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E-mail : STC-PUNE@LNTEBG.COM



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Contents

Description	Page No.
Contactors	2
Bimetal Overload Relays	9
Control Accessories	12
Motor Protection Circuit Breakers	13
Motor Starters	16
Digital Soft Starters	19
Switch-Disconnecter-Fuse Units, SDs & HRC Fuses	21
On Load Changeover Switch-Disconnectors	26
Moulded Case Circuit Breakers	27
Air Circuit Breakers	43
Reactive Power Management Products	53
Digital Protective Relays	57
Electronic Metering Devices	59
Programmable Logic Controllers (PLC)	62
L μ 1000 Programmable Smart Relay	63
Human Machine Interface	63
Type 2 co-ordination selection charts for Fuse Protected System	64
Discontinued Products	67



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Contactors

Power Contactors

3 Pole

- MX Power (Mini)
- MNX
- MO
- ML

4 Pole

- MCX

Control Relays (Auxiliary Contactors)

- MX0 (Mini)
- MN0

Capacitor Duty Contactors

- MO C
- MPX

Definite Purpose Contactors

- Single Pole - MR
- MK1
- MU

3 Pole Power Contactors

3 Pole Power Contactors - Type MNX

Features

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



MNX 22



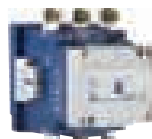
MNX 40



MNX 70



MNX 140



MNX 225



MNX 650

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
9	25	MNX 9	1 NO	CS94106	670	10
			1 NC	CS94107	670	10
12	30	MNX 12	1 NO	CS94108	765	10
			1 NC	CS94109	765	10
18	30	MNX 18	1 NO	CS94100	835	10
			1 NC	CS94101	835	10
22	32	MNX 22	1 NO	CS94980	1025	10
			1 NC	CS94981	1025	10
25	45	MNX 25	#	CS94110	1120	10
32	55	MNX 32	#	CS94111	2385	10
40	55	MNX 40	#	CS94190	3675	10
45	80	MNX 45	2 NO + 2 NC	ST19000	4670	1
50	80	MNX 50	2 NO + 2 NC	ST19001	4975	1
70	100	MNX 70	2 NO + 2 NC	ST19002	6885	1
80	100	MNX 80	2 NO + 2 NC	ST19003	8145	1
95	160	MNX 95	2 NO + 2 NC	CS94136	9725	1
110	160	MNX 110	2 NO + 2 NC	CS94137	11335	1
140	160	MNX 140	2 NO + 2 NC	CS94138	15175	1
185	250	MNX 185	2 NO + 2 NC	CS94139	20530	1
225	300	MNX 225	2 NO + 2 NC	CS94140	23265	1
265	350	MNX 265	2 NO + 2 NC	CS94142	28075	1
325	400	MNX 325	2 NO + 2 NC	CS94143	31945	1
400	425	MNX 400	2 NO + 2 NC	CS94144	41225	1
550	650	MNX 550	2 NO + 2 NC	CS94145	58740	1
650	850	MNX 650	2 NO + 2 NC	CS96327	74525	1

3 Pole Power Contactors - Type MO

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 110AAC-3
- Compact dimensions saving precious panel space
- DIN Rail mounting facility up to 110A
- Unique styling and visual appeal
- Lug less termination
- Standardized accessories throughout the range
- Low VA consumption
- RoHS compliant



MO 9



MO 45



MO 70



MO 110

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
9	30	MO 9	#	CS94564	670	10
12	35	MO 12	#	CS94565	785	10
18	40	MO 18	#	CS94566	870	10
25	45	MO 25	#	CS94567	1325	10
32	50	MO 32	#	CS94568	2820	10
40	50	MO 40	#	CS94569	4345	10
45	50	MO 45	#	CS94570	4440	10
50	65	MO 50	#	CS94572	4655	1
60	80	MO 60	#	CS94573	5490	1
70	100	MO 70	#	CS94574	6565	1
80	125	MO 80	#	CS94576	7825	1
95	125	MO 95	#	CS94577	9405	1
110	140	MO 110	#	CS94578	11015	1

Notes:

1) # Add-on blocks can be ordered separately.

For Add-on block Cat No. refer page No. 4

2) Standard coil voltage: MNX / MO - 110V, 220V, 240V and 415V, 50Hz.

3) For Ordering Suffix please refer page No. 5, Table B

3 Pole Power Contactors

3 Pole Power Contactors - Type ML

Features

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



ML 1.5



ML 3



ML 6



ML 12

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
25	25	ML 1.5	2 NO + 2 NC	SS91851	2025	1
32	40	ML 2	2 NO + 2 NC	SS90701	3755	1
40	45	ML 3	2 NO + 2 NC	SS90721	5545	1
70	100	ML 4	2 NO + 2 NC	SS90910	9060	1
110	125	ML 6	2 NO + 2 NC	SS90921	14305	1
200	250	ML 10	2 NO + 2 NC	SS90935	31600	1
300	400	ML 12	2 NO + 2 NC	SS91010	34025	1

3 Pole Power Contactors - Type MX Mini

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Enclosed construction providing compactness and convenience
- Base as well as DIN Rail mounting facility



MX 06

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control (Std. Coil Voltage - 24, 110, 240, 415V, 50Hz)						
6A	20A	MX 06	1 NO	CS94012	605	10
6A	20A	MX 06	1 NC	CS94013	605	10
9A	20A	MX 09	1 NO	CS94014	640	10
9A	20A	MX 09	1 NC	CS94015	640	10
12A	20A	MX 12	1 NO	CS94016	705	10
12A	20A	MX 12	1 NC	CS94017	705	10
For DC control (Std. Coil Voltage - 24, 110, 220V)						
6A	20A	MX 06	1 NO	CS94021	905	10
6A	20A	MX 06	1 NC	CS94022	905	10
9A	20A	MX 09	1 NO	CS94023	950	10
9A	20A	MX 09	1 NC	CS94024	950	10
12A	20A	MX 12	1 NO	CS94025	1020	10
12A	20A	MX 12	1 NC	CS94026	1020	10

4 Pole Power Contactors & AST System Components

4 Pole Power Contactors - Type MCX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 16A – 800AAC-1
- Wide operating band up to 100AAC-1



MCX 22



MCX 34



MCX 47

AC-1 Rating (A)	Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16	MCX 01	#	CS97009	955	10
25	MCX 02	#	CS97010	1055	10
32	MCX 03	#	CS97011	1110	10
40	MCX 04	#	CS97012	1710	10
50	MCX 11	#	CS97013	2110	1
63	MCX 12	#	CS97014	3950	1
80	MCX 21*	2 NO + 2 NC	CS97016	6285	1
100	MCX 22*	2 NO + 2 NC	CS97017	6850	1
130	MCX 31	1 NO + 1 NC	CS97019	9745	1
160	MCX 32	1 NO + 1 NC	CS97020	13085	1
200	MCX 33	1 NO + 1 NC	CS97021	16100	1
255	MCX 34	1 NO + 1 NC	CS97022	17250	1
325	MCX 41	2 NO + 2 NC	CS97023	31105	1
360	MCX 42	2 NO + 2 NC	CS97024	33735	1
400	MCX 43	2 NO + 2 NC	CS97025	39870	1
500	MCX 44	2 NO + 2 NC	CS97026	49550	1
600	MCX 45	2 NO + 2 NC	CS97027	59035	1
700	MCX 46	2 NO + 2 NC	CS97028	70630	1
800	MCX 47	2 NO + 2 NC	CS94291	100150	1

4 Pole Mechanically Interlocked Contactors



Two MCX 12

Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Two MCX 11	#	CS94362	5385	1
Two MCX 12	#	CS94365	9065	1
MCX 11 - MCX 12	#	CS94363	7225	1

Auto Source Transfer Controller



Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000	ST802300000	47950	1

Can be used along with U-POWER Omega ACBs, MCCBs, & MCX contactors

Notes:

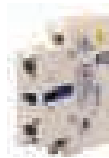
- 1) # Add on blocks can be ordered separately.
For Add-on block Cat No. refer page No. 4
- 2) Std. Coil Voltage: ML - 110V, 220V, 240V and 415V, 50Hz
MCX - 220V, 240V and 415V 50Hz
- 3) For Ordering Suffix please refer page No. 5, Table B
- 4) For Ordering MX accessories please refer page No. 4
- 5) *Ordering Suffix for MCX21 / MCX22; FO00 - 240V AC, RO00 - 415V AC

Accessories for Power Contactors

Add-on Auxiliary contact blocks for MNX, MCX, ML & MO



MNX / MCX Top Add-on Block



MNX / MCX Right Add-on Block



MO Top Add-on Block



MO Left Add-on Block



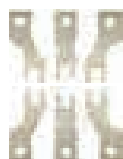
ML Add-on Block

Mounting Position	Contacts	Contactor	Cat. No.	M.R.P. (₹) Per Unit
Top	4 NO	MNX 9 - 40/ MCX 01 - 12	CS94112	300
	3 NO + 1 NC		CS94113	300
	2 NO + 2 NC		CS94114	300
	1 NO + 3 NC		CS94115	300
	4 NC		CS94116	300
	2 NO		CS94117	200
	1 NO + 1 NC		CS94118	200
	2 NC		CS94119	200
	1 NO		CS94120	100
	1 NC		CS94121	100
First Left	1 NO + 1 NC	MNX 9 - 40/ MCX 01 - 04	CS94220	300
First Right	1 NO + 1 NC		CS94221	300
First Left	1 NO + 1 NC	MNX 45 - 80/ MCX 11 - 22	CS94201	300
First Right	1 NO + 1 NC		CS94202	300
Second Left	1 NO + 1 NC		CS94203	300
Second Right	1 NO + 1 NC		CS94204	300
First Left	1 NO + 1 NC	MNX 95 - 650/ MCX 31 - 46	CS94205	350
First Right	1 NO + 1 NC		CS94206	350
Second Left	1 NO + 1 NC		CS94207	350
Second Right	1 NO + 1 NC		CS94208	350
Side Left / Right	1 NO + 1 NC	ML 4/6	SS91494	445
Side Left / Right	1 NO + 1 NC	ML 10/12	SS91474	445
Top	4 NO	MO 9 - 110	CS94594	320
	3 NO + 1 NC		CS94595	320
	2 NO + 2 NC		CS94596	320
	1 NO + 3 NC		CS94597	320
	4 NC		CS94598	320
	2 NO		CS94591	220
	1 NO + 1 NC		CS94592	220
	2 NC		CS94593	220
	1 NO		CS94585	120
	1 NC		CS94586	120
First Left	1 NO + 1 NC	MO 9 - 110/ MO C	CS94580	320
First Right	1 NO + 1 NC		CS94581	320
Second Left	1 NO + 1 NC		CS94582	320
Second Right	1 NO + 1 NC		CS94583	320

Note:

1) Ordering Suffix for Add-on blocks and Mechanical Interlock Kits: OOOO

MO Spreader Link Kit



For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MO 9 - 45	CS94274OOOO	295

Note:

1) Spreader Link Kit consists of six terminals

Mechanical Interlock Kit for MX, MO, MNX & MCX



MNX M1 (MNX 9-40)



MNX M7 (MNX 185-225)



MNX M8 (MNX 265-650)



MCX M3 (MCX 21-22)



MO MI Kit (MO 9-110)



MX-M1 (MX0 / MX06-MX09)

For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MX 06 to MX 09 / MX 0	CS94038	300
MO 9 - 110*	CS94584	360
MNX 9 - 40	CS94126	310
MNX 45 - 80	CS94197	1195
MNX 95 - 140	CS94198	1965
MNX 185 - 225	CS94199	2245
MNX 265 - 650	CS94200	2545
MCX 01 - 04	CS94126	310
MCX 21 - 22	CS93095	1970
MCX 31 - 34	SS94992	2115
MCX 41 - 46	CS94301	3430

* MO MIL Kit contains inbuilt 2 NC Contacts

Surge Suppressor for MX, MNX & MCX



MNX S1



MNX S3



MNX S4



MX - S1

For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MX 06 to MX 09 / MX 0 AC	CS94039*	300
MNX 9 - 40 / MCX 01 - 04	CS94166*	300
MNX 45 - 80 / MCX 11 - 22	CS94163*	300
MNX 95 - 225 / MCX 31 - 34	CS94164*	1080
MNX 265 - 400 / MCX 41 - 44	CS94165*	1455

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

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

Add on Auxiliary Contact Block for MX



MX - A1 22 E

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX - A1 02E - 2 NO	CS94030	180	10
MX - A1 11E - 1 NO + 1 NC	CS94031	180	10
MX - A1 02E - 2 NC	CS94032	180	10
MX - A1 40E - 4 NO	CS94033	300	10
MX - A1 31E - 3 NO + 1 NC	CS94034	300	10
MX - A1 22E - 2 NO + 2 NC	CS94035	300	10
MX - A1 13E - 1 NO + 3 NC	CS94036	300	10
MX - A1 04E - 4 NC	CS94037	300	10

Control Relays (Auxiliary Contactors)

Type MX0



MX0 40E

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Alphanumeric terminal markings
- Available with AC or DC control

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz				
AC-15 4A	MX0 40E (4 NO)	CS94018	735	10
	MX0 31E (3 NO + 1 NC)	CS94019	735	10
	MX0 22E (2 NO + 2 NC)	CS94020	735	10
	MX0 13E (1 NO + 3 NC)	CS94041	735	10
	MX0 04E (4 NC)	CS94042	735	10
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A	MX0 40E (4 NO)	CS94027	935	10
	MX0 31E (3 NO + 1 NC)	CS94028	935	10
	MX0 22E (2 NO + 2 NC)	CS94029	935	10
	MX0 13E (1 NO + 3 NC)	CS94043	935	10
	MX0 04E (4 NC)	CS94044	935	10

Notes:

- 1) For Ordering Suffix please refer Table B as shown below
- 2) 5 NC & above combinations are not recommended for DC Control Contactors
- 3) 1 NO + 3 NC, 4 NC add on block combinations are not recommended for DC Control Contactors

For Example, In DC control Contactors, 4NO + 4NC combination can be achieved with 2NO + 2NC aux contactor and 2NO + 2NC Add on block and not with 4NO standalone contactor plus 4NC add on block

Ordering Suffix for Standard Coil Voltages

Table B

Ordering Suffix for Standard Coil Voltages			
AC Control		DC Control*	
Voltage (V)	Suffix	Voltage (V)	Suffix
24	G000	24	4000
42	H000	48	5000
48	J000	110	1000
110	A000	220	2000
220	K000		
240	B000		
360	C000		
380	L000		
415	D000		
440	P000		
525	M000		

* for MX, MX0 & MN0 with DC Control

Type MN0



MN0 22E



MN0dc 22E

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz				
AC-15 4A	MN0 40E (4 NO)	SS94660	955	10
	MN0 31E (3 NO + 1 NC)	SS94661	955	10
	MN0 22E (2 NO + 2 NC)	SS94662	955	10
	MN0 13E (1 NO + 3 NC)	SS94663	955	10
	MN0 04E (4 NC)	SS94664	955	10
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A	MN0 40E (4 NO)	SS94665	1505	10
	MN0 31E (3 NO + 1 NC)	SS94666	1505	10
	MN0 22E (2 NO + 2 NC)	SS94667	1505	10
	MN0 13E (1 NO + 3 NC)	SS94668	1505	10
	MN0 04E (4 NC)	SS94669	1505	10

For Ordering Suffix refer Table B as shown below

Accessories for MN0 Control Relays (Auxiliary Contactor)

Add on Auxiliary Contact Block



1 NO + 1 NC



2 NO + 2 NC

Contacts Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
4 NO	SS94083	300	10
3 NO + 1 NC	SS94084	300	10
2 NO + 2 NC	SS94085	300	10
1 NO + 3 NC	SS94086	300	10
4 NC	SS94087	300	10
2 NO	SS94080	200	10
1 NO + 1 NC	SS94081	200	10
2 NC	SS94082	200	10
1 NO	SS94715	100	10
1 NC	SS94716	100	10

Ordering Suffix: 0000

Surge Suppressor for MN0



MN - S1

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN0 AC	SS94623	300	1
MN0 DC	SS94781	315	1

Ordering Suffix 110-240V : B000
415V : D000

24-48VDC : 5000
110-220VDC : 2000

Capacitor Duty Contactors

Capacitor Duty Contactors - Type MPX

Features

- MPX range available from 8 to 60 Kvar
- Delatching auxiliary contacts
- Lug less termination



MPX 15



MPX 30



MPX 60

kVAR Rating @ 415V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
8	MPX 8	1 NO	ST41807	1655	1
12.5	MPX 12	1 NO	ST41808	1775	1
15	MPX 15	-	ST41809	2300	1
25	MPX 25	-	ST41810	2980	1
30	MPX 30	-	ST41811	5905	1
50	MPX 50	-	ST41812	9100	1
60	MPX 60	-	ST41813	10435	1

Ordering Suffix NOOO - 230V, 50Hz

Add on Auxiliary Contact Block for MPX



MPX 1NC

Description	Contacts Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Side Add on block	1 NC	ST41818	460	1
Side Add on block	1 NO	ST41819	460	1
Side Add on block	1 NO + 1 NC	ST94985	600	1

Definite Purpose Contactors

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	600	10
25A	MR 11NW	CS94178	675	10
40A	MR 13	CS94992	655	40

Ordering Suffix BOOO - 240V, 50Hz

Add on Auxiliary Contact Block



MR 1NO

Description	For Contactor	Contacts Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Add on Single pole	MR	1 NO	CS94179	165	10
Side mounted auxiliary contact block	MU 1/MU 2	1 NO + 1 NC	SS94072	135	10
		1NC	SS94074	110	10

Ordering Suffix for Add-on Block - OOOO

Capacitor Duty Contactors - Type MO C

Features

- MO C Range available from 8.5 - 50 Kvar
- Delatching auxiliary contacts
- Separate termination for damping resistors
- Lug less termination



MO C25



MO C50

kVAR Rating @ 415V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
8.5	MO C8.5	1NO	CS96320	1655	1
		1NC	CS96337	1655	1
12.5	MO C12.5	1NO	CS96321	1775	1
		1NC	CS96338	1775	1
25	MO C25	1NO	CS96322	3440	1
		1NC	CS96339	3440	1
33.5	MO C33.5	1NO	CS96323	6365	1
		1NC	CS96340	6365	1
50	MO C50	1NO	CS96324	9560	1
		1NC	CS96341	9560	1

Ordering Suffix, accessories and spares same as MO contactors

Note : For Power Factor Correction Capacitors refer page No. 53

Type MK1



MK 1

Type	AC3 Rating (A)	Motor Output 3 Phase 415V, 50Hz		Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
		HP	KW			
MK 1	11A	5.5	7.5	SS95200	955	10

For Overload Relays type MK1 please refer page No. 10

For Ordering Suffix please refer page No. 5, Table B

(For 360V wide band, Ordering Suffix - SOOO)

Type MU



MU 1



MU 2

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16A	MU 1	CS94007	1450	10
25A	MU 2	CS94008	1910	10

For Overload Relays type MU refer page No.10

For Ordering Suffix please refer page No. 5, Table B

Spare Contact Kit and Spare Coil



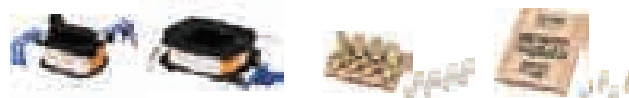
ML Spare Kits



ML Spare Coils

Spare Contact kit			Spare Coil	
Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MU 1	CS94010	525	CS94009	440
MU 2	CS94011	860		
ML 1.5	SS95305	1415	SS90873	590
ML 2	SS95307	2170	SS90545	915
ML 3	SS95309	3485		
ML 4	SS95311	5650	SS91258	1750
ML 6	SS95313	9750		
ML 10	SS95315	18265	SS91011	3835
ML 12	SS95317	23715		
MN 0 ac	-	-	SS94191	440
MN 0 dc	-	-	SS94651	810

Spare Contact Kit and Spare Coil



MNX Spare Coils

MCX Spare Kits



MNX Spare Kits

Spare Contact kit			Spare Coil	
Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MO 9	CS96380	490	CS96317	440
MO 12	CS96381	635		
MO 18	CS96382	695		
MO 25	CS96383	795		
MO 32	CS96384	1440		
MO 40	CS96385	2040	CS96318	1200
MO 45	CS96386	2445		
MO 50	CS96387	2500		
MO 60	CS96388	2860		
MO 70	CS96389	3390		
MO 80	CS96390	3940	CS96319	1705
MO 95	CS96391	4430		
MO 110	CS96392	5255		
MNX 9	CS94123	490	CS94105	440
MNX 12	CS94124	635		
MNX 18	CS94125	695		
MNX 22	CS94269	715		
MNX 25	CS94127	795		
MNX 32	CS94128	1375	CS94192	1260
MNX 40	CS94147	1955		
MNX 45	CS94149	2445		
MNX 50	CS94150	2645		
MNX 70	CS94151	3555		
MNX 80	CS94152	4285	CS94196	1705
MNX 95	CS94153	4920		
MNX 110	CS94154	5730		
MNX 140	CS94155	7175	CS94194	3310
MNX 185	CS94156	10975		
MNX 225	CS94157	13465	CS94195	3800
MNX 265	CS94159	14895		
MNX 325	CS94160	18975	CS94193	14105
MNX 400	CS94161	23015		
MNX 550	CS94162	34715	CS94105	440
MNX 650	CS96336	42250		
MCX 01-04	-	-		
MCX 11	CS94077	1590		
MCX 12	CS94078	2330		
MCX 21	CS94330	3855	CS94192	1260
MCX 22	CS94331	4440		
MCX 31	CS94081	6440	CS94196	1705
MCX 32	CS94082	6635		
MCX 33	CS94083	8050		
MCX 34	CS94084	8905		
MCX 41	CS94295	19305	CS94195	3800
MCX 42	CS94296	25475		
MCX 43	CS94297	27475		
MCX 44	CS94298	30000		
MCX 45	CS94299	37735	CS94193	14105
MCX 46	CS94300	42570		
MCX 47	-	-		

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 0	ST28732	375
ML 1	ST28733	375
ML 1.5	ST28734	375
ML 2/ ML 3	ST23866	510
ML 4/ ML 6	ST28735	940
Combination coil with timer		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 2	SS90650	1800

Note :

- 1) Ordering Suffix for Spare Contact kit - OOOO
- 2) For Spare Coil Ordering Suffix refer page No. 5, Table B



Making MCCs More Intelligent

We go the extra mile.

Conventional MCCs only provide you with basic protection. For smarter MCCs and complete motor protection, control and monitoring, choose L&T MCOMP – the intelligent motor management relay. By combining multiple advantages in one offering, we go the extra mile.

**M COMP****Complete Solution for Motor Protection**

Features & advantages

- Integration of voltage and current based protections
- Enhanced circuit breaker control, interlocking and logic building
- Metering, event recording and trip data recording helps in fault analysis, ensures lower down-time and increases plant efficiency
- Connectivity with SCADA / DCS on Modbus RTU / TCP IP and Profibus DP

Customer Interaction Centre (CIC)

BSNL / MTNL (Toll free): 1800 233 5858
Reliance (Toll free): 1800 200 5858
Tel: 022 6774 5858 Fax: 022 6774 5859
Email: cic@Lntebg.com
Website: www.Lntebg.com

Bimetal Overload Relays

Features : MN Relays

- 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

Type MN



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)	0.2 - 0.33	SS94141OOEO	1020	10
	0.3 - 0.5	SS94141OOGO	1020	10
	0.45 - 0.75	SS94141OOJO	1020	10
Direct mounting on MNX 9 / MNX 12 / MNX 18 / MNX 22 / MNX 25 / MNX 32 / MNX 40	0.6 - 1	SS94141OOKO	1020	10
	0.9 - 1.5	SS94141OOMO	1020	10
	1.4 - 2.3	SS94141OOPo	1020	10
	2 - 3.3	SS94141OOQO	1020	10
	3 - 5	SS94141OOSO	1020	10
	4.5 - 7.5	SS94141OOUO	1020	10
	6 - 10	SS94142OOVO	1020	10
	9 - 15	SS94142OOBO	1050	10
	14 - 23	SS94144OODO	1100	10
	20 - 33	SS94145OOEO	1555	10
	24 - 40	SS94145OOFO	1555	10
MN 5				
(Directly Operated)	20 - 33	SS94136OOEO	1785	10
	30 - 50	SS94136OOGO	2045	10
Direct Mounting	45 - 75	SS94137OOJO	3000	10
	66 - 110	SS94137OOKO	3000	10
MN 12				
(CT Operated)	42 - 69	SS94138OOHO	6220	1
	60 - 100	SS94138OOKO	6220	1
	90 - 150	SS94138OOMO	6220	1
Separate Mounting	135 - 225	SS94138OOPo	6220	1
	180 - 300	SS94139OOQO	6800	1
	270 - 450	SS94139OORO	7195	1
MN 12L#				
(CT Operated)	42 - 69	SS94127OOHO	7730	1
	60 - 100	SS94127OOKO	7730	1
	90 - 150	SS94127OOMO	7730	1
Separate Mounting	135 - 225	SS94127OOPo	7730	1
	180 - 300	SS94127OOQO	7730	1
	340 - 570	SS94127OOSO	7730	1

For motors with longer starting time

Note :

1) MN 5 Relays of lower ratings available on request

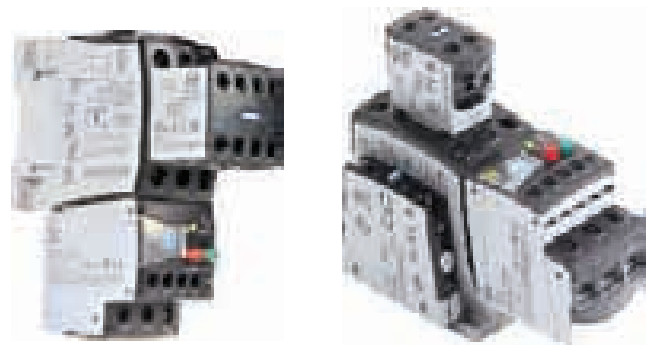
Features : RTO Relays

- 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

Type RTO



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO - 1				
(Directly Operated)	0.23 - 0.41	CS96355OOFO	1205	10
	0.31 - 0.55	CS96355OOGO	1205	10
	0.55 - 0.85	CS96355OOJO	1205	10
	0.78 - 1.2	CS96355OOLo	1205	10
Direct Mounting on MO 9 / MO 12 / MO 18 / MO 25 / MO 32 / MO 40 / MO 45	1.2 - 2.0	CS96355OONO	1205	10
	1.9 - 2.8	CS96355OOPo	1205	10
	2.4 - 3.6	CS96355OOQO	1205	10
	3.5 - 5.2	CS96355OOSO	1205	10
	4.6 - 6.7	CS96355OOTO	1205	10
	6.7 - 9.7	CS96355OOVO	1205	10
	8.5 - 12.5	CS96355OOAO	1240	10
	12.5 - 18.5	CS96356OOCO	1300	10
	17 - 25.5	CS96356OODO	1300	10
	25 - 37	CS96356OOEO	1840	10
	35 - 45	CS96356OOGO	1840	10

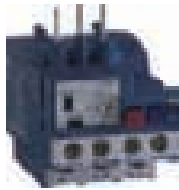


Modular Load Feeder

RTO Relays can be directly mounted onto MO contactors. This along with the standardized accessories of MO provides you a complete modular feeder solution.

Bimetal Overload Relays

Type MX-R0*

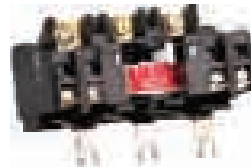


MX - R0

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	0.1 - 0.16	ST94074OOBO	835	10
	0.16 - 0.24	ST94074OODO	835	10
	0.22 - 0.33	ST94074OOEO	835	10
	0.3 - 0.45	ST94074OOGO	835	10
	0.45 - 0.67	ST94074OOHO	835	10
	0.67 - 1.0	ST94074OOKO	835	10
	1.0 - 1.5	ST94074OOMO	835	10
Direct Mounting on MX Contactors	1.4 - 2.1	ST94074OONO	835	10
	1.8 - 2.7	ST94074OOPo	835	10
	2.4 - 3.6	ST94074OOQO	835	10
	3.5 - 5	ST94074OOSO	835	10
	4.0 - 6.0	ST94074OOTO	835	10
	5.5 - 8.5	ST94074OOUO	835	10
	8.5 - 12.5	ST94074OOVO	835	10

* Available till stocks last

Type ML



ML

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	ML 1.5			
	0.15 - 0.25	SS91858OODO	1420	10
	0.25 - 0.4	SS91858OOFO	1420	10
	0.4 - 0.65	SS91858OOHO	1420	10
	0.6 - 1	SS91858OOKO	1420	10
	1 - 1.6	SS91858OOMO	1420	10
	1.5 - 2.5	SS91858OOPo	1420	10
	2.5 - 4	SS91858OORO	1420	10
	4 - 6.5	SS91858OOTO	1420	10
	6 - 10	SS91858OOVO	1420	10
Direct Mounting on ML Contactors	10 - 16	SS91858OOBO	1420	10
	ML 2 / ML 3			
	9 - 14	SS91859OOAO	2100	2
	13 - 21	SS91859OOCO	2100	2
	20 - 32	SS91859OOEO	2100	2
	28 - 42	SS91859OOFO	2100	2

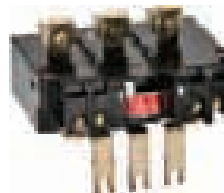
Type MK1



MK1

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	0.15 - 0.25	SS90035OODO	725	10
	0.25 - 0.4	SS90035OOFO	725	10
	0.4 - 0.65	SS90035OOHO	725	10
	0.6 - 1	SS90035OOKO	725	10
	1 - 1.6	SS90035OOMO	725	10
	1.5 - 2.5	SS90035OOPo	725	10
	2.5 - 4	SS90035OORO	725	10
Direct Mounting on MK1 Contactors	4 - 6.5	SS90035OOTO	725	10
	6 - 10	SS90035OOVO	725	10
	9 - 14	SS90035OOAO	725	10
	11 - 18	SS90036OOCO	760	10
	13 - 22	SS91888OODO	800	10

Type MU



MU1



MU2

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	MU1			
	4 - 6.5	SS96557OOTO	1115	1
	6 - 10	SS96557OOVO	1115	1
	MU2			
Direct Mounting on MU Contactor	9 - 14	SS95979OOAO	1685	1
	13 - 21	SS95979OOCO	1685	1
	20 - 32	SS95979OOEO	1685	1
	28 - 42	SS95979OOFO	1685	1

Accessories for Bimetal Overload Relays

Accessories for Bimetal 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 unit for MK 1 / ML Relays	SS90004	120	1
Push button extn. unit for MN 2 Relays	SS94968	15	100
Kit for Mounting MN 2 Relay on ML 1.5 contactor	SS94701	85	50
Kit for Mounting MN 2 Relay separately (Direct Mounting Type)	SS94700	85	50
Kit for Mounting MN 5 Relay on MNX 95 / 110 / 140 contactor	SS94638	105	20
Kit for Mounting MN 5 Relay on ML 2 / ML 3 contactor	SS94151	100	20
Kit for Mounting MN5 Relay on ML 4 / ML 6 contactor	SS94152	130	20
DIN Rail Mounting Kit Relay on MN 2 Relay	SS91887	55	50

Relay Reset Cord for MN2 Relay



400 mm 650 mm 900 mm 1200 mm

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN2 Relay reset cord - 400mm	SB942070000	425	1
MN2 Relay reset cord - 650mm	SB942080000	445	1
MN2 Relay reset cord - 900mm	SB942090000	485	1
MN2 Relay reset cord - 1200mm	SB942100000	550	1

Separate Mounting Kit for RTO Relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO Relay Separate Mounting Kit	CS963350000	160	1

Timers

Electronic Timers Type ET 100



ET 100

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
110 / 240V, 50Hz for			
3 - 10 secs.	SE92001	2585	1
9 - 30 secs.	SE92002	2585	1
36 - 120 secs.	SE92003	2585	1
240 / 360 / 415V*, 50Hz for			
3 - 10 secs.	SE92005	2585	1
9 - 30 secs.	SE92006	2585	1
36 - 120 secs.	SE92007	2585	1

Notes: 1) # 360V tap can be used for 240V connections
2) Ordering Suffix is OOOO

To order a Timer, please specify Type & Cat no.

Thermal Timers Type GT 200



GT 200

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Operating Voltages: 230 / 250V, 360V, 400 / 440V, 500V, 50 Hz for 5 - 18 secs. range	SS91270	1960	1

Ordering Suffix for GT 200 Timer

Voltage (V)	Suffix
250V	NOOO
320V	ROOO
360V	COOO
380V	LOOO
400 / 440V	POOO

Note:

For Complete range of Timing Devices, please refer the Panel Accessories Price List

Control Accessories

Actuator Units Type TK3

6A, 415V, 50 Hz (Suitable for 30.5mm Cutout Dia.)

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
Selector actuator - 2 position (black only)	SS91516	350	30
Selector actuator - 3 position (black only)	SS91517	350	30
Mushroom push button actuator (red, green or black)	SS91518	215	30
Shrouded push button actuator (red, black, green, yellow, blue or grey)	SS91519	150	30
Unshrouded push button actuator (red, black, green, yellow, blue or grey)	SS91520	150	30
Key actuator - lockable in 1 position	SS91522 *	475	30
Key actuator - lockable in both positions	SS91521 *	475	30
Element with 2 fixing screws	SS90375 *	175	100

Ordering Suffix for Colour	
Black	OAOO
Red	OBOO
Green	OCOO
Yellow	ODOO
Blue	OEOO
Grey	OFOO
*	O000



Push Button Pendants

6A, 415V, 50 Hz

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
With 2 push buttons	SS90502	810	30
With 4 push buttons	SS90504	1505	30
With 6 push buttons	SS90506	2020	30

Ordering Suffix is 0000

Single Phase Preventor Relay

New



Sdz5



SDz5

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
SDz5, SPPR + Timer, 360V	XM818080000	1845	1
SDz5, SPPR + Timer, 415V	XM818090000	1845	1
Single Phase Preventor Relay - Sz5 380V AC (6 wires)	CS94824L000	610	1
Single Phase Preventor Relay - Sz5 380V AC (7 wires)	ST921660000	610	1

To order Control Accessories, please specify Type, Cat no. & Ordering Suffix for color



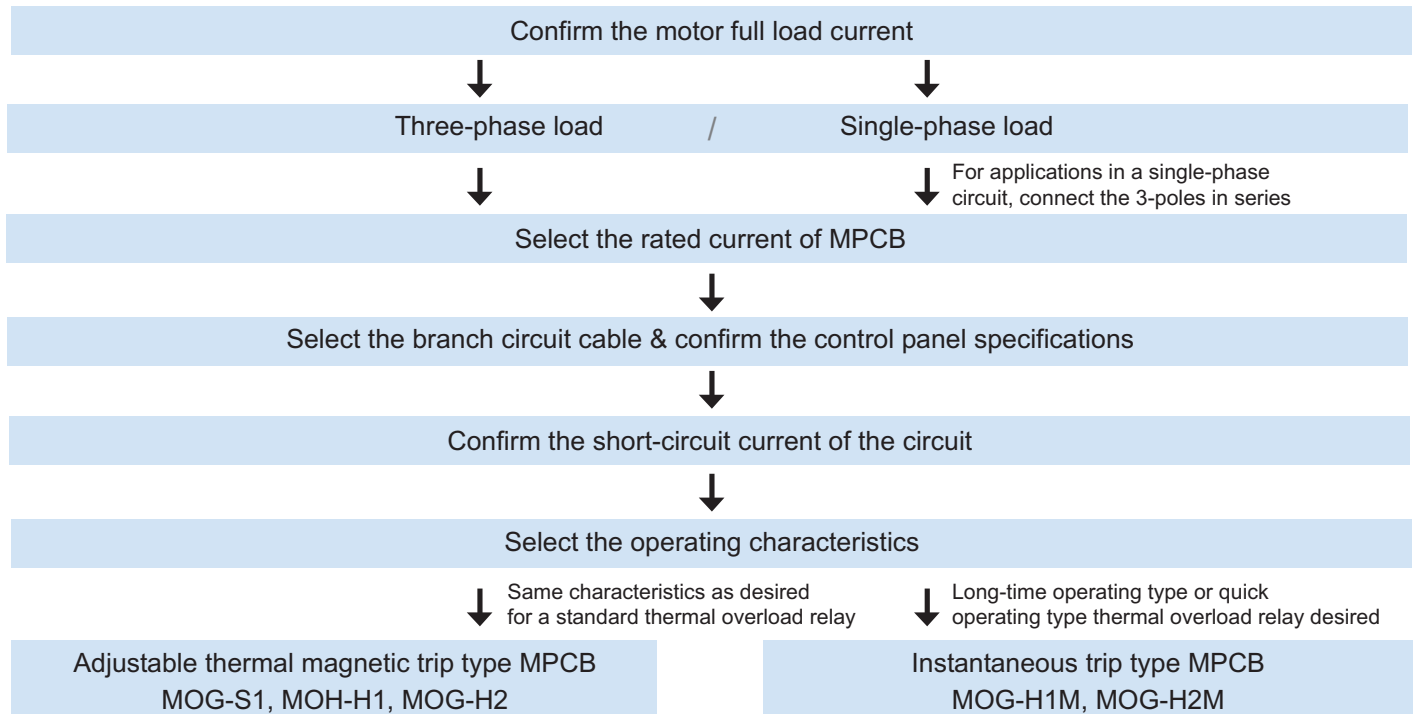
For Timing, Control Devices and Supply Monitors from GIC and 22.5 mm dia Range of Modular Remote Control & Indicating Units from ESBEE, please refer Panel Accessories Price List.

Motor Protection Circuit Breakers

Features

- With compactness MPCB provides high-performance short-circuit current breaking
- Wide range of current adjustment dial for optimum protection
- Stand-alone motor protection
- All accessories are common for both frames and separate short circuit alarm is also available

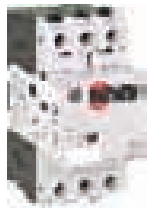
Procedure for selecting the appropriate model:



Note: Please contact the nearest branch office for fuseless type 2 co-ordination selection chart.

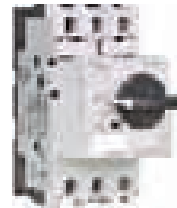
Type MOG-S1 (Rocker Type)

(ROM cannot be fitted with MOG - S1)
With short circuit & overload protection



Type MOG-H1M (Rotary Type) - Frame 1

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	ST418890000	2145	1
0.25	0.06	0.16 - 0.25	ST418900000	2145	1
0.40	0.09	0.25 - 0.40	ST418910000	2145	1
0.63	0.12	0.40 - 0.63	ST418920000	2240	1
1.00	0.25	0.63 - 1.00	ST418930000	2240	1
1.60	0.55	1.00 - 1.60	ST418940000	2295	1
2.50	0.75	1.60 - 2.50	ST418950000	2295	1
4.00	1.50	2.50 - 4.00	ST418960000	2350	1
6.30	2.20	4.00 - 6.30	ST418970000	2390	1
10.00	4.00	6.30 - 10.00	ST418980000	2460	1
13.00	5.40	9.00 - 13.00	ST418990000	2615	1

Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Short Circuit Release (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	2.1	ST419230000	2005	1
0.25	0.06	3.3	ST419240000	2005	1
0.40	0.09	5.2	ST419250000	2005	1
0.63	0.12	8.2	ST419260000	2825	1
1.00	0.25	13	ST419270000	2825	1
1.60	0.55	20.8	ST419280000	2825	1
2.50	0.75	32.5	ST419290000	2825	1
4.00	1.50	52	ST419300000	2950	1
6.30	2.20	81.9	ST419310000	2950	1
10.00	4.00	130	ST419320000	3080	1
13.00	5.40	169	ST419330000	3200	1
16.00	7.50	208	ST419340000	3255	1
20.00	9.00	260	ST419350000	3485	1
25.00	12.50	325	ST419360000	4215	1
32.00	15.00	416	ST419370000	5510	1

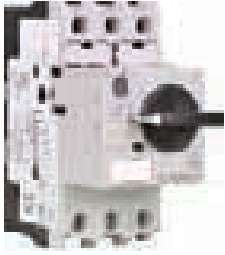
Breaking capacity: Icu = 100kA upto 13A & Icu = 50kA from 16A - 32A

Motor Protection Circuit Breakers

Type MOG-H1

(Rotary Type) - Frame 1

With short circuit & overload protection



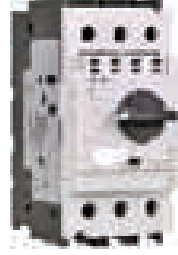
Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	ST419040000	2645	1
0.25	0.06	0.16 - 0.25	ST419050000	2645	1
0.40	0.09	0.25 - 0.40	ST419060000	2645	1
0.63	0.12	0.40 - 0.63	ST419070000	2845	1
1.00	0.25	0.63 - 1.00	ST419080000	2845	1
1.60	0.55	1.00 - 1.60	ST419090000	3050	1
2.50	0.75	1.60 - 2.50	ST419100000	3050	1
4.00	1.50	2.50 - 4.00	ST419110000	3050	1
6.30	2.20	4.00 - 6.30	ST419120000	3135	1
10.00	4.00	6.30 - 10.00	ST419130000	3200	1
13.00	5.40	9.00 - 13.00	ST419140000	3315	1
16.00	7.50	11.00 - 16.00	ST419150000	3660	1
20.00	9.00	14.00 - 20.00	ST419160000	3950	1
25.00	12.50	19.00 - 25.00	ST419170000	4300	1
32.00	15.00	24.00 - 32.00	ST419180000	6710	1

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

Type MOG-H2M

(Rotary Type) - Frame 2

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Short Circuit Release (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	416	ST419380000	7435	1
40.00	20.00	520	ST419390000	7435	1
50.00	25.00	650	ST419400000	9065	1
63.00	34.00	819	ST419410000	9065	1

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

Accessories for MOG



Short Circuit Alarm



Auxiliary + Alarm



External Operating Handle

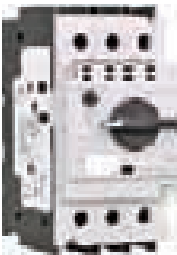


Shunt Trip

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)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	24.00 - 32.00	ST419190000	9470	1
40.00	20.00	28.00 - 40.00	ST419200000	9590	1
50.00	25.00	35.00 - 50.00	ST419210000	9935	1
63.00	34.00	45.00 - 63.00	ST419220000	10580	1

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

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Front mtg. 1NO	ST419420000	460	1
Auxiliary Contact Front mtg. 1NC	ST419430000	460	1
Auxiliary Contact Left side mtg. 2NO	ST419440000	555	1
Auxiliary Contact Left side mtg. 1NO + 1NC	ST419450000	555	1
Auxiliary Contact Left side mtg. 2NC	ST419460000	555	1
Trip Alarm Contact Front mtg. 1NO	ST419470000	700	1
Trip Alarm Contact Front mtg. 1NC	ST419480000	700	1
Auxiliary + Alarm Left side mtg. 2NO	ST419490000	785	1
Short circuit alarm Left side mtg. 1NO + 1NC	ST419500000	785	1
Shunt trip 24V DC	ST419510000	1280	1
Shunt trip 110V, 50Hz	ST419520000	1280	1
Shunt trip 230V, 50Hz	ST429520000	1280	1
Under Voltage release, 110V, 50Hz	ST419530000	1280	1
Under Voltage release, 415V, 50Hz	ST419540000	1280	1
External operating handle, (Black) Frame 1	ST419550000	960	1
External operating handle, (Black) Frame 2	ST419560000	960	1

Starters with Muscle



MN and ML Industrial Starters

We Go the Extra Mile

L&T's MN and ML range of starters are power-packed performers. They are designed for tough applications and harsh industrial environment. And their record of performance in Indian industry demonstrate quality and reliability every step of the way.

- IP 54 Protection
- Powder-coated enclosure for greater corrosion-resistance
- Wide range of relay settings and coil voltages

Customer Interaction Centre (CIC)

BSNL/MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859

Email: cic@Lntebg.com

www.Lntebg.com

L&T SWITCHGEAR

SAFE & SURE

Direct-on-Line Starters

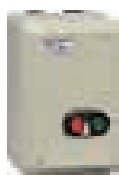
in Sheet-Steel Enclosure Type MF, MK, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MF1 3-Ph



MK1



MB1

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
7.5	5.5	9 - 15	MF1	SS97210	1070	1
7.5	5.5	9 - 14	MK1 DOL	SS96210	1725	1
7.5	5.5	11 - 18	MK1 DOL	SS96211	1765	1
7.5	5.5	13 - 22	MK1 DOL	SS96228	1805	1
10.0	7.5	13 - 21	MU1 DOL #	SS95647	2865	1
10.0	7.5	14 - 23	MB1 DOL #	SS95649	2760	1
15.0	11.0	20 - 32	MU2 DOL #	SS95648	3825	1
15.0	11.0	20 - 33	MB2 DOL #	SS95650	3720	1

Direct-on-Line Starters

in Sheet-Steel Enclosure Type MN with Single Phase Protection feature (Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MN 16



MN 45

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	2615	1
15.0	11.0	14 - 23	MN 25 DOL	SS94352	4210	1
20.0	15.0	20 - 33	MN 32 DOL	SS94353	6655	1
30.0	22.5	30 - 50	MN 45 DOL	SS94017	10680	1
45.0	33.5	45 - 75	MN 65 DOL	SS94018	15010	1

Single Phase Motor Starters



MH0



MF1 1-Ph

Max. Motor Output at 230V, 1-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
0.5	0.37	4 - 6.5	MH0 (Coil operated)	ST37491BOTO	940	1
1.0	0.75	6 - 10	MH0 (Coil operated)	ST37491BOVO	940	1
2.0	1.5	10.5 - 17.5	MF1	SS97227OOCO	795	1
3.0	2.2	12 - 20	MF1	SS97227OOCO	795	1

Direct-on-Line Starters

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



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					
15.0	11.0	20 - 32	ML 1.5 DOL	SS91854	4080	1
20.0	15.0	20 - 32	ML 2 DOL	SS90702	6800	1
30.0	22.5	28 - 42	ML 3 DOL	SS90722	11570	1

Semi-Automatic Star-Delta Motor Starters

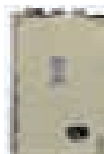
in Sheet-Steel Enclosure Type MK, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MK 1S



MU 1S



MB 2S

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
12.5	9.3	9 - 14	MK1 SASD	SS96255	5640	1
15.0	11.0	11 - 18	MK1 SASD	SS96258	5660	1
15.0	11.0	13 - 22	MK1 SASD	SS96260	5680	1
15.0	11.0	13 - 21	MU1 SASD #	SS95891	7500	1
15.0	11.0	14 - 23	MB1 SASD #	SS95895	8580	1
30.0	22.5	20 - 32	MU2 SASD #	SS95893	9530	1
30.0	22.5	20 - 33	MB2 SASD #	SS95897	10060	1

Semi-Automatic Star-Delta Motor Starters

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



ML 2S

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
25.0	18.5	13 - 21	ML1.5 SASD	SS91856	9390	1
35.0	26.0	20 - 32	ML2 SASD	SS90707	16420	1

Note: 1) # Type MU1 / MU2 consists of type MU Relay + MU1 / MU2 contactors
Type MB1 / MB2 consists of type MN Relay + MU1 / MU2 contactors
2) For Ordering Suffix please refer table C page No. 18

Fully Automatic Star-Delta Motor Starters



MN 16F

in Sheet-Steel Enclosure Type MN
with Single Phase Protection feature
(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					
15.0	11.0	9 - 15	MN 16 FASD	SS94362	8795	1
25.0	18.5	14 - 23	MN 25 FASD	SS94364	10530	1
35.0	26.0	20 - 33	MN 32 FASD	SS94366	16890	1
50.0	37.5	30 - 50	MN 45 FASD	SS94021	25000	1
75.0	55.0	45 - 75	MN 65 FASD	SS94022	43185	1
90.0	67.0	45 - 75	MN 80 FASD	SS94705	46665	1
125.0	90.0	66 - 110	MN 110 FASD	SS94706	60600	1
175.0	130.0	90 - 150	MN 140 FASD	SS94707	64390	1

Fully-Automatic Star-Delta Motor Starters

in Sheet-Steel Enclosure Type MK, ML, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3Ph)



MK 1F



MB 1F



MU 2F

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
12.5	9.3	9 - 14	MK1 FASD	SS96254	6435	1
15.0	11.0	11 - 18	MK1 FASD	SS96257	6490	1
15.0	11.0	13 - 22	MK1 FASD	SS96259	6515	1
15.0	11.0	13 - 21	MU1 FASD #	SS95890	8565	1
15.0	11.0	14 - 23	MB1 FASD #	SS95894	8960	1
30.0	22.5	20 - 32	MU2 FASD #	SS95892	10315	1
30.0	22.5	20 - 33	MB2 FASD #	SS95896	10185	1



ML 2F



ML 1.5F

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
25.0	18.5	13 - 21	ML1.5 FASD	SS91855	10660	1
35.0	26.0	20 - 32	ML2 FASD	SS90705	16925	1
50.0	37.5	28 - 42	ML3 FASD	SS90730	27900	1
75.0	55.0	45 - 75	ML4 FASD	SS90913	47595	1
125.0	90.0	66 - 110	ML6 FASD	SS90923	77955	1
250.0	180.0	135 - 225	ML10 FASD	SS90938	123090	1
400.0	300.0	180 - 300	ML12 FASD	SS91019	139500	1

Note: 1) # Type MU1 / MU2 consists of type MU Relay + MU1 / MU2 contactors
Type MB1 / MB2 consists of type MN Relay + MU1 / MU2 contactors
2) For Ordering Suffix please refer table C page No. 18

Spares for MK1 Starters



Aux contact block



Spare coil



Combination coil



Push button unit

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Single Moving Contact	SS91009	40	10
Std. Operating coils			
400 / 440V, 50Hz	SS90047	200	10
360V, 50Hz	SS90165	200	10
320V, 50Hz	SS90166	200	10
230V, 50Hz	SS90045	200	10
220V, 50Hz	SS90044	200	10
110V, 50Hz	SS90043	200	10
Auxiliary contact block: 1 NO + 1 NC	SS90120	275	50
Spare kit without coil	SS90983	415	50
Thermal timer without combination coil	SS90224	780	1
Combination coils			
Combination coils for 400 / 440V, 50Hz	SS90443	510	10
Combination coils for 230V, 50Hz	SS90444	510	10
Combination coils for 380V, 50Hz	SS90445	510	10
Combination coils for 360V, 50Hz	SS90446	510	10
Push Button Unit	SS90004	120	1
Arc Shield	SS50004	130	1
Contact bridge without Contacts	SS50005	120	1

Spares for MN Starters

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Bracket for Mounting cont. MNX 25 - 32	SS940300000	70	20

Salient Features and Benefits of Motor Starters

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Sheet steel enclosures with IP 54 protection
- Wide range of relay settings and coil voltages
- Standardized accessories and spares available

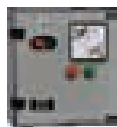
Submersible Pump Starters

In Sheet Enclosure Type MU - G

(Motor Rating AC-3 Duty, 415V, 50Hz, 3 phase)



MU - G6



MU - G10

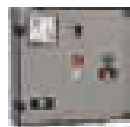
Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
6	4.5	9 - 14	MU - G6 DOL Starter *	SS97756	4705	1
10	7.5	13 - 21	MU - G10 DOL Starter *	SS95983	5450	1
10	7.5	28 - 42	MU - G10H DOL Starter *	SS95974	6225	1

* Also available with lower Relay Ranges

Submersible Pump Starters

In Sheet Enclosure Type MU-G

(Motor Rating AC-3 Duty, 415V, 50 Hz, 3 phase)



MU-G20



MU-G30



MU-G50

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
20	15	13 - 21	MU-G20 Fully Automatic Star - Delta Starter*	SS95984	10540	1
20	15	28 - 42	MU-G20H Fully Automatic Star - Delta Starter*	SS95975	13660	1
20	15	20 - 33	MU-G30 Fully Automatic Star - Delta Starter	CS96008	20245	1
30	22.5	30 - 50		CS96008	20245	1
30	22.5	30 - 50	MU-G50 Fully Automatic Star - Delta Starter	CS96009	31540	1
50	37.5	45 - 75		CS96009	31540	1

* Also available with lower Relay Ranges

Submersible Pump Starters

In Sheet Steel Enclosure Type MR-G, MF-G



MR-G2



MF-G1

Max. Motor Output at 230V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
0.5	0.37	6 - 10	Type MR-G2 * For Single Phase Motors	SS96988	3260	1
0.75	0.55	6 - 10		SS97727	3445	1
1.0	0.75	9 - 14		SS96560	3565	1
1.5	1.1	11 - 18		SS96989	3935	1
2.0	1.5	13 - 22		SS96990	4120	1
3.0	2.2	13 - 22		SS97725	4410	1
0.5	0.37	6.5 - 11	Type MF-G1 * For Single Phase Motors	SS97734	2235	1
1.0	0.75	12 - 20		SS97736	2330	1
1.5	1.1	12 - 20		SS97737	2415	1
2.0	1.5	12 - 20		SS97738	2460	1

Note: For dual meter (Ammeter + Voltmeter) version - Add (₹) 205

* Also available with lower Relay Ranges

Salient Features and Benefits of Submersible Pump Starters

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Protections Offered - Overload, Single Phasing, Phase reversal, Phase imbalance
- Auto Restart Feature
- Vibration proof enclosure with IP54 protection class
- Indications Offered - ON/OFF, Voltage and Ampere

Ordering Suffix for MK1/MU/MB/ML & MN Starters

Table C

Coil Voltages	Relay Range (A)				
	MK1	MU	MB	ML	MN
B - 240 V	A : 9 - 14	A : 9 - 14	B : 9 - 15	A : 9 - 14	B : 9 - 15
C - 360 V	C : 11 - 18	C : 13 - 21	D : 14 - 23	B : 10 - 16	D : 14 - 23
D - 415 V	D : 13 - 22	E : 20 - 32	E : 20 - 33	C : 13 - 21	E : 20 - 33
P - 440 V	M : 1 - 1.6			E : 20 - 32	G : 30 - 50
	P : 1.5 - 2.5			F : 28 - 42	J : 45 - 75
	R : 2.5 - 4			G : 30 - 50	K : 66 - 110
	T : 4 - 6.5			J : 45 - 75	Q : 2 - 3.3
	V : 6 - 10			K : 66 - 110	S : 3 - 5
				M : 90 - 150	U : 4.5 - 7.5
				P : 135 - 225	V : 6 - 10
				Q : 180 - 310	
				R : 2.5 - 4	
				T : 13 - 21	

Digital Soft Starters

CSX Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSX0007V4C1	26000
15	CSX0015V4C1	27500
18	CSX0018V4C1	28500
22	CSX0022V4C1	33700
30	CSX0030V4C1	38000
37	CSX0037V4C1	43500
45	CSX0045V4C1	49500
55	CSX0055V4C1	54000
75	CSX0075V4C1	73500
90	CSX0090V4C1	80000
110	CSX0110V4C1	88000

Note : The above CSX & CSXi ratings are based on 400% starting current, 10 starts per hour, 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.

CSXi Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSXi007V4C1	37700
15	CSXi015V4C1	43700
18	CSXi018V4C1	45900
22	CSXi022V4C1	49000
30	CSXi030V4C1	54500
37	CSXi037V4C1	59700
45	CSXi045V4C1	72000
55	CSXi055V4C1	78800
75	CSXi075V4C1	92000
90	CSXi090V4C1	115000
110	CSXi110V4C1	128500

- CSX Soft Starters : For Standard Applications
- Inbuilt Bypass Contactor
 - Soft Start / Soft Stop
 - Compact
 - Truly plug & play

- CSXi Soft Starters : For standard applications
- Inbuilt Bypass Contactor
 - Soft start / Soft stop / Adjustable current limit
 - Essential motor protections against
 - Overload
 - Single phasing
 - Phase sequence reversal
 - Abnormality in supply
 - Unbalanced current
 - Thermistor protection through PTC
 - Excess start time setting
 - PC Interface as optional

- EMX3 Soft Starters : For Heavy Duty Applications
- Ratings from 23 to 1600A
 - Control Voltage from 94VAC to 484VAC
 - Constant current / Adaptive acceleration start
 - Constant current / Adaptive de-acceleration for smooth stop
 - Forward / Reverse Jog
 - Comprehensive motor protection
 - Large LCD Keypad
 - Detachable built-in Real time clock
 - Auto Start / stop
 - 2 motor data sets
 - Fully programmable overload trip
 - 5 digital inputs, 4 digital outputs, 1 analog output
 - Built-in RTD & Thermistor inputs
 - 99 event logs with time stamping
 - Power through operation allows to run soft starter even with one SCR shorted

EMX3 Soft Starters



EMX3 Cat. No.	Suitable for Motor with Rated Current in Amps*		M.R.P. (₹) Per Unit	Bypass Contactor
	3 Wire (Inline Connection)	6 Wire (Inside Delta Connection)		
EMX30023B411	23	35	62000	Built - In
EMX30043B411	43	65	66500	
EMX30053B411	53	75	77600	
EMX30076B411	76	105	83100	
EMX30097B411	97	135	88600	
EMX30105B411	105	155	105200	
EMX30145B411	145	205	121900	
EMX30170B411	170	240	138300	
EMX30220B411	220	330	144800	
EMX30255C411	255	365	161000	Terminals for connecting External contactor (AC1 duty)
EMX30360C411	360	540	171000	
EMX30430C411	400	645	259000	
EMX30620C411	620	930	266000	
EMX30650C411	650	975	282000	
EMX30790C411	790	1185	344000	
EMX30930C411	930	1395	432000	
EMX31200C411	1200	1800	665000	
EMX31410C411	1410	2115	798000	
EMX31600C411	1600	2400	886000	

Note : The above EMX3 current ratings are based on 300% starting current, 10 starts per hour, 10 seconds starting time and ambient temperature of 45°C.

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

For Winstart software please contact Customer Interaction Centre.

Optional Modules/Cards for CSX / CSXi / EMX3

Description	Cat. No.	M.R.P. (₹) Per Unit
Modbus Module	PIMMB01	12000
Profibus Module	PIMPB01	19000
Device Net Module	PIMDN01	15000
EMX3 RTD/Ground Fault Expansion Card	995-04804-00	15000
EMX3 I/O Expansion Card	995-04803-00	9500

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 I²T.

Making Changeover Safer, Smarter

We Go the Extra Mile

If you are using conventional changeover switches, it's time to change over to the smarter, safer way. New C-Line switches from L&T have a self-interlocked dual dead centre mechanism that takes the risk out of switching from one source to another.

Take a look at the other benefits: Termination is simpler and quicker thanks to staggered terminals. More flexibility comes with the on-site convertible fused version. No line load bias and enhanced user protection with click-fit, swivel type terminal shroud. The range also has the highest withstand capacity along with higher mechanical and electrical life. The sheet steel enclosure version needs no separate cable gland box.

Yes, the extra mile goes a long way in making changeover safer and smarter.



Changeover Switches

Customer Interaction Centre (CIC)

BSNL/MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859

Email: cic@Lntebg.com

www.Lntebg.com

L&T SWITCHGEAR**SAFE & SURE**

Switch-Disconnecter-Fuse Units

Type FN (TPN) S-D-F suitable for DIN fuse-link



FN - TPN (Open Execution)



FN in SS Enclosure

Features offered by FN S-D-F

- Range 32A to 800A, 415V, AC 23A
- DP / TP / TPN Versions
- Suitable for cylindrical / DIN / Bolted fuse-link
- Available in interior / Sheet steel enclosure version
- Conform to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility

Rated Current (A)	Suitable HRC fuse-link		Open Execution				In Sheet Steel Enclosure			
	Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	HF	2 to 32	FN 32 TPN / FP	SK95518	1430	1	FN 32 TPN / FP CE*	SK95612*	3320	1
32	HF	2 to 32	FN 32 TPN / FP CE*	SK95703*	1280	1				
63	HF	2 to 63	FN 63 TPN / FP	SK95421	1960	1	FN 63 TPN / FP CE*	SK95613*	4050	1
63	HF	2 to 63	FN 63 TPN / FP CE*	SK95704*	1750	1				
100	HN Size 000/00	63 to 100	FN 100 TPN	SK95568	4200	1	FN 100 TPN	SK95569	6610	1
125	HN Size 000/00	63 to 125	FN 125 TPN	SK95001	5520	1	FN 125 TPN	SK95005	7900	1
160	HN Size 000/00	63 to 160	FN 160 TPN	SK95713	6050	1	FN 160 TPN	SK95715	8470	1
200	HN Size 0	80 to 200	FN 200 TPN	SK95418	7580	1	FN 200 TPN	SK95511	10610	1
250	HN Size 1	125 to 250	FN 250 TPN	SK95642	9080	1	FN 250 TPN	SK95681▲	12480	1
315	HN Size 1	125 to 315	FN 315 TPN	SK95461	11280	1	FN 315 TPN	SK95514	15230	1
400	HN Size 2	200 to 400	FN 400 TPN	SK95481	13530	1	FN 400 TPN	SK95515	17430	1
630	HN Size 3	315 to 630	FN 630 TPN	SK95521	22070	1	FN 630 TPN	SK95547	27800	1
800	HN Size 3	315 to 800	FN 800 TPN	SK95679	24060	1	FN 800 TPN	SK95705	31150	1

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

▲ Spare cat no. ST978950000 is of Interior FN 250 SDF suitable for Sheet steel enclosure

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



FNX TPN S-D-F



FNX 4P S-D-F

Features offered by FNX S-D-F

- Range 32A to 800A, 415V, AC 23A
- TPN and FP version
- Suitable for cylindrical / DIN fuse-link
- Telescopic shaft for depth adjustment
- DIN rail mounting up to 100A
- Conform to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility

Rated Current (A)	Suitable HRC fuse-link		Three pole + Neutral (TPN)				Four Pole (FP)			
	Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	HF	2 to 32	FNX 32 TPN / FP	SK96903	1460	1	FNX 32 TPN / FP	SK96903	1460	1
63	HF	2 to 63	FNX 63 TPN / FP	SK96904	2000	1	FNX 63 TPN / FP	SK96904	2000	1
100	HN Size 000	63 to 100	FNX 100 TPN / FP	SK96906	4220	1	FNX 100 TPN / FP	SK96906	4220	1
125	HN Size 000/00	63 to 125	FNX 125 TPN	SK95806	5650	1	FNX 125 FP	SK95814	6320	1
160	HN Size 000/00	63 to 160	FNX 160 TPN	SK95807	6160	1	FNX 160 FP	SK95815	6970	1
200	HN Size 0	80 to 200	FNX 200 TPN	SK95808	7710	1	FNX 200 FP	SK95816	8950	1
250	HN Size 1	125 to 250	FNX 250 TPN	SK95809	9260	1	FNX 250 FP	SK95817	10490	1
315	HN Size 1	125 to 315	FNX 315 TPN	SK95810	11550	1	FNX 315 FP	SK95818	12050	1
400	HN Size 2	200 to 400	FNX 400 TPN	SK95811	13800	1	FNX 400 FP	SK95819	15070	1
630	HN Size 3	315 to 630	FNX 630 TPN	SK95812	22490	1	FNX 630 FP	SK95820	23820	1
800	HN Size 3	315 to 800	FNX 800 TPN	SK95813	24520	1	FNX 800 FP	SK95821	26930	1

Switch-Disconnecter-Fuse Units

Type FN (TP) S-D-F suitable for DIN fuse-link



For Capacitor & Motor back-up

FN TP S-D-F

Rated Current (A)	Type	Suitable fuse-link type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TP	HF	ST27892	1360	1
63	FN 63 TP	HF	ST27893	1870	1
100	FN 100 TP	HN Size 000/00	ST30287	4070	1
125	FN 125 TP	HN Size 000/00	ST27894	5230	1
160	FN 160 TP	HN Size 000/00	SK95998	5760	1
200	FN 200 TP	HN Size 0	ST27895	7180	1
250	FN 250 TP	HN Size 1	ST31731	8650	1
315	FN 315 TP	HN Size 1	ST27897	10700	1
400	FN 400 TP	HN Size 2	ST27898	12890	1
630	FN 630 TP	HN Size 3	ST27899	21570	1
800	FN 800 TP	HN Size 3	ST27900	23520	1

Type FN (TPN) S-D-F suitable for bolted fuse-link



FN TPN S-D-F

Rated Current (A)	Open Execution				
	Type	Suitable fuse-link type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TPN	A1L	SK95653	1460	1
63	FN 63 TPN	A1L	SK95651	1970	1
100	FN 100 TPN	A3 / A4	SK95570	4090	1
125	FN 125 TPN	A4	SK95009	4960	1
160	FN 160 TPN	A4	SK95714	5140	1
200	FN 200 TPN	B2	SK95588	6560	1
250	FN 250 TPN	B2 / B3	SK95682	8510	1
315	FN 315 TPN	B3	SK95590	10950	1
400	FN 400 TPN	B4	SK95591	12390	1
630	FN 630 TPN	C2	SK95592	20940	1

Type FN & FG Switch-Disconnecter (TPN)



FN TPN S-D

Rated Current (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TPN / 4P	SK95541	1360	1
63	FN 63 TPN / 4P	SK95540	1940	1
100	FN 100 TPN	SK95571	3770	1
125	FN 125 TPN	SK95405	4650	1
200	FN 200 TPN	SK95607	6260	1
250	FN 250 TPN	SK95683	8070	1
315	FN 315 TPN	SK95609	9780	1
400	FN 400 TPN	SK95610	12350	1
630	FN 630 TPN	SK95611	18030	1
800	FN 800 TPN	SK95551	21470	1
1000	FN 1000 TPN	SK95710	26740	1
1000	FN 1000H TPN	SK95992	31830	1
1250	FG 1250 TPN	ST30198	46830	1
1600	FG 1600 TPN	ST30199	59380	1
2000	FG 2000 TPN	ST30200	158640	1
2500	FG 2500 TPN	ST30201	188220	1
3150	FG 3150 TPN	ST30202	191720	1

Refer catalogue for short circuit withstand capacity

Type FFO/FF/FAC suitable for panel mounting

Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FFO TP Interior	SK91100	1070	1
63	FF TP Interior	SK91000	1620	1
63	FAC 63 TPN	SK95156	3000	1
100	FAC 100 TPN	SK95157	4910	1

Spares & Accessories for Type FFO/FF/FAC

Description	Rated Current (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
FAC - Handle Assembly	63 / 100	SK90453	70	1
FFO / FF Handle Assembly	32 / 63	SK90998	80	1
FFO / FF Handle Coupler & Door Interlock	32 / 63	SK91079	400	1

Switch-Disconnecter-Fuse: Accessories

Accessories for type FNX



Castell Lock



DIN Rail Assembly



Auxiliary Contact Kit



Handle Assembly

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FNX 32 / 63	SK91537	150	1
	FNX 100	SK91538	300	1
	FNX 125 / 160	SK91539	300	1
	FNX 200 / 250	SK91540	390	1
	FNX 315 / 400 / 630 / 800	SK91541	430	1
Handle Assembly	FNX 32 / 63 / 100	SK91524	270	1
	FNX 125 / 160 / 200 / 250	SK91525	510	1
	FNX 315 / 400 / 630 / 800	SK91526	640	1
Castell Lock	FNX 32 / 63 / 100	SK91530	500	1
	FNX 125 / 160 / 200 / 250	SK91531	880	1
	FNX 315 / 400 / 630 / 800	SK91531	880	1
DIN Rail Assembly	FNX 32 / 63 / 100	SK91617	65	1
Mechanical Interlock kit	FNX 125 / 160 / 200 / 250	SK95232	815	1
	FNX 315 / 400 / 630 / 800	SK95545	930	1

Accessories for type FN



Terminal Shroud Kit



Handle Assembly



Auxiliary Contact Kit



Switched Neutral Kit



Mechanical Interlock Kit



Shaft Extension Kit

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FN 32 / 63	SK91302	350	1
	FN 100 / 125 / 160	SK91328	400	1
	FN 200 / 250	SK91329	470	1
	FN 315 / 400 / 630 / 800	SK91330*	520	1
Terminal Shroud Kit	FN 32 / 63	SK91190	90	1
	FN 100 / 125 / 160	SK91137	120	1
	FN 200 / 250	SK91335	205	1
	FN 315 / 400	SK91346	215	1
Handle Assembly - A	FN 32 / 63	SK91257	260	1
	FN 100 / 125 / 160	SK91258	570	1
	FN 200 / 250	SK91258	570	1
	FN 315 / 400 / 630 / 800	SK91259*	635	1
Handle Assembly - B	FN 32 / 63	SK91277	260	1
	FN 100 / 125 / 160	SK91278	570	1
	FN 200 / 250	SK91278	570	1
	FN 315 / 400 / 630 / 800	SK91279*	635	1
Handle Assembly - CE	FN 32 / 63	SK91337	145	1
	FN 100 / 125 / 160	SK95232	815	1
	FN 200 / 250	SK95232	815	1
Mechanical Interlock Kit	FN 315 / 400 / 630 / 800	SK95545*	930	1
	FN 100 / 125 / 160	SK95233	2255	1
	FN 200 / 250	SK95516	2290	1
Switched Neutral Kit	FN 315 / 400	SK95517	2380	1
	FN 630 / 800	SK95546*	3205	1
Interphase Barrier Kit	FN 200	SK91343	190	1
	FN 315 / 400	SK91344	200	1
	FN 630 / 800	SK91345*	210	1
Shaft Extension Kit	FN 100 / 125 / 160	SK95600	150	1
	FN 315 / 400 / 630 / 800	SK91331*	180	1

* Also suitable for switch-disconnector FN1000 & FN1000H

Spare front housing assemblies for FN S-D-F (suitable for DIN fuse-link)

Rating (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
100	FN 100 Front housing assembly	ST31677	2890	1
125	FN 125 Front housing assembly	ST31678	3380	1
200	FN 200 Front housing assembly	ST31679	3865	1
250	FN 250 Front housing assembly	ST31729	5250	1
315	FN 315 Front housing assembly	ST31681	6325	1
400	FN 400 Front housing assembly	ST31682	7975	1
630	FN 630 Front housing assembly	ST31683	14310	1

Fuse pulling handle



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	110	1
Insulated fuse pulling handle for Type HN fuse-link from 63A-800A	SF90126	410	1

Castell lock for type FN



Castell lock

Rated Current (A)	Description & Cat. No.		M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
From FN 100 to FN 250	A = SK00333 C = SK00335	B = SK00334 D = SK00336	1275	1
From FN 315 to FN 800	A = SK00345 C = SK00347	B = SK00346 D = SK00348	1275	1

HRC Fuses

Features offered by HRC fuse link

- Conform 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	81	30
	4		SF90145	81	30
	6		SF90146	81	30
	8		SF90147	81	30
	10		SF90148	81	30
	16		SF90150	81	30
	20		SF90151	81	30
	25		SF90152	81	30
	32		SF90142	81	30
	40	Suitable for Type FN 63 / FNX 63 S-D-F & for HC 63 Fuse base	SF90143	90	30
	50		SF90158	200	30
	63		SF90159	255	30

DIN Type Fuse Links Type HN



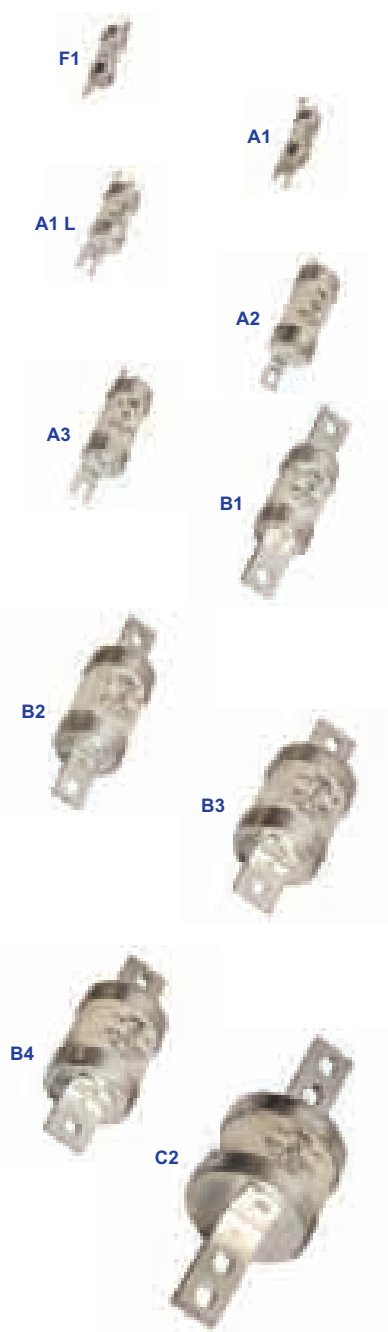
Size	Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
000	63	Suitable for type FN 100/125/160 / FNX 100/125/160 S-D-F Suitable for Type FA-C 100 & for HB 160 Fuse base	SF94940	260	3
	80		SF94941	270	3
	100		SF94942	270	3
	125		SF94946	310	3
00	63	Suitable for type FN 100/125/160 / FNX 125/160 S-D-F Suitable for Type FA-C 100 & for HB 160 Fuse base	SF94027	340	3
	80		SF94028	340	3
	100		SF94029	340	3
	125		SF94030	340	3
	160		SF94939	365	3
0	80	Suitable for Type FN 200 / FNX 200 S-D-F & for HB 250 Fuse base	SF94128	460	3
	100		SF94129	460	3
	125		SF94130	460	3
	160		SF94131	470	3
	200		SF94132	470	3
1	125	Suitable for Type FN 250/315 / FNX 250/315 S-D-F & for HB 250 Fuse base	SF94230	475	3
	160		SF94231	490	3
	200		SF94232	490	3
	250		SF94233	555	3
	315		SF94234	695	3
2	200	Suitable for Type FN 400 / FNX 400 S-D-F & for HB 800 Fuse base	SF94332	690	3
	250		SF94333	705	3
	315		SF94334	730	3
	400		SF94335	730	3
3	315	Suitable for Type FN 630/800 / FNX 630/800 S-D-F & for HB 800 Fuse base	SF94434	1100	1
	400		SF94435	1100	1
	500		SF94436	1135	1
	630		SF94437	1210	1
	800		SF94938	1435	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	155	10
63	HC 63	Fuse holder	HF	2-63	SK91043	175	10
160	HB 160	Fuse base	HN-Size 000 & 00	63-160	SK90405	265	12
250	HB 250	Fuse base	HN-Size 0 & 1	80-250	SK90406	565	3
800	HB 800	Fuse base	HN-Size 2 & 3	200-800	SK91051	1070	3

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	39	24
			4		ST30726	39	24
			6		ST30727	39	24
			10		ST30728	39	24
			16		ST30729	39	24
			20		ST30730	43	24
			25		ST30731	43	24
			32		ST30732	43	24
HQ	Offset	A1	2	-	ST30736	53	24
			4		ST30737	53	24
			6		ST30738	53	24
			10		ST30739	53	24
			16		ST30740	53	24
			20		ST30741	56	24
			25		ST30742	56	24
			32		ST30743	62	24
		A1L	20	Suitable for type FN 32/63 S-D-F	ST34527	66	15
			25		ST34528	66	15
			32		ST34529	70	15
			50		ST35827	70	15
			63		ST35828	70	15
		A2	4	Suitable for type HK 32H/32B fuse base	ST30747	56	12
			6		ST30748	56	12
			10		ST30749	56	12
			16		ST30750	56	12
			20		ST30751	57	12
			25		ST30752	57	12
			32		ST30753	57	12
		A3	35	Suitable for type FN 100 S-D-F & for HK 63B/63H Fuse base	ST30759	79	12
			50		ST30760	79	12
			63		ST30761	79	12
		A4	80	Suitable for type FN 100/125/160 S-D-F & for HK 125H/125B Fuse base	ST30767	155	12
			100		ST30768	160	12
			125		ST30769	190	12
			160		ST35829	195	12
	Centre Tag, 2 holes	B1	80	Suitable for type FN 200 S-D-F	ST30774	175	12
			100		ST30775	175	12
			125		ST30776	225	12
		B2	125	Suitable for type FN 200 S-D-F	ST30777	240	3
			160		ST30778	260	3
			200		ST30779	240	3
		B3	250	Suitable for type FN 250/315 S-D-F	ST30781	375	3
			315		ST30782	375	3
		B4	355	Suitable for type FN 400 S-D-F	ST30783	565	3
			400		ST30784	595	3
	Centre Tag, 4 holes	C2	400	Suitable for type FN 630 S-D-F	ST30785	985	1
			500		ST30786	1190	1
			630		ST30787	1190	1
		C3	630	-	ST30788	1315	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	F1	2-20	ST30772	95	12
	HD 20P	Both side busbar	F1	2-20	ST30773	105	12
	HD 20B	Top busbar & bottom cable	F1	2-20	ST30766	100	12
32	HD 32H	Both side cable	F1	2-32	ST30733	100	12
	HD 32P	Both side busbar	F1	2-32	ST30734	140	12
	HD 32B	Top busbar & bottom cable	F1	2-32	ST30735	130	12
	HK 32H	Both side cable	A2	4-32	ST30754	160	12
	HK 32B	Top busbar & bottom cable	A2	4-32	ST30755	200	12
63	HK 63H	Both side cable	A3	35-63	ST30762	220	6
	HK 63B	Top busbar & bottom cable	A3	35-63	ST30763	265	6
125	HK 125H	Both side cable	A4	80-125	ST30770	720	3
	HK 125B	Top busbar & bottom cable	A4	80-125	ST30771	790	3

On Load Changeover Switch - Disconnectors

Type **C-line** changeover switch-disconnector



C-line Direct handle F1 **C-line** Extended handle F1 **C-line** as open execution **C-line** in SS enclosure

Features offered by **C-line** Changeover

- Range 63A to 1000A, 415V, AC 23A, 4P
- Conform to IEC 60947-3, IS/IEC 60947-3
- Staggered terminals
- Site convertible fuse version for open execution
- Flip-able handle above 400A
- Interchangeable dual shaft position with site convertibility
- **SS enclosure version does not require separate cable gland box**

Rated Current (A)	Open Execution				In Sheet Steel Enclosure [#]			
	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
63	CO1-63	CO106300000	4130	1	CO1-63	CO106300S00	5915	1
63	CO1-63	CO10630000D*	3800	1				
100	CO1-100	CO110000000	5210	1				
100	CO1-100	CO11000000D*	4830	1				
125	CO2-125	CO212500000	7770	1	CO2-125	CO212500S00	10425	1
160	CO2-160	CO216000000	8665	1	CO2-160	CO216000S00	11455	1
200	CO2-200	CO220000000	10350	1	CO2-200	CO220000S00	13205	1
250	CO3-250	CO325000000	14635	1	CO3-250	CO325000S00	18415	1
315	CO3-315	CO331500000	15490	1	CO3-315	CO331500S00	19290	1
400	CO4-400	CO440000000	22630	1	CO4-400	CO440000S00	28430	1
630	CO4-630	CO463000000	26920	1	CO4-630	CO463000S00	32970	1
800	CO5-800	CO580000000	40880	1	CO5-800	CO580000S00	50480	1
1000	CO5-1000	CO510000000	64130	1	CO5-1000	CO510000S00	80600	1

* Direct handle version

All sheet steel enclosure version comes with extended handle switch

Type FG / FGC (TPN) changeover switch-disconnector



FGC Changeover

Rated Current (A)	Type	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
1250	FGC 1250	Back to Back mtg. with 4 O/P terminals	ST27460000C	94660	1
1600	FG 1600	Back to Back mtg. with 8 O/P terminals	ST274700000	131850	1

Type **C-line** in fused version

Fuse mountable kit (suitable for DIN fuse-link)



Fuse Mountable Kit

Rated Current (A)	Suitable fuse-link type DIN	Fuse Mountable Kit	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
63	HF	CO Frame 1 63A	**	**	1
125	Size 00	CO Frame 2 125A	CX21250000D	2820	1
160	Size 00	CO Frame 2 160A	CX21600000D	3735	1
200	Size 00	CO Frame 2 200A	CX22000000D	4765	1
250	Size 1	CO Frame 3 250A	CX32500000D	5115	1
315	Size 1	CO Frame 3 315A	CX33150000D	5360	1
400	Size 2	CO Frame 4 400A	CX44000000D	7820	1

** For further details please contact the nearest branch office

Spares & Accessories for type **C-line** / FG / FGC Auxiliary contact



Auxiliary Contact

Auxiliary contact block suitable for	Auxiliary Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
C/O Frame 1 (63-100A)	2 NO + 2 NC	CX100020000	400	1
C/O Frame 2 (125-200A)	2 NO + 2 NC	CX200020000	605	1
C/O Frame 3 (250-315A)	2 NO + 2 NC	CX300020000	660	1
C/O Frame 4 (400-630A)	2 NO + 2 NC	CX400020000	695	1
C/O Frame 5 (800-1000A)	2 NO + 2 NC	CX500020000	795	1
FG & FGC (63 - 1600A)	1 NO + 1 NC	ST265120000	390	1
	2 NO + 2 NC	ST265420000	680	1

Operating Handle



Operating Handle (63A to 315A)



Flip-able Handle (400A to 1000A)

Operating handle suitable for	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
C/O Frame 1 (63-100A)	CX100010000	450	1
C/O Frame 2 & 3 (125-315A)	CX300010000	800	1
C/O Frame 4 (400-630A)	CX400010000	1050	1
C/O Frame 5 (800-1000A)	CX500010000	1145	1
FG Isolator 1000 / 1250 / 1600A	ST265910000	2750	1
FGC C/O 1000 / 1250A	ST26591000C	2750	1

MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Comprehensive range from 0.63A to 1600A
- 1, 2, 3 & 4 pole versions
- Breaking capacities upto 100kA
- Manual & Electrical operation
- Fixed, Plug-in & Withdrawable versions

- Protection units:
 - Thermal Magnetic
 - Microprocessor based
 - Microprocessor based with communication & metering
- Comprehensive range of internal & external accessories
- Solution for ASTS (Automatic Source Transfer System)

- 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 spares, unless otherwise specified against Cat. Nos.
- Spreaders are made of silver plated copper
- Any 2 internal accessories can be fitted

Special Applications

- For special applications like capacitor switching & DC etc. please contact nearest branch office
- For Motor backup protection, use 'M' series of MCCBs such as DM, DN0M, DN2M, DN3M
- For isolation, use SD version (without protection release)
- Please Contact nearest branch office for availability of Plug-in, Draw-out & higher breaking capacity MCCBs

DU MCCB Range

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250
Icu (kA)													
10	DU100												
30	DU100H												
36											DU250		

DU100 MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 100A, 3P
- Compact size
- Also available in SS Enclosure
- Suitable for mounting on D-Pan assembly
- Suitable for MCB DB mounting

Type	Current Rating (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	
DU100	16	10	CM977510000	1485	1
	20		CM977520000	1485	1
	25		CM977530000	1485	1
	32		CM977540000	1485	5
	40		CM977550000	1485	1
	50		CM977560000	1485	1
	63		CM977570000	1485	5
	80		CM989210000	1615▲	1
	100		CM989220000	1615▲	5

▲ - Spreader Terminals are included.
Note: For DIN rail mounting MCCB, please contact nearest branch

DU100H MCCB

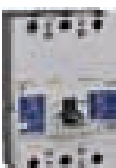


- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 100A, 3P & 4P
- Compact size
- Also available in SS Enclosure
- Suitable for mounting on D-Pan assembly
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In
- Suitable for MCB DB mounting

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	
DU100H	16-20	30	CM978940OC2	3640	CM979330OC2	4820	1
	20-25		CM978940OD2	3640	CM979330OD2	4820	1
	25-32		CM978940OE2	3640	CM979330OE2	4820	1
	32-40		CM978940OF2	3640	CM979330OF2	4820	1
	40-50		CM978940OG2	3640	CM979330OG2	4820	1
	50-63		CM978940OH2	3640	CM979330OH2	4820	1
	63-80		CM978940OJ2	3640	CM979330OJ2	4820	1
	80-100		CM978940OK2	3640	CM979330OK2	4820	1

Note: For DIN rail mounting MCCB, please contact nearest branch

DU250 MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 100A to 250A, 3P & 4P
- Compact size
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In
- Suitable for DB mounting

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole ^{New}		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU250	80-100	36	CM980640000	4590	CM980650OKO	6420	1
	100-125		CM980630000	5740	CM980650OLO	7460	1
	125-160		CM980620000	7290	CM980650OMO	9300	1
	160-200		CM980610000	9620	CM980650ONO	12480	1
	200-250		CM980600000	11220	CM980650OPO	14570	1

Accessories for DU MCCBs

Accessories for DU100



Auxiliary Contact



Shunt Release



Spreader Terminals



Direct Rotary Handle

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	CM977810000	365	1
1 C/O - Left	CM977820000	365	1
Shunt Release			
240/415V AC - Left	CM977830000	415	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
3 Pole	CM977850000	145	Set of 6
Rotary Handle			
Direct	SL970440000	675	1

Accessories for DU100H/DU250



Auxiliary Contact



ATAC



Shunt Release



UV Release



Spreader Terminals



Direct Rotary Handle

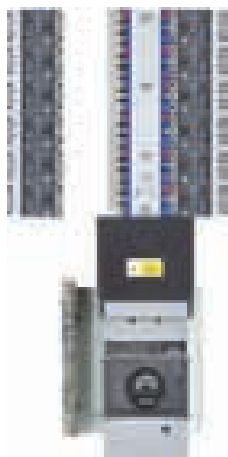


Extended Rotary Handle

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	CM978860000	630	1
2 C/O - Right	CM978870000	1070	1
Trip Alarm Contact			
1 C/O - Right	CM978880000	630	1
2 C/O - Right	CM978890000	1070	1
Auxiliary 1 C/O + TAC 1 C/O			
Right	CM978900000	1070	1
Shunt Release			
240/415V AC - Left	CM978830000	900	1
Under Voltage Release			
240V AC - Left	CM978920000	1150	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
DU100H - 3 Pole	CM977850000	145	Set of 6
DU100H - 4 Pole	CM979210000	250	Set of 8
DU250 - 3 Pole	ST980530000	900	Set of 6
DU250 - 4 Pole	CM920070000	1200	Set of 8
Rotary Handle			
DU100H - Direct	CM978950000	860	1
DU250 - Direct	CM980400000	920	1
DU100H - Extended	CM978960000	1280	1
DU250 - Extended	CM980410000	1340	1

D-Pan Assembly



- Offers a convenient solution for distribution
- Available for 250A, 400A main incomer 3P MCCBs
- Available for 4, 8 & 12 ways 3P outgoing MCCBs
- Type tested ()

Description I/C -	O/G - DU 100		O/G - DN0 / DU100H		Std. Pkg. (Nos.)
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
D-Pan I/C 250A O/G 4 Way	CM978210000	9105	CM979120000	9105	1
D-Pan I/C 250A O/G 8 Way	CM978220000	12750	CM979130000	12750	1
D-Pan I/C 250A O/G 12 Way	CM978230000	16485	CM979140000	16485	1
D-Pan I/C 400A O/G 4 Way	CM986050000	10660	CM979150000	10660	1
D-Pan I/C 400A O/G 8 Way	CM986060000	14300	CM979160000	14300	1
D-Pan I/C 400A O/G 12 Way	CM986070000	18030	CM979170000	18030	1

Note: MCCBs shown are for representation purpose only, MCCBs should be purchased separately.

DU (DU125/160/200) MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 32A to 200A, 3P & 4P
- Adjustable thermal setting: 0.8-1.0 x In
- Also available in SS Enclosure
- Wide range of Internal and External 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	
DU125 #	25-32	30	CM989000000	3900	CM981040000	5190	1
	32-40		CM989010000	3900	CM981050000	5190	1
	40-50		CM989020000	3900	CM981060000	5190	1
	50-63		CM989030000	3900	CM981070000	5190	1
	63-80		CM989040000	3900	CM981080000	5190	1
	80-100		CM989050000	4160 ▲	CM981090000	5420 ▲	1
	100-125		CM977910000	5600 ▲	CM981100000	7290 ▲	1
DU160 #	128-160		CM977920000	7150 ▲	CM981110000	9020 ▲	1
DU200 #	160-200		CM977930000	9560 ▲			

▲ - Spreader Terminals are included.
Available till stocks last.

DH MCCB Range

Rating (A) Icu (kA)	16	20	25	32	40	50	63	80	100	125	160	200	320	400	500	630
25	DH100															
35	DH125/160/200										DH400/630					
50	DL100															



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 630A
- Ics = 100% Icu @
- Adjustable thermal setting: 0.8-1.0 x In
- Wide Range of Internal and External 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	
DH100	12-16	25	SL972010000	4240	SL985970000	5810	1
	16-20		SL972020000	4240	SL985980000	5810	1
	20-25		SL972030000	4240	SL985990000	5810	1
	25-32		SL972040000	4240	SL986000000	5810	1
	32-40		SL972050000	4240	SL986010000	5810	1
	40-50		SL972060000	4240	SL986020000	5810	1
	50-63		SL972070000	4240	SL986030000	5810	1
	63-80		SL972080000	4240	SL986040000	5810	1
	80-100		SL972090000	4470 ▲	SL986050000	6115 ▲	1
DH125	12-16	35	SL986440000	6020	SL986110000	6850	1
	16-20		SL986450000	6020	SL986120000	6850	1
	20-25		SL986460000	6020	SL986130000	6850	1
	25-32		SL986470000	6020	SL986140000	6850	1
	32-40		SL986480000	6020	SL986150000	6850	1
	40-50		SL986490000	6020	SL986160000	6850	1
	50-63		SL986500000	6020	SL986170000	6850	1
	63-80		SL986510000	6020	SL986180000	6850	1
	80-100		SL986520000	6720 ▲	SL986190000	7545 ▲	1
	100-125		SL986530000	6720 ▲	SL986070000	7545 ▲	1
DH160	128-160		SL986540000	9455 ▲	SL986080000	10450 ▲	1
DH200 #	160-200		SL986550000	10840 ▲			
DH400 #	250-320		SL978830000	20295 ▲			
	320-400		SL978840000	20295 ▲			
DH630 #	400-500		SL945310000	22030 ▲			
	500-630		SL945320000	22030 ▲			

▲ Spreader Terminals are included.
Available till stocks last.
@ Refer Catalogue for DH160, DH200.

DL MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 100A, 3P & 4P
- Ics = 100% Icu
- Adjustable thermal setting: 0.8-1.0 x In
- Wide Range of Internal and External Accessories
- For Icu=65 kA, please contact branch office

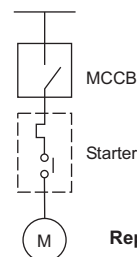
Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DL 100	12-16	50	SL978010000	8500	SL986200000	9670	1
	16-20		SL978020000	8500	SL986210000	9670	1
	20-25		SL978030000	8500	SL986220000	9670	1
	25-32		SL978040000	8500	SL986230000	9670	1
	32-40		SL978050000	8500	SL986240000	9670	1
	40-50		SL978060000	8500	SL986250000	9670	1
	50-63		SL978070000	8500	SL986260000	9670	1
	63-80		SL978080000	8500	SL986270000	9670	1
	80-100		SL978090000	8810▲	SL986280000	10140▲	1

▲ - Spreader Terminals are included.

DM MCCB Range for Motor Back-up Protection



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 0.63A to 400A, 65kA
- Short Circuit Protection : 12 In
- Wide Range of Internal and External Accessories



Representative Application Image

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DM16	0.63	65	SL975810000	3315	1
	1.0		SL975820000	3315	1
	1.6		SL975830000	3315	1
	2.5		SL975840000	3315	1
	4.0		SL975850000	3315	1
	5.0		SL975860000	3315	1
	6.3		SL975870000	3315	1
	7.5		SL975880000	3315	1
	10.0		SL975890000	3315	1
	12.0		SL975900000	3315	1
	16.0		SL975910000	3315	1
DM100	16.0		SL978110000	8285	1
	25.0		SL978120000	8285	1
	30.0		SL978160000	8285	1
	35.0		SL978130000	8285	1
	50.0		SL978140000	8285	1
	60.0		SL978170000	8285	1
	70.0		SL978150000	8285	1
	80.0		SL979870000	8285	1

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DM160	100.0	65	SL971230000	13080	1
	120.0		SL977030000	13080	1
	160.0		SL971240000	13080	1
DM250	200.0		SL975510000	16235 ▲	1
	230.0		SL975520000	16235 ▲	1
	250.0		SL975530000	16235 ▲	1
DM400	275.0		SL975540000	19140 ▲	1
	325.0		SL975550000	19140 ▲	1
	350.0		SL975560000	19140 ▲	1
	400.0		SL975570000	19140 ▲	1

▲ - Spreader Terminals are included.

Note: Please contact the nearest branch office for fuseless type 2 co-ordination selection chart.

DTH MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Suitable for distribution & induction furnace application
- Adjustable thermal & adjustable magnetic
- Rugged construction

3 Pole (for Distribution Application)					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800	600-800	50	SL944720000	35610	1

3 Pole (for Induction Furnace Application)					
Type	Magnetic Release Range (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800 - Instantaneous	360	50	SB950520000	35610	1
	550	50	SB950530000	35610	1
	850	50	SB950540000	35610	1
	1050	50	SB950550000	35610	1

Accessories for DH100/125/160/200, DU125/160/200, DL100, DM100 MCCBs



Auxiliary Contact



TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	SL972960000	710	1
1 C/O - Left	SL972970000	710	1
Trip Alarm Contact			
1 C/O - Right	SL972980000	710	1
Shunt Release			
240V AC - Left	SL972990M00	850	1
24V DC - Left *	SL972990400	850	1
Under Voltage Release			
240V AC - Left	SL976110000	1150	1



Spreader Terminal



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
3 Pole	ST980470000	320	Set of 6
4 Pole	ST980600000	420	Set of 8
Rotary Handle			
Extended - New look	CM991030000	1100	1

* Not available for DU MCCBs

Accessories for DM16 MCCB



Auxiliary Contact



Shunt Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	SL970230000	500	1
1 C/O - Left	SL970250000	500	1
Trip Alarm Contact			
1 C/O - Right	SL970370000	500	1
Shunt Release			
240 / 415V AC, 110V DC - Left	SL970420000	550	1



Direct Rotary Handle



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Direct	SL970440000	675	1
Extended - New look	CM999180000	1250	1

Accessories for DM160 MCCB



Auxiliary Contact



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O - Left	SL943290000	1675	1
2 C/O - Right	SL943300000	1675	1
Shunt Release			
415V AC - Right	SL943310D00	1580	1
240V AC - Right	SL943310B00	1580	1
Under Voltage Release			
415V AC - Left	SL94332D000	1580	1
240V AC - Left	SL94332B000	1580	1



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Extended - New look	CM991020000	1430	1

Note: For (DM160+TAC), Contact nearest branch

Accessories for DM250/400 & DH400/630 MCCBs



Auxiliary Contact



Shunt Release

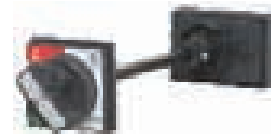


UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O	SL975730000	1150	1
Trip Alarm Contact			
1 C/O - Right	SL975740000	1150	1
Shunt Release			
415V AC, 220V DC	SL975750000	1250	1
240V AC, 110V DC	SL975760000	1250	1
Under Voltage Release			
415V AC - Left	SL975790000	1450	1
240V AC - Left	SL975800000	1450	1



Direct Rotary Handle



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
DM250/400 & DH400 Direct	SL975620000	965	1
DH630 Direct	SL979790000	1155	1
DM250/400 & DH400 / 630 Extended - New look	CM991010000	2350	1
Spreader Terminals			
DM250/400 - 3 Pole	ST980450000	1980	Set of 6

Accessories for DTH 630/800 MCCBs



UV Release



Shunt Release



Auxiliary Contact

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O	SL942170000	1500	1
Shunt Release			
415V AC, 220V DC - Right	SL985260000	1700	1
240V AC, 110V DC - Right	SL985340000	1700	1
Under Voltage Release			
415V AC - Left	SL985480000	1700	1
240V AC - Left	SL985450000	1700	1
110V AC - Left	SL985430000	1700	1

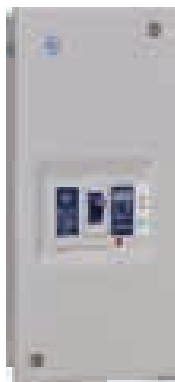


Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Extended - New look	CM998980000	2250	1

Note: For (DTH800+TAC), Contact nearest branch

SS Enclosure for DN0 / DU / DH / DL / DM



DN0 / DU SS Enclosure

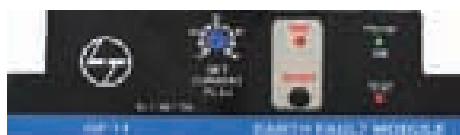
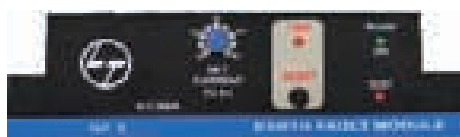


DH / DL / DM SS Enclosure

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DU100 SS Enclosure	ST980500000	650	1
DU100H/DN0 SS Enclosure	ST420210000	650	1
DH100/125/160/200, DL100, DM100, DU125/160/200 SS Enclosure	ST299670000	1215	1

Note : Suitable for 3P MCCBs

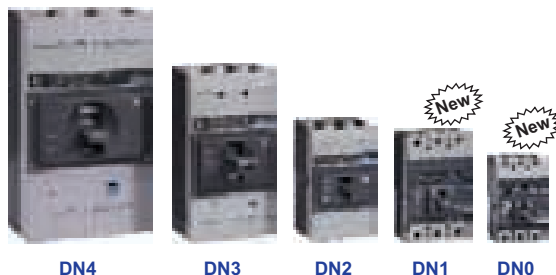
Ground Fault Module



- 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
- LED Indication for trip signal

Ground Fault Protection					
Type	Range (A)	Cat. No.	M.R.P. (₹) Per Unit	CT	Std. Pkg. (Nos.)
GF1	100, 125, 160, 200	ST277450000	6035	Built in CBCT	1
GF2	250, 400	ST277460000	9175	Built in CBCT	1
GF11	630, 800	ST285940000	6035 ##	External CT required	1

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



d sine With Thermal - Magnetic Release :

Rating (A)	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630
Icu (kA)																
36	DN0															
50																
36/50/70																



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 630A, 3P & 4P
- Choice of 36kA / 50kA / 70kA breaking capacities
- Ics = 100% Icu*
- Suitable for Isolation
- Adjustable Over Load setting: 0.8 - 1.0 x In
- Adjustable Short Circuit setting: 6 - 10 x In**
- Manual, Rotary or Motorised versions available @
- Wide Range of snap fit Internal and External 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	
New DN0-100D*	16-20	36	CM97893OOC2OG	4480	CM97919OOC2OG	5910	1
	20-25		CM97893OOD2OG	4480	CM97919OOD2OG	5910	1
	25-32		CM97893OOE2OG	4480	CM97919OOE2OG	5910	1
	32-40		CM97893OOF2OG	4480	CM97919OOF2OG	5910	1
	40-50		CM97893OOG2OG	4480	CM97919OOG2OG	5910	1
	50-63		CM97893OOH2OG	4480	CM97919OOH2OG	5910	1
	63-80		CM97893OOJ2OG	4480	CM97919OOJ2OG	5910	1
	80-100		CM97893OOK2OG	4480	CM97919OOK2OG	5910	1
DN2-250D	100-125	36	CM92008OOL1OG	8650	CM92108OOL1OG	10780	1
	125-160		CM92008OOM1OG	11710	CM92108OOM1OG	13700	1
	160-200		CM92009OON1OG	15150	CM92109OON1OG	18460	1
	200-250		CM92009OOP1OG	16560	CM92109OOP1OG	20930	1
DN3-400D	250-320	36	CM94005OOQ1OG	21070	CM94105OOQ1OG	26400	1
	320-400		CM94005OOR1OG	21660	CM94105OOR1OG	26900	1
DN3-630D	400-500	36	CM94006OOS1OG	24400	CM94106OOS1OG	29360	1
	500-630		CM94006OOT1OG	24850	CM94106OOT1OG	31900	1
New DN1-250N*	80 - 100	50	CM98608OOKO	5890	-	-	1
	100 - 125		CM98608OOLLO	7960	-	-	1
	125 - 160		CM98608OOMO	10570	-	-	1
	160 - 200		CM98608OONO	12040	-	-	1
	200 - 250		CM98608OOPPO	14310	-	-	1
DN2-250N	100-125	50	CM92005OOL1OG	11160	CM92105OOL1OG	14880	1
	125-160		CM92005OOM1OG	13700	CM92105OOM1OG	17530	1
	160-200		CM92006OON1OG	16950	CM92106OON1OG	21610	1
	200-250		CM92006OOP1OG	19180	CM92106OOP1OG	21900	1
DN3-400N	250-320	50	CM94003OOQ1OG	22170	CM94103OOQ1OG	27130	1
	320-400		CM94003OOR1OG	24040	CM94103OOR1OG	29720	1
DN3-630N	400-500	50	CM94004OOS1OG	26040	CM94104OOS1OG	33030	1
	500-630		CM94004OOT1OG	27400	CM94104OOT1OG	36430	1
DN2-250S	100-125	70	CM92002OOL1OG	14980	CM92102OOL1OG	17700	1
	125-160		CM92002OOM1OG	18350	CM92102OOM1OG	21610	1
	160-200		CM92003OON1OG	21370	CM92103OON1OG	26220	1
	200-250		CM92003OOP1OG	22610	CM92103OOP1OG	25860	1
DN3-400S	250-320	70	CM94001OOQ1OG	24010	CM94101OOQ1OG	29040	1
	320-400		CM94001OOR1OG	26030	CM94101OOR1OG	31810	1
DN3-630S	400-500	70	CM94002OOSOOG	32870#	CM94102OOSOOG	39150#	1
	500-630		CM94002OOTOOG	37050#	CM94102OOTOOG	43190#	1

Note: For 800A refer DTH MCCBs. For d sine range of 800 - 1250 A ratings refer micro processor release tables.

Magnetic setting 3-6 In. Please contact nearest branch office for magnetic setting 6-10 In.

@ Motorised version available for DN3 frame.

* For DN0, DN1 : Ics = 50% Icu

**For DN0, DN1-Short Circuit Setting : 9In

d sine With Microprocessor Release :

Rating (A) Icu (kA)	40	50	63	80	100	125	160	200	250	320	400	500	630	800	1000	1250
36/50/70	DN2										DN3					
50/70														DN4		

d sine With Microprocessor Release MTX1.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA 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
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 7.2 Ir & 6 Ir
- Front LED indication of Over Load (Ready, Over load pre-alarm & Overload)
- Manual, Rotary or Motorised versions available @
- 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	CM920630000X1	11660	CM921550000X1	15250	1
	25 - 63		CM920710000X1	11660	CM921540000X1	15250	1
	40 - 100		CM920510000X1	11660	CM921530000X1	15250	1
	63 - 160		CM920740000X1	13740	CM921520000X1	18660	1
	100 - 250		CM920540000X1	18360	CM921510000X1	24400	1
DN3-400D	160 - 400	50	CM930010000X1	23810	CM930030000X1	29980	1
DN3-630D	250 - 630		CM930050000X1	26910	CM930070000X1	35310	1
DN2-250N	16 - 40		CM920640000X1	13740	CM921600000X1	16890	1
	25 - 63		CM920720000X1	13740	CM921590000X1	16890	1
	40 - 100		CM920520000X1	13740	CM921580000X1	16890	1
	63 - 160		CM920750000X1	17460	CM921570000X1	21660	1
	100 - 250		CM920550000X1	20990	CM921560000X1	28430	1
DN3-400N	160 - 400	70	CM930020000X1	25900	CM930040000X1	32800	1
DN3-630N	250 - 630		CM930060000X1	30160	CM930080000X1	39780	1
DN2-250S	16 - 40		CM920650000X1	16030	CM921650000X1	19460	1
	25 - 63		CM920730000X1	16030	CM921640000X1	19460	1
	40 - 100		CM920590000X1	16030	CM921630000X1	19460	1
	63 - 160		CM920760000X1	22440	CM921620000X1	27590	1
	100 - 250		CM920560000X1	24870	CM921610000X1	30770	1
DN3-400S	160 - 400	50	CM940530000X1	30620	CM941530000X1	42350	1
DN3-630S	250 - 630		CM940790000X1	38080	CM941790000X1	49180	1
DN4-1250N	320 - 800	50	CM960110000X1	45380	CM961110000X1	56940	1
	400 - 1000		CM960120000X1	57350	CM961120000X1	77110	1
	500 - 1250		CM960130000X1	74930	CM961130000X1	106680	1

@ Motorised version available for DN3 frame.

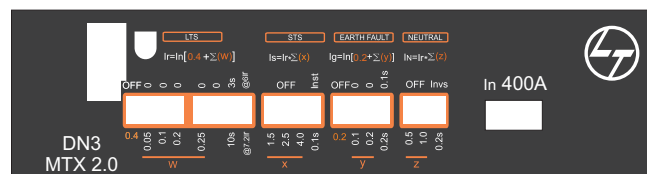
Note: For DN4 - 70kA, please contact the nearest branch office.

d sine With Microprocessor Release MTX2.0 :

New



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA breaking capacities
- $I_{cs} = 100\% I_{cu}$
- Suitable for Isolation
- Adjustable Over Load from 0.4 - 1.0 x I_n
- Adjustable Short Circuit from 1.5 - 8 x I_r
- Inbuilt ground fault protection from 20% - 50% of I_n
- Adjustable neutral overload protection available : 50% to 150% of I_r
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 7.2 I_r & 6 I_r
- Front LED indication of Over Load (Ready, Over load pre-alarm & Overload)
- Panel mounted display available for Current metering*
- 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 I_{cu} 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	CM920630000AG	21710	CM921550000AG	24970	1
	25 - 63		CM920710000AG	21710	CM921540000AG	24970	1
	40 - 100		CM920510000AG	21710	CM921530000AG	24970	1
	63 - 160		CM920740000AG	23710	CM921520000AG	29970	1
	100 - 250		CM920540000AG	28310	CM921510000AG	36160	1
DN3-400D	160 - 400	50	CM930010000AG	33670	CM930030000AG	39340	1
DN3-630D	250 - 630		CM930050000AG	36960	CM930070000AG	46630	1
DN2-250N	16 - 40		CM920640000AG	23580	CM921600000AG	26710	1
	25 - 63		CM920720000AG	23580	CM921590000AG	26710	1
	40 - 100		CM920520000AG	23580	CM921580000AG	26710	1
	63 - 160		CM920750000AG	27380	CM921570000AG	31710	1
	100 - 250		CM920550000AG	30500	CM921560000AG	39000	1
DN3-400N	160 - 400	70	CM930020000AG	34640	CM930040000AG	42540	1
DN3-630N	250 - 630		CM930060000AG	39100	CM930080000AG	50510	1
DN2-250S	16 - 40		CM920650000AG	25640	CM921650000AG	29120	1
	25 - 63		CM920730000AG	25640	CM921640000AG	29120	1
	40 - 100		CM920590000AG	25640	CM921630000AG	29120	1
	63 - 160		CM920760000AG	31910	CM921620000AG	37640	1
	100 - 250		CM920560000AG	34830	CM921610000AG	41430	1
DN3-400S	160 - 400	50	CM940530000AG	39210	CM941530000AG	52130	1
DN3-630S	250 - 630		CM940790000AG	44680	CM941790000AG	62510	1
DN4-1250N	320 - 800	50	CM960110000AG	56440	CM961110000AG	70860	1
	400 - 1000		CM960120000AG	68930	CM961120000AG	92230	1
	500 - 1250		CM960130000AG	84780	CM961130000AG	122180	1

@ Motorised version available for DN3 frame.

* For ordering details please refer to page no. 41

Note: For DN4 - 70kA, please contact the nearest branch office.



MTX2.0 with current metering module

d sine With Microprocessor Release RC10* :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA breaking capacities
- Ics = 100% Icu
- Suitable for Isolation
- Adjustable Over Load from 40% - 100% of In
- Adjustable Short Circuit from 1.5 - 8 x Ir
- Inbuilt ground fault protection from 20% - 50% of In
- Neutral overload protection available
- 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	CM9206300000G	Available on request	CM9215500000G	Available on request	1
	25-63		CM9207100000G		CM9215400000G		1
	40-100		CM9205100000G		CM9215300000G		1
	63-160		CM9207400000G		CM9215200000G		1
	100-250		CM9205400000G		CM9215100000G		1
DN3-400D	160-400		CM9300100000G		CM9300300000G		1
DN3-630D	250-630		CM9300500000G		CM9300700000G		1
DN2-250N	16-40	50	CM9206400000G	Available on request	CM9216000000G	Available on request	1
	25-63		CM9207200000G		CM9215900000G		1
	40-100		CM9205200000G		CM9215800000G		1
	63-160		CM9207500000G		CM9215700000G		1
	100-250		CM9205500000G		CM9215600000G		1
DN3-400N	160-400		CM9300200000G		CM9300400000G		1
DN3-630N	250-630		CM9300600000G		CM9300800000G		1
DN2-250S	16-40	70	CM9206500000G	Available on request	CM9216500000G	Available on request	1
	25-63		CM9207300000G		CM9216400000G		1
	40-100		CM9205900000G		CM9216300000G		1
	63-160		CM9207600000G		CM9216200000G		1
	100-250		CM9205600000G		CM9216100000G		1
DN3-400S	160-400		CM9405300000G		CM9415300000G		1
DN3-630S	250-630		CM9407900000G		CM9417900000G		1
DN4-1250N	320-800	50	CM9601100000EG	Available on request	CM9611100000EG	Available on request	1
	400-1000		CM9601200000G		CM9611200000G		1
	500-1250		CM9601300000G		CM9611300000G		1

For communication capable release, please contact the nearest branch office.

@ Motorised version available for DN3 frame.

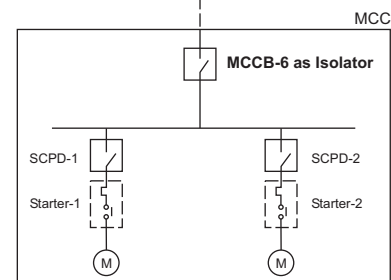
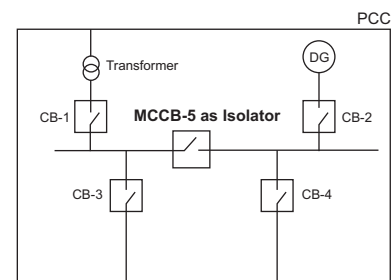
*Available till stocks last

d sine Switch Disconnecter (MCCBs without protection release):



- Used as switching devices
- Range: 100A to 630A, 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	
DN2-250SD	100	CM96808OOKOOG	7200	CM96809OOKOOG	8935	1
	125	CM96810OOLOO	7370	CM96811OOLOO	9195	1
	160	CM96817OOMOOG	8760	CM96818OOMOOG	10840	1
	200	CM96814OONOO	11490	CM96815OONOO	14745	1
	250	CM96802OOPOO	12010	CM96803OOPOO	15610	1
DN3-400SD	320	CM96804OOQOO	14135	CM96805OOQOO	18560	1
	400	CM96804OOROOG	15440	CM96805OOROOG	19860	1
DN3-630SD	500	CM96806OOSOOG	16650	CM96807OOSOOG	21685	1
	630	CM96806OOTOO	17650	CM96807OOTOO	22940	1



Representative Application Image

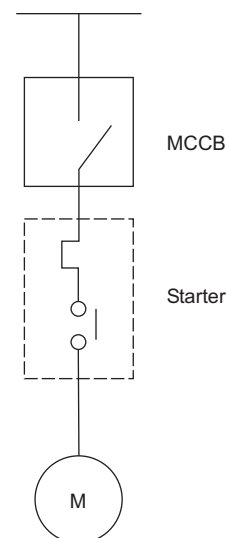
d sine MCCBs for Motor back-up Protection:



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

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, AC, 50Hz. (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
New DN0-100M	32	50	CM98944OOEO	4335	1
	40		CM98944OOF0	4335	1
	50		CM98944OOGO	4335	1
	63		CM98944OOHO	4335	1
	80		CM98944OOJO	4335	1
	100		CM98944OOKO	4335	1
DN2-250M	100		CM92172OOKOOG	7500	1
	125		CM92172OOLOO	7500	1
	160		CM92172OOMOOG	8845	1
	200		CM92171OONOO	11535	1
	250		CM92171OOPOO	14830	1
DN3-400M	320		CM94516OOQOO	17070	1
	400		CM94516OOROOG	18080	1
DN3-630M	500		CM94515OOSOOG	21310	1
	630		CM94515OOTOO	21670	1

Note: Please contact the nearest branch office for fuseless type 2 co-ordination selection chart.



Representative Application Image

Automatic Source Transfer System New

- Stored Energy operated
- Automatic / Manual control of power supply source
- Set-up data programming
- Virtual front panel viewing with key activation feature
- Analog modem / GSM modem support
- Programmable I/Os
- Test function
- LED display
- Voltage and Frequency display
- Inbuilt UV protection
- Inbuilt phase unbalance protection



AuXC-1000

2  DN3 MCCBs + 2 SE-EOM + 2 UV + 1 MIL kit

With Thermal - Magnetic Releases

Rating (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole	
		Cat. No.	M.R.P. (₹) of Total Unit	Cat. No.	M.R.P. (₹) of Total Unit
400	50	Assorted (2  DN3 MCCBs, 2 SE-EOM, 2 UV, 1 MIL Kit, 1 AuXC-1000)	145230	Assorted (2  DN3 MCCBs, 2 SE-EOM, 2 UV, 1 MIL Kit, 1 AuXC-1000)	156590
630			155850		170010

Auto Source Transfer Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000	ST802300000	47950	1

Can be used along with U-POWER Omega ACBs,  MCCBs, & MCX contactors

With Microprocessor Release MTX2.0

Rating (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole	
		Cat. No.	M.R.P. (₹) of Total Unit	Cat. No.	M.R.P. (₹) of Total Unit
400	50	Assorted (2  DN3 MCCBs, 2 SE-EOM, 2 UV, 1 MIL Kit, 1 AuXC-1000)	166430	Assorted (2  DN3 MCCBs, 2 SE-EOM, 2 UV, 1 MIL Kit, 1 AuXC-1000)	182230
630			175350		198170

Note : It is recommended to use base plate MIL kit for all ASTS schemes
For other ratings & breaking capacities, please contact the nearest branch office

Accessories for MCCBs



Auxiliary Contact



TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
DN0, DN1 - 1 C/O - Right	CM978860000	630	1
DN0, DN1 - 2 C/O - Right	CM978870000	1070	1
DN2, DN3, DN4 - 1 C/O	CM998010000	700	1
DN2, DN3, DN4 - 2 C/O	CM998020000	1190	1
Trip Alarm Contact			
DN0, DN1 - 1 C/O - Right	CM978880000	630	1
DN0, DN1 - 2 C/O - Right	CM978890000	1070	1
DN2, DN3, DN4 - 1 C/O - Right	CM998030000	750	1
Auxiliary 1 C/O + TAC 1 C/O			
DN0, DN1 - Right	CM978900000	1070	1
DN2, DN3, DN4 - Right	CM998040000	1350	1
Shunt Release			
DN0, DN1 - 240/415V AC - Left	CM978830M00	900	1
DN2, DN3, DN4 - 110/415V AC, 110/220V DC	CM998050000	1600@	1
Under Voltage Release			
DN0, DN1 - 240V AC - Left	CM97892B000	1150	1
DN2, DN3 - 240V AC - Left	CM99986B000	1950**	1
DN4 - 240V AC - Left	CM999060000	2100**	1

@ - 'NO' of control contactor to be connected in series for DC control supply.

** - Use these UV Cat. Nos. with Grey look MCCBs only.



Stored Energy EOM



Neutral CT



Adaptor kit for NCT

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Stored Energy Electrical Operating Mechanism			
DN3 - 240V AC	CM981300000	20000	1 •
External Neutral CT			
DN2 - 40A	CM999460000	1400	1
DN2 - 63A	CM999470000	1400	1
DN2 - 100A	CM999480000	1400	1
DN2 - 160A	CM999490000	2000	1
DN2 - 250A	CM999500000	2000	1
DN3 - 400A	CM999540000	3700	1
DN3 - 630A	CM999550000	3700	1
DN4 - 800A	CM998890000	5500	1
DN4 - 1000A	CM998900000	5500	1
DN4 - 1250A	CM998910000	5500	1
Adaptor kit for External Neutral CT			
DN2-250	CM999940000	450	Set of 2
DN3-400	CM999950000	850	Set of 2
DN3-630	CM999970000	950	Set of 2
DN4-800	CM999960000	1600	Set of 2
DN4-1000/1250	CM999980000	5950	Set of 2

• - Including indicator Assembly



Direct Rotary Handle



Extended Rotary Handle



Key Lock

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
DN0 Direct	CM978950000	860	1
DN1 Direct	CM980400000	920	1
DN2 Direct	CM998290000	955	1
DN3 Direct	CM998600000	1450	1
DN0 Extended	CM978960000	1280	1
DN1 Extended	CM980410000	1340	1
DN2 Extended	CM998300000	1350	1
DN3 Extended	CM998610000	2350	1
DN4 Extended	CM998840000	3250	1
Panel door mounted Key lock for Extended Rotary Handle #			
Type 1	CM99958T0000	1200	1
Type 2	CM99958T000A	1200	1
Type 3	CM99958T000B	1200	1
Type 12	CM99958T000C	1200	1
Type 23	CM99958T000D	1200	1

- Can be used with dsine, DU, DH/DL/DM, DTH new look extended ROM



Spreader Terminals



MIL Kit - Base Mounted



Current Metering Module for MTX2.0

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
DN0-100 - 3 Pole	CM977850000	145	Set of 6
DN1, DN2 - 250 - 3 Pole	ST980530000	900	Set of 6
DN3-400 - 3 Pole	ST980650000	1760	Set of 6
DN3-630 - 3 Pole	ST980540000	1970	Set of 6
DN4-800 - 3 Pole	ST903610000	3440	Set of 6
DN4-1000-1250 - 3 Pole	ST980550000	13010	Set of 6
DN0-100 - 4 Pole	CM979210000	250	Set of 8
DN1, DN2 - 250 - 4 Pole	CM920070000	1200	Set of 8
DN3-400 - 4 Pole	ST980660000	2530	Set of 8
DN3-630 - 4 Pole	CM920040000	2970	Set of 8
DN4-800 - 4 Pole	ST903620000	4680	Set of 8
DN4-1000-1250 - 4 Pole	ST980580000	17180	Set of 8
Mechanical Interlock Kit - Base Mounted			
DN2	CM997310000	3400	1
DN3	CM997320000	5300	1
Current Metering for MTX2.0			
Metering Module	CM956980000	10000	1*
Power Supply Module	CL907220000	9500	1
Cable of 2m length	CM011960000	1000	1

* - Including display module & metering module.



Slim is in. We go the extra mile.

The world is getting slimmer, and smarter. L&T's Omega ACBs are among the slimmest. In fact, the 2500A is 347 mm wide and the 6300A just 647 mm.

This is just one of the many innovative features that make the Omega smarter and safer, more compact and convenient.

Take a look at some of the others: lcs=lcu=lcw, arc chute interlocking, in-built electrical anti-pumping, O-LED display, password protection and touch-screen technology in releases.

And all this in what everyone agrees is among the most compact ACBs in industry. Yes, the extra mile goes a long way.



Clarity / VP5

U-POWER Air Circuit Breakers
OMEGA

Customer Interaction Centre (CIC)

BSNL / MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: +91 22 6774 5858 Fax: +91 22 6774 5859

E-mail: cic@Lntebg.com

L&T SWITCHGEAR

SAFE & SURE

C-POWER S1 Range of Air Circuit Breaker

- Conform to IS / IEC 60947-2 & IEC 60947-2
- Current rating from 630A to 3200A
- Available in 3 Pole / 4 Pole, Manually & Electrically operated 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 (SR18, SR18G & SR21i)
- Self diagnostic Microprocessor based with on load testing through TEST button
- Inbuilt thermal memory
- Protection releases conform to EMI/EMC standard
- Breaker control through MODBUS protocol



C-POWER S1 ACB

C-POWER Range of Air Circuit Breaker



C-POWER ACB

- Conform 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 (SR18, SR18G, SR21i & SR71)
- Self diagnostic Microprocessor based release with on load testing through TEST button
- Inbuilt thermal memory
- Protection releases conform to EMI/EMC standard
- Data communication & Power Management
- Breaker control through MODBUS protocol

Breaking Capacities offered:

$I_{cu} = I_{cs} = I_{cw}$											
	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
CN-CS : E	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		70kA	95kA	95kA
CN-CS : H		65kA	65kA	65kA	65kA	75kA	75kA				
CN-CS : H0								75kA	75kA		
CN-CS : H/H1								100kA	100kA		
	Frame-1				Frame-2		Frame-3		Frame-4		

For technical & dimension details please refer product catalogue.

C-POWER S1 Air Circuit Breakers

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
3200A	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	116150	SL96061	152080
SL96051	149150	SL96071	185080
SL96042	116150	SL96062	152080
SL96052	149150	SL96072	185080
SL96043	123430	SL96063	160410
SL96053	156430	SL96073	193410
SL96044	152590	SL96064	183660
SL96054	185590	SL96074	216660
SL96045	164050	SL96065	198250
SL96055	197050	SL96075	231250
SL96046	190680	SL96066	242590
SL96056	223680	SL96076	275590
SL96047	225010	SL96067	281020
SL96057	258010	SL96077	314020
SL96048	283700	SL96068	347530
SL96058	316700	SL96078	380530

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95331	102650	SL95351	138580
SL95341	135650	SL95361	171580
SL95332	102650	SL95352	138580
SL95342	135650	SL95362	171580
SL95333	109930	SL95353	146910
SL95343	142930	SL95363	179910
SL95334	139090	SL95354	170160
SL95344	172090	SL95364	203160
SL95335	150550	SL95355	184750
SL95345	183550	SL95365	217750
SL95336	177180	SL95356	229090
SL95346	210180	SL95366	262090
SL95337	211510	SL95357	267520
SL95347	244510	SL95367	300520
SL95338	270200	SL95358	334030
SL95348	303200	SL95368	367030

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	30000
Microprocessor based SR18 (LSI)	Reduce	3000
Microprocessor based SR21i (LSIG + ZSI)	Add	11550

C-POWER S1 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.

EDO version includes 240V ac Shunt trip coil, Closing coil and Motor for electrical charging.

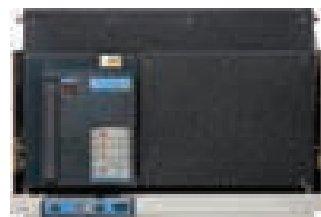
Note: 1 NO Aux contact in MDO & 2NO+2NC in EDO breakers will be pre-wired with accessories mounted in breaker.
In electrically operated breaker with DN1 release, either earth fault or undervoltage protection can be used.

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

Thermal-Magnetic Release Type DN1				
Rating	Breaking Capacity Icu=Ics =Icw (1 sec)	Version	Cat. No.	M.R.P. (₹) Per Unit
400A	50kA	3P MF	SL932910000	53130
630A	50kA	3P MF	SL932920000	53610
800A	50kA	3P MF	SL932930000	55170
1000A	50kA	3P MF	SL93294000A	57110
1250A	50kA	3P MF	SL932950000	71400
1600A	50kA	3P MF	SL932960000	82560
2000A	50kA	3P MF	SL932970000	93830

C-POWER Air Circuit Breakers

3 & 4 Pole Draw-out ACBs



Rating	Breaking Capacity $I_{cu}=I_{cs}=I_{cw}$ (1 sec)	Version
800A	65kA	MDO
		EDO
1000A	65kA	MDO
		EDO
1250A	65kA	MDO
		EDO
1600A	65kA	MDO
		EDO
2000A	55kA	MDO
		EDO
2500A	60kA	MDO
		EDO
3200A	75kA	MDO (H0)
		EDO (H0)
4000A	70kA	MDO (C)
		EDO (C)
	75kA	MDO (H0)
		EDO (H0)
5000A	95kA	MDO/EDO
6300A	95kA	MDO/EDO

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95311	155070	#	201600
SL95321	188070	#	234600
SL95312	166060	#	214050
SL95322	199060	#	247050
SL95313	196580	#	241200
SL95323	229580	#	274200
SL95314	209790	#	261350
SL95324	242790	#	294350
ST35545	206800	ST35565	268500
ST35555	239800	ST35575	301500
ST35546	245530	ST35566	311010
ST35556	278530	ST35576	344010
ST35547	304940	ST35567	375710
ST35557	337940	ST35577	408710
#	*	#	*
#	*	#	*
ST35548	*	ST35568	*
ST35558	*	ST35578	*
#	*	#	*
#	*	#	*

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
#	141570	#	188100
#	174570	#	221100
#	152560	#	200550
#	185560	#	233550
#	183080	#	227700
#	216080	#	260700
#	196290	#	247850
#	229290	#	280850
SL93065	193300	ST25035	255000
#	226300	#	288000
SL93066	232030	ST25036	297510
#	265030	#	330510
SL93459	291440	SL93479	362210
#	324440	#	395210
#	*	#	*
#	*	#	*
#	*	#	*
SL93460	*	SL93480	*
#	*	#	*
#	*	#	*
#	*	#	*

Note : For higher breaking capacities & 690V AC application please contact the nearest branch office

C-POWER 3 & 4 Pole Manual Fixed ACBs

Rating	Breaking Capacity $I_{cu}=I_{cs}=I_{cw}$ (1 sec)	Version
800A	50kA	MF
1000A	50kA	
1250A	50kA	
1600A	50kA	
2000A	55kA	
2500A	60kA	
3200A	70kA	
4000A	70kA	

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL97631	96820	#	121030
SL97632	100920	#	126150
SL97633	121740	#	152180
SL97634	133780	#	167230
SL97635	145520	#	181900
SL97636	166640	#	208300
#	*	#	*
#	*	#	*

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL93001	83320	#	107530
SL93002	87420	#	112650
SL93003	108240	#	138680
SL93004	120280	#	153730
SL93005	132020	#	168400
SL93006	153140	#	194800
#	*	#	*
#	*	#	*

Note : For higher breaking capacities & 690V AC application please contact the nearest branch office

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	30000
Microprocessor based SR18 (LSI)	Reduce	3000
Microprocessor based SR21i (LSIG + ZSI)	Add	11550
Microprocessor based SR71 (LSIGN + Current metering + Advance protection + PS Module)	Add	On Request
Communication Module (MODBUS) for SR71 release (SR71 - COM)	SL94698	
Power Metering Module for SR71 release (SR71 - PM)	SL94699	

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.

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.

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
Lockable Trip Push Button (LTPB)		
Type AA	SL93148000A	2090
Type BB	SL93148000B	2090
Type CC	SL93148000C	2090
Type DD	SL93148000D	2090
Lockable Trip Push Button kit (3 I/C & 2 B/C)	SL919360000	10450
Lockable Trip Push Button kit (A to Z)	ST288950000	54340
Lockable Trip Push Button kit (A to P)	ST287300000	33440
Locking of ACB in Isolated position (LIP)		
Type A	SL93146000A	2090
Type B	SL93146000B	2090
Type C	SL93146000C	2090
Type D	SL93146000D	2090
Locking of ACB in Any position (LAP)		
Type A	SL93147000A	2090
Type B	SL93147000B	2090
Type C	SL93147000C	2090
Type D	SL93147000D	2090
Racking Interlock		
Type AA	SL93149000A	3920
Type BB	SL93149000B	3920
Type CC	SL93149000C	3920
Type DD	SL93149000D	3920
Door Interlock	SL931500000	2090



Vertical Terminal Adaptor

Description & Rating	Cat. No.	Qty	M.R.P. (₹) Per Unit
Vertical Terminal Adaptors for Draw out C-POWER ACB			
630-1250 S1/800-1000 C	SL932810000	1	2730
1600-2000 S1/1250-1600 C	SL932820000	1	3190
2000C	SL932840000	1	4370
2500C	SL932850000	1	4740
3200H0/H1, 4000H0/H	SL932880000	1	12750

Description	Cat. No.	M.R.P. (₹) Per Unit
Shunt Release (SR)		
Type EA : 24/48V DC	SL927180400	2090
Type EA : 110V DC	SL927180100	2090
Type EA : 220V DC	SL927180200	2090
Type EA1 : 110V AC	SL927180A00	2090
Type EA1 : 240V AC	SL927180B00	2090
Type EA1 : 415V AC	SL927180D00	2090
Under Voltage Release (UVR)		
Type MV : 24V DC	ST368770000	3060
Type MV : 240V AC	SL92720B000	3060
Type MV : 415V AC	SL92720D000	3060
Earth Fault Release (for DN1)		
Type EF1 (10%, 20% In)	SL913400000	2090
Type EF2 (30%, 40%, 50% In)	SL913410000	2090

AN1 Remote Annunciation Module for SR18/SR18G/SR21i Type ANI:240V AC	SL946540000	6510
Microswitch for voltmetric releases (2) each	SL927030000	1680
Microswitch for common indication of O/L & S/C (3) each	SL927040000	1680
Microswitch for separate indication of O/L & S/C (3) each (for DN1 release)	SL927050000	2820
Service position microswitch - Right (2)	SL931420000	1130
Service position microswitch - Left (2)	SL931430000	1130
Test or isolated position microswitch - Right (2)	SL931440000	1130
Test or isolated position microswitch - Left (2)	SL931450000	1130

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

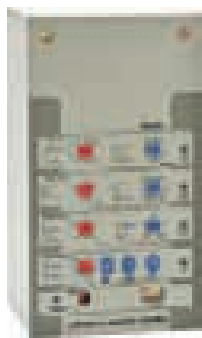
Description & Rating	Cat. No.	Qty	M.R.P. (₹) Per Unit
UN-CO module for Breaker control	CL908520000	1	8520

Spares of C-POWER Air Circuit Breakers

Protection Releases



SR71



SR21i



SR18G



SR18

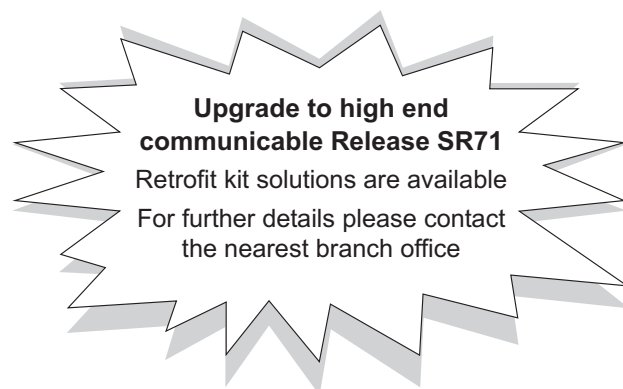


DN1



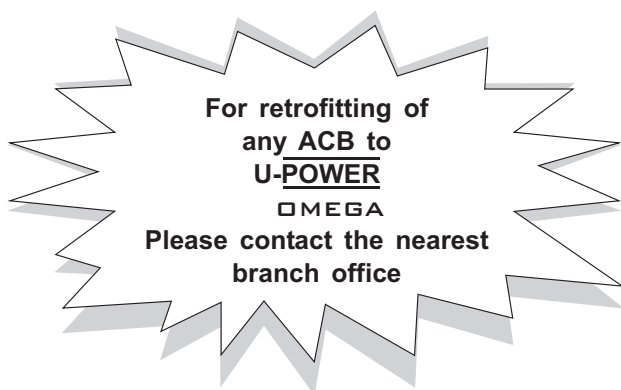
Test Kit

Description	Cat. No.	M.R.P. (₹) Per Unit
Protection Releases		
Microprocessor based Type SR71	Available on Request	
Microprocessor based Type SR21i	SL939600000	39540
Microprocessor based Type SR18G	SL939590000	27990
Microprocessor based Type SR18	SL939580000	24990
Thermal-Magnetic Release Type DN1	SL931520000	14490
Test-Kit SRT-2 (SR21i/SR18G/SR18)	ST231300000	29500



Description	Cat. No.	Qty.	M.R.P. (₹) Per Kit
CTs for SR18/SR18G/SR21i			
630 S1	ST374950000	1	3550
800 C/H/S1 Fix & Draw-out	SL018570000	1	3550
1000 C/H/S1 Fix & Draw-out	SL018580000	1	3550
1250 C/H/S1 Fix & Draw-out	SL905710000	1	4310
1600 C/H/S1 Fix & Draw-out	SL905720000	1	4310
2000 C/H Fix & Draw-out	SL905650000	1	4630
2000 S1	SL932100000	1	4630
2500 C/H/S1 Fix & Draw-out	SL905660000	1	4630
3200 D Fix & Draw-out	SL905670000	1	5600
3200 S1	SL905750000	1	5600
3200 H0/H1	SL017400000	1	5600
4000 C	SL905680000	1	6330
4000 H0/H	SL017390000	1	6330

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





U-POWER Range of Air Circuit Breaker

OMEGA

- Complete range conform to IS / IEC 60947-2 & IEC 60947-2
- Current rating from 400A to 6300A in 3 frames sizes
- 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 both NRYB & RYBN configuration in 4 Pole ACBs
- In-built Electrical & Mechanical Anti-Pumping
- Modular & snap-fit accessories
- Ease of on-site conversion from Fixed to Draw-out version

Matrix Protection & Control units:

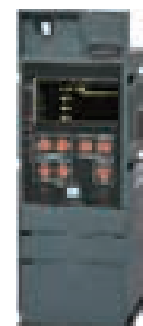
- Available in 8 versions - MTX1.0/1G/1.5G, MTX2.5/2.5G, MTX3.5/3.5EC & MTX4.5
- Unique O-LED display for metering
- Touch screen technology in UW-MTX4.5
- Pluggable / with-drawable Communication & Power metering modules
- Dual protection curve settings & Password protection
- Soft-rating plug for precise protection at lower load currents
- Provision for on-load self-diagnosis of releases
- Data communication on Modbus, Profibus & Zigbee protocol
- Power & Harmonics measurement
- Temperature rise monitoring & protection
- Easy to integrate with HMI & PLC
- Add on modules for advance protection
- Protection releases conform to EMI/EMC standard



UW-MTX1.0



UW-MTX1G



UW-MTX1.5G



UW-MTX2.5/2.5G



UW-MTX3.5/3.5EC



UW-MTX4.5

Breaking Capacities offered:

		$I_{cu} = I_{cs} = I_{cw}$									
		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	S : 65kA										
	H : 80kA										
		UW2-08	UW2-10	UW2-12	UW2-16	UW2-20	UW2-25	UW2-32			
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.

U-POWER OMEGA ACB ordering information:

UW 1 08 N X D 1 2 9 0 0 U-POWER Omega 800A Fr-1 50kA 3P EDO UW-MTX1.5G																																																																																									
Frame Size <table><tr><td>Frame - I</td><td>1</td></tr><tr><td>Frame - II</td><td>2</td></tr><tr><td>Frame - III</td><td>3</td></tr></table>		Frame - I	1	Frame - II	2	Frame - III	3	Current Ratings <table><tr><td>400A</td><td>04</td></tr><tr><td>630A</td><td>06</td></tr><tr><td>800A</td><td>08</td></tr><tr><td>1000A</td><td>10</td></tr><tr><td>1250A</td><td>12</td></tr><tr><td>1600A</td><td>16</td></tr><tr><td>2000A</td><td>20</td></tr><tr><td>2500A</td><td>25</td></tr><tr><td>3200A</td><td>32</td></tr><tr><td>4000A</td><td>40</td></tr><tr><td>5000A</td><td>50</td></tr><tr><td>6300A</td><td>63</td></tr></table>		400A	04	630A	06	800A	08	1000A	10	1250A	12	1600A	16	2000A	20	2500A	25	3200A	32	4000A	40	5000A	50	6300A	63	Temperature Rise Monitoring⁽³⁾ <table><tr><td>Not Required</td><td>0</td></tr><tr><td>Required</td><td>1</td></tr></table>		Not Required	0	Required	1	Selection for P&C Units <table><tr><td>B/C (w/o protection)</td><td>0</td></tr><tr><td>UW - MTX1.0</td><td>7</td></tr><tr><td>UW - MTX1G</td><td>8</td></tr><tr><td>UW - MTX1.5G</td><td>9</td></tr><tr><td>UW - MTX2.5</td><td>1</td></tr><tr><td>UW -MTX2.5G</td><td>2</td></tr><tr><td>UW-MTX3.5</td><td>3</td></tr><tr><td>UW-MTX3.5EC</td><td>4</td></tr><tr><td>UW-MTX4.5</td><td>5</td></tr></table>		B/C (w/o protection)	0	UW - MTX1.0	7	UW - MTX1G	8	UW - MTX1.5G	9	UW - MTX2.5	1	UW -MTX2.5G	2	UW-MTX3.5	3	UW-MTX3.5EC	4	UW-MTX4.5	5	Type <table><tr><td>Manually Operated</td><td>1</td></tr><tr><td>Electrically Operated</td><td>2</td></tr></table>		Manually Operated	1	Electrically Operated	2	Selection for control voltage⁽²⁾ <table><tr><td>For Manually Operated</td><td>0</td></tr><tr><td>240V ac ECD & CR & 240V ac SR</td><td>1</td></tr><tr><td>240V ac ECD & CR & 24V dc SR</td><td>2</td></tr></table>		For Manually Operated	0	240V ac ECD & CR & 240V ac SR	1	240V ac ECD & CR & 24V dc SR	2	Version <table><tr><td>Draw-out</td><td>D</td></tr><tr><td>Fixed</td><td>F</td></tr></table>		Draw-out	D	Fixed	F	Selection for No. of Poles <table><tr><td>3 Pole</td><td>X</td></tr><tr><td>4 Pole 100% N</td><td>F</td></tr><tr><td>4 Pole 50% N (in Fr-III only)</td><td>H</td></tr><tr><td>4 Pole 200% N (upto 2500A)</td><td>D</td></tr></table>		3 Pole	X	4 Pole 100% N	F	4 Pole 50% N (in Fr-III only)	H	4 Pole 200% N (upto 2500A)	D
		Frame - I	1																																																																																						
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Please Note :

- (1) For Icw values please refer product catalogue
- (2) Other options of control voltage are available as accessory
- (3) Temperature protection is available in UW-MTX3.5/3.5EC/4.5

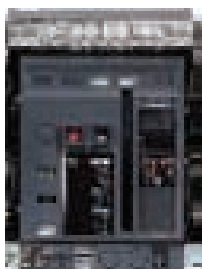
U-POWER OMEGA ACBs are offered with following standard features :

Draw-out version : U-POWER Omega ACBs with UW-MTX release will have inbuilt - Current Metering, 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 preventor, Arc shield (with frame 1N, 2S & 3H version) & terminal adaptors at bottom terminals.

Fixed version : U-POWER Omega ACBs with UW-MTX release will have inbuilt - Current Metering, common fault indication microswitch 4NO+4NC Aux. contacts, door sealing frame & Pad-Locking arrangement for ON/OFF button.

Electrically operated ACB includes Electrical Charging Device (240V AC), Closing Release (240V AC) & Shunt Release (240V AC OR 24V DC).

3 Pole ACBs with UW-MTX1.5G (LSING + Current Metering)

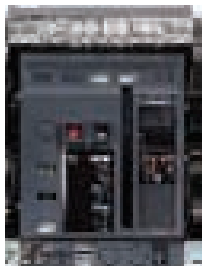


Current Rating	Version	3 Pole Manual Draw-out ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MDO	UW108NXD01900	On Request	UW108SXD01900	On Request	UW208HXD01900	On Request	UW308VXD01900	On Request
1000A		UW110NXD01900		UW110SXD01900		UW210HXD01900		UW310VXD01900	
1250A		UW112NXD01900		UW112SXD01900		UW212HXD01900		UW312VXD01900	
1600A		UW116NXD01900		UW116SXD01900		UW216HXD01900		UW316VXD01900	
2000A		-	-	UW120SXD01900	On Request	UW220HXD01900	On Request	UW320VXD01900	On Request
2500A		-	-	UW225SXD01900		UW225HXD01900		UW325VXD01900	
3200A		-	-	UW232SXD01900		UW232HXD01900		UW332VXD01900	
4000A		-	-	-		UW340HXD01900		UW340VXD01900	
5000A		-	-	-		UW350HXD01900		UW350VXD01900	
6300A		-	-	-		UW363HXD01900		UW363VXD01900	

Current Rating	Version	3 Pole Manual Fixed ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		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	UW108NXF01900	On Request	UW108SXF01900	On Request	UW208HXF01900	On Request	UW308VXF01900	On Request
1000A		UW110NXF01900		UW110SXF01900		UW210HXF01900		UW310VXF01900	
1250A		UW112NXF01900		UW112SXF01900		UW212HXF01900		UW312VXF01900	
1600A		UW116NXF01900		UW116SXF01900		UW216HXF01900		UW316VXF01900	
2000A		-	-	UW120SXF01900	On Request	UW220HXF01900	On Request	UW320VXF01900	On Request
2500A		-	-	UW225SXF01900		UW225HXF01900		UW325VXF01900	
3200A		-	-	UW232SXF01900		UW232HXF01900		UW332VXF01900	
4000A		-	-	-		UW340HXF01900		UW340VXF01900	
5000A		-	-	-		UW350HXF01900		UW350VXF01900	
6300A		-	-	-		UW363HXF01900		UW363VXF01900	

M.R.P. changes for product customization	M.R.P. (₹) Per Unit
MDO to EDO or MF to EF conversion KIT (Includes ECD 240V AC, CR 240V AC & SR 240V AC or 24V DC)	On Request
Protection & Control Unit change with respect to UW-MTX1.5G ACB M.R.P.	
Buscoupler (without protection release)	On Request
UW - MTX1.0 (LSI - BCD Switches)	
UW - MTX1G (LSING - BCD Switches)	
UW-MTX3.5 (LSING + Current Metering) - can be upgraded for Power Metering & Communication	
UW-MTX3.5EC (LSING + Power Metering + Communication)	
UW-MTX4.5 (LSING + Power Metering + Communication with Touch Screen navigation + UW - PS Module)	
UW-PS, Auxiliary power supply module for display in No-load or OFF condition	
COM Module (MODBUS) for communication	
PM Module for power metering	

4 Pole ACBs with UW-MTX1.5G (LSING + Current Metering)



Current Rating	Version	4 Pole Manual Draw-out ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		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	UW108NFD01900	On Request	UW108SFD01900	On Request	UW208HFD01900	On Request	UW308VFD01900	On Request
1000A		UW110NFD01900		UW110SFD01900		UW210HFD01900		UW310VFD01900	
1250A		UW112NFD01900		UW112SFD01900		UW212HFD01900		UW312VFD01900	
1600A		UW116NFD01900		UW116SFD01900		UW216HFD01900		UW316VFD01900	
2000A		-	-	UW120SFD01900	On Request	UW220HFD01900		UW320VFD01900	
2500A		-	-	UW225SFD01900		UW225HFD01900		UW325VFD01900	
3200A		-	-	UW232SFD01900		UW232HFD01900		UW332VFD01900	
4000A		-	-	-		UW340HFD01900		UW340VFD01900	
5000A		-	-	-		UW350HFD01900		UW350VFD01900	
6300A		-	-	-		UW363HFD01900		UW363VFD01900	

Current Rating	Version	4 Pole Manual Fixed ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		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	UW108NFF01900	On Request	UW108SFF01900	On Request	UW208HFF01900	On Request	UW308VFF01900	On Request
1000A		UW110NFF01900		UW110SFF01900		UW210HFF01900		UW310VFF01900	
1250A		UW112NFF01900		UW112SFF01900		UW212HFF01900		UW312VFF01900	
1600A		UW116NFF01900		UW116SFF01900		UW216HFF01900		UW316VFF01900	
2000A		-	-	UW120SFF01900	On Request	UW220HFF01900		UW320VFF01900	
2500A		-	-	UW125SFF01900		UW225HFF01900		UW325VFF01900	
3200A		-	-	UW232SFF01900		UW232HFF01900		UW332VFF01900	
4000A		-	-	-		UW340HFF01900		UW340VFF01900	
5000A		-	-	-		UW350HFF01900		UW350VFF01900	
6300A		-	-	-		UW363HFF01900		UW363VFF01900	

Auto Source Transfer Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000	ST802300000	47950	1

Can be used along with U-POWER Omega ACBs,  MCCBs, & MCX contactors

P[WERMAN System for : • Complete monitoring of Power & Energy Parameters • Breaker Control		
Cat. No.	Description	M.R.P. (₹) Per Unit
BPV3040RS	Powerman for 04 RS485 Meters/ACB/MCCB	33700
BPV3080RS	Powerman for 08 RS485 Meters/ACB/MCCB	54500
BPV3120RS	Powerman for 12 RS485 Meters/ACB/MCCB	69900
BPV3160RS	Powerman for 16 RS485 Meters/ACB/MCCB	89500
BPV304ARH	Add on Powerman for 04 RS485 Meters/ACB/MCCB	15000
BPV308ARH	Add on Powerman for 08 RS485 Meters/ACB/MCCB	29900
BPV312ARH	Add on Powerman for 12 RS485 Meters/ACB/MCCB	44840
BPV316ARH	Add on Powerman for 16 RS485 Meters/ACB/MCCB	59780

For details please contact the nearest branch office



**Select the capacitor
that's right for you**



L&T's Cylindrical & Box Type Heavy Duty Capacitors

We Go the Extra Mile

Expecting your conventional standard duty capacitor to function in heavy duty applications is unwise, unsafe. You actually need power capacitors that are specifically designed for such applications – L&T's Heavy-duty Capacitors.

- Over-current withstand: 1.8 times rated current
- Low power loss: $<0.35/\text{kVar}$
- 8000 operations per hour
- Inrush current withstand:

Box type: 250xIn , Cylindrical type: 300xIn

Customer Interaction Centre (CIC)

BSNL/MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859

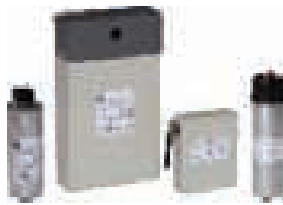
Email: cic@Lntebg.com

www.Lntebg.com

Reactive Power Management Products

Power Factor Correction Capacitors

Standard Duty Capacitors



- MPP standard duty capacitors
- Operating losses - 0.45 W / kVAr
- Over current withstand capability - 1.5 times rated current
- Inrush current withstand capability - 200 times rated current
- Number of switching - 5000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Standard Duty	Cylindrical	1 to 25	440V	169
	Box	1 to 50	440V	230

Heavy Duty Capacitors



- MPP heavy duty capacitors
- Operating losses - 0.35 W / kVAr
- Over current withstand capability - 1.8 times rated current
- Inrush current withstand capability - 300 times rated current
- Operating life - 130000 hours
- Number of switching - 8000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Heavy Duty	Cylindrical (Gas filled)	5 to 30	440V	315
			480V	347
			525V	378
			690V	394
	Box (Resin filled)	5 to 50	440V	371
			480V	408
			525V	445

LTXL - Ultra Heavy Duty Capacitors



- Advance APP technology
- Lower operating losses - 0.35 W / kVAr
- High over current withstand capability - 3 times rated current
- High inrush current withstand capability - 500 times rated current
- Higher operating life - 300000 hours
- More number of switching - 20000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Ultra Heavy Duty (LTXL)	Box	5 to 100	440V	581
			480V	639
			525V	697
			690V	726
			850V	755
			1000V	785

Notes:

- 1) For Capacitor Duty Contactors refer page No. 6
- 2) For APFC Relays refer page No. 58

7% Detuned Copper Reactors, 440V 50Hz



- Copper wound reactors
- Lower operating losses
- High linearity - 1.8 times the rated current
- Thermal cut off

kVAr Rating	Cat. No.	M.R.P. (₹) Per Unit
5	LTFR0705B2	7175
10	LTFR0710B2	11275
15	LTFR0715B2	13840
20	LTFR0720B2	16400
25	LTFR0725B2	17425
50	LTFR0750B2	27675
75	LTFR0775B2	41000
100	LTFR0700B2	56375

Selection of Capacitors with Reactors

Reactor Voltage: 440V Capacitor Voltage: 480V

Output kVAr	Selection
10	10kVAr 7% Reactor + 12.5kVAr Capacitor
15	15kVAr 7% Reactor + 20kVAr Capacitor
20	20kVAr 7% Reactor + 25kVAr Capacitor
25	25kVAr 7% Reactor + 30kVAr Capacitor
50	50kVAr 7% Reactor + 2 x 30kVAr Capacitors

Sample Selection: for 75kVAr 7% detuned reactors with heavy duty capacitors, place an order for:

1 No. 75kVAr 7% detuned reactor: LTFR0775B2 & 3 No. 30kVAr LTCCN capacitors at 480V: LTCCN330C2

Thyristor Switching Module, 440V 50Hz



- High Peak Inverse Voltage (PIV) - 2.2 kV
- Lower operating losses
- Auto thermal cut off

kVAr Rating	Cat. No.	M.R.P. (₹) Per Unit
10	LTTSM10B2	19760
25	LTTSM25B2	28190
50	LTTSM50B2	32900

Ordering Information for Capacitors

Cat. Nos. # **L T C 3 2**

C - Cylindrical, B - Box

Duty : S/F - Standard*, H - Heavy, N - Heavy Duty Gas Filled, U - Ultra Heavy,

kVAr Rating

Sample ratings

01 - 1 kVAr

07 - 7.5 kVAr

10 - 10 kVAr

12 - 12.5 kVAr

00 - 100 kVAr

Voltages : A - 415V, B - 440V, C - 480V, M - 525V, W - 690V, Y - 850V, Z - 1000V

* F - 1 to 6 kVAr. S - 7.5 kVAr & above

Standard Rating Available are :

1, 2, 3, 4, 5, 6, 7.5, 8.33, 10, 12.5, 15, 20, 25, 30, 50, 100

Reactive Power Management Products

etaSYS - STANDARD APFC PANELS

Product	kVAr Rating	Capacitors	Incomer	Branch Protection	Switching
etaSYS - MH	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	MCCB	Auto + Manual
etaSYS - FH	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	HRC Fuse	Auto + Manual
etaSYS - MU	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	MCCB	Auto + Manual
etaSYS - FU	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 300 kVAr; ACB - 350 to 500 kVAr	HRC Fuse	Auto + Manual

etaSYS - MH

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
35	LTAPMH0351B2	2x12.5 + 2x5	4	158600
50	LTAPMH0501B2	2 x 12.5 + 2x10 + 1x5	5	183300
75	LTAPMH0751B2	2 x 25 + 2x10 + 1x5	5	214700
100	LTAPMH1001B2	50 + 25 + 15 + 5 + 5	5	246100
125	LTAPMH1251B2	2 x 12.5 + 2 x 25 + 50	5	271900
150	LTAPMH1501B2	2 x 12.5 + 3 x 25 + 50	6	305200
175	LTAPMH1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	332700
200	LTAPMH2001B2	2 x 12.5 + 25 + 3 x 50	6	369100
225	LTAPMH2251B2	2 x 12.5 + 4 x 50	6	402900
250	LTAPMH2501B2	2 x 25 + 4 x 50	6	433800
275	LTAPMH2751B2	1x100 + 3x50 + 2x12.5	6	472300
300	LTAPMH3001B2	1x100 + 3x50 + 2x25	6	490300
350	LTAPMH3501B2	1x100 + 3x50 + 4x25	8	585400
400	LTAPMH4001B2	2x100 + 2x50 + 4x25	8	696800
450	LTAPMH4501B2	2x100 + 4x50 + 2x25	8	754700
500	LTAPMH5001B2	3x100 + 3x50 + 2x25	8	849800

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMH1002B2	50 + 25 + 15 + 5 + 5	5	347800
125	LTAPMH1252B2	2 x 12.5 + 2 x 25 + 50	5	393800
150	LTAPMH1502B2	2 x 12.5 + 3 x 25 + 50	6	445500
175	LTAPMH1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	483800
200	LTAPMH2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	541800
225	LTAPMH2252B2	2 x 12.5 + 4 x 50	6	547500
250	LTAPMH2502B2	2 x 25 + 4 x 50	6	622600
275	LTAPMH2752B2	1x100 + 3x50 + 2x12.5	6	687600
300	LTAPMH3002B2	1x100 + 3x50 + 2x25	6	722200
350	LTAPMH3502B2	1x100 + 3x50 + 4x25	8	860500
400	LTAPMH4002B2	2x100 + 2x50 + 4x25	8	989200
450	LTAPMH4502B2	2x100 + 4x50 + 2x25	8	1078500
500	LTAPMH5002B2	3x100 + 3x50 + 2x25	8	1203400

Features of etaSYS:

- IP 42 panels
- Standard GA drawing readily available
- Wide range of ratings (35 to 500 kVAr) covers the typical requirement of APFC panel ratings for most of the industries
- All the panels are with optimal number of steps and step sizes
 - Offers sufficient step resolution which would be suitable for all types of industries
 - Panel operation without hunting of capacitors
- Pre-selected switchgear with accurate ratings offers reliable operation, protection and isolation
- Accurate combination of capacitor and reactor offers better protection against harmonics

Notes:

- Standard lead time of APFC panels is 6 to 8 weeks (Ex-Nagpur)
- Freight charges at actuals
- For other ratings and specifications, contact nearest branch office

etaSYS - FH

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
35	LTAPFH0351B2	2x12.5 + 2x5	4	145900
50	LTAPFH0501B2	2 x 12.5 + 2x10 + 1x5	5	177300
75	LTAPFH0751B2	2 x 25 + 2x10 + 1x5	5	210500
100	LTAPFH1001B2	50 + 25 + 15 + 5 + 5	5	232200
125	LTAPFH1251B2	2 x 12.5 + 2 x 25 + 50	5	255900
150	LTAPFH1501B2	2 x 12.5 + 3 x 25 + 50	6	295300
175	LTAPFH1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	321200
200	LTAPFH2001B2	2 x 12.5 + 25 + 3 x 50	6	354000
225	LTAPFH2251B2	2 x 12.5 + 4 x 50	6	378100
250	LTAPFH2501B2	2 x 25 + 4 x 50	6	408100
275	LTAPFH2751B2	1x100 + 3x50 + 2x12.5	6	457700
300	LTAPFH3001B2	1x100 + 3x50 + 2x25	6	460500
350	LTAPFH3501B2	1x100 + 3x50 + 4x25	8	562300
400	LTAPFH4001B2	2x100 + 2x50 + 4x25	8	649200
450	LTAPFH4501B2	2x100 + 4x50 + 2x25	8	710800
500	LTAPFH5001B2	3x100 + 3x50 + 2x25	8	782300

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFH1002B2	50 + 25 + 15 + 5 + 5	5	339800
125	LTAPFH1252B2	2 x 12.5 + 2 x 25 + 50	5	381800
150	LTAPFH1502B2	2 x 12.5 + 3 x 25 + 50	6	451200
175	LTAPFH1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	487900
200	LTAPFH2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	541000
225	LTAPFH2252B2	2 x 12.5 + 4 x 50	6	577300
250	LTAPFH2502B2	2 x 25 + 4 x 50	6	606400
275	LTAPFH2752B2	1 x 100 + 3 x 50 + 2 x 12.5	6	655700
300	LTAPFH3002B2	1 x 100 + 3 x 50 + 2 x 25	6	684400
350	LTAPFH3502B2	1 x 100 + 3 x 50 + 4 x 25	8	813300
400	LTAPFH4002B2	2 x 100 + 2 x 50 + 4 x 25	8	942200
450	LTAPFH4502B2	2 x 100 + 4 x 50 + 2 x 25	8	1022400
500	LTAPFH5002B2	3 x 100 + 3 x 50 + 2 x 25	8	1127900

Thyristor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFH1003B2	50 + 25 + 15 + 5 + 5	5	545900
125	LTAPFH1253B2	2 x 12.5 + 2 x 25 + 50	5	608600
150	LTAPFH1503B2	2 x 12.5 + 3 x 25 + 50	6	706900
175	LTAPFH1753B2	2 x 12.5 + 2 x 25 + 2 x 50	6	747400
200	LTAPFH2003B2	2 x 12.5 + 1 x 25 + 3 x 50	6	794200
225	LTAPFH2253B2	2 x 12.5 + 4 x 50	6	838100
250	LTAPFH2503B2	2 x 25 + 4 x 50	6	867600
275	LTAPFH2753B2	1x100 + 3x50 + 2x12.5	6	945500
300	LTAPFH3003B2	1x100 + 3x50 + 2x25	6	972800
350	LTAPFH3503B2	1x100 + 3x50 + 4x25	8	1245700
400	LTAPFH4003B2	2x100 + 2x50 + 4x25	8	1368100
450	LTAPFH4503B2	2x100 + 4x50 + 2x25	8	1441400
500	LTAPFH5003B2	3x100 + 3x50 + 2x25	8	1581700

Reactive Power Management Products

etaSYS - MU

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMU1001B2	50 + 25 + 15 + 5 + 5	5	296000
125	LTAPMU1251B2	2 x 12.5 + 2 x 25 + 50	5	324900
150	LTAPMU1501B2	2 x 12.5 + 3 x 25 + 50	6	375500
175	LTAPMU1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	412900
200	LTAPMU2001B2	2 x 12.5 + 25 + 3 x 50	6	457300
225	LTAPMU2251B2	2 x 12.5 + 4 x 50	6	488100
250	LTAPMU2501B2	2 x 25 + 4 x 50	6	531000
275	LTAPMU2751B2	1x100 + 3x50 + 2x12.5	6	571700
300	LTAPMU3001B2	1x100 + 3x50 + 2x25	6	602500
350	LTAPMU3501B2	1x100 + 3x50 + 4x25	8	706200
400	LTAPMU4001B2	2x100 + 2x50 + 4x25	8	817700
450	LTAPMU4501B2	2x100 + 4x50 + 2x25	8	893400
500	LTAPMU5001B2	3x100 + 3x50 + 2x25	8	987800

etaSYS - FU

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1001B2	50 + 25 + 15 + 5 + 5	5	284000
125	LTAPFU1251B2	2 x 12.5 + 2 x 25 + 50	5	313100
150	LTAPFU1501B2	2 x 12.5 + 3 x 25 + 50	6	357500
175	LTAPFU1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	392100
200	LTAPFU2001B2	2 x 12.5 + 25 + 3 x 50	6	435500
225	LTAPFU2251B2	2 x 12.5 + 4 x 50	6	479400
250	LTAPFU2501B2	2 x 25 + 4 x 50	6	507500
275	LTAPFU2751B2	1x100 + 3x50 + 2x12.5	6	541600
300	LTAPFU3001B2	1x100 + 3x50 + 2x25	6	570700
350	LTAPFU3501B2	1x100 + 3x50 + 4x25	8	669100
400	LTAPFU4001B2	2x100 + 2x50 + 4x25	8	777600
450	LTAPFU4501B2	2x100 + 4x50 + 2x25	8	849600
500	LTAPFU5001B2	3x100 + 3x50 + 2x25	8	954800

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMU1002B2	50 + 25 + 15 + 5 + 5	5	409200
125	LTAPMU1252B2	2 x 12.5 + 2 x 25 + 50	5	438000
150	LTAPMU1502B2	2 x 12.5 + 3 x 25 + 50	6	503700
175	LTAPMU1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	543900
200	LTAPMU2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	582700
225	LTAPMU2252B2	2 x 12.5 + 4 x 50	6	616300
250	LTAPMU2502B2	2 x 25 + 4 x 50	6	657500
275	LTAPMU2752B2	1x100 + 3x50 + 2x12.5	6	696500
300	LTAPMU3002B2	1x100 + 3x50 + 2x25	6	726500
350	LTAPMU3502B2	1x100 + 3x50 + 4x25	8	871500
400	LTAPMU4002B2	2x100 + 2x50 + 4x25	8	983000
450	LTAPMU4502B2	2x100 + 4x50 + 2x25	8	1060100
500	LTAPMU5002B2	3x100 + 3x50 + 2x25	8	1153100

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1002B2	50 + 25 + 15 + 5 + 5	5	391600
125	LTAPFU1252B2	2 x 12.5 + 2 x 25 + 50	5	423900
150	LTAPFU1502B2	2 x 12.5 + 3 x 25 + 50	6	481400
175	LTAPFU1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	517400
200	LTAPFU2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	572900
225	LTAPFU2252B2	2 x 12.5 + 4 x 50	6	601700
250	LTAPFU2502B2	2 x 25 + 4 x 50	6	634300
275	LTAPFU2752B2	1x100 + 3x50 + 2x12.5	6	665600
300	LTAPFU3002B2	1x100 + 3x50 + 2x25	6	694700
350	LTAPFU3502B2	1x100 + 3x50 + 4x25	8	834400
400	LTAPFU4002B2	2x100 + 2x50 + 4x25	8	946000
450	LTAPFU4502B2	2x100 + 4x50 + 2x25	8	1023300
500	LTAPFU5002B2	3x100 + 3x50 + 2x25	8	1122900



Thyristor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1003B2	50 + 25 + 15 + 5 + 5	5	593000
125	LTAPFU1253B2	2 x 12.5 + 2 x 25 + 50	5	661800
150	LTAPFU1503B2	2 x 12.5 + 3 x 25 + 50	6	777700
175	LTAPFU1753B2	2 x 12.5 + 2 x 25 + 2 x 50	6	822900
200	LTAPFU2003B2	2 x 12.5 + 1 x 25 + 3 x 50	6	884600
225	LTAPFU2253B2	2 x 12.5 + 4 x 50	6	928800
250	LTAPFU2503B2	2 x 25 + 4 x 50	6	965600
275	LTAPFU2753B2	1x100 + 3x50 + 2x12.5	6	1047400
300	LTAPFU3003B2	1x100 + 3x50 + 2x25	6	1083700
350	LTAPFU3503B2	1x100 + 3x50 + 4x25	8	1376300
400	LTAPFU4003B2	2x100 + 2x50 + 4x25	8	1507900
450	LTAPFU4503B2	2x100 + 4x50 + 2x25	8	1605200
500	LTAPFU5003B2	3x100 + 3x50 + 2x25	8	1765200



New Your Energy Manager

You probably know of Larsen & Toubro as a:

- leading electrical and automation company
- premier infrastructure builder
- company engaged in frontline technologies

Yes, while we are all of the above, we are also now rapidly being recognized for our energy management expertise.

Our energy management systems can help you:

- reduce energy consumption
- overcome harmonics
- achieve eco-friendly operations.

L&T can help you achieve all of the above. If you have a specific application for which you need advice, contact us now.

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ECOCARE
Complete Solutions for Energy Efficiency
& Harmonics Mitigation

Digital Protective Relays

3 Phase Over Current + Earth Fault Relay

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



Model	Aux. Supply (V)	Output Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC31A	20 - 110V AC/DC	4 NO	MC31AAXX000	17400	1
MC31A	20 - 110V AC/DC	2 NO + 2 NC	MC31AAXX001	17400	1
MC31A	88 - 264V AC/DC	4 NO	MC31ABXX000	17400	1
MC31A	88 - 264V AC/DC	2 NO + 2 NC	MC31ABXX001	17400	1

3 Phase Over Current + Earth Fault Relay With High Set

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



Model	Aux. Supply (V)	Output Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC61A	20 - 110V AC/DC	4 NO	MC61AAXX000	23500	1
MC61A	20 - 110V AC/DC	2 NO + 2 NC	MC61AAXX001	23500	1
MC61A	88 - 264V AC/DC	4 NO	MC61ABXX000	23500	1
MC61A	88 - 264V AC/DC	2 NO + 2 NC	MC61ABXX001	23500	1

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

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



Model	Aux. Supply (V)	C.T. Secondary (A)		Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
		In	On			
MC61C	20 - 110V AC/DC	1	1	MC61CA11000 *	40000	1
MC61C	20 - 110V AC/DC	5	5	MC61CA55000 *	40000	1
MC61C	88 - 264V AC/DC	1	1	MC61CB11000 *	40000	1
MC61C	88 - 264V AC/DC	5	5	MC61CB55000 *	40000	1

* - available on request only

Single Pole Over Current or Earth Fault Relay

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



Model	Aux. Supply (V)	C.T. Secondary (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC12A	20 - 110V AC/DC	1A	MC12AA10X00	9600	1
MC12A	20 - 110V AC/DC	5A	MC12AA50X00	9600	1
MC12A	88 - 264V AC/DC	1A	MC12AB10X00	9600	1
MC12A	88 - 264V AC/DC	5A	MC12AB50X00	9600	1

Single Pole Sensitive Earth Fault Relay

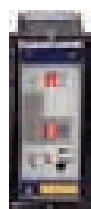
C.T. Rating 1A or 5A, Not Field Selectable



Model	Aux. Supply (V)	C.T. Secondary (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
ME12A	20 - 110V AC/DC	1A	ME12AA10000 *	9900	1
ME12A	20 - 110V AC/DC	5A	ME12AA50000 *	9900	1
ME12A	88 - 264V AC/DC	1A	ME12AB10000 *	9900	1
ME12A	88 - 264V AC/DC	5A	ME12AB50000 *	9900	1

* - available on request only

Single Phase Under Voltage or Over Voltage Relay



Model	Aux. Supply (V)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MV12A	20 - 110V AC/DC	MV12AA00X00	10000	1
MV12A	88 - 264V AC/DC	MV12AB00X00	10000	1

Digital Protective Relays

Mini Motor Protection Relay[#]



Model	Thermal O/L Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MPR 300	1 - 2.75	MPR300BE010	5700	1
MPR 300	2 - 5.5	MPR301BE020	5700	1
MPR 300	4 - 11	MPR302BE040	5700	1
MPR 300	8 - 22	MPR303BE080	5700	1
MPR 300	16 - 44	MPR304BE160	5700	1
MPR 300	32 - 88	MPR305BE320	5700	1

With AUX. supply 240 AC
AUX. supply 110V AC available on request

APFC Relays



Model	Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
RPM 8	Eight Stage APFC Relay	MRPM0800000	13600	1
RPM 14	Fourteen Stage APFC Relay	MRPM1400000	16900	1

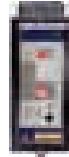


Other Relays

Model	Description	Device Code	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
UFD34	Frequency Relay 20 - 110V	81, 27, 59, df/dt	EFD34A00000	123000	1
UDF34	Frequency Relay 88 - 264V	81, 27, 59, df/dt	EFD34B00000	123000	1
MM30	Motor Protection Relay 20 - 110V	49, 51LR, 46, 37, 50/51, 64, St No, ITR	EMM30AXX00E	69800	1
MM30	Motor Protection Relay 88 - 264V	49, 51LR, 46, 37, 50/51, 64, St No., ITR	EMM30BXX00E	69800	1
MM30W	Motor Protection Relay with Voltage Input 20 - 110V	12/14, 27/59, 47, 48, 55, 66, 68, 81 49, 51LR, 46, 37, 50/51, 64 St No, ITR	EMM30WAX002 *	86500	1
MM30W	Motor Protection Relay with Voltage Input 88 - 264V	12/14, 27/59, 47, 48, 55, 66, 68, 81 49, 51LR, 46, 37, 50/51, 64 St No, ITR	EMM30WBX002 *	86500	1
MG30	Generator Protection Relay For Generators with NGR (Neutral Grounding Resistor) 20 - 110V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EMG30AXX000	210000	1
MG30	Generator Protection Relay For Generators with NGR (Neutral Grounding Resistor) 88 - 264V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EMG30BXX000	210000	1
MG30-I	Generator Protection Relay For Generators without NGR (Neutral Grounding Resistor) 20 - 110V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EM30GIAXX00	210000	1
MG30-I	Generator Protection Relay For Generators without NGR (Neutral Grounding Resistor) 88 - 264V	21, 24, 27/59, 32, 37, 40, 46, 49, 50/27, 50V/51V, 51BF, 60FL, 64S, 68, 81	EM30GIBXX00	210000	1
MD32G	Differential Relay for Generator 20 - 110V	87, 50/51, 87N	ED32GAXX000 *	266500	1
MD32G	Differential Relay for Generator 88 - 264V	87, 50/51, 87N	ED32GBXX000 *	266500	1
MD32TM	Differential Relay for Transformer 20 - 110V, W/O ref.	87RYB	ED32TMAXX00	148000	1
MD32TM	Differential Relay for Transformer 88 - 264V, W/O ref.	87RYB	ED32TMBXX00	148000	1
SPM21	Auto Synchronizing Relay 20 - 110V	25	EPM21A00000 *	143500	1
SPM21	Auto Synchronizing Relay 88 - 264V	25	EPM21B00000 *	143500	1
UM30	Voltage, Frequency and Zero Sequence Voltage with VECTOR SHIFT Detection 20 - 110 V	59, 81, 27	EUM30A00000 *	123000	1
UM30	Voltage, Frequency and Zero Sequence Voltage with VECTOR SHIFT Detection 88 - 264 V	59, 81, 27	EUM30B00000 *	123000	1

* - available on request only

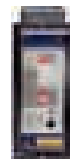
Reverse Power Relay



Model	Aux Supply (V)	C.T. Secondary (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MRP11	20 - 110V AC/DC	1A	MRP11A10X00	21500	1
MRP11	20 - 110V AC/DC	5A	MRP11A50X00	21500	1
MRP11	88 - 264V AC/DC	1A	MRP11B10X00	21500	1
MRP11	88 - 264V AC/DC	5A	MRP11B50X00	21500	1

Instantaneous Earth Fault Relay

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



Model	C.T. Secondary (A)	Range	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
SC14S	1	10 - 40 %	MC14SX10100	8400	1
SC14S	1	20 - 80 %	MC14SX10200	8400	1
SC14S	5	10 - 40 %	MC14SX50100	8400	1
SC14S	5	20 - 80 %	MC14SX50200	8400	1

Application - REF protection of Generator or Transformer
Differential Protection of Generator with 3 nos. SC14S

Electronic Metering Devices

Single Phase kWh meter with LCD display

Model EM101 + Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph LCD Meter 5-30A without optical port	WM101BC5DL0	1640
1Ph LCD Meter 10-60A without optical port	WM101BC7DL0	1950
1P LCD Meter 5-30A with optical port	WM101BC5DDH	1950
1Ph LCD Meter 10-60A with optical port	WM101BC7DDH	2050

3 Phase 4 Wire kWh Base mounting meter

Model EM301B Class 1



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W kWh CT op base mtg 240V 1-2A	WM301BC1C00	4820
3Ph 4 W kWh CT op base mtg 240V 5 -10 A	WM301BC3C00	4310
3Ph 4 W kWh Dir base mtg 240V 5 -20 A Sleek	WM301BC4D20	4310
3Ph 4 W kWh Dir base mtg 240V 10 -40 A Sleek	WM301BC6D20	4310
3Ph 4 W kWh Dir base mtg 240V 10 - 60 A big body	WM301BC7D10	4410
3Ph 4 W kWh Dir base mtg 240V 50 -100 A big body	WM301BC8D10	6250

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	6660
3Ph, 4W TVM 240 V 10 - 60A BM LPR *	WR300BC63RS	12300

* - available on request only

Trivector Meter Class 0.5

Model ER300P Class 0.5 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 3W TVM 110V (L-L) 1 A Class 0.5 BM *	WR200BB1200	20500
3Ph, 3W TVM 110V (L-L) 5 A Class 0.5 BM *	WR200BB5200	20500
3Ph, 4W TVM 110V (L-L) 1 A Class 0.5 BM	WR300BB1200	20500
3Ph, 4W TVM 110V (L-L) 5 A Class 0.5 BM	WR300BB5200	20500
3Ph, 4W TVM 240V (L-N) 1 A Class 0.5 BM *	WR300BC1200	20500
3Ph, 4W TVM 240V (L-N) 5 A Class 0.5 BM	WR300BC5200	20500
3Ph, 3W TVM 110V (L-L) 1 A Class 0.5 BM RS485 *	WR200BB12RS	24600
3Ph, 3W TVM 110V (L-L) 5 A Class 0.5 BM RS485 *	WR200BB52RS	24600
3Ph, 4W TVM 110V (L-L) 1 A Class 0.5 BM RS485	WR300BB12RS	24600
3Ph, 4W TVM 110V (L-L) 5 A Class 0.5 BM RS485 *	WR300BB52RS	24600
3Ph, 4W TVM 240V (L-N) 1 A CI 0.5 BM RS485 *	WR300BC12RS	24600
3Ph, 4W TVM 240V (L-N) 5 A CI 0.5 BM RS485	WR300BC52RS	24600

* - available on request only

Trivector Meter Class 0.2

Model ER300P Class 0.2 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V (L-L) 1 A Class 0.2 BM	WR300BB1100	46120
3Ph, 4W TVM 110V (L-L) 5 A Class 0.2 BM	WR300BB5100	46120
3Ph, 4W TVM 110V (L-L) 1 A Class 0.2 BM RS485	WR300BB11RS	49200
3Ph, 4W TVM 110V (L-L) 5 A Class 0.2 BM RS485	WR300BB51RS	49200

Meter reading instrument

Description	Cat. No.	M.R.P. (₹) Per Unit
METER READING INSTRUMENT - (6MB)	990MR1XX000	100000

Electronic Metering Devices

3 Phase kWh Flush mounting meter

Model Acrux, Nova & Gemini Class 1
(Flush Mounting) 96 x 96 mm



Gemini



Nova

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W 240V 5A with RS485 (Dual source kWh meter) - Gemini	WM30DFC3CRS	4600
3Ph 4 W 240V 5A with RS485 (kWh meter with RS485 port) - Nova	WM30KFC3CRS	4500
3Ph 4 W 240V 1A (kWh meter counter type) - Acrux	WM301FC1C10	4500
3Ph 4 W 240V 5A (kWh meter counter type) - Acrux	WM301FC3C10	4500

Intelligent Panel Meter New

Model QUASAR plus Class 0.5 (Flush Mounting) 96 x 96 mm



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM *	WI300FC1200	10760
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM	WI300FC5200	10760
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM *	WI301FC1200	10760
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM *	WI301FC5200	10760
3Ph, 4W IPM 110 V (L-L) 1A Class 0.5 FM *	WI300FB1200	10760
3Ph, 4W IPM 110 V (L-L) 5A Class 0.5 FM *	WI300FB5200	10760
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM with RS485	WI300FC12RS	11790
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM with RS485	WI300FC52RS	11790
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM with RS485	WI301FC12RS	11790
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM with RS485	WI301FC52RS	11790
3Ph, 4W IPM 110 V (L-L) 1A Class 0.5 FM with RS485 *	WI300FB12RS	11790
3Ph, 4W IPM 110 V (L-L) 5A Class 0.5 FM with RS485 *	WI300FB52RS	11790

* - available on request only

Intelligent Panel Meter

Model QUASAR Class 1 (Flush Mounting) 96 x 96 mm



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM *	WI300FC1300	8710
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM	WI300FC5300	8710
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM *	WI301FC1300	8710
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM *	WI301FC5300	8710
3Ph, 4W IPM 110 V (L-L) 1A Class 1 FM *	WI300FB1300	8710
3Ph, 4W IPM 110 V (L-L) 5A Class 1 FM *	WI300FB5300	8710
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM with RS485 *	WI300FC13RS	9740
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM with RS485	WI300FC53RS	9740
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM with RS485 *	WI301FC13RS	9740
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM with RS485 *	WI301FC53RS	9740
3Ph, 4W IPM 110 V (L-L) 1A Class 1 FM with RS485 *	WI300FB13RS	9740
3Ph, 4W IPM 110 V (L-L) 5A Class 1 FM with RS485 *	WI300FB53RS	9740

* - available on request only

Vega Series New



VAF Meter



Single Function Basic Meter

Description	Cat. No.	M.R.P. (₹) Per Unit
Multifunction Meters (MFM)		
3Ph Multifunction Meter, Model A, class 1, 5A	WDM303FDWA1	6990
3Ph Multifunction Meter, Model B, class 1, 5A	WDM303FDNB1	10900
3Ph Multifunction Meter, Model C, class 1, 5A	WDM303FDNC1	16020
3Ph Multifunction Meter, Model A, class 1, 5A with Relay	WDM303FDWA0	8200
3Ph Multifunction Meter, Model B, class 1, 5A with Relay	WDM303FDNB0	13320
3Ph Multifunction Meter, Model C, class 1, 5A with Relay	WDM303FDNC0	20500
VAF Meter		
3Ph VAF, Class 1, 5A	WDV303FC000	3000
Single Phase Basic Meters		
1Ph Voltmeter Class 1	WDS101FEV00	1000
1Ph Ammeter Class1	WDS101FCA00	1000
1Ph Freq. meter Class 0.2	WDS121FCF00	1000
Three Phase Basic Meters		
3Ph Voltmeter Class 1	WDS301FEV00	1360
3Ph Ammeter Class1	WDS301FCA00	1360

Panel Meter Overview

Meter type	Parameters	Display	RS 485
Accrux	kWh	Counter	No
Vega VAF	V, A, F, RPM	LED	No
Nova	V, A, F, kW, kWh	LCD	Yes
Gemini	V, A, F, kW, kWh - Dual source	LCD	Yes
Quasar	V, A, F, pf, Power, Energy, THD	LCD	Optional
Vega Model A	V, A, F, pf, Power, Energy, Run & ON hours, RPM	LED	Yes
Vega Model B	V, A, F, pf, Power, Energy, Run & ON hours, RPM + Neutral current, MD (kW & kVA), MD reset	LED	Yes
Vega Model C	V, A, F, pf, Power, Energy, Run & ON hours, RPM + Neutral current, MD (kW & kVA), MD reset + THD, Bi - directional	LED	Yes

RPM = Rotations per minute

Your automation needs keep growing.

So does our range.



AC Drive : 0.4 kW to 630 kW
Soft Starter : 23 A to 1600 A
Servo System : 30 W to 90 kW
PLC : 28 I/Os to 8192 I/Os
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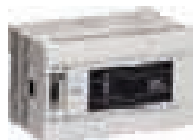
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Programmable Logic Controller (PLC)

- Compact & Powerful
- LX7S from 10 to 48 I/O
- LX7 from 28 to 104 I/O
- 2 serial ports (with Modbus RTU)
- Built-in backup flash memory
- Built-in High speed counter & Pulse Output
- Built-in real time clock in LX7
- Ideal for small to mid size machine automation / AMF panels / Load management / pump control and many more applications
- Can communicate with ACB, MCCB Releases, Energy Meters



LX7 / LX7S



LX70



LX700

Type	Cat. No.	Description	M.R.P. (₹) Per Unit
LX7S Series (Non Expandable PLC)	LX7S-10ADR	AC Powered, 6 Digital Inputs, 4 Digital Outputs (Relay)	9500
	LX7S-10ADT	AC Powered, 6 Digital Inputs, 4 Digital Outputs (Transistor)	9300
	LX7S-14ADR	AC Powered, 8 Digital Inputs, 6 Digital Outputs (Relay)	11200
	LX7S-14ADT	AC Powered, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10900
	LX7S-20ADR	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay)	13700
	LX7S-20ADT	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor)	13300
	LX7S-28ADR	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	16500
	LX7S-28ADT	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	16100
	LX7S-40ADR	AC Powered, 24 Digital Inputs, 16 Digital Outputs (Relay)	20700
	LX7S-40ADT	AC Powered, 24 Digital Inputs, 16 Digital Outputs (Transistor)	20100
	LX7S-48ADR	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	22900
	LX7S-48ADT	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	22200
	LX7S-10DDR	DC Powered, 6 Digital Inputs, 4 Digital Outputs (Relay)	9500
	LX7S-10DDT	DC Powered, 6 Digital Inputs, 4 Digital Outputs (Transistor)	9300
	LX7S-14DDR	DC Powered, 8 Digital Inputs, 6 Digital Outputs (Relay)	11200
	LX7S-14DDT	DC Powered, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10900
LX7 Series (Expandable PLC)	Base Modules		
	LX7-28ADR	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	21252
	LX7-28ADT	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	20066
	LX7-48ADR	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	31510
	LX7-48ADT	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	29298
	LX7-28DDR	DC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	21922
	LX7-28DDT	DC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	20608
	LX7-48DDR	DC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	33270
	LX7-48DDT	DC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	30722
	LX7-20ADR-4A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay), 4 Analog Inputs	24900
	LX7-20ADR-6A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay), 4 Analog Inputs, 2 Analog Outputs	29500
	LX7-20ADT-4A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor), 4 Analog Inputs	24400
	LX7-20ADT-6A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor), 4 Analog Inputs, 2 Analog Outputs	28800
	Expansion Modules		
	LX7-14EDR	Expansion Module, 8 Digital Inputs, 6 Digital Outputs (Relay)	10400
	LX7-14EDT	Expansion Module, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10100
	LX7-28EDR	Expansion Module, 16 Digital Inputs, 12 Digital Outputs (Relay)	14300
	LX7-28EDT	Expansion Module, 16 Digital Inputs, 12 Digital Outputs (Transistor)	13900

LX 70 Series PLC:

- Modular structure with variety of I/O modules
- Fast & powerful processors to control upto 384 I/O points
- Built-in PID for process control

LX 700 Series PLC:

- Modular structure with high density I/O modules
- Fast & powerful processors to control upto 1600 I/O points
- Distributed I/O configuration using Remote I/O master & slave

Lμ1000 Programmable Smart Relay

- On board Programming / editing LCD screen and function keys
- LCD screen can be used as an HMI for data entry as well as for viewing alarms
- A power packed compact unit with Timers, Counters, Analog Comparalors, Text Display, Time Switches and many more
- Expandable upto 48 I/O with 3 Expansion Units
- Programming upto 250 Lines
- Battery backed up Flash Memory
- DIN rail Mounting
- Built-in RS232 Modbus port
- Optional RS485 Modbus port
- Power up Option : 230V AC, 24V DC



Type	Cat. No.	Description	M.R.P. (₹) Per Unit
Lμ1000 Programmable Smart Relay	L1000-A12BR	AC Powered Base Module, 8 Digital Inputs, 4 Digital Outputs (Relay)	7500
	L1000-A12ER	AC Powered Expansion Module, 8 Digital Inputs, 4 Digital Outputs (Relay)	4100
	L1000-D12BR	DC Powered Base Module, 8 Digital Inputs**, 4 Digital Outputs (Relay)	6800
	L1000-D12ER	DC Powered Expansion Module, 8 Digital Inputs**, 4 Digital Outputs (Relay)	4100
	L1000-USBP	USB Programming Cable	1150
	L1000-MEMBK	Memory Card for storing Program	900
	L1000-RS232	RS232 Cable for Communication on Modbus	1550
	L1000-485AC	AC Powered, RS485 module for Modbus Communication	1700
	L1000-485DC	DC Powered, RS485 module for Modbus Communication	2500

** In DC Modules, 2 Inputs can either be configured as Analog Inputs with 10 Bit Resolution (0-10 V DC) or can be Used as Digital Inputs

Human Machine Interface (HMI)

- Available from 3" to 15" in 8 models
- Touch LCD interface
- Modbus Serial, Ethernet, Field bus Communication
- Supports various Fonts and Graphics
- Supports various languages - Japanese, Korean etc
- Multiple PLCs, Controllers connectivity. Communication with ACB, MCCB, Energy Meter
- Advanced features: Multy - Language, Graphic, Extended Alarms, Recipe, Data Logging, Printing, Password protection, Trends
- Supports scripting



Type	Cat. No.	Description	M.R.P. (₹) Per Unit
1	LX-TEXTMATE	DC Powered, 3", 8-Line Alphanumeric Text Display	10400
2	S04TDAA	4.3" Wide 65536 Color TFT, SRAM, 480X272, 6M Memory(Serial only), DC powered	20000
3	E05TDAA	5.7" 65536 Color TFT, SRAM, 320X240, (Serial/USB/CF/Ethernet), DC powered	50000
4	S07TDAA	7" Wide 65536 Color TFT, SRAM, 800X480, 26M Memory (Serial only), DC powered	29000
5	E08TDAA	8.4" 65536 Color TFT, SRAM, 640*480, (Serial/USB/CF/Ethernet), DC powered	65000
6	E10TDAA	10.4" 65536 Color TFT, SRAM, 800x600, (Serial/USB/CF/Ethernet), DC powered	85000
7	F12TAAA	12.1" 65536 Color TFT, SRAM, 800x600, (Serial/USB/CF/Ethernet, Option: Profibus slave), AC powered	150000
8	F15TAAA	15" 65536 Color TFT, SRAM, 1024x768, (Serial/USB/CF/Ethernet, Option: Profibus slave), AC powered	200000

Selection Chart: Fuse Protected Feeders

TYPE '2' Co-ordination, Iq=50 kA at 415V, 3Ø, 50 Hz as per IS/IEC 60947-4-1 standard

- The Full Load Current (FLC) indicated for 3-phase motors are of 'squirrel-cage Induction motors' at full load.
- Contactors / S-D-Fs indicated are of the minimum ratings. Higher rating of contactors and S-D-Fs can be used.
- Selection chart is for standard 3-phase, squirrel cage motor with average power factor and efficiency.
- Selection is valid only for complete L&T combinations.
- Compliance to Type '2' co-ordination is not assured in case these combinations are changed to accommodate another brand / rating of products like S-D-F / Fuse etc.
- All S-D-F ratings are AC-23A as per IS/IEC 60947-3, IEC 60947-3 & EN 60947-3
- Normal motor starting time (<=5 Sec) is assumed. Selection for motors with longer starting times can be made available on request.

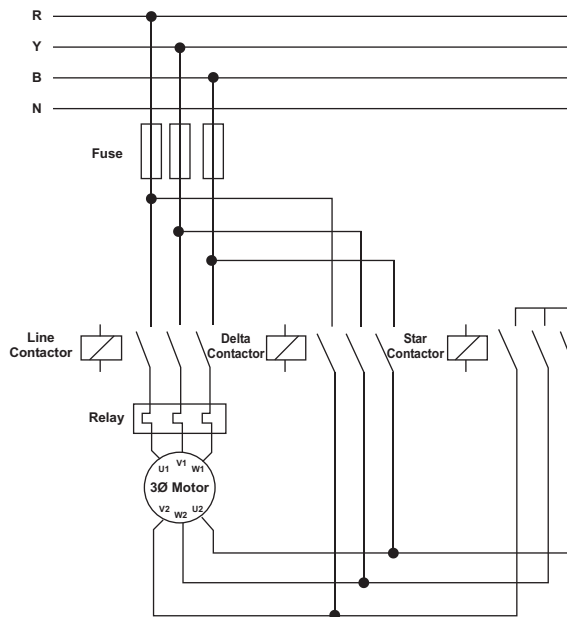
DOL STARTER FEEDERS

Motor: 3Ø, 415V, 50 Hz			Contactor Type	Overload Relay		Nominal Backup fuse		S - D - F
hp	kW	In (A)		Type	Range (A)	Type	Rating (A)	
0.125	0.09	0.4	MNX 9	MN 2	0.3 - 0.5	HF	2	FN 32 / FNX 32
0.16	0.12	0.45	MNX 9	MN 2	0.3 - 0.5	HF	2	FN 32 / FNX 32
0.2	0.15	0.57	MNX 9	MN 2	0.45 - 0.75	HF	2	FN 32 / FNX 32
0.25	0.19	0.75	MNX 9	MN 2	0.6 - 1.0	HF	4	FN 32 / FNX 32
0.33	0.25	0.9	MNX 9	MN 2	0.6 - 1.0	HF	4	FN 32 / FNX 32
0.5	0.37	1.2	MNX 9	MN 2	0.9 - 1.5	HF	6	FN 32 / FNX 32
0.75	0.55	1.6	MNX 9	MN 2	1.4 - 2.3	HF	6	FN 32 / FNX 32
1	0.75	2.1	MNX 9	MN 2	1.4 - 2.3	HF	8	FN 32 / FNX 32
1.5	1.1	2.7	MNX 9	MN 2	2.0 - 3.3	HF	10	FN 32 / FNX 32
1.75	1.3	3	MNX 9	MN 2	2.0 - 3.3	HF	10	FN 32 / FNX 32
2	1.5	3.5	MNX 9	MN 2	3 - 5	HF	16	FN 32 / FNX 32
2.5	1.8	4.8	MNX 9	MN 2	4.5 - 7.5	HF	16	FN 32 / FNX 32
3	2.25	5	MNX 9	MN 2	4.5 - 7.5	HF	16	FN 32 / FNX 32
4	3	6.4	MNX 9	MN 2	4.5 - 7.5	HF	20	FN 32 / FNX 32
5	3.7	7.9	MNX 9	MN 2	6 - 10	HF	20	FN 32 / FNX 32
5.5	4	8.5	MNX 9	MN 2	6 - 10	HF	20	FN 32 / FNX 32
6	4.5	9	MNX 12	MN 2	6 - 10	HF	25	FN 32 / FNX 32
7.5	5.5	11.2	MNX 12	MN 2	9 - 15	HF	32	FN 32 / FNX 32
10	7.5	14.8	MNX 18	MN 2	9 - 15	HF	32	FN 32 / FNX 32
12.5	9.3	19	MNX 25	MN 2	14 - 23	HF	50	FN 63 / FNX 63
15	11	22	MNX 25	MN 2	14 - 23	HF	63	FN 63 / FNX 63
17.5	13	24	MNX 32	MN 2	20 - 33	HF	63	FN 63 / FNX 63
20	15	29	MNX 32	MN 2	20 - 33	HF	63	FN 63 / FNX 63
25	18.6	35	MNX 40	MN 2	24 - 40	HN, 000*	80	FN 100 / FNX 100 *
30	22.5	40	MNX 45	MN 5	30 - 50	HN, 000*	80	FN 100 / FNX 100 *
35	26	47	MNX 70	MN 5	30 - 50	HN, 000*	100	FN 100 / FNX 100 *
40	30	55	MNX 70	MN 5	45 - 75	HN, 000*	100	FN 100 / FNX 100 *
45	33.5	60	MNX 70	MN 5	45 - 75	HN, 000*	100	FN 100 / FNX 100 *
50	37	66	MNX 80	MN 5	45 - 75	HN, 00	125	FN 125 / FNX 125
60	45	80	MNX 95	MN 5	66 - 110	HN, 00	125	FN 125 / FNX 125
75	55	100	MNX 110	MN 5	66 - 110	HN, 00 #	160	FN 160 / FNX 160 #
90	67.5	120	MNX 140	MN 12	90 - 150	HN, 0	200	FN 200 / FNX 200
100	75	135	MNX 140	MN 12	90 - 150	HN, 0	200	FN 200 / FNX 200
110	80	139	MNX 185	MN 12	90 - 150	HN, 0	200	FN 200 / FNX 200
125	90	165	MNX 185	MN 12	135 - 225	HN, 1	250	FN 250 / FNX 250
150	110	200	MNX 225	MN 12	135 - 225	HN, 1	250	FN 250 / FNX 250
175	130	230	MNX 265	MN 12	180 - 300	HN, 1	315	FN 315 / FNX 315
197	147	260	MNX 265	MN 12	180 - 300	HN, 2	400	FN 400 / FNX 400
200	150	275	MNX 325	MN 12	180 - 300	HN, 2	400	FN 400 / FNX 400
215	160	280	MNX 325	MN 12	180 - 300	HN, 2	400	FN 400 / FNX 400
225	168	300	MNX 325	MN 12	270 - 450	HN, 2	400	FN 400 / FNX 400
245	180	320	MNX 325	MN 12	270 - 450	HN, 2	400	FN 400 / FNX 400
270	200	340	MNX 400	MN 12	270 - 450	HN, 3	500	FN 630 / FNX 630
300	225	385	MNX 550	MN 12	270 - 450	HN, 3	500	FN 630 / FNX 630
335	250	425	MNX 550	MN 12	270 - 450	HN, 3	500	FN 630 / FNX 630
400	300	500	MNX 550	MN 12L	340 - 570	HN, 3	630	FN 630 / FNX 630
430	315	535	MNX 550	MN 12L	340 - 570	HN, 3	630	FN 630 / FNX 630

* : Only size '000' fuses to be used with FNX 100 S-D-F.

: Only size '00' fuses to be used with FNX 160 S-D-F.

Selection Chart: Fuse Protected Feeders



STAR DELTA STARTER FEEDERS

Ratings at 3Ø, 415V, 50 Hz				Contactor			Overload Relay		Nominal Back up fuse		S - D - F
hp	kW	Current, In (A)									
		Line	Phase	Star	Line	Delta	Type	Range (A)	Type	Rating (A)	
1	0.75	2.1	1.2	MNX 9	MNX 9	MNX 9	MN 2	0.9 - 1.5	HF	4	FN 32 / FNX 32
1.5	1.1	2.7	1.6	MNX 9	MNX 9	MNX 9	MN 2	1.4 - 2.3	HF	6	FN 32 / FNX 32
2	1.5	3.5	2.0	MNX 9	MNX 9	MNX 9	MN 2	1.4 - 2.3	HF	6	FN 32 / FNX 32
3	2.25	5	2.9	MNX 9	MNX 9	MNX 9	MN 2	2 - 3.3	HF	8	FN 32 / FNX 32
4	3	6.4	3.7	MNX 9	MNX 9	MNX 9	MN 2	3 - 5	HF	10	FN 32 / FNX 32
5	3.75	7.9	4.6	MNX 9	MNX 9	MNX 9	MN 2	3 - 5	HF	16	FN 32 / FNX 32
6	4.5	9	5.2	MNX 9	MNX 9	MNX 9	MN 2	4.5 - 7.5	HF	16	FN 32 / FNX 32
7.5	5.5	11.2	6.5	MNX 9	MNX 9	MNX 9	MN 2	4.5 - 7.5	HF	20	FN 32 / FNX 32
10	7.5	14.8	8.5	MNX 9	MNX 9	MNX 9	MN 2	6 - 10	HF	20	FN 32 / FNX 32
12.5	9.3	19	11.0	MNX 9	MNX 12	MNX 12	MN 2	9 - 15	HF	32	FN 32 / FNX 32
15	11	22	12.7	MNX 12	MNX 18	MNX 18	MN 2	9 - 15	HF	32	FN 32 / FNX 32
20	15	29	16.7	MNX 12	MNX 25	MNX 25	MN 2	14 - 23	HF	40	FN 63 / FNX 63
25	18.6	35	20.2	MNX 18	MNX 25	MNX 25	MN 2	14 - 23	HF	50	FN 63 / FNX 63
30	22.5	40	23.1	MNX 18	MNX 25	MNX 25	MN 2	20 - 33	HF	63	FN 63 / FNX 63
35	26	47	27.1	MNX 25	MNX 32	MNX 32	MN 2	20 - 33	HN, 000 *	63	FN 100 / FNX 100 *
40	30	55	31.8	MNX 32	MNX 32	MNX 32	MN 2	24 - 40	HN, 000 *	63	FN 100 / FNX 100 *
45	33.5	60	34.6	MNX 32	MNX 40	MNX 40	MN 2	24 - 40	HN, 000 *	80	FN 100 / FNX 100 *
50	37	66	38.1	MNX 32	MNX 45	MNX 45	MN 5	30 - 50	HN, 000 *	80	FN 100 / FNX 100 *
60	45	80	46.2	MNX 45	MNX 70	MNX 70	MN 5	30 - 50	HN, 000 *	100	FN 100 / FNX 100 *
65	48.5	87	50.2	MNX 45	MNX 70	MNX 70	MN 5	45 - 75	HN, 000 *	100	FN 100 / FNX 100 *
70	52	94	54.3	MNX 45	MNX 70	MNX 70	MN 5	45 - 75	HN, 00	125	FN 125 / FNX 125
75	55	100	57.7	MNX 45	MNX 70	MNX 70	MN 5	45 - 75	HN, 00	125	FN 125 / FNX 125
90	67.5	120	69.3	MNX 80	MNX 80	MNX 80	MN 5	45 - 75	HN, 00 #	160	FN 160 / FNX 160 #
100	75	135	77.9	MNX 80	MNX 95	MNX 95	MN 5	66 - 110	HN, 0	160	FN 200 / FNX 200
125	90	165	95.0	MNX 80	MNX 95	MNX 95	MN 5	66 - 110	HN, 0	200	FN 200 / FNX 200
150	110	200	115.5	MNX 95	MNX 140	MNX 140	MN 12	90 - 150	HN, 1	250	FN 250 / FNX 250
175	130	230	132.8	MNX 110	MNX 140	MNX 140	MN 12	90 - 150	HN, 1	250	FN 250 / FNX 250
200	150	275	158.8	MNX 140	MNX 185	MNX 185	MN 12	135 - 225	HN, 1	315	FN 315 / FNX 315
240	175	310	179.0	MNX 140	MNX 265	MNX 265	MN 12	135 - 225	HN, 2	400	FN 400 / FNX 400
250	185	325	187.6	MNX 140	MNX 265	MNX 265	MN 12	135 - 225	HN, 2	400	FN 400 / FNX 400
275	204	360	207.8	MNX 265	MNX 265	MNX 265	MN 12	135 - 225	HN, 3	400	FN 400 / FNX 400
300	225	385	222.3	MNX 265	MNX 265	MNX 265	MN 12	180 - 300	HN, 3	500	FN 630 / FNX 630
400	300	500	288.7	MNX 265	MNX 325	MNX 325	MN 12	180 - 300	HN, 3	500	FN 630 / FNX 630
450	335	550	317.5	MNX 400	MNX 550	MNX 550	MN 12	270 - 450	HN, 3	630	FN 630 / FNX 630
500	375	615	355.1	MNX 400	MNX 550	MNX 550	MN 12	270 - 450	HN, 3	630	FN 630 / FNX 630

* : Only size '000' fuses to be used with FNX 100 S-D-F.

: Only size '00' fuses to be used with FNX 160 S-D-F.

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	MNX - G MPCBs
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	MNX R - Relays
	MN Spares
Changeover Switches	FGC 125A - 1000A, FG 63
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