + 15	2 x 12.5	LTCCU	2x12.5	
25	LTCCD, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP	27.7	33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP, LTBCU	30	
	LTBCU, LTCCN	30				
	LTCCU	12.5 + 15		15 + 20	LTCCU	(10+20)
50	LTCCD, LTCCH, LTCCR, LTBCD, LT BCH	2 x 27.7	2 x 33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP, LTBCU	2 x 30	
	LTBCU, LTCCN	2 x 30				
	LTCCU	2 x (12.5 + 15)		2 x (15 + 20)	LTCCU	3 x 20
	LTBCP	55.3		66.2		
75	LTCCD, LTCCH, LTCCR, LTBCD, LT BCH	3 x 27.7	3 x 33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP, LTBCU	3 x 30	
	LTBCU, LTCCN	3 x 30				
	LTCCU	3 x (12.5 + 15)		3 x (15 + 20)	LTCCU	(4 x 20) + 10
	LTBCP	27.7 + 55.3		33.1 + 66.2		
100	LTCCD, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP	4 x 27.7	4 x 33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LT BCH, LTBCP, LTBCU	4 x 30	
	LTBCU, LTCCN	4 x 30				
	LTCCU	4 x (12.5 + 15)		4 x (15 + 20)	LTCCU	6 x 20
	LTBCP	2 x 55.3		2 x 66.2		



## Capacitor Duty Contactors - Type MO C [8536]



MO C25

MO C50

MO C100

Size	kVA Rating @ 440V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	3	MO C3	1NO	CS96146	2120	1
	5	MO C5	1NO	CS96127	2220	1
	8.5	MO C8.5	1NO	CS96320	2490	1
	10	MO C10	1NO	CS96156	2650	1
	12.5	MO C12.5	1NO	CS96321	2780	1
	15	MO C15	1NO	CS90019	3750	1
	20	MO C20	1NO	CS90021	4220	1
	25	MO C25▲	1NO	CS96322	4860	1
Fr 2	30	MO C30\$	1NO	CS96148	7360	1
	40	MO C40	1NO	CS96147	12200	1
	50	MO C50	1NO	CS96324	13400	1
Fr 3	60	MO C60\$	1NO	CS96149	14700	1
	75	MO C75	1NO	CS96150	17800	1
	85	MO C85	1NO	CS96157	19200	1
	100	MO C100\$	1NO	CS96158	19800	1

## Thyristor Switching Module, 440V 50Hz [8538]

- High Peak Inverse Voltage (PIV) - 2.2 kV
- Lower operating losses
- Auto thermal cut off
- Compact Design
- No moving parts
- LEDs for various status/fault indications



kVA Rating	Cat. No.	M.R.P. (₹) Per Unit
10	LTTSM10B2	25440
25	LTTSM25B2	36290
50	LTTSM50B2	41565

Note: Above prices include Quick Discharge Resistors (QDR)

**Note :**

- 1) For ordering add-on aux. contact block, please refer page No. 8
- 2) For ordering suffix, please refer page No.10
- 3) For ordering spare coils, please refer page No. 11
- 4) Standard coil voltage : 240V, 50/60 Hz
- 5) For ordering MO C surge suppressor, please refer page No. 9

- ▲ If using 16 sq mm cable use of spreader link kit is mandatory
- ▲ For ordering spreader link kit, Please refer page No. 9
- \$ Spreader link along with phase barrier included in packing

## Active Harmonic Filter (AHF) [8543]

### Features :

- Reduces THD within IEEE - 519 limits
- Harmonic cancellation up to 50<sup>th</sup> order
- Improves both Distortion & Displacement Power Factor ( Leading & Lagging)
- Load balancing
- 3 Phase 4 Wire AHF to be used where 3<sup>rd</sup> Harmonic Mitigation is required
- Modular Design allowing for future expansion
- Ease of Monitoring using Touch Screen HMI
- Customization as per site condition
- Communication : MODBUS RS485 Protocol Available

\* Standard CAT. No. Configuration

Contact your nearest sales office for customised solutions:

Customisable Options Available:

IP Class : IP20/IP40/IP42

Cable Entry : Bottom / Top / Additional Cable Alley

Conformal coating ( 3C3 )



Filter Rating (A)	3 Phase 3 wire AHF Without Neutral Compensation		3 Phase 4 wire AHF With Neutral Compensation	
	Cat. No.*	M.R.P. (₹) Per Unit	Cat. No.*	M.R.P. (₹) Per Unit
30	AHF030431D2	On Request	AHF030441D2	On Request
60	AHF060431D2		AHF060441D2	
75	AHF075431D2		AHF075441D2	
100	AHF100431D2		AHF100441D2	
150	AHF150431D2		AHF150441D2	
200	AHF200431D2		AHF200441D2	
225	AHF225431D2		AHF225441D2	
300	AHF300431D2		AHF300441D2	
400	AHF400431D2		-	
600	AHF600431D2			
800	AHF800431D2			



# Next Gen Power Quality Monitoring: **Elevate Efficiency with our Power Quality Meters**



**WC7000**  
Power Quality Monitors



**WC8000**  
Power Quality Analyzers

## Take control of your operation with our Power Quality Meters!

Accurately measure power quality parameters to extend asset lifespan and take proactive steps to prevent issues. Empower your maintenance strategy with WC7000 & WC8000 Power Quality Meters!

- **High Sampling Rate:** 1024 or 512 Samples/Cycle - Enhances power quality analysis precision
- **Tracking Power Quality Events** – Sag, Swell, Flicker, Transient, Interruption, Harmonics upto 127th Order(Odd, Even & inter Harmonics)
- **Dual Communication Port** – RS485 & Ethernet Port Enables seamless integration across systems simultaneously
- **IOT Enabled:** Seamless IoT Cloud integration for remote asset monitoring convenience
- **Power Quality Reports:** Produces IEEE519, EN 50160, IEC61000-4-30 & ITIC-CBEMA Curve reports

\*Reach out to the nearest branch office for further information\*

### Customer Interaction Center (CIC)

BSNL/MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858. Email: cic@Lntbg.com Web: Lntbg.com



## etaULTRA - APFC Controller - 3 CT inputs

### Features:

- 3 Phase Current and Voltage measurement
- PF display - 3 Digit after decimal
- Individual harmonics measurement up to 31st order
- Dual PF setting for Mains - DG application
- Communication through Inbuilt MODBUS RS-485 Protocol

### Cascading (Master - Slave configuration) for APFC panel with more than 16 steps



2 & 4 Quadrant Operation for sites with / without Solar Plants

Model Name	No. of steps (For Contactor switching)	No. of steps (For Thyristor switching)	Voltage Input	Cat No.	Size	M.R.P. (₹) Per Unit
etaULTRA 8R	8	0	110 / 415	CS910500000	144 x 144	19900
etaULTRA 16R	16	0		CS910510000		26300
etaULTRA 14T+2R	2	14		CS910530000		26300
etaULTRA 8T+8R	8	8		CS910540000		19900

Last Two Contacts can be programmed for Capacitor Switching / Alarm Function / Fan Control

## etaSMART - APFC Controller - 1 CT input

### Features:

- Simple and Smart Controller
- Auto programming function available
- CT secondary - 1 / 5 Amp site selectable



2 & 4 Quadrant Operation for sites with / without Solar Plants

### etaSMART T - APFC Controller for Thyristor Switching with 1 CT input

No. of O/P steps (for Thyristor switching)	Size	Cat. No.	Single CT input	Voltage Input	M.R.P. (₹) Per Unit
6	96x96	CS916130000	1/5 Amp	415 V	13755
8	144 x 144	CS916140000			16380
12	144 x 144	CS916150000			20055
15	144 x 144	CS916160000			23730

One separate relay contact is available for Alarm

### etaSMART R - APFC controller for Contactor switching with 1 CT input

No. of steps (For Contactor Switching)	Size	Cat. No.	Single CT input	Voltage Input	M.R.P. (₹) Per Unit
4	96 x 96	CS908840000	1/5 Amp	415 V	6950
6	96 x 96	CS908850000			8850
8	96 x 96	CS909020000			10500
12	144 x 144	CS909030000			18800
14	144 x 144	CS909040000			20800
16	144 x 144	CS909050000			22900

Last Two Contacts can be Programmed for Capacitor Switching / Alarm Function / Fan Control

## etaCON M5 APFC Controller

### APFC controller for Contactor switching with 1 CT input

### Features:

- CT secondary - 1 A / 5 A Site selectable
- Suitable for LT as well as HT side sensing



2 & 4 Quadrant Operation for sites with / without Solar Plants

No. of Steps	Single CT input	Voltage input	Cat. No.	Size	M.R.P. (₹) Per Unit
5 Steps*	1 A / 5 A	415V / 110V	ETACONM005R	96 X 96	15600
8 Steps*			ETACONM005R + ETACONEXP3R	96 X 96	19100

\* Available till stock last





# Type Tested APFC Panels – Safe, Reliable and Smart solution to maintain Power Factor

## Type tested and certified design

- Engineered to the highest standards - Type tested as per IEC 61439-1&2, IEC61921 & IS13947
- Ingress Protection up to IP42 as per IEC 60529, IS2147 to protect equipment under harsh environments

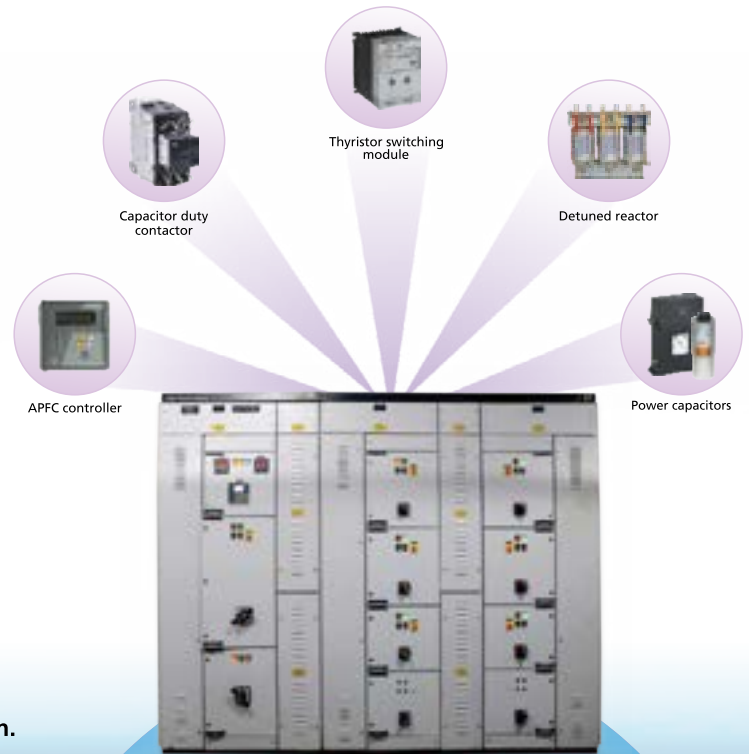
## Reliable

- Worry free PF management with 4 quadrant PF controller
- Certified for better thermal management as per IEC 61921
- Design verified assemblies of both constructional & permanence requirements
- Separate section for detuned reactors, capacitors & switchgear ensures longer life of components & less worry on maintenance

## Safety

- Form 3B separation (compartmentalized design for switchgear)
- Bus bars with more clearance than prescribed in standards
- A minimum of IP2X degree of protection even when the doors / covers in open condition
- Earthing of each and every door and structural members
- Zero stray voltage on doors & covers ensures both operator & equipment safety

**Hybrid Harmonic Filters (AHF + APFC) can also be offered.  
Contact our nearest sales office for such customized solution.**



## Suggested Step Ratings for APFC Panels

Panel Rating (kVAr)	Physical Step Size (kVAr)	No. of Physical Steps	Electrical Steps (All Possible Combination of Physical Steps)	No. of Electrical Steps
10	4 + 3 + 2 + 1	4	1,2,3,4...8,9,10	10
15	5 + 4 + 3 + 2 + 1	5	1,2,3,4...13,14,15	15
20	10 + 5 + 2x2 + 1	5	1,2,3,4...18,19,20	20
25	15 + 5 + 2x2 + 1	5	1,2,3,4...23,24,25	20
30	15 + 10 + 2x2 + 1	5	1,2,3,4...28,29,30	22
35	20 + 10 + 2x2 + 1	5	1,2,3,4...33,34,35	23
40	20 + 10 + 5 + 3 + 2	5	2,3,5,7...35,37,38,40	24
45	25 + 10 + 5 + 3 + 2	5	2,3,5,7...40,42,43,45	24
50	25 + 15 + 5 + 3 + 2	5	2,3,5,10...45,47,48,50	24
55	25 + 15 + 10 + 3 + 2	5	2,3,5,10...50,52,53,55	25
60	25 + 15 + 10 + 5 + 3 + 2	6	2,3,5,7...55,57,58,60	36
65	25 + 2x15 + 5 + 3 + 2	6	2,3,5,7...60,62,63,65	35
70	25 + 20 + 15 + 5 + 3 + 2	6	2,3,5,7...65,67,68,70	36
75	2x25 + 15 + 5 + 3 + 2	6	2,3,5,7...70,72,73,75	39
80	2x25 + 15 + 10 + 3 + 2	6	2,3,5,10...75,77,78,80	36
85	50 + 20 + 5 + 4 + 2x3	6	2,3,5,6...80,81,82,85	44
90	50 + 25 + 5 + 4 + 2x3	6	3,4,5,6...85,86,87,90	47
95	50 + 25 + 10 + 4 + 2x3	6	3,4,6,7...89,91,92,95	43
100	50 + 25 + 15 + 4 + 2x3	6	3,4,6,7...94,96,97,100	44
105	50 + 25 + 15 + 5 + 4 + 2x3	7	3,4,5,6...100,101,102,105	85
110	50 + 25 + 15 + 10 + 4 + 2x3	7	3,4,5,6...104,106,107,110	65
115	50 + 25 + 2x15 + 4 + 2x3	7	3,4,6,7...109,111,112,115	65

Panel Rating (kVAr)	Physical Step Size (kVAr)	No. of Physical Steps	Electrical Steps (All Possible Combination of Physical Steps)	No. of Electrical Steps
120	50 + 25 + 20 + 15 + 4 + 2x3	7	3,4,6,7...114,116,117,120	85
125	50 + 2x25 + 15 + 4 + 2x3	7	3,4,6,7...119,121,122,125	55
130	50 + 2x25 + 20 + 4 + 2x3	7	3,4,6,7...124,126,127,130	60
135	2x50 + 15 + 10 + 4 + 2x3	7	3,4,6,7...129,131,132,135	65
140	2x50 + 20 + 10 + 4 + 2x3	7	3,4,6,7...134,136,137,140	62
145	2x50 + 25 + 10 + 4 + 2x3	7	3,4,6,7...139,141,142,145	65
150	2x50 + 25 + 15 + 4 + 2x3	7	3,4,6,7...144,146,147,150	66
155	2x50 + 25 + 15 + 3x5	7	5,10,15,20...145,150,155	31
175	2x50 + 2x25 + 10 + 3x5	8	5,10,15,20...165,170,175	35
200	2x50 + 3x25 + 15 + 2x5	8	5,10,15,20...190,195,200	40
225	3x50 + 2x25 + 15 + 10	7	10,15,25,35...210,215,225	27
250	3x50 + 3x25 + 15 + 10	8	10,15,25,35...235,240,250	30
275	4x50 + 2x25 + 15 + 10	8	10,15,25,35...260,265,275	33
300	100 + 2x50 + 3x25 + 15 + 10	8	10,15,25,35...285,290,300	36
325	100 + 3x50 + 2x25 + 15 + 10	8	10,15,25,35...310,315,325	39
350	100 + 4x50 + 25 + 15 + 10	8	10,15,25,35...335,340,350	42
375	2x100 + 2x50 + 2x25 + 15 + 10	8	10,15,25,35...360,365,375	45
400	2x100 + 2x50 + 4x25	8	25,50,75,100...350,375,400	16
425	2x100 + 3x50 + 3x25	8	25,50,75,100...375,400,425	17
450	2x100 + 3x50 + 4x25	9	25,50,75,100...400,425,450	18
475	2x100 + 4x50 + 3x25	9	25,50,75,100...425,450,475	19
500	2x100 + 5x50 + 2x25	9	25,50,75,100...450,475,500	20

**Note :** Above mentioned steps are typical recommendations, suitable for most of the industries. For accurate compensation, step size selection may have to be decided after studying load profile of that industry.



## 3 Phase Over Current + Earth Fault Relay

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC31AnX*	24 - 240V AC/ DC	2 NO + 2 NC	51, 51N	MC31ANX2200	21000
		4 NO		MC31ANX4000	

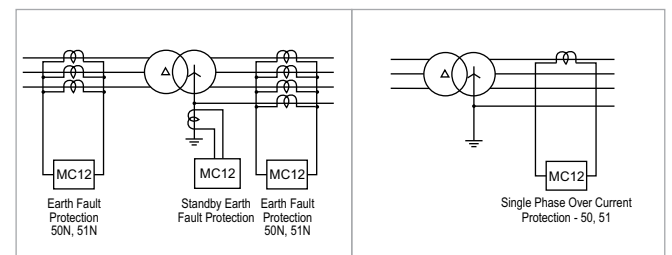
## Single Pole Over Current or Earth Fault Relay

C.T. Rating 1A or 5A, Not Field Selectable



- IDMT and Definite time characteristics

Model	Aux. Supply (V)	C.T. Secondary (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC12*	20 - 110V AC/DC	1A	50, 51 or 50N, 51N	MC12AA10X00	14800
		5A		MC12AA50X00	
	88 - 264V AC/DC	1A		MC12AB10X00	
		5A		MC12AB50X00	



## 3 Phase Over Current + Earth Fault Relay with High Set

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC61AnX*	24 - 240V AC/ DC	2 NO + 2 NC	51, 51N, 50, 50N	MC61ANX2200	23000
		4 NO		MC61ANX4000	

## Reverse Power Relay

C.T. Rating 1A or 5A, Not Field Selectable



- System Voltage is site selectable - 110V / 415V AC

Model	Aux Supply (V)	C.T. Secondary (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MRP11*	20 - 110V AC/DC	1A	32	MRP11A10X00	24500
		5A		MRP11A50X00	
	88 - 264V AC/DC	1A		MRP11B10X00	
		5A		MRP11B50X00	

## 3 Phase Over Current + Earth Fault Relay with High Set & RS - 485 Port

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC61CnX*	24 - 240V AC/ DC	4 NO	51, 51N, 50, 50N	MC61CNX4000	25500

## Trip Circuit Supervision Relay



- Static Relay.
- Monitors Trip Coil in Breaker ON & OFF condition
- Site selectable Trip Coil Voltage

Model	Aux. Supply (V)	Cat. No.	M.R.P. (₹) Per Unit
TCS01nX*	20 - 110 V AC/ DC	TCS01NXA000	8500
	88 - 264 V AC/ DC	TCS01NXB000	

\* Available till stock last

## MV12

### Single Phase Under Voltage or Over Voltage Relay

- System Voltage is site selectable - 110 / 240 / 415V AC



Model	Aux. Supply (V)	Device code	Cat. No.	M.R.P. (₹) Per Unit
MV12*	20 - 110V AC/DC	27 or 59	<b>MV12AA00X00</b>	<b>14800</b>
	88 - 264V AC/DC		<b>MV12AB00X00</b>	

\* Available till stock last

## Lockout Relay - LocR

### Features:

- Lockout Relays [Master Trip Relay] - LocR
- Designed to operate the circuit breaker trip coils at high speed
- Available with Hand reset contact (HRC) and hand reset Flag (HRF)



ANSI Code - 86

Description	Output contacts	Reset Contacts	Reset Flag	Coil Voltage	Cat. No.	M.R.P. (₹) Per Unit
Single element Lockout relay	3NO + 2NC	Hand	Hand	<b>24VDC</b>	<b>L1H32DC024X</b>	<b>6000</b>
				<b>110VDC</b>	<b>L1H32DC110X</b>	
				<b>220VDC</b>	<b>L1H32DC220X</b>	
				<b>230VAC</b>	<b>L1H32AC230X</b>	

## Auxiliary Relay - AuxR

### Features:

- AuxR relay provides additional contacts for interlocking, control and signal applications
- Available with hand reset or self-reset contacts and hand reset Flag

Description	Output Contacts	Reset Contacts	Reset Flag	Coil Voltage	Cat. No.	M.R.P. (₹) Per Unit
Three element Auxiliary relay	4 N/O	Hand	Hand	<b>24VDC</b>	<b>A3H40DC024X</b>	<b>12000</b>
				<b>110VDC</b>	<b>A3H40DC110X</b>	
				<b>220VDC</b>	<b>A3H40DC220X</b>	
				<b>230VAC</b>	<b>A3H40AC230X</b>	
Three element Auxiliary relay	2 N/O + 2 N/C	Auto	Hand	<b>24VDC</b>	<b>A3A22DC024X</b>	
				<b>110VDC</b>	<b>A3A22DC110X</b>	
				<b>220VDC</b>	<b>A3A22DC220X</b>	
				<b>230VAC</b>	<b>A3A22AC230X</b>	

## Single Phase kWh meter with LCD display

Model EM101+ Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
1P LCD Meter 5-30A	WM101BC5DL0	1820
1P LCD Meter 5-30A with BOX	WM101BC5DL0BOX	2430
1P LCD Meter 5-30A with OPTICAL PORT	WM101BC5DDH	2500
1P LCD Meter 5-30A with Optical port + BOX	WM101BC5DDHBOX	3110
1P LCD Meter 10-60A	WM101BC7DL0	2150
1P LCD Meter 10-60A with BOX	WM101BC7DL0BOX	2710
1P LCD Meter 10-60A with Optical Port	WM101BC7DDH	2750
1P LCD Meter 10-60A with Optical Port + BOX	WM101BC7DDHBOX	3160
1P LCD Meter 5-30 with Optical Port + RS232	WM101BC5DLMSC	2800

## 3 Phase 4 Wire kWh meter LCD type

Model ER300P Base Mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W kWh CT op base mtg 240V, /5A, Acc 0.5s	WR301BC3C00	5810
3Ph 4 W kWh Dir base mtg 240V 5- 30 A Acc 1	WR301BC4D20	4870
3Ph 4 W kWh Dir base mtg 240V 10- 40 A Acc 1	WR301BC6D20	5010
3Ph 4 W kWh Dir base mtg 240V 10- 60 A Acc 1	WR301BC7D10	6350
3Ph 4 W kWh Dir base mtg 240V 20- 100 A Acc 1	WR301BC8D10	9200

## Trivector Meter Class 1 whole current meter

Model ER300P Class 1 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 240 V 10 - 60A BM	WR300BC7300	8580
3Ph, 4W TVM 240 V 10 - 60A BM RS 485 Modbus*	WR300BC73RS485	12240
3Ph, 4W TVM 240 V 10 - 60A BM with Hinge type Box	WR300BC73BOXH	10630

\*- Available on request only & minimum order quantity is 100 Nos

## Trivector Meter Class 0.5s

Model ER300P Class 0.5s (Base Mounting)



- Inform CT/PT ratio while ordering
- Meters with DLMS Protocol (IS 15959)

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V ( L-L) 1 A Class 0.5s BM RS 485 Modbus	WR300BB12RS	34300
3Ph, 4W TVM 110V ( L-L) 5 A Class 0.5s BM RS 485 Modbus#	WR300BB52RS	34300
3Ph, 4W TVM 240V ( L-N) 5 A CI 0.5s BM RS 485 Modbus	WR300BC52RS	30760

# - available on request

## Pre-Payment® & Smart Meter Solutions\$



Pre-Payment Meter (IS 15884)®, Smart Meter (IS 16444) solutions please contact our nearest Branch

@ - Long lead item. Available on request

## Net Meters\$



Net Meters for solar roof top application & solar generation plant please contact our nearest Branch

## ORION (40-200A)\$



Combined CT Meter (Available for Generation and Net Metering)

\$ For more details please contact nearest branch

## Trivector Meter Class 0.2s

Model ER300P Class 0.2s (Base Mounting)

- Inform CT/PT ratio while ordering
- Meters with DLMS Protocol (IS 15959)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V ( L-L) 1 A Class 0.2s BM RS485 Modbus	WR300BB11RS	73990
3Ph, 4W TVM 110V ( L-L) 5 A Class 0.2s BM RS485 Modbus	WR300BB51RS	73990

## Meter Reading Instrument

[8471]



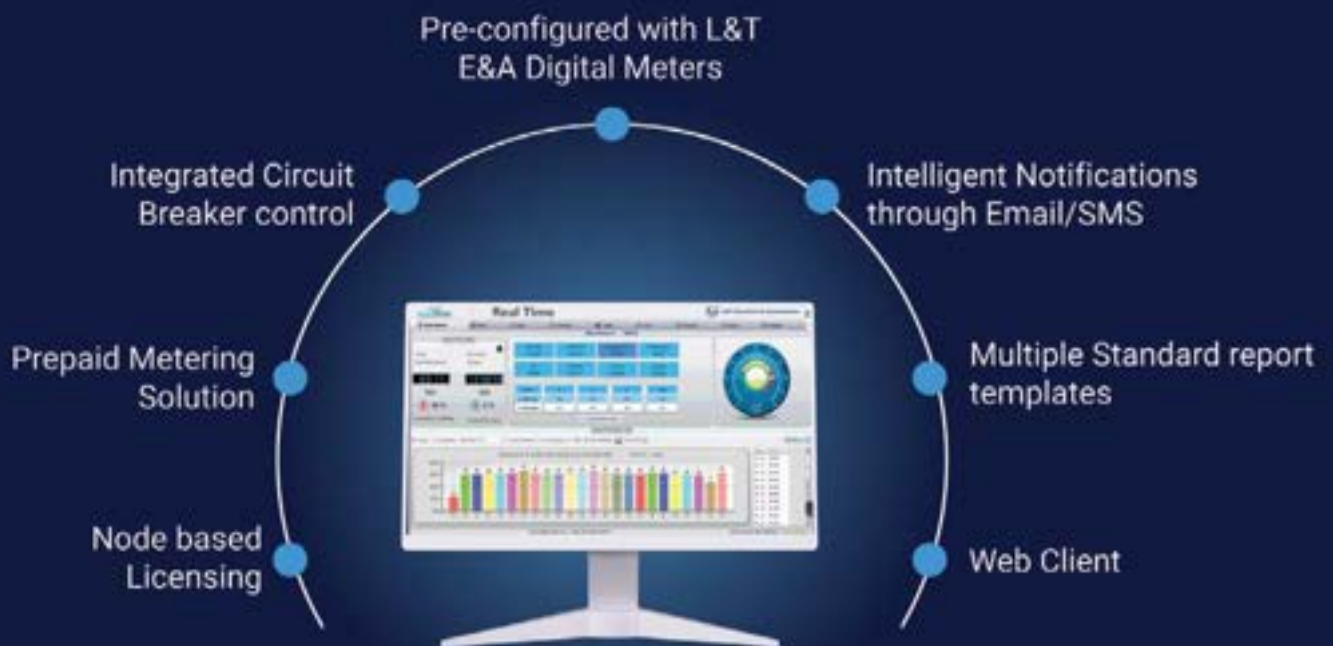
Description	Cat. No.	M.R.P. (₹) Per Unit
Meter Reading Instrument - (16.5 MB)	990MRIXX000	146460
Meter Optical port to USB cable	990PCXXUSB	1750



## THE ENERGY MANAGEMENT SYSTEM THAT FOSTERS ENERGY EFFICIENCY



SmartComm EMS is a simple yet robust solution for organizations seeking to optimize energy consumption and operational efficiency, all within a user-friendly environment. The on-premise implementation gives you direct control and oversight of energy-related data, allowing for real-time monitoring, analysis, and decision-making through an intuitive and easy-to-use interface. With cutting edge features, SmartComm EMS empowers you to proactively manage energy usage, identify savings opportunities, and ensure compliance with sustainability goals and regulations.





## Single Function Meters [9030]

### 1xxx Series

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- Inbuilt selector switch for 3 phase meters
- CT/PT site programmable
- Frequency parameter available in 3Ph Voltmeter additionally



Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph LED Ammeter CI 1	WL1110100000	925
1Ph LED Voltmeter CI 1	WL1120100000	925
3Ph LED Ammeter CI 1	WL1310100000	1395
3Ph LED Voltmeter CI 1	WL1320100000	1395
LED Freq meter CI 0.2	WL1130400000	925
1Ph LED Ammeter CI 0.5	WL1110200000	1245
1Ph LED Voltmeter CI 0.5	WL1120200000	1245
3Ph LED Ammeter CI 0.5	WL1310200000	1680
3Ph LED Voltmeter CI 0.5	WL1320200000	1680

## Energy Meters [9030]

### 4000 Series

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Auto scaling of Kilo, Mega and Giga
- Parameters: Site selectable kWh / kVA / PF / W, Old energy

kWh or kVAh is site selectable



Energy display in kWh in its lifetime#

Description	Cat. No.	M.R.P. (₹) Per Unit
kWh LED meter CI 1	WL4000100000	2810
kWh LED meter CI 1 with RS485	WL4000110000	3160
kWh LED meter CI 0.5	WL4000200000	3570
kWh LED meter CI 0.5 with RS485	WL4000210000	3870
kWh LCD meter CI 1	WC4000100000	3180
kWh LCD meter CI 1 with RS485	WC4000110000	3510
kWh LCD meter CI 0.5	WC4000200000	3940
kWh LCD meter CI 0.5 with RS485	WC4000210000	4240

# For 415V LL and CT Primary value of 400 and below

## VAF + PF Meters [9030]

### 4110 Series



- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- Parameters: VLL, VLN, A, F, PF, On Hrs, RPM, Apeak

Description	Cat. No.	M.R.P. (₹) Per Unit
VAF + PF meter, CI 1	WL4110100000	2380
VAF + PF meter with RS485, CI 1	WL4110110000	2980
VAF + PF meter, CI 0.5	WL4110200000	2735
VAF + PF meter with RS485, CI 0.5	WL4110210000	3310

## DIN Basic Multifunction Meters [9030]

### 4000 Series

- Parameters: Voltage, Current, kW, kWh, PF#, KVA#, KVA<sub>r</sub>#, MD#



till stocks lasts

Description	Cat. No.	M.R.P. (₹) Per Unit
Energy meter 1P 5-40A CI 1 DIN	WD4000101000	2630
Energy meter 3P 10-60A CI 1 DIN	WD4000103000	5975
Energy meter RS485 module	WD400010RS00	2630

# Parameter Available in 3P Model

## Counter type Energy Meter [9030]

### 4030 Series



#### Features

- Accuracy Class 1.0
- Flush mounting 96 x 96 mm
- Available with sealing arrangement
- Parameter : kWh

Description	Cat. No.	M.R.P. (₹) Per Unit
kWh Counter type meter CI 1 (3Ph 4W 240V 5A)*	WL4030100000	3705

\* for availability please contact nearest branch office.



### 4010 Series

- DIN mounting whole current operated meter
- Accuracy Class 1.0
- Inbuilt RS485 option
- Parameters: Voltage, Current, kW, kWh, kVA, kVAh, RPM, Load hours, Interruptions



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
Single Phase - 60A	2	WD4010100000	2630
Three Phase - 80A	5	WD4020100000	5975
Single Phase - 60A (RS485)	2	WD4010110000	4200
Three Phase - 80A (RS485)	5	WD4020110000	8605

## Dual Source Basic MFM [9030]

### 4040 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- DG sensing input 230 VAC
- Flush mounting 96 X 96 mm
- CT/PT site programmable
- Discrete LED for EB and DG
- True PF or Displacement PF site selectable
- Parameters: V, A, F, PF, kW, kVA, Run hours, kWh (EB and DG), Old energy, Site selectable kWh / kVAh

kWh or kVAh  
is site selectable



LCD offers better readability  
of parameters

Description	Cat. No.	M.R.P. (₹) Per Unit
Dualsource LED meter CI1	WL4040100000	4600
Dualsource LED meter CI1 with RS485	WL4040110000	5415
Dualsource LED meter CI0.5	WL4040200000	5470
Dualsource LED meter CI0.5 with RS485	WL4040210000	6405
Dualsource LCD meter CI1	WC4040100000	5060
Dualsource LCD meter CI1 with RS485	WC4040110000	5890
Dualsource LCD meter CI0.5	WC4040200000	5940
Dualsource LCD meter CI0.5 with RS485	WC4040210000	6795

## Basic Multifunction Meters [9030]

### 4400 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- True PF or Displacement PF site selectable
- V, A, F, PF, kW, kVA, Old energy, Load hours, site selectable kWh/ kVAh



LCD offers better readability  
of parameters

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4400 LED meter CI 1	WL4400100000	4430
MFM 4400 LED meter CI 1 with RS485	WL4400110000	5215
MFM 4400 LED meter CI 0.5 with RS485	WL4400210000	6165
MFM 4400 LED meter CI 0.5S with RS485	WL4400310000	6230
MFM 4400 LCD meter CI 1	WC4400100000	4890
MFM 4400 LCD meter CI 1 with RS485	WC4400110000	5675

## Basic Multifunction Meters [9030]

### 4405 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- V, A, F, PF, kW, kVA, Old energy, On and Run hours, site selectable kWh/ kVAh
- True PF or Displacement PF site selectable

All parameters  
of 4400 series  
in 3 line  
LED display



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4405 LED meter CI 1	WL4405100000	6010
MFM 4405 LED meter CI 1 with RS485	WL4405110000	6785
MFM 4405 LED meter CI 0.5 with RS485	WL4405210000	7800
MFM 4405 LED meter CI 0.5S with RS485	WL4405310000	7865

## Multifunction Meters [9030]

#### Features

- Accuracy Class 1.0, 0.5, 0.5S, 0.2, 0.2S
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- 128 samples / cycle
- My favourite page in LCD multifunction meters site selectable for kWh + 2 parameters
- Dedicated buttons available for direct access to Basic, Power and Energy parameters

True and  
Displacement  
PF available

Constant Wh viewing in LCD  
MFM even in auto scroll mode.  
LCD offers better readability  
of parameters



### 4410 Series

- Parameters: V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh, Runhours, On hours, Phase angle, Interrupts, THD, Events (High-Low), Neutral Current, K Factor

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4410 LED meter CI 1	WL4410100000	8420
MFM 4410 LED meter CI 1 with RS485	WL4410110000	9165
MFM 4410 LED meter CI 0.5 with RS485	WL4410210000	10880
MFM 4410 LED meter CI 0.5S with RS485	WL4410310000	12025
MFM 4410 LED meter CI 0.2 with RS485	WL4410410000	14315
MFM 4410 LED meter CI 0.2S with RS485	WL4410510000	18320
MFM 4410 LCD meter CI 1	WC4410100000	9900
MFM 4410 LCD meter CI 1 with RS485	WC4410110000	10595
MFM 4410 LCD meter CI 0.5 with RS485	WC4410210000	12360
MFM 4410 LCD meter CI 0.5S with RS485	WC4410310000	13540
MFM 4410 LCD meter CI 0.2 with RS485	WC4410410000	15890
MFM 4410 LCD meter CI 0.2S with RS485	WC4410510000	20005

## 4420 Series Max Demand Indicator (without Real time clock)

Parameters:

- All parameters of 4410 series
- Maximum Demand (kW & kVA)

2 Relay outputs for MD Alarm

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4420 LED meter CI 1	WL4420100000	12400
MFM 4420 LED meter CI 1 with RS485	WL4420110000	12920
MFM 4420 LED meter CI 0.5 with RS485	WL4420210000	14610
MFM 4420 LED meter CI 0.5S with RS485	WL4420310000	15735
MFM 4420 LED meter CI 0.2 with RS485	WL4420410000	17980
MFM 4420 LED meter CI 0.2S with RS485	WL4420510000	21915
MFM 4420 LCD meter CI 1	WC4420100000	14200
MFM 4420 LCD meter CI 1 with RS485	WC4420110000	14720
MFM 4420 LCD meter CI 0.5 with RS485	WC4420210000	16485
MFM 4420 LCD meter CI 0.5S with RS485	WC4420310000	17655
MFM 4420 LCD meter CI 0.2 with RS485	WC4420410000	20005
MFM 4420 LCD meter CI 0.2S with RS485	WC4420510000	24135

For Max Demand Controller (with Real time clock) please refer 6000 series

## 4430 Series MFM for IE

Parameters:

- All parameters of Model 4420 series
- Bi-directional (Import-Export)

2 Relay outputs for MD Alarm

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4430 LED meter CI 1	WL4430100000	17400
MFM 4430 LED meter CI 1 with RS485	WL4430110000	17660
MFM 4430 LED meter CI 0.5 with RS485	WL4430210000	19260
MFM 4430 LED meter CI 0.5S with RS485	WL4430310000	20330
MFM 4430 LED meter CI 0.2 with RS485	WL4430410000	22475
MFM 4430 LED meter CI 0.2S with RS485	WL4430510000	26220
MFM 4430 LCD meter CI 1	WC4430100000	18500
MFM 4430 LCD meter CI 1 with RS485	WC4430110000	18725
MFM 4430 LCD meter CI 0.5 with RS485	WC4430210000	20330
MFM 4430 LCD meter CI 0.5S with RS485	WC4430310000	21400
MFM 4430 LCD meter CI 0.2 with RS485	WC4430410000	23540
MFM 4430 LCD meter CI 0.2S with RS485	WC4430510000	27290

## 4440 Series

Parameters:

- All parameters of 4410 series
- Maximum Demand with Real Time Clock (RTC)
- Events (high-low) with time stamp

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4440 LED meter CI 1 with RS485	WL4440110000	14775
MFM 4440 LED meter CI 0.5 with RS485	WL4440210000	16610
MFM 4440 LED meter CI 0.2 with RS485	WL4440410000	20310
MFM 4440 LCD meter CI 1 with RS485	WC4440110000	16005
MFM 4440 LCD meter CI 0.5 with RS485	WC4440210000	17845
MFM 4440 LCD meter CI 0.2 with RS485	WC4440410000	21540

## 5000 Series

Features

- Datalog (8 MB)
- Bi-directional (Import - Export)
- 128 samples/ cycle
- Analog I/O, digital I/O variants available
- Meter with Ethernet port available

True and Displacement PF available

Parameters:

- V, A, F, kW, KVA, kVAR, kWh, kVAh, kVArh, PF, Runhr, Onhr, Interupts, Phase angle, THD, Neutral current, Max Demand (with RTC) K Factor
- Bi-directional (Import-Export)
- Events (high-low) with time stamp
- Individual Harmonics upto 31st.
- My favourite page in LCD multifunction meters site selectable for kWh + 2 parameters

Constant Wh viewing in LCD MFM even in auto scroll mode. LCD offers better readability of parameters



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 5000 LED meter CI 1 with RS485	WL5000110000	32730
MFM 5000 LED meter CI 1 with Ethernet	WL5000120000	37190
MFM 5000 LED meter CI 0.5 with Ethernet	WL5000220000	38785
MFM 5000 LED meter CI 0.5S with Ethernet	WL5000320000	39850
MFM 5000 LCD meter CI 1 with RS485	WC5000110000	33800
MFM 5000 LCD meter CI 1 with Ethernet	WC5000120000	38255
MFM 5000 LCD meter CI 0.5 with RS485	WC5000210000	35385
MFM 5000 LCD meter CI 0.5S with RS485	WC5000310000	36455
MFM 5000 LCD meter CI 0.5 with Ethernet	WC5000220000	39850
MFM 5000 LCD meter CI 0.5S with Ethernet	WC5000320000	40910
MFM 5000 LCD meter CI 0.2 with RS485	WC5000410000	38575
MFM 5000 LCD meter CI 0.2S with RS485	WC5000510000	42295
MFM 5000 LED meter CI 1 RS485 2A/O	WL5000110B00	35380
MFM 5000 LED meter CI 0.5 RS485 2D/I	WL5000210B00	36975
MFM 5000 LED meter CI 0.5 RS485 4D/O	WL5000210OOD	38040
MFM 5000 LCD meter CI 1 RS485 2A/O	WC5000110B00	36450
MFM 5000 LCD meter CI 0.5 RS485 2D/I	WC5000210B00	38040
MFM 5000 LCD meter CI 0.5 RS485 4D/O	WC5000210OOD	39105
MFM 5000 LCD meter CI 1 + RS485, 1AO, 1DO	WC5000110AOA	36685

5000 series with Digital outputs are preconfigured for I - THD% at 8% and True PF at 0.98.

Meter can be site selected for parameters and values - A THD, V THD, VA, W, under PF, under/over (VLL, A, F) with programmable trip time (1 to 180 sec) to protect the equipments from electrical abnormalities.

Parameters	Data Log Interval			
	15 Min	30 Min	45 Min	60 Min
No. of Days				
1	10230	20460	30690	40920
2	6820	13640	20460	27280
4	4092	8184	12276	16368
9	2046	4092	6138	8184
14	1364	2728	4092	5456
29	682	1364	2046	2728

# Advanced Multifunction Meters [9030]

## 5010 Series

True and Displacement PF available

### Features

- 128 samples / cycle
- Running demand, max demand, prediction demand in single page window

Parameters:

- V, A, F, kW, KVA, kVAr, kWh, kVAh, kVAh, PF, Runhr, Onhr, Interrupts, Phase angle, THD, Neutral current, Max Demand (with RTC)
- Bi-directional (Import-Export)
- Events (high-low) with time stamp
- Individual Harmonics upto 31st.



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 5010 LED meter CI 1	WL5010100000	12600
MFM 5010 LED meter CI 1 with RS485	WL5010110000	13145
MFM 5010 LED meter CI 0.5S	WL5010300000	15500
MFM 5010 LED meter CI 0.5S with RS485	WL5010310000	15880
MFM 5010 LED meter CI 0.2 with RS485	WL5010410000	18075

# Maximum Demand Controller [9030]

## 6000 Series

### Features

- Accuracy Class 1.0, 0.5S
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Datalog (8MB)
- 4 relay outputs for Max. demand controller
- Time of Day (TOD) 6 slots available
- Block/sliding window site selectable
- Running demand, max demand, prediction demand in single page window
- Individual harmonics upto 31st

8MB Datalog preconfigured for 9 parameters including kWh, Running demand and Max Demand for 15 mins interval

Parameters:

- V, A, F, kW, KVA, kVAr, kWh, kVAh, kVAh, PF, Runhr, Onhr, Intr, Phase angle, THD, Events, Neutral current, Max Demand (with RTC)



True and Displacement PF available

Description	Cat. No.	M.R.P. (₹) Per Unit
MDC 6000 LED meter CI 1 with RS485	WL6000110000	27990
MDC 6000 LED meter CI 0.5S with RS485	WL6000310000	30680
MDC 6000 LCD meter CI 1 with RS485	WC6000110000	29065
MDC 6000 LCD meter CI 0.5S with RS485	WC6000310000	31760

# Prepaid Metering Solutions with SmartComm EMS [9030]



- Dual source meters by default
- Class 1 accuracy as per IS 15884
- Ratings : 1P (10-60A) : 3P (10-60A, 20-80A, CT operated)
- Parameters: V, A, PF, W, VA, Wh - EB, DG
- Communication: Wired (Modbus RS485) or Wireless (LoRaWAN)
- Facility for connection or disconnection of electric supply based on the credit balance in the meter through relay
- Optional
  - In RS485 model upto 4DI for water and gas meter
  - In LoRaWAN model upto 2DI for water and gas meters
- Wireless postpaid or prepaid metering solutions for large townships on SmartComm EMS Platform available.
- With LoRaWAN technology, meters upto 1 km approx from LoRa Gateway can be monitored without Line of sight.
- Prices available on request.

# New Smartcomm Edge [8517]

SMARTCOMM Edge

Gateways and converters from the backbone of interconnected networks, and are a crucial link between our devices and cloud-based or on-premises softwares. They facilitate seamless communication, protocol translation, and data aggregation from various type of devices, enabling efficient data transmission and integration.

## MQ1000

- MQTT Gateway with ethernet port
- Easy integration with Smartcomm EMS Cloud
- Compact & Secure
- Data storage in case of network failure



Description	Cat. No.	M.R.P. (₹) Per Unit
MQTT Gateway with Ethernet port	MQ10000000	36000

## TG1000

- Modbus RS485 to MODBUS TCP/IP Gateway
- Easy integration with Smartcomm EMS/PMS On-prem or 3<sup>rd</sup> party Software/HMI



Description	Cat. No.	M.R.P. (₹) Per Unit
MODBUS RTU to TCP/IP Gateway	TG10000000	20000



# Empowering You with Energy Insights, Anytime, Anywhere!



## EMS on Cloud simplifies energy monitoring with real time data

Smartcomm EMS on Cloud empowers business owners and plant heads to seamlessly monitor energy usage & efficiency across operations and facilities. With our subscription-based software license, harness the power of cloud with minimal investment, faster deployment, seamless updates and easy scalability. Businesses owners can now track and take decisions on energy optimization based on real-time as well as historical insights, thereby reducing energy costs and increasing business efficiency.

- **Accessibility:** Accessible from anywhere, enabling remote monitoring and management
- **Cost-Effectiveness:** Lower upfront costs reducing IT maintenance expenses
- **Integration:** Integrate with IoT devices for a comprehensive energy management solution
- **Updates and Maintenance:** Automatic software updates and maintenance
- **Data Analytics:** Data Analytics at its best through widget-based dashboards and reports
- **Key Performance Indicators:** Intelligent Notifications through SMS and Email based alerts and alarms

Customer Interaction Center (CIC)

BSNL/MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858

Tel: 022 6774 5858 Email: [cic@Lntbg.com](mailto:cic@Lntbg.com) Web: [Lntbg.com](http://Lntbg.com)



# AC Drive Solutions from L&T Electrical & Automation

Based on experience. Backed by commitment.



## **Hx2000** HVAC Drive

Hx2000 AC drive adds a new dimension to our AC Drive Solutions.

Built to stringent quality standards, the Hx2000 is tested and certified to meet global benchmarks, thus giving you the assurance of total reliability.

It sets the standard for the drive industry by introducing Innovative Energy Reduction, Environment friendly features for HVAC System that incorporates the outstanding energy saving benefits for Fans & Pump application.

### **Range: 0.75kW to 90kW**

#### **Features:**

- Built-in RTC for Scheduling
- Built-in EMC filter as default (C3)
- Built-in 4 PID (1 Main & 3 EPID)
- Multiple-Motor Control (1 main motor and 5 auxiliary motors)
- Built-in Payback Counter
- Pump Clean Control
- V/F, Slip Compensation
- Fire Mode
- Flow Compensation
- Password Protection
- Built-in RS485 Communication for HVAC - BACnet, Modbus-RTU, Metasys N2
- Lubrication Control
- Dry Pump Detection
- Global Compliant- UL Plenum Rated, CE

#### **Customer Interaction Center (CIC)**

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)





# Nx2000+

High on compactness,  
Higher on functionality



- Complying to IEC 61800 - 3 Standard
- Reduced electrical noise and more immune to external noise



- LTOP-DOP-52 : Easy to mount on panel door
- Comes with 3 metre cable



- 2 Nos Multifunctional Relay Output
- Rating: 250VAC/30VDC-1A



- Easy to fix
- Allows quick installation for side by side mounting

# Fx2000

Internally mounted  
PLC optional module



- Digital Points: 6 Nos (NPN/PNP)
- Digital Output points: 4 Nos (Relay)
- RS-232 port to download program from KGLWIN
- RS485 (Modbus-RTU) port for Master/Slave Configuration
- 2 Nos LED indication (Green: RUN LED, Red: ERROR LED)
- 3 step switch for RUN, PAU/REM, STOP
- Built-in RTC (Real Time Clock) for various Clock functions
- Data of latch area and RTC data through using CR2032 lithium battery



# AC Drives [8504]



## New Series Nx2000 & Nx2000+



- Range: 0.2 kW to 11 kW
- Simplified sensorless vector control
- Built-in EMC filter to meet IEC 61800-3
- Built-in Potentiometer
- DIN Rail mounting for Side-by-Side installation
- Built-in PID
- Built-in Brake Control
- Conformal Coating complying to IEC 60721-3-3 class 3C3 Avg.
- Built-in RS485 Modbus RTU
- Interface:  
Nx2000: 5DI, 2DO (R), 2AI (V & V/I), 1AO (V)  
Nx2000+: 5DI, 2DO (R), 2AI (V & I), 1AO (V)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase 230VAC	Nx2000 230V 1Ph Drive 0.20 kW (HD)	LTVF-N101P4BAA	*
	Nx2000 230V 1Ph Drive 0.40 kW (HD)	LTVF-N102P4BAA	*
	Nx2000 230V 1Ph Drive 0.75 kW (HD)	LTVF-N104P2BAA	*
	Nx2000 230V 1Ph Drive 1.50 kW (HD)	LTVF-N107P5BAA	*
	Nx2000 230V 1Ph Drive 2.20 kW (HD)	LTVF-N110P0BAA	*
Three Phase 230VAC	Nx2000+ 230V Drive 0.40kW(HD)/0.75kW(ND)	LTVF-N203P1BAA	*
	Nx2000+ 230V Drive 0.75kW(HD)/1.50kW(ND)	LTVF-N206P0BAA	*
	Nx2000+ 230V Drive 1.50kW(HD)/2.20kW(ND)	LTVF-N209P6BAA	*
	Nx2000+ 230V Drive 2.20kW(HD)/3.70kW(ND)	LTVF-N212P0BAA	*
	Nx2000+ 230V Drive 4.00kW(HD)/5.50kW(ND)	LTVF-N218P0BAA	*
	Nx2000+ 230V Drive 5.50kW(HD)/7.50kW(ND)	LTVF-N230P0BAA	*
	Nx2000+ 230V Drive 7.50kW(HD)/11.0kW(ND)	LTVF-N240P0BAA	*
Three Phase 415VAC	Nx2000+ 415V Drive 0.40kW(HD)/0.75kW(ND)	LTVF-N402P0BAA	*
	Nx2000+ 415V Drive 0.75kW(HD)/1.50kW(ND)	LTVF-N403P1BAA	*
	Nx2000+ 415V Drive 1.50kW(HD)/2.20kW(ND)	LTVF-N405P1BAA	*
	Nx2000+ 415V Drive 2.20kW(HD)/3.70kW(ND)	LTVF-N406P9BAA	*
	Nx2000+ 415V Drive 4.00kW(HD)/5.50kW(ND)	LTVF-N410P0BAA	*
	Nx2000+ 415V Drive 5.50kW(HD)/7.50kW(ND)	LTVF-N416P0BAA	*
	Nx2000+ 415V Drive 7.50kW(HD)/11.0kW(ND)	LTVF-N423P0BAA	*

Note: \* For prices please contact nearest branch office

## Smart Series Sx2000



- Range: 0.75kW to 90kW
- Starting Torque: 150% at 3 Hz for V/F, 200% at 0.5Hz for Sensorless Vector Control
- Built-in Brake Control
- Built-in PLC functionality
- Peer to Peer Communication to share I/O's
- Conformal Coating complying to IEC 60721-3-3 Class 3C3 Avg.
- Built-in RS485 Modbus RTU
- Component Life Monitor
- Built-in Braking Chopper till 30kW ND
- Interface :  
Upto 30kW ND: 7DI, 2DO (R+T), 2AI (V & V/I), 1AO (V/I)  
From 37kW ND: 7DI, 3DO (2R+T), 2AI (V & V/I), 2AO (V & V/I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase 230Vac	Sx2000 VVVF 230V 1Ph Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S10003BAA	*
	Sx2000 VVVF 230V 1Ph Drive 0.75 kW (HD) / 1.5 kW (ND)	LTVF-S10006BAA	*
	Sx2000 VVVF 230V 1Ph Drive 1.5 kW (HD) / 2.20 kW (ND)	LTVF-S10010BAA	*
	Sx2000 VVVF 230V 1Ph Drive 2.2 kW (HD) / 3.70 kW (ND)	LTVF-S10012BAA	*
Three Phase 230Vac	Sx2000 VVVF 230V 3Ph Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S20003BAA	*
	Sx2000 VVVF 230V 3Ph Drive 0.75 kW (HD) / 1.5 kW (ND)	LTVF-S20006BAA	*
	Sx2000 VVVF 230V 3Ph Drive 1.5 kW (HD) / 2.20 kW (ND)	LTVF-S20010BAA	*
	Sx2000 VVVF 230V 3Ph Drive 2.2 kW (HD) / 3.70 kW (ND)	LTVF-S20012BAA	*
	Sx2000 VVVF 230V 3Ph Drive 4.0 kW (HD) / 5.5 kW (ND)	LTVF-S20018BAA	*
	Sx2000 VVVF 230V 3Ph Drive 5.5 kW (HD) / 7.5 kW (ND)	LTVF-S20030BAA	*
	Sx2000 VVVF 230V 3Ph Drive 7.5 kW (HD) / 11 kW (ND)	LTVF-S20040BAA	*
	Sx2000 VVVF 230V 3Ph Drive 11 kW (HD) / 15 kW (ND)	LTVF-S20056BAA	*
	Sx2000 VVVF 230V 3Ph Drive 15 kW (HD) / 18.5 kW (ND)	LTVF-S20069BAA	*
	Sx2000 VVVF 230V 3Ph Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-S20099BAA	*
Three Phase 415Vac	Sx2000 VVVF 415V Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S40002BAA	*
	Sx2000 VVVF 415V Drive 0.75 kW (HD) / 1.50 kW (ND)	LTVF-S40003BAA	*
	Sx2000 VVVF 415V Drive 1.50 kW (HD) / 2.20 kW (ND)	LTVF-S40005BAA	*
	Sx2000 VVVF 415V Drive 2.20 kW (HD) / 3.7 kW (ND)	LTVF-S40007BAA	*
	Sx2000 VVVF 415V Drive 4.00 kW (HD) / 5.50 kW (ND)	LTVF-S40010BAA	*
	Sx2000 VVVF 415V Drive 5.50 kW (HD) / 7.50 kW (ND)	LTVF-S40016BAA	*
	Sx2000 VVVF 415V Drive 7.50 kW (HD) / 11.0 kW (ND)	LTVF-S40023BAA	*
	Sx2000 VVVF 415V Drive 11.0 kW (HD) / 15.0 kW (ND)	LTVF-S40030BAA	*
	Sx2000 VVVF 415V Drive 15.0 kW (HD) / 18.5 kW (ND)	LTVF-S40038BAA	*
	Sx2000 VVVF 415V Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-S40044BAA	*
	Sx2000 VVVF 415V Drive 22.0 kW (HD) / 30.0 kW (ND)	LTVF-S40058BAA	*
	Sx2000 VVVF 415V Drive 30.0 kW (HD) / 37.0 kW (ND)	LTVF-S40075BAA	*
	Sx2000 VVVF 415V Drive 37.0 kW (HD) / 45.0 kW (ND)	LTVF-S40091BAA	*
Sx2000 VVVF 415V Drive 45.0 kW (HD) / 55.0 kW (ND)	LTVF-S40107BAA	*	
Sx2000 VVVF 415V Drive 55.0 kW (HD) / 75.0 kW (ND)	LTVF-S40142BAA	*	
Sx2000 VVVF 415V Drive 75.0 kW (HD) / 90.0 kW (ND)	LTVF-S40169BAA	*	

Note:

\* For prices please contact nearest branch office  
Drives are covered under HS code 8504 40 90 and are charged at 18% GST.



## Smart Series Sx2000 IP66



- Range: 0.40 to 22kW (HD)
- V/F, Slip Compensation, Sensorless Vector Control
- Starting Torque: 150% at 3Hz for V/F, 200% at 0.5Hz for Sensorless Vector Control
- Conformal Coating complying to IEC 60721-3-3, Class 3C3 Avg.
- Built-in RS485 Modbus
- Peer to Peer communication to share I/Os
- Built-in Brake Control
- Built-in PLC functionality
- Component Life Monitor
- Built-in PID
- Built-in Braking Chopper
- Interface: 5DI, 2DO (R+T), 2AI (V & V/I), 1AO (V/I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Sx2000 VVVF 415V IP66 Drive 0.40 kW (HD)	LTVF-S40001XAA	*
	Sx2000 VVVF 415V IP66 Drive 0.75 kW (HD)	LTVF-S40003XAA	*
	Sx2000 VVVF 415V IP66 Drive 1.50 kW (HD)	LTVF-S40004XAA	*
	Sx2000 VVVF 415V IP66 Drive 2.20 kW (HD)	LTVF-S40006XAA	*
	Sx2000 VVVF 415V IP66 Drive 4.00 kW (HD)	LTVF-S40009XAA	*
	Sx2000 VVVF 415V IP66 Drive 5.50 kW (HD)	LTVF-S40012XAA	*
	Sx2000 VVVF 415V IP66 Drive 7.50 kW (HD)	LTVF-S40016XAA	*
	Sx2000 VVVF 415V IP66 Drive 11.0 kW (HD)	LTVF-S40024XAA	*
	Sx2000 VVVF 415V IP66 Drive 15.0 kW (HD)	LTVF-S40030XAA	*
	Sx2000 VVVF 415V IP66 Drive 18.5 kW (HD)	LTVF-S40039XAA	*
Sx2000 VVVF 415V IP66 Drive 22.0 kW (HD)	LTVF-S40045XAA	*	

**Note:** \* For prices please contact nearest branch office

## Flexi Series Fx2000



- Range: 0.75kW to 375kW (HD)
- Ideal for Heavy Duty Applications - Crane, Winder, Textile Application, Plastic extruders
- Starting Torque: 250% at 0Hz for Closed Loop Vector Control
- Overload Capacity: 200% for 3 sec and 150% for 1 min
- Built-in Crane function
- Optional Smart PLC Card
- Conformal Coating complying to IEC 60721-3-3 Class 3C3 Avg.
- Built-in RS485 Modbus RTU
- Built-in DC Reactor from 22kW to 220kW HD
- Built-in Braking Chopper till 22kW HD
- Interface : 8DI, 3DO (2R+1T), 2AI (V & I), 2AO (V & I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Fx2000 VVVF 415V Drive 0.75 kW (HD) / 1.50 kW (ND)	LTVF-F40004CAA	*
	Fx2000 VVVF 415V Drive 1.50 kW (HD) / 2.20 kW (ND)	LTVF-F40006CAA	*
	Fx2000 VVVF 415V Drive 2.20 kW (HD) / 3.70 kW (ND)	LTVF-F40008CAA	*
	Fx2000 VVVF 415V Drive 3.70 kW (HD) / 4.00 kW (ND)	LTVF-F40012CAA	*
	Fx2000 VVVF 415V Drive 5.50 kW (HD) / 7.50 kW (ND)	LTVF-F40016CAA	*
	Fx2000 VVVF 415V Drive 7.50 kW (HD) / 11.0 kW (ND)	LTVF-F40024CAA	*
	Fx2000 VVVF 415V Drive 11.0 kW (HD) / 15.0 kW (ND)	LTVF-F40030CAA	*
	Fx2000 VVVF 415V Drive 15.0 kW (HD) / 18.5 kW (ND)	LTVF-F40039CAA	*
	Fx2000 VVVF 415V Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-F40045CAA	*
	Fx2000 VVVF 415V Drive 22.0 kW (HD) / 30.0 kW (ND)	LTVF-F40061CAA	*
	Fx2000 VVVF 415V Drive 30.0 kW (HD) / 37.0 kW (ND)	LTVF-F40075CAA	*
	Fx2000 VVVF 415V Drive 37.0 kW (HD) / 45.0 kW (ND)	LTVF-F40091CAA	*
	Fx2000 VVVF 415V Drive 45.0 kW (HD) / 55.0 kW (ND)	LTVF-F40110CAA	*
	Fx2000 VVVF 415V Drive 55.0 kW (HD) / 75.0 kW (ND)	LTVF-F40152CAA	*
	Fx2000 VVVF 415V Drive 75.0 kW (HD) / 90.0 kW (ND)	LTVF-F40183CAA	*
	Fx2000 VVVF 415V Drive 90.0 kW (HD) / 110 kW (ND)	LTVF-F40223AAA	*
	Fx2000 VVVF 415V Drive 110 kW (HD) / 132 kW (ND)	LTVF-F40264AAA	*
	Fx2000 VVVF 415V Drive 132 kW (HD) / 160 kW (ND)	LTVF-F40325AAA	*
	Fx2000 VVVF 415V Drive 160 kW (HD) / 185 kW (ND)	LTVF-F40370AAA	*
	Fx2000 VVVF 415V Drive 185 kW (HD) / 220 kW (ND)	LTVF-F40432AAA	*
Fx2000 VVVF 415V Drive 220 kW (HD) / 285 kW (ND)	LTVF-F40547AAA	*	
Fx2000 VVVF 415V Drive 285 kW (HD) / 315 kW (ND)	LTVF-F40613AAA	*	
Fx2000 VVVF 415V Drive 315 kW (HD) / 375 kW (ND)	LTVF-F40731AAA	*	
Fx2000 VVVF 415V Drive 375 kW (HD) / 450 kW (ND)	LTVF-F40877AAA	*	

**Note:**

\* For prices please contact nearest branch office  
Drives are covered under HS code 8504 40 90 and are charged at 18% GST.



# AC Drives [8504]

## HVAC Series Hx2000



- Range: 0.75 to 90kW
- V/F, Slip Compensation
- Built-in RTC for Scheduling
- Built-in EMC filter class C3
- Password Protection
- Multi-motor Control
- Built-in Payback Counter
- Dry Pump Detection
- Built-in 4 PID (1 Main & 3 EPID)
- Built-in RS485 Communication, BACnet, Modbus-RTU, Metasys N2
- Global Specification Compliant - CE, UL (Plenum Rated)
- Conformal Coating complying to IEC 60721-3-3, Class 3C2 (3C3 Avg.)
- Interface: 7DI, 6DO (5R+1T), 2AI (V & V/I), 2AO (V & V/I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Hx2000 VVVF 415V Drive 0.75 kW (ND)	LTVF-H40002BAA	*
	Hx2000 VVVF 415V Drive 1.50 kW (ND)	LTVF-H40004BAA	*
	Hx2000 VVVF 415V Drive 2.20 kW (ND)	LTVF-H40006BAA	*
	Hx2000 VVVF 415V Drive 3.7 kW (ND)	LTVF-H40008BAA	*
	Hx2000 VVVF 415V Drive 5.50 kW (ND)	LTVF-H40012BAA	*
	Hx2000 VVVF 415V Drive 7.50 kW (ND)	LTVF-H40016BAA	*
	Hx2000 VVVF 415V Drive 11.0 kW (ND)	LTVF-H40024BAA	*
	Hx2000 VVVF 415V Drive 15.0 kW (ND)	LTVF-H40030BAA	*
	Hx2000 VVVF 415V Drive 18.5 kW (ND)	LTVF-H40038BAA	*
	Hx2000 VVVF 415V Drive 22.0 kW (ND)	LTVF-H40045BAA	*
	Hx2000 VVVF 415V Drive 30.0 kW (ND)	LTVF-H40061BAA	*
	Hx2000 VVVF 415V Drive 37.0 kW (ND)	LTVF-H40075BAA	*
	Hx2000 VVVF 415V Drive 45.0 kW (ND)	LTVF-H40091BAA	*
	Hx2000 VVVF 415V Drive 55.0 kW (ND)	LTVF-H40107BAA	*
Hx2000 VVVF 415V Drive 75.0 kW (ND)	LTVF-H40142BAA	*	
Hx2000 VVVF 415V Drive 90.0 kW (ND)	LTVF-H40169BAA	*	

Note: \* For prices please contact nearest branch office

## Accessories for AC Drives [8504]

Drive Model	Description	Cat. No.	M.R.P. (₹) Per Unit
Nx2000	Nx2000 Remote Keypad with 3m cable	LTOP-DOP-51	*
Nx2000+	Nx2000+ Remote Keypad with 3m cable	LTOP-DOP-52	*
	CANOpen Comm Card for Nx2000+	LTCI-CAN-NP	*
	Eth.IP/Mod.TCP/RAPIDnet Opt for Nx2000+	LTCI-ETH-NP	*
	Profibus-DP Comm Card for Nx2000+	LTCI-PDP-NP	*
Sx2000	Sx2000 Remote Keypad with 3m cable	LTOP-DOP-150	*
	LCD Digital Operator	LTOP-DOP-200	*
	I/O Expansion Card for Sx2000	LTIO-EXP-S	*
	CANOpen Communication card	LTCI-CAN-S	*
	Profibus-DP Communication card	LTCI-PDP-S.	*
	Profinet option card for Sx2000	LTCI-PFN-S	*
	Ethernet IP - Modbus TCP Communication card	LTCI-ETH-S.	*
Fx2000	LCD Digital Operator	LTOP-DOP-200	*
	I/O Expansion Card 1 for Fx2000	LTIO-EX1-F	*
	I/O Expansion Card 2 for Fx2000	LTIO-EX2-F	*
	Synchronization Option Card	LTCN-SYN-F	*
	Position control option card for Fx2000	LTCN-PCN-F	*
	Incremental card for Open collector and Line Driver Encoder	LTEN-INC-F	*
	Application Development PLC Option card	LTAD-PLC-F	*
	Profibus-DP Communication Interface card	LTCI-PDP-F	*
	Profinet option card for Fx2000	LTCI-PFN-F	*
	CANOpen Communication Interface card	LTCI-CAN-F	*
	DeviceNet Communication Interface card	LTCI-DEN-F	*
Ethernet IP/Modbus TCP Communication Interface card	LTCI-ETH-F	*	
Hx2000	I/O Expansion Card for Hx2000	LTIO-EXP-H	*
	I/O Expansion Card 2 for Hx2000	LTIO-EXP2-H	*
DBU for Sx2000, Fx2000	Dynamic Braking Unit for 11 - 15kW	LTDBU-0150-4	*
	Dynamic Braking Unit for 18.5 - 22kW	LTDBU-0220-4	*
	Dynamic Braking Unit for 30 - 37kW	LTDBU-0370-4	*
	Dynamic Braking Unit for 45 - 55kW	LTDBU-0550-4	*
	Dynamic Braking Unit for 75kW	LTDBU-0750-4	*
	Dynamic Braking Unit for 75kW 100% ED	LTDBU-075H-4	*
Dynamic Braking Unit for 220 - 375kW	LTDBU-2200-4	*	

Note:

\* For prices please contact nearest branch office  
Drives are covered under HS code 8504 40 90 and are charged at 18% GST.

# Integrate your pumping solution with **EMX4** soft starters streamlined setup process



**PRODUCT RANGE:  
24A to 1250A**



## **Features :**

- Inbuilt Real Time Clock (RTC)
- Compact Design - Saves valuable space in panel
- On-board USB provides quick setup and backup
- Extensive voltage range - 200VAC to 525VAC, 380VAC to 690VAC
- IE3 Compatible and 99% energy efficient when running
- Smart cards Analog output Optional features for advanced applications
- Communication options: DeviceNet, Ethernet/IP, Modbus RTU, Modbus TCP, Profibus, Profinet

### **Customer Interaction Center (CIC)**

BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)









## CSX Soft Starters



## CSXi Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	<b>CSX-007-41</b>	*
15	<b>CSX-015-41</b>	*
18	<b>CSX-018-41</b>	*
22	<b>CSX-022-41</b>	*
30	<b>CSX-030-41</b>	*
37	<b>CSX-037-41</b>	*
45	<b>CSX-045-41</b>	*
55	<b>CSX-055-41</b>	*
75	<b>CSX-075-41</b>	*
90	<b>CSX-090-41</b>	*
110	<b>CSX-110-41</b>	*

Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	<b>CSXi-007-41</b>	*
15	<b>CSXi-015-41</b>	*
18	<b>CSXi-018-41</b>	*
22	<b>CSXi-022-41</b>	*
30	<b>CSXi-030-41</b>	*
37	<b>CSXi-037-41</b>	*
45	<b>CSXi-045-41</b>	*
55	<b>CSXi-055-41</b>	*
75	<b>CSXi-075-41</b>	*
90	<b>CSXi-090-41</b>	*
110	<b>CSXi-110-41</b>	*

**Note:**

\* For prices please contact nearest branch office

The above CSX & CSXi ratings are based on 400% starting current, 10 starts per hour up to 30kW & 6 starts per hour for 37kW & above, 6 seconds starting time and ambient temperature of 45°C.

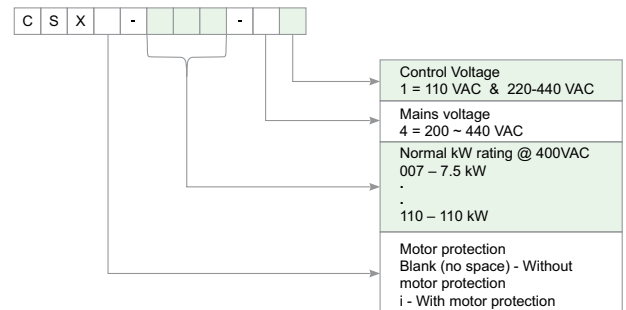
For proper sizing of soft starter based on the application parameters please use Winstart Software.

## Optional Modules/Cards for CSX / CSXi / EMX4



Description	Cat. No.	M.R.P. (₹) Per Unit
Modbus Interface	<b>PIM-MB-01</b>	*
Profibus Interface	<b>PIM-PB-01</b>	*
DeviceNet Interface	<b>PIM-DN-01</b>	*
USB Interface	<b>PIM-USB-01</b>	*
Modbus TCP Module	<b>PIM-MT-01</b>	*
Ethernet IP Module	<b>PIM-EI-01</b>	*
Profinet Module	<b>PIM-PN-01</b>	*
DeviceNet Card, EMX4	<b>PIC-DN-01</b>	*
Ethernet IP Card, EMX4	<b>PIC-EI-01</b>	*
Modbus RTU Card, EMX4	<b>PIC-MB-01</b>	*
Modbus TCP Card, EMX4	<b>PIC-MT-01</b>	*
Profibus Card, EMX4	<b>PIC-PB-01</b>	*
Profinet Card, EMX4	<b>PIC-PN-01</b>	*
Remote Keypad Card, EMX4	<b>PIC-RC-01</b>	*
Remote Keypad Card & Keypad EMX4	<b>PIC-RC-02</b>	*
Remote Keypad with cable & mounting kit, EMX4	<b>PIC-RK-01</b>	*
Smart Control Card Pump Application, EMX4	<b>SCC-PC-01</b>	*
Ground Fault + Ethernet IP Card EMX4	<b>PIC-EI-02</b>	*
Ground Fault + Modbus RTU Card EMX4	<b>PIC-MB-02</b>	*
Ground Fault + Modbus TCP Card EMX4	<b>PIC-MT-02</b>	*
Ground Fault + Profinet Card EMX4	<b>PIC-PN-02</b>	*

Ordering Information for **CSX Series Soft Starter**



**CSX Soft Starters : For Standard Applications**

- Inbuilt Bypass Contactor
- Soft Start / Soft Stop
- Compact
- Complements existing motor protection
- Truly plug & play
- Communication options available

**CSXi Soft Starters : For standard applications**

- Inbuilt Bypass Contactor
- Soft start / Soft stop / Adjustable current limit
- Essential motor protections against
  - Overload
  - Single phasing
  - Instantaneous overcurrent
  - Phase sequence reversal
  - Abnormality in supply
  - Unbalanced current
- Thermistor protection through PTC
- Excess start time setting
- Communication options available
- PC Interface as optional

We recommend the use of :

1. Line Contactor : This will isolate and protect the soft starter SCR's from any voltage transient while it's not in operation.
2. Bypass Contactor (For models without built-in bypass) : This will bypass and protect the soft starter SCR's while in running state from Current and Voltage transient's.
3. Semiconductor fuses : This will protect the starter SCR's during starting and stopping states from current transient's and excess I<sup>2</sup>T.

**Note:**

EMX3 soft starters will be available till stock lasts

\* For prices please contact nearest branch office

Soft Starters are covered under HS code 8504 40 90 and are charged at 18% GST.



Human Machine Interface

# iXP2 Series

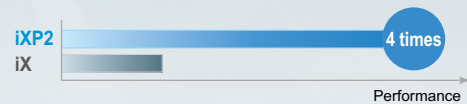
Intelligent XT Panel



iXP2 provides optimal performance for all industrial sites.

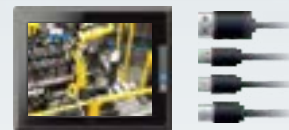
- **Dual-Core CPU offers high-speed communication and processing**

Better performance than ever with enhanced serial communication, CPU processing, memory access and vector/raster graphic processing



- **Multiple interface methods to cope with the Internet of Things**

Ethernet 2ch., HDMI / Audio output, USB host / device, multimedia (video)



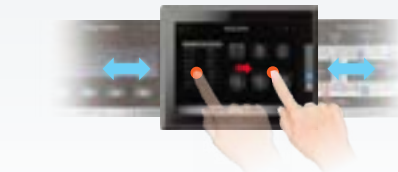
- **Robust IP66 Aluminium frame**

Reinforced protection against water and dust. Conforms to NEMA 4X standard.



- **Screen gesture**

Flick to change screens.  
No extra switching button is needed to change screens.



- **Object gesture**

Select the object you want and then swipe and flick it.

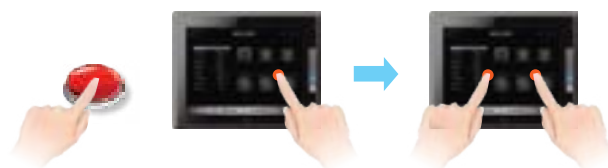
**Object list**

- Logging trend graph
- View logging history
- View history alarms



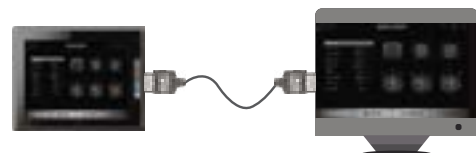
- **Multi-touch**

Use multi-touch to protect your system from undesired errors.

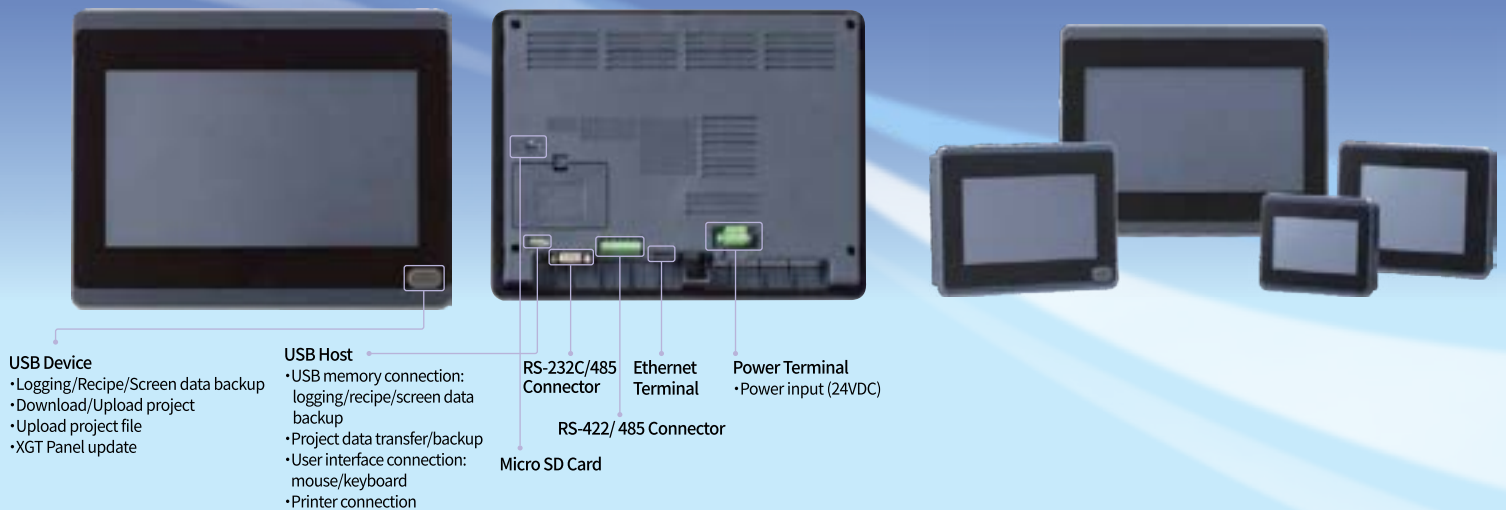


- **Dual monitor mode and extension mode**

Increase your convenience by duplicating or extending your screens.



# s-XT Reloaded



## ▶ Portrait Mode



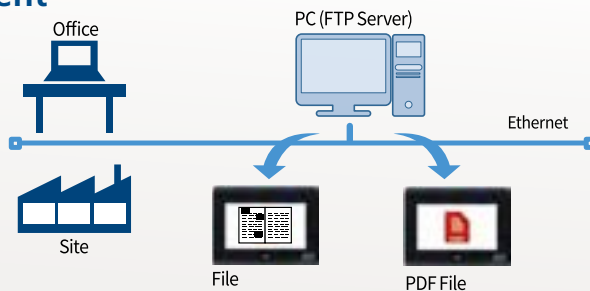
- Vertical mounting is available
- Setting in XP-Builder: [COMMON] - [Project Property Setting]

## ▶ PDF Viewer



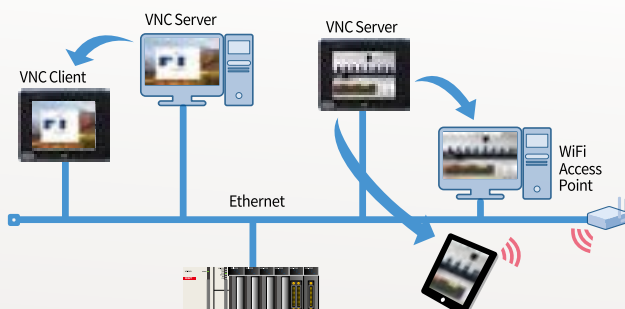
- PDF files can be displayed on XGT Panel.
- In the event of an alarm, the content of the alarm's trouble shooting can be checked on site as a PDF file.
- PDF files on an FTP sever can be displayed using a PDF viewer object.

## ▶ FTP Client



- FTP client is an object that can connect to the FTP sever, display the list of files and directories on the FTP server, and download the selected file.
- PDF files on an FTP server can be displayed using a PDF viewer object.

## ▶ VNC Viewer



- Remotely monitoring PC or HMI using VNC Viewer is available
  - Download VNC server to HMI using XP-Manager.
  - Install a universal VNC server on your PC. (Ultra VNC, Real VNC, etc.)
- Add 'VNC Viewer' object to the project screen.



# PLC

## Features:

- Processing speed: 0.06µs/step
- Expandable upto 10 modules
- Built-in Function: RTC, HSC, PTO, PID, Interrupt, Analog I/O
- Various communication Interface: Built-in USB / RS-232C / RS-485 / Ethernet, optional other communication modules
- Built-in Web-server, E-mail
- EtherCAT based motion control modules with Virtual Axis
- Built-in SD Card interface
- Smart Remote IO



## Range:

- Up to 352 local I/O points
- Up to 5728 remote I/O points

# HMI



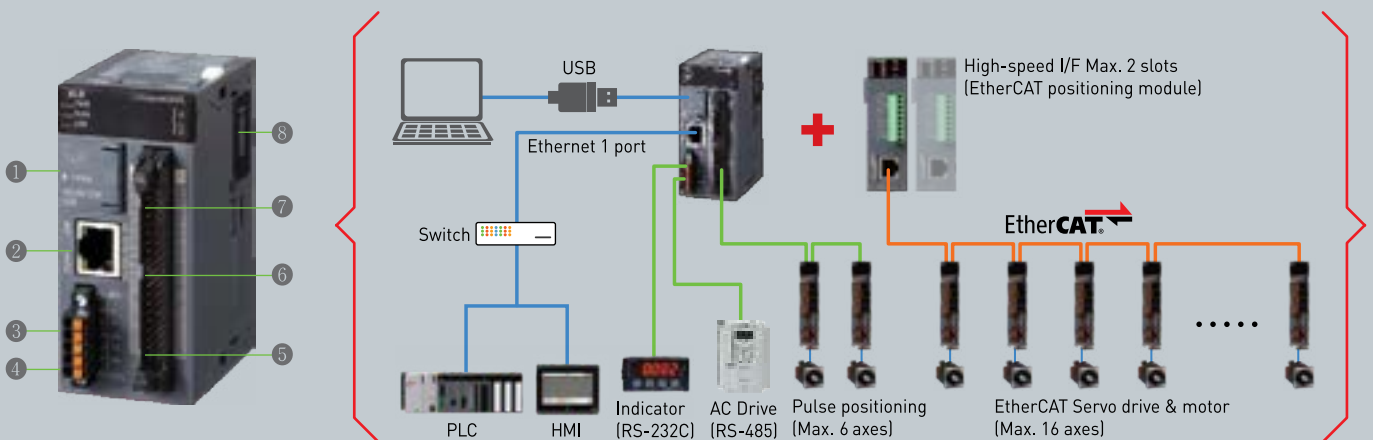
## Range:

- Text Display
- 4" ~ 15" TFT color LCD

## Features:

- Large Memory: Upto 128MB display data and 1MB back-up memory
- Various Communication Interface: Ethernet / RS-232C / RS-422/485
- USB host and device
- SD memory card interface
- Web server / Data monitoring
- Remote controlling and monitoring
- Presence sensor (within 1m)
- Sound Output

# XLB - HPL Series PLC



## Built in Function

1 Loader USB	2 Ethernet	3 RS-485 Cnet	4 RS-232 Cnet	5 Pulse positioning (Max. 6 axes)	6 DC input 16 points	7 High-speed counter 4Ch	8 Network positioning Max. 16 axes (Option)



# XLB Series PLC - CPU [8537]



- Processing speed: 0.06μs/step
- Expandable upto 10 modules
- Built-in Function: RTC, HSC, PTO, PID, Interrupt, Analog I/O
- Various communication Interface: Built-in USB / RS-232C / RS-485 / Ethernet, optional other communication modules
- Built-in Web-server, E-mail
- EtherCAT based motion control modules with Virtual Axis
- Built-in SD Card interface
- Smart Remote IO

Category	Description	Cat. No.	M.R.P. (₹) Per Unit
E - Series	AC 110~220V, 6P DC Input, 4P TR (NPN) output	LTPCM-DN10E1	*
	AC 110~220V, 6P DC Input, 4P Relay output	LTPCM-DR10E1	*
	AC 110~220V, 8P DC Input, 6P TR(NPN) output	LTPCM-DN14E1	*
	AC 110~220V, 8P DC Input, 6P Relay output	LTPCM-DR14E1	*
	AC 110~220V, 12P DC Input, 8P TR(NPN) output	LTPCM-DN20E1	*
	AC 110~220V, 12P DC Input, 8P Relay output	LTPCM-DR20E1	*
	AC 110~220V, 18P DC Input, 12P TR(NPN) output	LTPCM-DN30E1	*
CPU S - Series	AC 110~220V, 18P DC Input, 12P Relay output	LTPCM-DR30E1	*
	AC 110~220V, 12P DC Input, 8P TR(NPN) output	LTPCM-DN20S1	*
	AC 110~220V, 12P DC Input, 8P Relay output	LTPCM-DR20S1	*
	AC 110~220V, 18P DC Input, 12P TR(NPN) output	LTPCM-DN30S1	*
	AC 110~220V, 18P DC Input, 12P Relay output	LTPCM-DR30S1	*
	AC 110~220V, 24P DC Input, 16P TR(NPN) output	LTPCM-DN40S1	*
	AC 110~220V, 24P DC Input, 16P Relay output	LTPCM-DR40S1	*
U - Series	AC 110~220V, 36P DC Input, 24P TR(NPN) output	LTPCM-DN60S1	*
	AC 110~220V, 36P DC Input, 24P Relay Output	LTPCM-DR60S1	*
	AC 110~220V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UB	*
	AC 110~220V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UA	*
	AC 110~220V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UP	*
	DC 24V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UB/DC	*
	DC 24V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UA/DC	*
HPL - Series	DC 24V, 16P DC Input, 16 Point TR (NPN) output	LTPCM-DN32HPL	*

# XT Series HMI [8537]

- Large Memory: Upto 128MB display data and 1MB back-up memory
- Various Communication Interface: Ethernet / RS-232C / RS-422/485
- USB host and device
- SD memory card interface
- Web server / Data monitoring
- Remote controlling and monitoring
- Presence sensor (within 1m)
- Sound Output

Category	Description	Cat. No.	M.R.P. (₹) Per Unit
b-XT Series 	4.1" Mono green LCD,DC24V	LTOP-B04DSAA	*
	4.1" Mono green LCD,DC24V,RTC	LTOP-B04DSAR	*
s-XT Series 	4" TFT, Ethernet, DC24V	LTOP-S04EDAA	*
	4" TFT, Ethernet, DC24V	LTOP-S04EDAB*	*
	7" TFT, Ethernet, DC24V	LTOP-S07EDAB*	*
	7" TFT, Ethernet, DC24V, SD Card slot	LTOP-S07EDAC**	*
	10.2" TFT, Ethernet, DC24V	LTOP-S10EDAB*	*
	10.2" TFT, Ethernet, DC24V, SD card Slot	LTOP-S10EDAC**	*
i-XT Series 	8.4" TFT, Ethernet, DC24V	LTOP-I08EDAA	*
	10.4" TFT, Ethernet,DC12/24V	LTOP-I10EDAA	*
	12.1" TFT, Ethernet, DC12/24V	LTOP-I12EDAA	*
	15" TFT, Ethernet, DC12/24V	LTOP-I15EDAA	*
iXP2 Series 	i-XP2 10.4" TFT,DC24V,WinCE	LTOP-A10EDAA	*
	i-XP2 12.1" TFT,DC24V,WinCE	LTOP-A12EDAA	*
	i-XP2 15" TFT,DC24V,WinCE	LTOP-A15EDAA	*

**Note:**

\* Upgraded version of our s-XT series HMI

\*\* Upgraded version with SD card slot for our existing s-XT series HMI



# Experience the robust performance of our ACCL

## Single Phase ACCL



Mains rating : 30A

Genset rating : 1A to 30A

## Three Phase ACCL With MCX contactors inside

Range : 32A to 125A



Settable overload current limit at DG side



Separate power consumption monitoring for Mains & Genset



Settable TPN / SPN mode for three phase and single phase DG supply



To Experience Scan or Click



Customer Interaction Center (CIC)

BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com



# Miniature Circuit Breaker (MCB) [8536]



## Range Highlights

- True contact indication for individual pole
- Label holder facility for all configurations
- Conforms to IS/IEC 60898 - 10kA
- Conforms to IEC 60947 - 2
  - 15kA C-curve till 40 A
  - 10kA C-curve for 50A, 63A
- Available in B, C & D curves
- Low watt loss - almost 50% of the values prescribed by IS/IEC 60898
- Trip free mechanism
- Design based on advanced current limiting hammer trip mechanism
- No Line-Load bias
- Bi connect feature on both side
- Suitable for accessory fitment



Rating	Modules 1 Mod = 17.5 mm	B-Curve Cat. No.	M.R.P. (₹) Per Unit	C-Curve Cat. No.	M.R.P. (₹) Per Unit	D-Curve Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>							
0.5A	1	-	-	BB10E50C	455	BB10E50D	460
1A	1	-	-	BB10010C	455	BB10010D	460
2A	1	-	-	BB10020C	455	BB10020D	460
3A	1	-	-	BB10030C	455	BB10030D	460
4A	1	-	-	BB10040C	455	BB10040D	460
6A	1	BB10060B	280	BB10060C	280	BB10060D	385
10A	1	BB10100B	280	BB10100C	280	BB10100D	385
16A	1	BB10160B	280	BB10160C	280	BB10160D	385
20A	1	BB10200B	280	BB10200C	280	BB10200D	385
25A	1	BB10250B	280	BB10250C	280	BB10250D	385
32A	1	BB10320B	280	BB10320C	280	BB10320D	385
40A	1	BB10400B	645	BB10400C	645	BB10400D	695
50A	1	BB10500B	645	BB10500C	645	BB10500D*	695
63A	1	BB10630B	645	BB10630C	645	BB10630D*	695

## Double Pole (DP)



0.5A	2	-	-	BB20E50C	1270	BB20E50D	1290
1A	2	-	-	BB20010C	1270	BB20010D	1290
2A	2	-	-	BB20020C	1270	BB20020D	1290
3A	2	-	-	BB20030C	1270	BB20030D	1290
4A	2	-	-	BB20040C	1270	BB20040D	1290
6A	2	BB20060B	910	BB20060C	910	BB20060D	940
10A	2	BB20100B	910	BB20100C	910	BB20100D	940
16A	2	BB20160B	910	BB20160C	910	BB20160D	940
20A	2	BB20200B	910	BB20200C	910	BB20200D	940
25A	2	BB20250B	910	BB20250C	910	BB20250D	940
32A	2	BB20320B	910	BB20320C	910	BB20320D	940
40A	2	BB20400B	1470	BB20400C	1470	BB20400D	1535
50A	2	BB20500B	1470	BB20500C	1470	BB20500D*	1535
63A	2	BB20630B	1470	BB20630C	1470	BB20630D*	1535

## Three Pole (TP)



0.5A	3	-	-	BB30E50C	1865	BB30E50D	1895
1A	3	-	-	BB30010C	1865	BB30010D	1895
2A	3	-	-	BB30020C	1865	BB30020D	1895
3A	3	-	-	BB30030C	1865	BB30030D	1895
4A	3	-	-	BB30040C	1865	BB30040D	1895
6A	3	BB30060B	1450	BB30060C	1450	BB30060D	1510
10A	3	BB30100B	1450	BB30100C	1450	BB30100D	1510
16A	3	BB30160B	1450	BB30160C	1450	BB30160D	1510
20A	3	BB30200B	1450	BB30200C	1450	BB30200D	1510
25A	3	BB30250B	1450	BB30250C	1450	BB30250D	1510
32A	3	BB30320B	1450	BB30320C	1450	BB30320D	1510
40A	3	BB30400B	2235	BB30400C	2235	BB30400D	2340
50A	3	BB30500B	2235	BB30500C	2235	BB30500D*	2340
63A	3	BB30630B	2235	BB30630C	2235	BB30630D*	2340

Note: Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos., TP - 4 Nos., FP - 3 Nos.

\* For details, please contact nearest branch office



# Miniature Circuit Breaker (MCB) [8536]



Rating	Modules 1 Mod = 17.5 mm	B-Curve Cat. No.	M.R.P. (₹) Per Unit	C-Curve Cat. No.	M.R.P. (₹) Per Unit	D-Curve Cat. No.	M.R.P. (₹) Per Unit
<b>Four Pole (FP)</b>							
0.5A	4	-	-	BB40E50C	2345	BB40E50D	2350
1A	4	-	-	BB40010C	2345	BB40010D	2350
2A	4	-	-	BB40020C	2345	BB40020D	2350
3A	4	-	-	BB40030C	2345	BB40030D	2350
4A	4	-	-	BB40040C	2345	BB40040D	2350
6A	4	BB40060B	1980	BB40060C	1980	BB40060D	2030
10A	4	BB40100B	1980	BB40100C	1980	BB40100D	2030
16A	4	BB40160B	1980	BB40160C	1980	BB40160D	2030
20A	4	BB40200B	1980	BB40200C	1980	BB40200D	2030
25A	4	BB40250B	1980	BB40250C	1980	BB40250D	2030
32A	4	BB40320B	1980	BB40320C	1980	BB40320D	2030
40A	4	BB40400B	2805	BB40400C	2805	BB40400D	3010
50A	4	BB40500B	2805	BB40500C	2805	BB40500D*	3010
63A	4	BB40630B	2805	BB40630C	2805	BB40630D*	3010

Note: Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos., TP- 4 Nos., FP - 3 Nos.

## MCBs (Miniature Circuit Breakers) : 80A-125A [8536]

### Range Highlights

- Short circuit Breaking Capacity - 15kA (IEC 60947-2, EN 60947-2)
- C & D Characteristics
- Available in SP, DP, TP and FP
- Suitable for Isolation
- Protection Degree - IP 20
- Availability of wide Range of Site Mountable Accessories



Rating	Module	C Curve Cat. No.	M.R.P. (₹) Per Unit	D Curve Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>					
80A	1.5	AU15S10803C	2550	AU15S10803D	2900
100A	1.5	AU15S11003C	2855	AU15S11003D	3245
125A	1.5	AU15S11253C	3070	AU15S11253D	3510
<b>Double Pole (DP)</b>					
80A	3	AU15S20803C	5650	AU15S20803D	6430
100A	3	AU15S21003C	6025	AU15S21003D	6855
125A	3	AU15S21253C	6630	AU15S21253D	7540
<b>Three Pole (TP)</b>					
80A	4.5	AU15S30803C	8915	AU15S30803D	10150
100A	4.5	AU15S31003C	9505	AU15S31003D	10805
125A	4.5	AU15S31253C	10545	AU15S31253D	11985
<b>Four Pole (FP)</b>					
80A	6	AU15S40803C	11640	AU15S40803D	13215
100A	6	AU15S41003C	12105	AU15S41003D	13775
125A	6	AU15S41253C	13710	AU15S41253D	15585

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**Exora** has been recognised as the  
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# Solar Combo MCBs

Complete Protection for Solar Rooftop Installations

**Combo Pack**

Tested for Reliable  
Performance



**DC MCB**

**AC MCB**

- [1 DP DC (500V) MCB] + [1 DP AC MCB] in a combo pack
- Provides complete protection for DC and AC sides of solar rooftop installations
- DC MCB : 10kA as per IEC 60947-2
- AC MCB : 10kA as per IS/IEC 60898-1



Customer Interaction Center (CIC)

BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com



# Miniature Circuit Breaker (MCB) [8536]



## DC MCBs as per IEC 60947-2 [8536]

Rated Voltage:  
Breaking capacity of 6 kA - BB Series DC MCBs

### 130V DC SP MCB

Rating	Modules 1 Mod = 17.5mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>			
0.5A	1	BB10E5DC	660
1A	1	BB1001DC	660
2A	1	BB1002DC	660
3A	1	BB1003DC	660
4A	1	BB1004DC	660
6A	1	BB1006DC	570
10A	1	BB1010DC	570
16A	1	BB1016DC	570
20A	1	BB1020DC	570
25A	1	BB1025DC	570
32A	1	BB1032DC	570
40A	1	BB1040DC	750
50A	1	BB1050DC	750
63A	1	BB1063DC	750

Rated Voltage:  
Breaking capacity of 10 kA - BJ Series DC MCBs

### 250V DC SP MCB

Rating	Modules 1 Mod = 17.5mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>			
0.5A	1	BJ10E5DC	810
1A	1	BJ1001DC	810
2A	1	BJ1002DC	810
3A	1	BJ1003DC	810
4A	1	BJ1004DC	810
6A	1	BJ1006DC	660
10A	1	BJ1010DC	660
16A	1	BJ1016DC	660
20A	1	BJ1020DC	660
25A	1	BJ1025DC	660
32A	1	BJ1032DC	660
40A	1	BJ1040DC	915
50A	1	BJ1050DC	915
63A	1	BJ1063DC	915



### 250V DC DP MCB

0.5A	2	BB20E5DC	1410
1A	2	BB2001DC	1410
2A	2	BB2002DC	1410
3A	2	BB2003DC	1410
4A	2	BB2004DC	1410
6A	2	BB2006DC	1240
10A	2	BB2010DC	1240
16A	2	BB2016DC	1240
20A	2	BB2020DC	1240
25A	2	BB2025DC	1240
32A	2	BB2032DC	1240
40A	2	BB2040DC	1680
50A	2	BB2050DC	1680
63A	2	BB2063DC	1680

### 500V DC DP MCB

0.5A	2	BJ20E5DC	1690
1A	2	BJ2001DC	1690
2A	2	BJ2002DC	1690
3A	2	BJ2003DC	1690
4A	2	BJ2004DC	1690
6A	2	BJ2006DC	1430
10A	2	BJ2010DC	1430
16A	2	BJ2016DC	1430
20A	2	BJ2020DC	1430
25A	2	BJ2025DC	1430
32A	2	BJ2032DC	1430
40A	2	BJ2040DC	1820
50A	2	BJ2050DC	1820
63A	2	BJ2063DC	1820



Note: Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos.

## 1000V DC MCBs [8536]

Rated Voltage:1000V DC  
with breaking capacity of 6 kA - BK Series DC MCBs

Description	Modules 1 Mod = 17.5mm	Cat. No.	M.R.P. (₹) Per Unit
DP 6A 1000V DC 6kA MCB	4	BK2006DC	2245
DP 10A 1000V DC 6kA MCB	4	BK2010DC	2245
DP 16A 1000V DC 6kA MCB	4	BK2016DC	2245
DP 20A 1000V DC 6kA MCB	4	BK2020DC	2245
DP 25A 1000V DC 6kA MCB	4	BK2025DC	2245
DP 32A 1000V DC 6kA MCB	4	BK2032DC	2245
DP 40A 1000V DC 6kA MCB	4	BK2040DC	2725
DP 50A 1000V DC 6kA MCB	4	BK2050DC	2725
DP 63A 1000V DC 6kA MCB	4	BK2063DC	2725



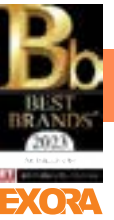
## Solar Combo MCBs [8536] (AC MCB + DC MCB)

Description	Modules 1 Mod = 17.5mm	Cat. No.	M.R.P. (₹) Per Unit
1 AC 16A DP MCB <sup>^</sup> + 1 DC 16A DP 500V MCB	2+2	SC221616	1805
1 AC 25A DP MCB <sup>^</sup> + 1 DC 16A DP 500V MCB	2+2	SC222516	1805
1 AC 32A DP MCB <sup>^</sup> + 1 DC 16A DP 500V MCB	2+2	SC223216	1805
1 AC 32A DP MCB <sup>^</sup> + 1 DC 32A DP 500V MCB	2+2	SC223232	1805



<sup>^</sup>AC MCB with C-Curve

# Isolators [8536]



### Range Highlights

- Conforms to IEC 60947-3
- Utilization category AC-22A
- Available in DP, TP and FP versions in 40A, 63A, 80A & 100A ratings

Rating	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Double Pole (DP)</b>				<b>Three Pole (TP)</b>			<b>Four Pole (FP)</b>		
40A	2	BF204000	555	3	BF304000	965	4	BF404000	1250
63A	2	BF206300	715	3	BF306300	1125	4	BF406300	1305
80A	2	BF208000	910	3	BF308000	1235	4	BF408000	1465
100A	2	BF210000	950	3	BF310000	1315	4	BF410000	1580

Note: Standard Pack Quantity for Isolator : DP - 6 Nos., TP - 4 Nos., FP - 3 Nos.

# RCCB (Residual Current Circuit Breaker) [8536]



### Range Highlights

- Conforms to IS 12640 (Part 1) / IEC 61008-1
- RCCBs are available in DP and FP versions from 25 to 100A ratings with 30 mA, 100 mA and 300 mA sensitivity



- Truly current operated - operation even at nominal voltage
- Operates on Core Balance Current Transformer (CBCT) principle
- Advanced neutral mechanism

Rating	Sensitivity	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Double Pole (DP)</b>				
25A	30 mA	2	BG202503	3205
	100 mA	2	BG202510	3330
	300 mA	2	BG202530	3330
40A	30 mA	2	BG204003	3595
	100 mA	2	BG204010	3805
	300 mA	2	BG204030	3805
63A	30 mA	2	BG206303	4485
	100 mA	2	BG206310	4595
	300 mA	2	BG206330	4595
100A	30 mA	2	BG210003	7825
	100 mA	2	BG210010	7925
	300 mA	2	BG210030	7925

Rating	Sensitivity	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Four Pole (FP)</b>				
25A	30 mA	4	BG402503	4235
	100 mA	4	BG402510	4345
	300 mA	4	BG402530	4345
40A	30 mA	4	BG404003	4275
	100 mA	4	BG404010	4420
	300 mA	4	BG404030	4420
63A	30 mA	4	BG406303	4835
	100 mA	4	BG406310	5070
	300 mA	4	BG406330	5070
100A	30 mA	4	BG410003	8345
	100 mA	4	BG410010	8490
	300 mA	4	BG410030	8490

# RCCBs (Residual Current Circuit Breakers) : Type-Adi (with Added immunity) [8536]



### Range Highlights

- Wide Range of Current Ratings - 25A to 100A
- Precise Sensitivities for variety of applications - from 30mA to 300mA
- 2P & 4P versions
- Suitable for Isolation
- Protection Degree - IP 20
- Availability of wide Range of Site Mountable Accessories
- Type Adi : Suitable for AC + Pulsating DC (Type A) + Harmonics

Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>2P Adi</b>				
25A	30mA	2	AURAD202503	5130
	100mA	2	AURAD202510	5360
	300mA	2	AURAD202530	5360
40A	30mA	2	AURAD204003	5445
	100mA	2	AURAD204010	5530
	300mA	2	AURAD204030	5530
63A	30mA	2	AURAD206303	6365
	100mA	2	AURAD206310	6485
	300mA	2	AURAD206330	6485
100A	30mA	2	AURAD210003	9405

Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>4P Adi</b>				
25A	30mA	4	AURAD402503	6200
	100mA	4	AURAD402510	6320
	300mA	4	AURAD402530	6320
40A	30mA	4	AURAD404003	6440
	100mA	4	AURAD404010	6540
	300mA	4	AURAD404030	6540
63A	30mA	4	AURAD406303	7010
	100mA	4	AURAD406310	7155
	300mA	4	AURAD406330	7155
100A	30mA	4	AURAD410003	11165
	300mA	4	AURAD410030	11165





# Adi an All-Rounder RCDs (RCCB & RCBO)

Specially designed Adi RCDs ensure Safe and Reliable protection for All Applications in AC networks with Pulsating DC along with Harmonics



**Added Immunity**





# RCBOs (Residual Current Breaker with Overcurrent Protection) [8536]



## Range Highlights\*

- Conforms to IEC 61009-1, IS 12640-2, EN 61009-1
- Short circuit Breaking Capacity - 10kA
- Precise Sensitivities for a variety of applications - from 10mA to 300mA
- Suitable for Isolation



- Availability of wide Range of Site Mountable Accessories
- Available in
  - Type AC : For standard AC installations
  - Type Adi : Suitable for AC + Pulsating DC (Type A) + Harmonics

## Type-AC

Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>2P AC</b>				
6A	10mA	2	AUF3C200601	4745
	30mA	2	AUF3C200603	4745
	100mA	2	AUF3C200610	4845
	300mA	2	AUF3C200630	4900
10A	10mA	2	AUF3C201001	4745
	30mA	2	AUF3C201003	4745
	100mA	2	AUF3C201010	4845
	300mA	2	AUF3C201030	4900
16A	10mA	2	AUF3C201601	4745
	30mA	2	AUF3C201603	4745
	100mA	2	AUF3C201610	4845
	300mA	2	AUF3C201630	4900
20A	30mA	2	AUF3C202003	4745
	100mA	2	AUF3C202010	4845
	300mA	2	AUF3C202030	4900
25A	30mA	2	AUF3C202503	4745
	100mA	2	AUF3C202510	4845
	300mA	2	AUF3C202530	4900
32A	30mA	2	AUF3C203203	4745
	100mA	2	AUF3C203210	4845
	300mA	2	AUF3C203230	4900
40A	30mA	2	AUF3C204003	4745
	100mA	2	AUF3C204010	4845
	300mA	2	AUF3C204030	4900
63A	30mA	4	AUF3C206303	5940
	100mA	4	AUF3C206310	6300
	300mA	4	AUF3C206330	6350
<b>4P AC</b>				
16A	30mA	7.5	AUF3C401603	5370
	100mA	7.5	AUF3C401610	5980
	300mA	7.5	AUF3C401630	6100
20A	30mA	7.5	AUF3C402003	5370
	100mA	7.5	AUF3C402010	5980
	300mA	7.5	AUF3C402030	6100
25A	30mA	7.5	AUF3C402503	5370
	100mA	7.5	AUF3C402510	5980
	300mA	7.5	AUF3C402530	6100
32A	30mA	7.5	AUF3C403203	5545
	100mA	7.5	AUF3C403210	5985
	300mA	7.5	AUF3C403230	6115
40A	30mA	7.5	AUF3C404003	5635
	100mA	7.5	AUF3C404010	5985
	300mA	7.5	AUF3C404030	6135
63A	30mA	7.5	AUF3C406303	6750
	100mA	7.5	AUF3C406310	6875
	300mA	7.5	AUF3C406330	6875
80A	30mA	12	AUF3C408003	25685
	100mA	12	AUF3C408010	26260
	300mA	12	AUF3C408030	26260
100A	30mA	12	AUF3C410003	27460
	100mA	12	AUF3C410010	28115
	300mA	12	AUF3C410030	28115

## Type-Adi

Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>2P Adi</b>				
6A	30mA	2	AUF3D200603	6285
	100mA	2	AUF3D200610	6920
	300mA	2	AUF3D200630	7180
10A	30mA	2	AUF3D201003	6285
	100mA	2	AUF3D201010	6920
	300mA	2	AUF3D201030	7180
16A	30mA	2	AUF3D201603	6285
	100mA	2	AUF3D201610	6920
	300mA	2	AUF3D201630	7180
20A	30mA	2	AUF3D202003	6285
	100mA	2	AUF3D202010	6920
	300mA	2	AUF3D202030	7180
25A	30mA	2	AUF3D202503	6285
	100mA	2	AUF3D202510	6920
	300mA	2	AUF3D202530	7180
32A	30mA	2	AUF3D203203	6285
	100mA	2	AUF3D203210	6920
	300mA	2	AUF3D203230	7180
40A	30mA	2	AUF3D204003	6285
	100mA	2	AUF3D204010	6920
	300mA	2	AUF3D204030	7180
63A	30mA	4	AUF3D206303	7665
	100mA	4	AUF3D206310	8110
	300mA	4	AUF3D206330	8180
<b>4P Adi</b>				
16A	30mA	7.5	AUF3D401603	6925
	100mA	7.5	AUF3D401610	7705
	300mA	7.5	AUF3D401630	7860
20A	30mA	7.5	AUF3D402003	6925
	100mA	7.5	AUF3D402010	7705
	300mA	7.5	AUF3D402030	7860
25A	30mA	7.5	AUF3D402503	6925
	100mA	7.5	AUF3D402510	7705
	300mA	7.5	AUF3D402530	7860
32A	30mA	7.5	AUF3D403203	7150
	100mA	7.5	AUF3D403210	7710
	300mA	7.5	AUF3D403230	7870
40A	30mA	7.5	AUF3D404003	7255
	100mA	7.5	AUF3D404010	7710
	300mA	7.5	AUF3D404030	7905
63A	30mA	7.5	AUF3D406303	8695
	100mA	7.5	AUF3D406310	8870
	300mA	7.5	AUF3D406330	8870
80A	30mA	12	AUF3D408003	25685
	100mA	12	AUF3D408010	26260
	300mA	12	AUF3D408030	26260
100A	30mA	12	AUF3D410003	27460
	100mA	12	AUF3D410010	28115
	300mA	12	AUF3D410030	28115

\* For technical details, please contact nearest branch office



# SPDs (Surge Protection Devices) [8536]



EXORA



### Range Highlights

- Conforms to IEC 61643-11
- Available in Type 2 and Type 1+2
- Type 2 : Protection against indirect lightning and switching surges
  - Maximum Discharge Current - I<sub>max</sub> up to 70kA
- Type 1+2 : Protection against direct and indirect lightning surges

### 800V Solar Application

Description	Configuration	Module	Voltage (Uc)	Cat. No.	M.R.P. (₹) Per Unit
Type 2, I <sub>imp</sub> 12.5kA	3P	4	1500	<b>AUSP023P40-1500</b>	<b>12500</b>
Type 1+2, I <sub>imp</sub> 12.5kA	3P	5	1360	<b>AUSP123P50-1360</b>	<b>41430</b>
Type 1+2, I <sub>imp</sub> 12.5kA	3P	4	880	<b>AUSP123P50-880</b>	<b>30000</b>

### 440V Application

Description	I <sub>max</sub>	Configuration	Module	Cat. No.	M.R.P. (₹) Per Unit
Type 1+2, I <sub>imp</sub> 12.5kA	50kA	1P+N	2	<b>AUSP121PN50</b>	<b>10045</b>
		3P+N	4	<b>AUSP123PN50</b>	<b>19235</b>
Type 2	40kA	1P+N	1	<b>AUSP021PN40</b>	<b>6275</b>
		3P+N	2	<b>AUSP023PN40</b>	<b>12545</b>
Type 2	15kA	1P+N	1	<b>AUSP021PN15</b>	<b>5020</b>
		3P+N	2	<b>AUSP023PN15</b>	<b>9875</b>
Type 1+2, I <sub>imp</sub> 8kA	100kA	1P+N	2	<b>AUSP121PN100</b>	<b>9030</b>
		3P+N	4	<b>AUSP123PN100</b>	<b>17740</b>
Type 2	70kA	1P+N	2	<b>AUSP021PN70</b>	<b>9855</b>
		3P+N	4	<b>AUSP023PN70</b>	<b>16420</b>

Extend SPD life with Spare Cartridges



Description	Cat. No.	M.R.P. (₹) Per Unit
Cartridge for AUSP021PN15	<b>AUSC021PN15</b>	<b>2515</b>
Cartridge for AUSP021PN40	<b>AUSC021PN40</b>	<b>3135</b>
Cartridge for AUSP021PN70 / AUSP023PN70	<b>AUSC021PN70</b>	<b>3350</b>
Cartridge for AUSP023PN15	<b>AUSC023PN15</b>	<b>3290</b>
Cartridge for AUSP023PN40	<b>AUSC023PN40</b>	<b>4185</b>
Cartridge for AUSP121PN100 / AUSP123PN100	<b>AUSC121PN100</b>	<b>5020</b>
Cartridge for AUSP121PN50 / AUSP123PN50	<b>AUSC121PN50</b>	<b>5420</b>

# Changeover Switches (Automatic Changeover with Current Limiter, CO) [8536]

### Single Phase ACCL



#### Range Highlights

- Conforms to IEC 60947-6, IEC 60947-3
- Wide Range of Current Ratings
  - (Generator side) - 1A to 30A
  - (Electricity Board side) - 30A
- RoHS compliant

Description EB/DG	Module	CAT Nos.	M.R.P. (₹) Per Unit
30A/1A	4	<b>AUCL01030001</b>	<b>2410</b>
30A/1.5A	4	<b>AUCL010301E5</b>	<b>2410</b>
30A/2A	4	<b>AUCL01030002</b>	<b>2410</b>
30A/2.5A	4	<b>AUCL010302E5</b>	<b>2410</b>
30A/3A	4	<b>AUCL01030003</b>	<b>2410</b>
30A/4A	4	<b>AUCL01030004</b>	<b>2410</b>
30A/5A	4	<b>AUCL01030005</b>	<b>2410</b>
30A/6A	4	<b>AUCL01030006</b>	<b>2410</b>
30A/8A	4	<b>AUCL01030008</b>	<b>2410</b>
30A/10A	4	<b>AUCL01030010</b>	<b>2410</b>
30A/12A	4	<b>AUCL01030012</b>	<b>2410</b>
30A/15A	4	<b>AUCL01030015</b>	<b>2410</b>
30A/20A	4	<b>AUCL01030020</b>	<b>2410</b>
30A/30A	4	<b>AUCL01030030*</b>	<b>2410</b>

\* Non-current limiting variant

### Changeover Switches

Rating	Module	Cat. No.	M.R.P. (₹) Per Unit
<b>Double Pole</b>			
25A	2	<b>AUC00202500</b>	<b>1630</b>
40A	2	<b>AUC00204000</b>	<b>2490</b>
63A	3	<b>AUC00206300</b>	<b>2900</b>



### Three Phase ACCL



#### Range Highlights

- Settable overload current limit at DG side
- Separate power consumption monitoring for Mains & Genset
- Settable overvoltage & undervoltage protection
- Settable TPN or SPN mode at DG side
- Protection against single phasing

Description (AC-1) EB/DG	Cat. No.	M.R.P. (₹) Per Unit
32A / 32A	<b>AUCL03032032</b>	<b>10165</b>
40A / 32A	<b>AUCL03040032</b>	<b>10475</b>
40A / 40A	<b>AUCL03040040</b>	<b>11340</b>
50A / 50A	<b>AUCL03050050</b>	<b>16155</b>
63A / 50A	<b>AUCL03063050</b>	<b>17830</b>
63A / 63A	<b>AUCL03063063</b>	<b>20195</b>
80A / 80A	<b>AUCL03080080</b>	<b>30780</b>
125A / 125A	<b>AUCL03125125</b>	<b>51815</b>

For 3 Phase ACCL programming video please scan the QR code or click here



#### Range Highlights

- Conforms to IEC 60947-3 and IS/IEC 60947-3
- Available in 3 positions (I-O-II) with centre off position
- Utilization category AC-22A

Rating	Module	Cat. No.	M.R.P. (₹) Per Unit
<b>Four Pole</b>			
40A	4	<b>AUC00404000</b>	<b>4290</b>
63A	6	<b>AUC00406300</b>	<b>4865</b>

## Modular Contactors [8536]



### Range Highlights

- Wide Range of Current Ratings:
  - 25A, 40A and 63A
- Conforms to:
  - IEC 61095, EN 61095
  - IEC 60947-4-1, EN 60947-4-1
  - IEC 60947-5-1
- Protection Degree IP 20

Description (AC-1)	Module	Cat. No.	M.R.P. (₹) Per Unit
25A-1NO	1	AUMC1002501	1810
25A-2NO	1	AUMC2002501	2265
40A-2NO	3	AUMC2004003	3880
40A-3NO	3	AUMC3004003	5560
40A-4NO	3	AUMC4004003	6525
63A-2NO+2NC	3	AUMC2206303	6895
63A-3NO	3	AUMC3006303	7065
63A-4NO	3	AUMC4006303	7780
Accessory [8538]			
Auxiliary Contact, 2NO	0.5	AUMCAUX240	1740

## Time Switches [9107]



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
Analog time switch	1	AUTS01ANA00*	4645
Analog time switch	3	AUTS03ANA00*	5650
Digital time switch	2	AUTS02DIG00*	3595
Astro time switch	2	AUTS02AST00*	6040
Digital time switch	2	67DDT0*	2355
Astro time switch	2	T2DDT7*	4410

\*Available till stocks last

## Energy Meters [9030]



### Range Highlights

- Communication with additional RS485 & WiFi module
- Class 1 accuracy
- Direct current operated meter
- Reverse current indication for three-phase meter

Description	Module	Cat. No.	M.R.P. (₹) Per Unit
Single Phase - 60A	2	WD4010100000	2630
Three Phase - 80A	5	WD4020100000	5975
Single Phase - 60A (RS485)	2	WD4010110000	4200
Three Phase - 80A (RS485)	5	WD4020110000	8605

## Accessories

### Accessories [8538]



All Half Module and One Module Accessories are common for 80A-125A MCBs, RCBOs and Adi RCCBs

Description	Configuration	Module	Voltage	CAT Nos.	M.R.P. (₹) Per Unit
Auxiliary Contact	1NO+1NC	0.5	240V AC, 24V DC	AUAXAC240	940
AUX/TAC*	1NO+1NC	0.5	240V AC, 24V DC	AUATAC240	1105
HR AUX/TAC*	1NO+1NC	0.5	240V AC, 24V DC	AUATAC240HR	1105
Undervoltage Release	-	1	240V AC	AUUVAC240	2225
	-	1	24V DC	AUUVDC024	2225
Overvoltage Release	-	1	240V AC	AUOVAC240	2750
Shunt Release	-	1	240V AC	AUSRAC240	2550
	-	1	24V DC	AUSRDC024	2550
Padlock-Suitable for Lock Hasp 3.5 - 5 mm dia. max	Suitable for 1Pole=1Mod devices: RCCBs, RCBOs, Changeover Switches up to 40A			AUPD01	505
	Suitable for 1Pole-1.5Mod devices: MCBs 80A-125A, Changeover Switch 63A			AUPD02	570

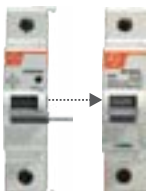
Note: Standard Pack Quantity for Padlock - 2 Nos.

### Indicating Lights [8531]



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
RED	1	AUIL01RED00	1035
YELLOW	1	AUIL01YEL00	1035
BLUE	1	AUIL01BLU00	1035
GREEN	1	AUIL01GRE00	1035
RED-YELLOW-BLUE	1	AUIL01RYB00	1255

## Auxiliary & Accessories for Exora MCBs [8538]



Description	Cat. No.	M.R.P. (₹) Per Unit
Auxiliary Contact - 6A, 240V AC, (1NO+1NC), 0.5 Mod	BZA11006	885
Shunt Release - 240V AC, 1 Mod	BZS00240	2425
Trip Alarm Contact - 6A, 240V AC, (1NO+1NC), 0.5 Mod	BZT11006	1040



*Specially Designed*

## Distribution Board suitable for Aluminum shuttering (Mivan) Construction



> To experience Scan or click



### DBs suitable for Aluminum Shuttering Construction [8537]

#### SPN DBs

##### Highlights

- Available in CRCA sheet steel, RAL9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bar | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification label
- With provision for DP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer + Outgoing			
<b>IP 43 - Metal Door</b>				
4 way	2	2	LTSD04M	*
6 way	2	4	LTSD06M	*
8 way	2	6	LTSD08M	*
12 way	2	10	LTSD12M	*
16 way	2	14	LTSD16M	*

#### TPN DBs

##### Highlights

- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer + Outgoing			
<b>IP 43 - Metal Door</b>				
4 way	8	4+4+4	LTTD04M	*
6 way	8	6+6+6	LTTD06M	*
8 way	8	8+8+8	LTTD08M	*

\* For details, please contact nearest branch office



**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bar | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification label
- With provision for DP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door      IP 43 - Metal Door      IP 43 - Glazed Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer + Outgoing			
<b>IP 30 - Single Door</b>				
4 way	2	2	DBSPN004SDS	1510
6 way	2	4	DBSPN006SDS	1585
8 way	2	6	DBSPN008SDS	1830
12 way	2	10	DBSPN012SDS	2165
16 way	2	14	DBSPN016SDS	2685
18 way	2	16	DBSPN018SDS	3115
<b>IP 43 - Metal Door</b>				
4 way	2	2	DBSPN004DDS	1960
6 way	2	4	DBSPN006DDS	2260
8 way	2	6	DBSPN008DDS	2410
12 way	2	10	DBSPN012DDS	2890
16 way	2	14	DBSPN016DDS	3655
18 way	2	16	DBSPN018DDS	3860
<b>IP 43 - Glazed Door</b>				
4 way	2	2	DBSPN004GDS	2625
6 way	2	4	DBSPN006GDS	2795
8 way	2	6	DBSPN008GDS	3040
12 way	2	10	DBSPN012GDS	3700
16 way	2	14	DBSPN016GDS	4595
18 way	2	16	DBSPN018GDS	4890
<b>IP 54 - Metal Door</b>				
4 way	2	2	DBSPN00454S	6910
6 way	2	4	DBSPN00654S	7705
8 way	2	6	DBSPN00854S	8195
12 way	2	10	DBSPN01254S	9410
16 way	2	14	DBSPN01654S	10480
18 way	2	16	DBSPN01854S	10710

**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door      IP 43 - Metal Door      IP 43 - Glazed Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
<b>IP 30 - Single Door</b>				
4 way	4	4+4+4	DBTPE004SDS	3940
6 way	4	6+6+6	DBTPE006SDS	4840
4 way	8	4+4+4	DBTPN004SDS	4135
6 way	8	6+6+6	DBTPN006SDS	5095
8 way	8	8+8+8	DBTPN008SDS	6010
12 way	8	12+12+12	DBTPN012SDS	8655
16 way	8	16+16+16	DBTPN016SDS	10650
<b>IP 43 - Metal Door</b>				
4 way	4	4+4+4	DBTPE004DDS	4610
6 way	4	6+6+6	DBTPE006DDS	5730
4 way	8	4+4+4	DBTPN004DDS	4825
6 way	8	6+6+6	DBTPN006DDS	6010
8 way	8	8+8+8	DBTPN008DDS	7215
12 way	8	12+12+12	DBTPN012DDS	10760
16 way	8	16+16+16	DBTPN016DDS	13350
<b>IP 43 - Glazed Door</b>				
4 way	4	4+4+4	DBTPE004GDS	6265
6 way	4	6+6+6	DBTPE006GDS	7525
4 way	8	4+4+4	DBTPN004GDS	6515
6 way	8	6+6+6	DBTPN006GDS	7880
8 way	8	8+8+8	DBTPN008GDS	9365
12 way	8	12+12+12	DBTPN012GDS	14365
16 way	8	16+16+16	DBTPN016GDS	17265
<b>IP 54 - Metal Door</b>				
4 way	4	4+4+4	DBTPE00454S	15645
6 way	4	6+6+6	DBTPE00654S	18285
4 way	8	4+4+4	DBTPN00454S	16615
6 way	8	6+6+6	DBTPN00654S	20005
8 way	8	8+8+8	DBTPN00854S	21870
12 way	8	12+12+12	DBTPN01254S	30825
16 way	8	16+16+16	DBTPN01654S	36995



**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing



**Horizontal PPI DBs**

**IP 43 - Metal Door**

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
<b>IP 43 - Metal Door</b>					
4 way	8	2+2+2	4+4+4	DBHPI004DD	8515
6 way	8	2+2+2	6+6+6	DBHPI006DD	10085
8 way	8	2+2+2	8+8+8	DBHPI008DD	12095
12 way	8	2+2+2	12+12+12	DBHPI012DD	16660
16 way	8	2+2+2	16+16+16	DBHPI016DD	19985



**Tier PPI DBs**

**IP 43 - Metal Door**

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
<b>IP 43 - Metal Door</b>					
6 way	8	2+2+2	6+6+6	DBTPI006DD	10460
8 way	8	2+2+2	8+8+8	DBTPI008DD	13115
10 way	8	2+2+2	10+10+10	DBTPI010DD	13750
12 way	8	2+2+2	12+12+12	DBTPI012DD	14565
16 way	8	2+2+2	16+16+16	DBTPI016DD	16610
12 way	MCCB*	2+2+2	12+12+12	DBTPL012DD	15580

\* Suitable for 3 Pole & 4 Pole DU100H, DU100D, DN0-100D & DN0-100C MCCB as incomer

**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for 1. Modular Incomer - FP MCB/Isolator/RCCB/RCBO as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing
- 2. MCCB Incomer - MCCB\* as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing



**With Modular Incomer**

**IP 43 - Metal Door**

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
<b>IP 43 - Metal Door</b>					
4 way	8	4+4+4	4+4+4	DBPSG004DD	12775
6 way	8	4+4+4	6+6+6	DBPSG006DD	14405
8 way	8	4+4+4	8+8+8	DBPSG008DD	16070
12 way	8	4+4+4	12+12+12	DBPSG012DD	19935



**With MCCB Incomer**

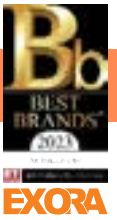
**IP 43 - Metal Door**

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer*	Sub-Incomer	Outgoing		
<b>IP 43 - Metal Door</b>					
4 way	MCCB	4+4+4	4+4+4	DBPGL004DD	17570
6 way	MCCB	4+4+4	6+6+6	DBPGL006DD	20095
8 way	MCCB	4+4+4	8+8+8	DBPGL008DD	23240
12 way	MCCB	4+4+4	12+12+12	DBPGL012DD	26210

\* Suitable for 3 Pole & 4 Pole DU100H, DU100D, DN0-100D & DN0-100C MCCB as incomer

# TPN Phase Selector DB [8537]

# Flexi/Row DB [8537]



### Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 3 nos. of 63A E&A rotary switches | 3 nos. of rocker switches for phase identification | 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for - FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 43 - Metal Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
<b>IP 43 - Metal Door</b>				
4 way	8	4+4+4	DBPSR004DD	17425
6 way	8	6+6+6	DBPSR006DD	17705
8 way	8	8+8+8	DBPSR008DD	18965
10 way	8	10+10+10	DBPSR010DD	20260
12 way	8	12+12+12	DBPSR012DD	21355

### Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | cable ties | circuit identification labels
- With provision to mount modular devices as per requirement



IP 43 - Metal Door

Description	No. of Modules Per Row	Cat. Nos.	M.R.P. (₹) Per Unit
<b>IP 43 - Metal Door</b>			
2 Row 28 Module	14	DBROW228DD	6225
3 Row 42 Module	14	DBROW342DD	7465
4 Row 56 Module	14	DBROW456DD	8115
4 Row 64 Module	16	DBROW464DD	9440

# Vertical TPN DB with Modular Incomer [8537]

# Vertical TPN DB with MCCB Incomer [8537]

### Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with insulated vertical phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP/TP MCBs as outgoing



IP 43 - Metal Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
<b>IP 43 - Metal Door</b>				
4 way	8	4+4+4	DBVTM004DD	11940
6 way	8	6+6+6	DBVTM006DD	13365
8 way	8	8+8+8	DBVTM008DD	15510
12 way	8	12+12+12	DBVTM012DD	21025
16 way	8	16+16+16	DBVTM016DD	24850
<b>IP 54 - Metal Door</b>				
4 way	8	4+4+4	DBVTM00454	25245
6 way	8	6+6+6	DBVTM00654	27670
8 way	8	8+8+8	DBVTM00854	30550

### Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with insulated vertical phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for 3 pole and 4 Pole MCCB\* as incomer and SP/TP MCBs as outgoing



IP 43 - Metal Door  
Up to 125A MCCB Incomer

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer*	Outgoing		
<b>IP 43 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTL004DD	14120
6 way	MCCB	6+6+6	DBVTL006DD	16050
8 way	MCCB	8+8+8	DBVTL008DD	17670
12 way	MCCB	12+12+12	DBVTL012DD	24040
16 way	MCCB	16+16+16	DBVTL016DD	28675
<b>IP 54 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTL00454	29250
6 way	MCCB	6+6+6	DBVTL00654	33355
8 way	MCCB	8+8+8	DBVTL00854	36110

\* Suitable for 3 Pole & 4 Pole DU100H, DU100D, DU125D, DU125H & DN0 MCCB as incomer



# Vertical TPN DB with MCCB Incomer [8537]

# Plug & Socket DB [8537]



EXORA

## Up to 250A MCCB Incomer



IP 30 - Single Door

IP 43 - Metal Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer*	Outgoing		
<b>IP 43 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTH004DD	18180
6 way	MCCB	6+6+6	DBVTH006DD	20360
8 way	MCCB	8+8+8	DBVTH008DD	22390
12 way	MCCB	12+12+12	DBVTH012DD	27350
16 way	MCCB	16+16+16	DBVTH016DD	36420
<b>IP 54 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTH00454	33570
6 way	MCCB	6+6+6	DBVTH00654	36655
8 way	MCCB	8+8+8	DBVTH00854	37910

## Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- Suitable for Surface and Flush mounting
- Available in CRCA sheet steel, RAL9003, powder coated
- Loose Metal Plugs & Sockets conforms to IS 8804; available in Single Phase & Three Phase



Metal Plug & Socket

Plastic Plug & Socket

Description	No. of Pins	No. of Modules	Cat. Nos.	M.R.P. (₹) Per Unit
<b>Metal Plug &amp; Sockets</b>				
10 A, 2 Pin + SC <sup>^</sup>	P + N	1	DBMPS110SD	1925
20 A, 2 Pin + SC <sup>^</sup>	P + N	1	DBMPS120SD	2070
20 A, 2 Pin + SC <sup>^</sup>	P + N	2	DBMPS220SD	2245
20 A, 3 Pin + SC <sup>^</sup>	3P	3	DBMPS320SD	3805
32 A, 3 Pin + SC <sup>^</sup>	3P	3	DBMPS332SD	4500
32 A, 3 Pin + SC <sup>^</sup>	3P	4	DBMPS432SD	4790
63 A, 5 Pin + SC <sup>^</sup>	3P+N+E	4	DBMPS463SD	16225
<b>Plastic Plug &amp; Sockets</b>				
16 A, 3 Pin	P+N+E	2	DBPPS316SD	3150
32 A, 3 Pin	P+N+E	4	DBPPS332SD	3400
32 A, 5 Pin	3P+N+E	8	DBPPS532SD	5680
63 A, 5 Pin	3P+N+E	8	DBPPS563SD	14220

\* Suitable for 3 pole and 4 pole DU250, DU250C & DN1 MCCB as incomer

# Enclosure [8537]

## Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- Suitable for Surface and Flush mounting
- Available in CRCA sheet steel, RAL9003, powder coated
- With provision to mount MCB/Isolator/RCCB/RCBO and other modular devices



IP 30 - Metal Door

Description	No. of Modules	Cat. Nos.	M.R.P. (₹) Per Unit
<b>IP 30 - Metal Door</b>			
2 way	2	DBENC002SD	775
3 way	3	DBENC003SD	775
4 way	4	DBENC004SD	775
6 way	6	DBENC006SD	1180

## Metal Plug [8536]



Description	No. of Pins	Cat. Nos.	M.R.P. (₹) Per Unit
10 A, 2 Pin + SC <sup>^</sup>	P + N	MPS210P	185
20 A, 2 Pin + SC <sup>^</sup>	P + N	MPS220P	195
20 A, 3 Pin + SC <sup>^</sup>	3P	MPS320P	255
32 A, 3 Pin + SC <sup>^</sup>	3P	MPS332P	490

Note: Standard pack quantity - 20 nos.

## Metal Socket [8536]



Description	No. of Pins	Cat. Nos.	M.R.P. (₹) Per Unit
10 A, 2 Pin + SC <sup>^</sup>	P + N	MPS210S	190
20 A, 2 Pin + SC <sup>^</sup>	P + N	MPS220S	210
20 A, 3 Pin + SC <sup>^</sup>	3P	MPS320S	290
32 A, 3 Pin + SC <sup>^</sup>	3P	MPS332S	490

<sup>^</sup> SC-Scraping Earth

Note: Standard pack quantity - 20 nos.



# DBs with provision for TV/Telephone splitters [8537]



EXORA

## Highlights

- Distribution Boards equipped with provisions to mount TV / Telephone splitters
- Available in SPN & TPN DBs



DB Type	Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
		Incomer + Outgoing			
<b>IP 43 - Metal Door</b>					
SPN	6 way	2	4	DBSPN006DDTV	4295
	8 way	2	6	DBSPN008DDTV	4615
	12 way	2	10	DBSPN012DDTV	5680
	16 way	2	14	DBSPN016DDTV	6585
	18 way	2	16	DBSPN018DDTV	7790
TPN	4 way	8	4+4+4	DBTPN004DDTV	8440
	6 way	8	6+6+6	DBTPN006DDTV	9745
	8 way	8	8+8+8	DBTPN008DDTV	11620

# Cable End Boxes [8537]



## Highlights

- Available in CRCA sheet steel, RAL9003, powder coated
- Can be either at the top or bottom of the distribution board

Description	Cat. Nos.	M.R.P. (₹) Per Unit
<b>CEB for SPN DBs</b>		
CEB-SPN Double Door, 4 way	DBSPN004CBS	845
CEB-SPN Double Door, 6 way	DBSPN006CBS	905
CEB-SPN Double Door, 8 way	DBSPN008CBS	1015
CEB-SPN Double Door, 12 way	DBSPN012CBS	1130
CEB-SPN Double Door, 16 way	DBSPN016CBS	1590
CEB-SPN Double Door, 18 way	DBSPN018CBS	1645
<b>CEB for TPN DBs</b>		
CEB-TPE Double Door, 4 way	DBTPE004CBS	1090
CEB-TPE Double Door, 6 way	DBTPE006CBS	1550
CEB-TPN Double Door, 4 way	DBTPN004CBS	1140
CEB-TPN Double Door, 6 way	DBTPN006CBS	1600
CEB-TPN Double Door, 8 way	DBTPN008CBS	2015
CEB-TPN Double Door, 12 way	DBTPN012CBS	3345
CEB-TPN Double Door, 16 way	DBTPN016CBS	3375
<b>CEB for Horizontal PPI DBs</b>		
CEB-Horz. PPI Double Door, 4 way	DBHPI004CB	1690
CEB-Horz. PPI Double Door, 6 way	DBHPI006CB	2105
CEB-Horz. PPI Double Door, 8 way	DBHPI008CB	2645
CEB-Horz. PPI Double Door, 12 way	DBHPI012CB	3315
CEB-Horz. PPI Double Door, 16 way	DBHPI016CB	3605
<b>CEB for VTPN DBs</b>		
CEB-VTPN Double Door, Modular Incomer	DBVTMXXCB	1130
CEB-VTPN Double Door, MCCB Incomer	DBVTXXXCB	3985
<b>CEB for Phase Segregated DBs</b>		
CEB-PSG Double Door, 4 way	DBPSG004CB	2955
CEB-PSG Double Door, 6 way	DBPSG006CB	3525
CEB-PSG Double Door, 8 way	DBPSG008CB	3895
CEB-PSG Double Door, 12 way	DBPSG012CB	4335

# DB Accessories

## Busbar - Fork Type [8538]



## Highlights

- Available in Single Pole, Double Pole, Three Pole and Four Pole versions
- Material : Copper

Description	Cat. Nos..	M.R.P. (₹) Per Unit	Std. Pack Qty.
SP 13 Mod	BSP13	375	5
SP 56 Mod	BSP56	1540	5
DP 12 Mod	BDP12	670	5
TP 12 Mod	BTP12	720	5
FP 12 Mod	BFP12	1430	5
End Caps for SP	ECP01	25	10
End Caps for DP/TP	ECP03	50	10
End Caps for FP	ECP04	85	10



## Blanking Plates [8538]

## Highlights

- Available in One module and Half module

Description	Cat. Nos.	M.R.P. (₹) Per Unit	Std. Pack Qty.
One Module	BKP10	25	10
Half Module	BKP05	25	10



PDK02

## Padlock [8301]

## Highlights

- Version with standard lock and a common key

Description	Cat. Nos.	M.R.P. (₹) Per Unit	Std. Pack Qty.
Lock and Key Kit	PDK02	655	5



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Sockets

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16A-125A IP67

2P+E  
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3P+N+E

Conforms to IEC 60309-1/2

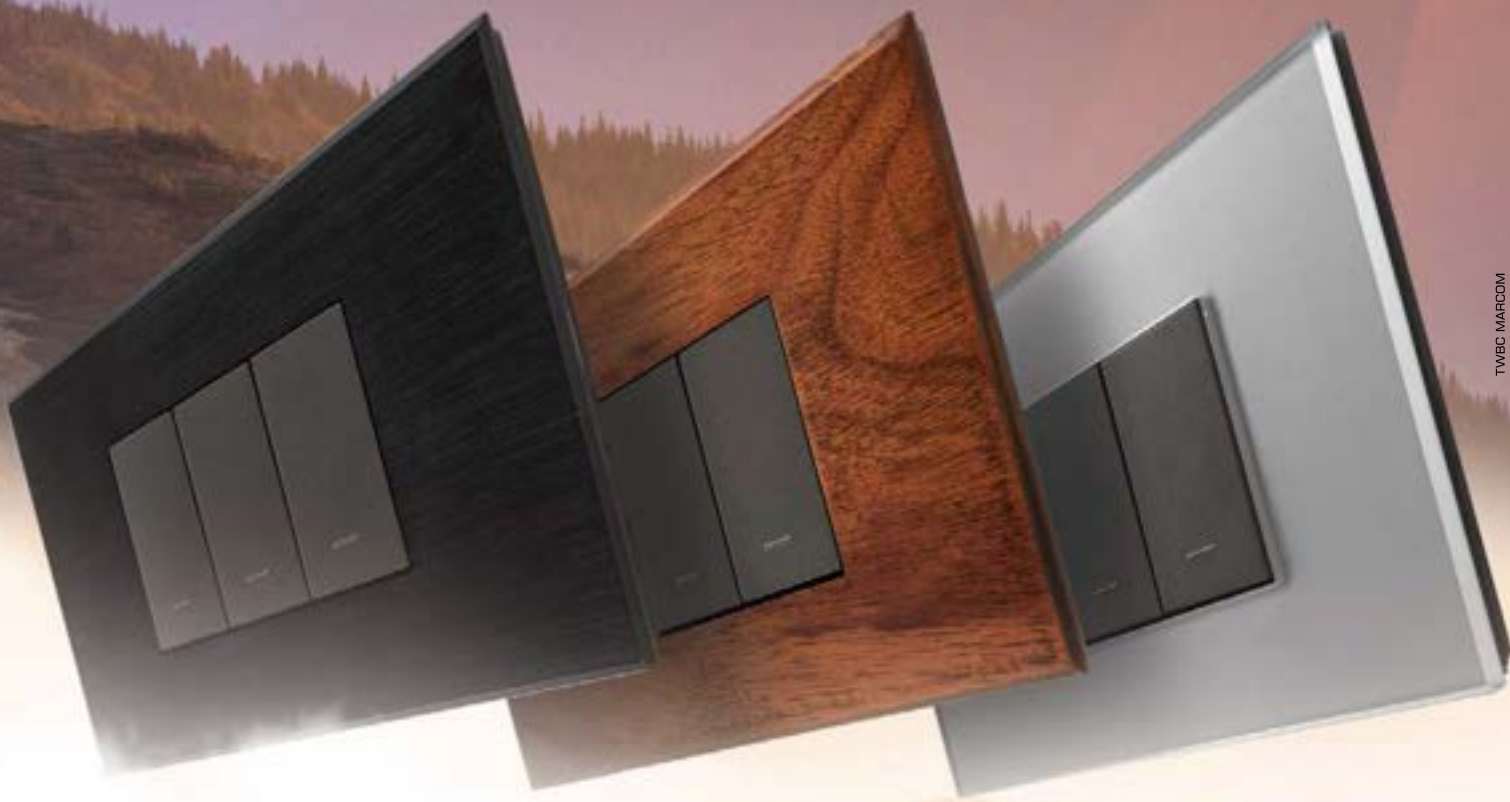
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
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# Discontinued Products/Suggested Alternate Products

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Soft Starters	EMX3	EMX4
Controlgear	MN0 control contactor, its spares and accessories	MO0 control contactor, its spares and accessories
Controlgear	MVO contactors	MNX contactor (up to 650 A)



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