



**d sine**

## **Moulded Case Circuit Breakers**

## Introduction

---

Larsen & Toubro infuses engineering with imagination. The Company offers a wide range of advanced solutions in the field of Engineering, Construction, Electrical & Automation, Machinery and Information Technology.

L&T Switchgear, a part of the Electrical & Automation business, is India's largest manufacturer of low voltage switchgear, with the scale, sophistication and range to meet global benchmarks. With over five decades of experience in this field, the Company today enjoys a leadership position in the Indian market with a growing international presence.

It offers a complete range of products including powergear, controlgear, industrial automation, building electricals & automation, reactive power management, energy meters, and protective relays. These products conform to Indian and International Standards.

The **d sine** range, a new generation of MCCBs, stands out due to its state-of-the-art design, contemporary user-friendly features, wide choice of protective releases, ergonomics, aesthetics and compactness.

The **d sine** range complies with the latest standards like IEC 60947-2, EN 60947-2 & IS 13947-2. The products conform to international standards, carry CE markings and are **KEMA** & CB certified. The range is specially designed for tropical conditions, ensuring reliable performance at high ambient and humid environments.

The **d sine** range is designed to meet the changing needs of users after extensive analysis and user feedback. The range can satisfy the most demanding system requirements.

The **d sine** range, complimented by a wide range of accessories, offer total solution to customer applications ensuring operational safety, reliability and versatility.



Switchgear Factory, Mumbai

	<b>Page No.</b>
Range .....	1
Protection Releases .....	2
State-of-the-art technology .....	5
Accessories .....	7
Technical Data .....	10
Time - Current Characteristic Curves .....	12
Overall Dimensions .....	15



**DN0**

**DN1**

**DN2**

**DN3**

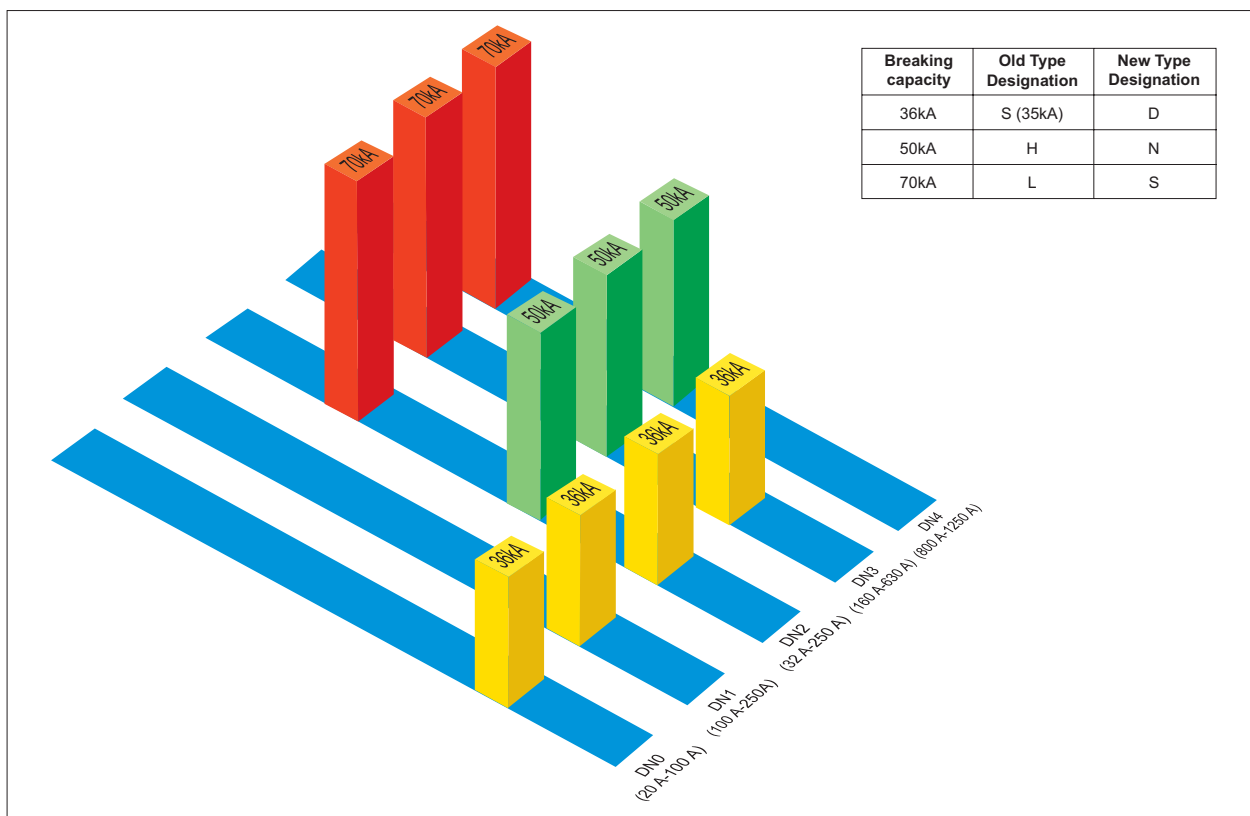
**DN4**

## Features

- ➔ From 20 A to 1250 A
- ➔ 3 Pole & 4 Pole
- ➔ Choice of 36kA/50kA/70kA breaking capacities.
- ➔ With protection releases in Microprocessor, Thermal-Magnetic and only Magnetic
- ➔ MCCBs for motor backup protection
- ➔ MCCBs for distribution and SD versions
- ➔ Manual, rotary or motorised versions
- ➔ Wide range of internal and external accessories

DN0		
Rated Current	20, 25, 32, 40, 50, 63, 80, 100 A	
Release	Thermal-Magnetic	
DN1		
Rated Current	100, 125, 160, 200, 250 A	
Release	Thermal-Magnetic	
DN2		
Rated Current	32, 40, 50, 63, 80, 100, 125, 160, 200, 250 A	40, 63, 100, 160, 250 A
Release	Thermal-Magnetic	Microprocessor
DN3		
Rated Current	320, 400, 500, 630 A	160, 250, 400, 630 A
Release	Thermal-Magnetic	Microprocessor
DN4		
Rated Current	800, 1000, 1250 A	
Release	Microprocessor	

## Breaking Capacities



Note : Since there is no change in the constructional aspect of the MCCBs, the product Certification with old designation remain valid with new type designation.

## Thermal-Magnetic Release

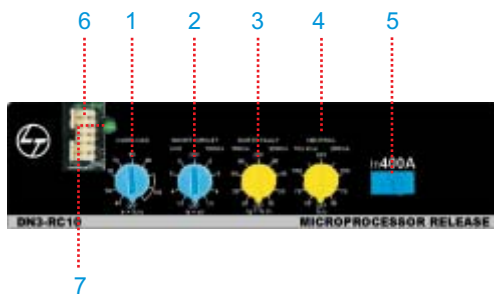


Protection	Settings	
	DN0 & DN1	Dn2 & DN3
Overload	80% - 100% $I_n$	80% - 100% $I_n$
Short circuit	9 $I_n$ (fixed)	6 - 10 $I_n$
Earth fault	External	External

### Features of Thermal-Magnetic Release

- Adjustable overload settings
- Adjustable short circuit settings
- True RMS sensing
- No contact with live parts

## Microprocessor Release




### Features of RC10 Microprocessor Release

- Overload protection with inverse time delay ①
- Short circuit protection with selectable time delay ②
- Instantaneous over ride protection
- Earth fault protection with selectable time delay ③
- Neutral protection with selectable time delay ④
- Push to trip button ⑤
- Port for release testing and thermal memory bypass ⑥
- Power ON LED ⑦
- Self powered protections
- True RMS sensing

RC10	
Rated Current $I_n$ (A)	From 40 to 1250 A
Overload (Phase)	
Current setting, $I_r$ ( $I_r = X I_n$ )	OFF, 0.4 to 1.0 in steps of 0.1
Time delay, $t_r$ (Inverse)	10 sec at $6 I_r$
Protection mode	ON / OFF
Overload (Neutral)	
Current setting, $I_r$ ( $I_r = X I_n$ )	0.5, 0.75 & 1.00 $I_r$
	Inverse 10 sec at $6 I_r$ / Fixed 200ms
Protection mode	ON / OFF
Short Circuit	
Current setting, $I_s$ ( $I_s = X I_r$ )	1.5, 4, 6 & $8 I_r$
Time delay, $t_s$	Inst. / 100 msec
Protection mode	ON / OFF
Instantaneous Over ride	
Current setting, $I_p$	DN2- $8 I_n$ , DN3-400-12 $I_n$ , DN3-630-8 $I_n$ , DN4- $8 I_n$
Earth Fault	
Current setting, $I_g$	0.2 to 0.5 $I_n$ steps of 0.1
Time delay, $t_g$	100 / 200 msec
Protection mode	ON / OFF

## Microprocessor Release



### Features of RC20 - Communication Capable

- ◆ Communication using RS 485
- ◆ Power on LED
- ◆ Backlit LCD display
- ◆ Scroll buttons
- ◆ Push to trip button
- ◆ All features of RC10 release are incorporated
- ◆ Metering for current parameters
- ◆ Protection against unbalanced load / single phasing
- ◆ I<sup>2</sup>t protection
- ◆ Neutral protection
- ◆ Cold load protection
- ◆ User friendly navigation system
- ◆ Self powered
- ◆ MODBUS RTU protocol

RC20	
Rated Current In (A)	From 40 to 1250 A
Overload (Phase)	
Current setting (A), $I_r$ ( $I_r = xI_n$ )	0.4 to 1.0 in steps of 0.1
Time delay, $t_r$ (s) (Inverse)	3, 6, 10, 15, 30 at $6I_r$
Protection mode	ON / OFF
Preset trip alarm setting	0.8 to $1.0I_r$ in steps of 0.05
Thermal memory	ON / OFF
Overload (Neutral)	
Current setting (A), $I_r$	50%, 100%, 150% $I_r$
Protection mode	ON / OFF
Short Circuit	
Current setting (A), $I_s$	1.5, 4, 6, $8I_r$
Time delay $t_s$ (ms)	For – I <sup>2</sup> t OFF 20 to 200 in steps of 20
	For – I <sup>2</sup> t ON 60 to 200 in steps of 20
Protection mode	ON / OFF
Preset trip alarm setting	0.8 to 1.0 times $I_s$ in steps of 0.05 $I_s$
Cold load pickup	Enable / Disable
Instantaneous	
Instantaneous	1.5 to $8I_n$ in steps of $0.5I_n / I_r$
Protection mode	ON / OFF
Cold load pickup	Enable / Disable
Instantaneous Over ride	
Current setting (A), $I_p$	DN2- $8I_n$ , DN3-400- $12I_n$ , DN3-630- $8I_n$ , DN4- $8I_n$
Earth Fault	
Current setting (A), $I_g$	0.2 to $0.5I_n$ steps of $0.1I_n$
Time delay (ms), $t_g$	0.1, 0.2, 0.5, 1, 3 sec.
Preset trip alarm setting	0.8 to $1.0 I_g$ in steps of 0.05
Protection mode	ON / OFF
Cold load pickup	Enable / Disable

## Additional Features of RC20

Current Unbalance	
Current setting (A) $xI_n$	10% to 100% $I_n$ in steps of 5%
Time delay (s)	1 to 10 in steps of 0.5
Protection mode	ON / OFF
Cold load pickup	Enable / Disable
Temperature Rise	
Alarm / Trip	At 80°C / At 100°C
Metering	
Current	Phase, Neutral and Earth
Display	Backlit LCD
Communication*	
Protocol	MODBUS RTU
Link used	RS 485
Event records	Pickup, Trip, Alarm upto 128 records-volatile memory
Trip history	Last 5 trips records - non volatile memory
Trip counter record	Counts for total number of trips

### Only Magnetic release (for Motor backup protection)

- ➔ Only magnetic with instantaneous protection upto 10I<sub>n</sub>
- ➔ Fault level protection for complete starter upto 50kA
- ➔ Type 2 charts available for DOL & Star/delta starters

Frame	250 A	400 A	630 A
Type	DN2-250M	DN3-400M	DN3-630M
Current Range (A)	100-250	320-400	500-630
Poles	3P only		
I <sub>cu</sub> (kA) @ 415V AC, 50Hz	50		

### Switch Disconnecter version (without protection release)

- ➔ Can be used as switching or Isolator devices
- ➔ Higher withstand capacities
- ➔ Wide range of accessories for remote operation

Frame	250 A	400 A	630 A
Type	DN2-250SD	DN3-400SD	DN3-630SD
Current Range (A)	100-250	320-400	500-630
Poles	3/4	3/4	3/4
I <sub>cw</sub> (kA) for 0.5/1 sec.	3.6	6	6

\* To establish communication with computer every MCCB with RC20 will require a communication module.

→ **Faster tripping**

The unique speed contact system accelerates the opening of contacts during short circuit. This ensures faster tripping an ultimate current limiting feature. The result-very low let-through, cut-off current and fault clearing time

→ **Mechanical Anti-reclosing**

This unique feature ensures that under short circuit conditions, the contacts open and latch even before the release gives a trip command to the mechanism. This avoids contact re-closing and bounce

→ **Low watt loss**

The entire current carrying path is optimally designed to achieve very low watt loss



→ **Positive Isolation**

The MCCB knob indicates the true position of the contacts

→ **Double Insulation**

The internal accessories are housed in insulated casings to ensure first level of insulation. When the front cover is opened for the fixing of internal accessories, the MCCB is totally insulated ensuring the double insulation

→ **Marking**

CE Marking ensures use of superior engineering plastic, meeting all requirements of flammability and glow wire testing path is optimally designed to achieve very low watt loss

Extra Grip on Handle



- ➔ **Common Internal accessories**  
The internal accessories remain same across DN2 / DN3 / DN4 range\* and they are easy to install snap fit type

- ➔ **No load line bias**  
Either side of MCCB terminal can be used as load or line

- ➔ **Terminal finger proofing**  
Front terminal plates conceal the terminals to prevent human contact thus achieving complete finger proofing
- ➔ **Release shrouding**  
Release is shrouded from the front thus preventing tampering by unauthorized person
- ➔ **Safer release adjustments**  
No live parts are in contact during release adjustments

- ➔ **Common front adjustments for protection release**  
Overload & short circuit setting can be adjusted from front using a common knob for all the poles
- ➔ **Visibility**  
Push to trip button and release ratings are visible even when release plate is fitted

\* Except under voltage release.

## Internal Accessories



**Auxiliary Contact**

**d sine** Range of MCCBs are offered with snap-fit type, easily installable internal accessories. There is no need to open main cover and no live parts are accessed during installation. TAC, Aux+TAC to be fitted in the right cavity & under voltage release to be fitted in left cavity.

### List of Internal Accessories

- ➔ Auxiliary Contact 1 C/O
- ➔ Auxiliary Contact 2 C/O
- ➔ Trip Alarm Contact
- ➔ Auxiliary & Trip Alarm Contact
- ➔ Shunt Release
- ➔ Under Voltage Release (suitable for electrical interlocking)



**MCCB with mid cover opened & Internal accessories fitted**

## External Accessories

### Extended Rotary Handle (Panel Mounted)

- ➔ ROM mounts directly on MCCB without removal of mid cover
- ➔ Clear ON/OFF/TRIP indication
- ➔ Clear view of MCCB rating label with ROM mounted
- ➔ Direct access to push to trip button with ROM mounted
- ➔ IP 54 degree of protection with extended rotary handle
- ➔ Unique coupling to allow  $\pm 3\text{mm}$  tolerance
- ➔ Door interlock in ON position, with defeat facility
- ➔ Door interlock in OFF condition with padlock feature
- ➔ Auto restoration of door interlock
- ➔ External keylock for mechanical interlocking



**Extended Rotary Handle: Panel Mounted**



**Panel Door Mounted Key lock**  
(To be used along with extended rotary handles)



### Rotary Operating Mechanism

The rotary operating mechanism (ROM) for **d sine** MCCBs are available in Direct & Extended versions.

### Direct rotary handle (MCCB mounted)

These versions are available for the entire family of **d sine** MCCBs.

### Mechanical Interlocking Schemes

#### 1. Mechanical Interlocking Kit:

Two MCCBs can be interlocked using base plate mechanism, in side-by-side configuration.

##### Features

- ➔ For 3 Pole & 4 Pole versions
- ➔ For DN2 & DN3 frames
- ➔ Site fittable



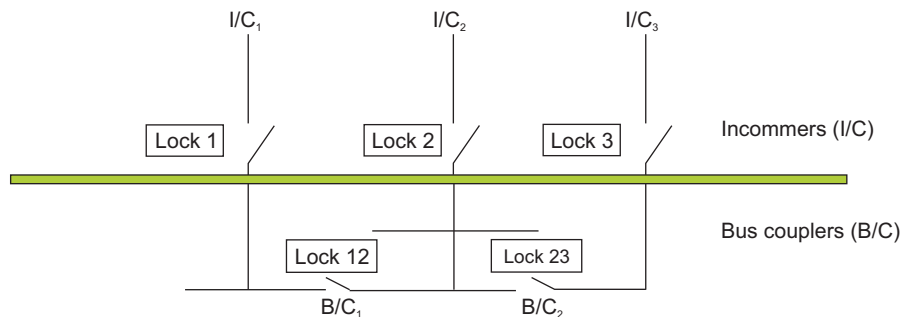
MIL with Base Plate

#### 2. Mechanical Interlocking using Key locks:

For mechanical interlocking through Extended Rotary operating mechanism, a panel mounted key lock is available. The selection of the key lock as per the following details,

2 I/C	Any 1 type of lock for both MCCBs
2 I/C and 1 B/C	Lock 1 and Lock 2 for I/C and Lock 12 for B/C
3 I/C and 2 B/C	Locks 1, 2, 3 for I/Cs and Locks 12, 23 for B/Cs

### Key Lock Selection



Type of lock	Exclusively operable by Key Nos.
1	1
2	2
3	3
12	1, 2 & 12
23	2, 3 & 23

### Stored Energy Electrical Operating Mechanism

**Features**

- ON/ OFF & Charged/Discharged indication
- Foolproof mounting
- Selector switch for Auto/Manual operation
- Padlock facility for locking in OFF position(3 nos locks)
- Resetting time < 250msec & Closing time< 90 msec
- Higher mechanical & electrical endurance
- Back up fuse for extended motor protection
- Easy access to the protection setting on MCCB
- True indication for ON/OFF & Trip



**DN3 SE EOM data sheet**

Operating voltage V AC	240
Operating voltage (%)	85-110%
closing time (ms)	90
opening time (ms)	250
Power consumption (VA)	500
Life/ no of operations	5000
Door cut out (mmXmm)	96X96
IP protection, on the front	IP30
Operating frequency	1/min
Min control impulse time (ms)	200

### External Neutral CTs

**Features**

- Add on accessory for 3P MCCB
- Can be used for 3 phase 4 wire system
- Reliable solution for earth /Neutral fault protection



\* Contact nearest branch for details & availability

# Technical Data

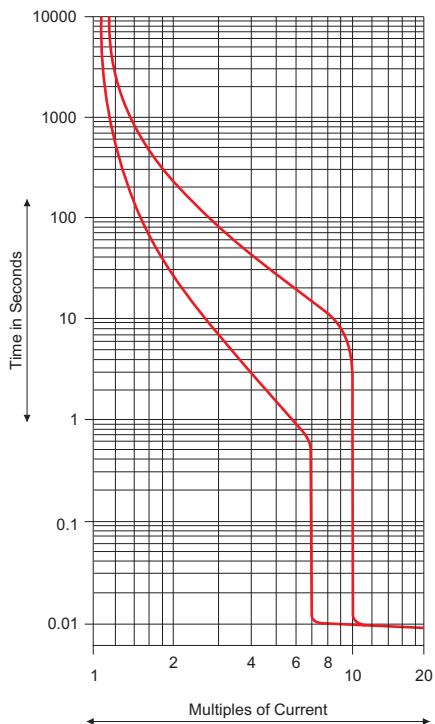


Frame		100 A	250 A	250 A			400 A			630 A			800 / 1000 / 1250 A			
Type		DN0-100	DN1-250	DN2-250			DN3-400			DN3-630			DN4-1250			
		D	D	D	N	S	D	N	S	D	N	S	N	S		
Current Range (A)		20, 25, 32, 40, 50, 63, 80 & 100 A	100, 125, 160, 200, 250 A	32, 40, 50, 63, 100, 125, 160, 200 & 250 A			63, 160, 250, 320, 400			63, 160, 250, 320, 400, 630 A			800, 1000, 1250			
Poles		3 / 4	3	3 / 4			3 / 4			3 / 4			3 / 4			
Impulse withstand Voltage (kV)		6	6	8			8			8			8			
Rated Operational Voltage (V) (MAX)		600	600	690			690			690			690			
Rated Insulation Voltage (V)		690	690	750			750			750			750			
Utilisation Category		A	A	A			A			A			A			
Standard		IEC / EN / IS		IEC / EN / IS			IEC / EN / IS			IEC / EN / IS			IEC / EN / IS			
IEC-60947-2	Icu (kA)	230 / 240 V	65	65	50	70	100	50	70	100	50	70	100	70	100	
		400 / 415 V	36/30	36	36	50	70	36	50	70	36	50	70	50	70	
		500 V	10	10	25	36	42	25	36	42	25	36	42	25	36	
		550 V	8	8	18	25	36	15	20	25	15	20	25	20	25	
		600 V	5	5	16	18	22	12	18	22	12	18	22	16	20	
		690 V	*	*	10	15	20	8	15	20	8	10	15	10	18	
		250 V DC (3P in series)	15	15	15	25	36	15	25	36	15	25	36	-	-	
	500 V DC (3P in series) L/ R<15msec	5	10	5	10	20	5	10	20	5	10	16	-	-		
Ics as % Icu		50%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Life span	Mechanical	30000	10000	25000			15000			15000			8000			
	Electrical @1.0 In	4000	3000	10000			4000			2000			750			
Operating Frequency (Hz)								50 / 60								
Total Opening Time								<10 msec						<20 msec		
Finger-proof Terminals								Yes								
Ambient Temperature								-5° to 55° C								
Storage Temperature								-35° to 70° C								
Mounting Positions								Vertical and 90° in both directions								
Dimensions (W x D x H) mm <sup>3</sup>	3-Pole	75 x 60 x 130	105 x 60 x 165	105 x 96 x 179			140 x 111.5 x 266			140 x 111.5 x 266			240 x 143 x 370			
	4-Pole	100 x 60 x 130	-	140 x 96 x 179			183.5 x 111.5 x 266			183.5 x 111.5 x 266			278 x 143 x 370			
Weight (kg) (3/4 Pole)		1 / 1.25		1.45			2.5 / 3.3			5.5 / 7.2			6 / 7.8		15 / 16	
ACCESSORIES	Internal	Auxiliary Contact	1C/O or 2C/O	1C/O or 2 C/O	1C/O or 2C/O			1C/O or 2C/O			1C/O or 2C/O			1C/O or 2C/O		
		Trip Alarm Contact	1C/O or 2C/O	1C/O or 2 C/O	1C/O			1C/O			1C/O			1C/O		
		Auxiliary & Trip Alarm Contact	1C/O + 1C/O	1C/O + 1 C/O	1C/O + 1C/O			1C/O + 1C/O			1C/O + 1C/O			1C/O + 1C/O		
		Shunt Release \$	240 / 415 V AC 50 / 60 Hz	240 / 415 V AC 50 / 60 Hz	110 / 415 V AC 50 / 60 Hz, 110 / 220 V DC			110 / 415 V AC 50 / 60 Hz, 110 / 220 V DC			110 / 415 V AC 50 / 60 Hz, 110 / 220 V DC			110 / 415 V AC 50 / 60 Hz, 110 / 220 V DC		
		Under Voltage Release	240 V AC 50 Hz	240 V AC 50 Hz	220 - 240 V AC 50 Hz			220 - 240 V AC 50 Hz			220 - 240 V AC 50 Hz			220 - 240 V AC 50 Hz		
	Rotary Operating Mechanism	✓	✓	✓			✓			✓			✓			
External	Electrical Operating Mechanism	x	x	✓			✓			✓			x			
	Earth Fault Release	Available with external GF module with TM release						Available with external GF module with TM release and Inbuilt protection with Microprocessor release								
	Mechanical Interlock	x	x	✓			✓			✓			x			
	Spreader Links	✓	✓	✓			✓			✓			✓			
	Key lock	x	x	✓			✓			✓			✓			
Pad lock through ROM		✓#	✓	✓			✓			✓			✓			

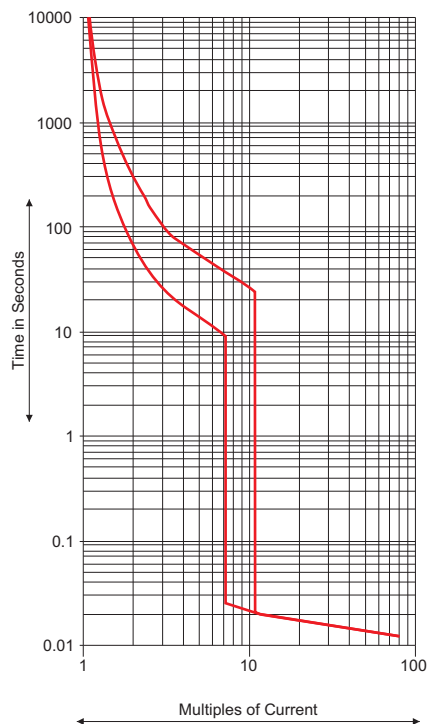
\$ : 'NO' of control contactor to be connected in series for 220V DC application.  
 Note: • Any two internal accessories can be mounted at a time  
 • For special application like capacitor switching, DC please contact nearest branch office  
 • For motor application, use 'M' series MCCBs (DN2M, DN3M)  
 \* Available on request.  
 # Direct Pad locking available

## Thermal-Magnetic Release

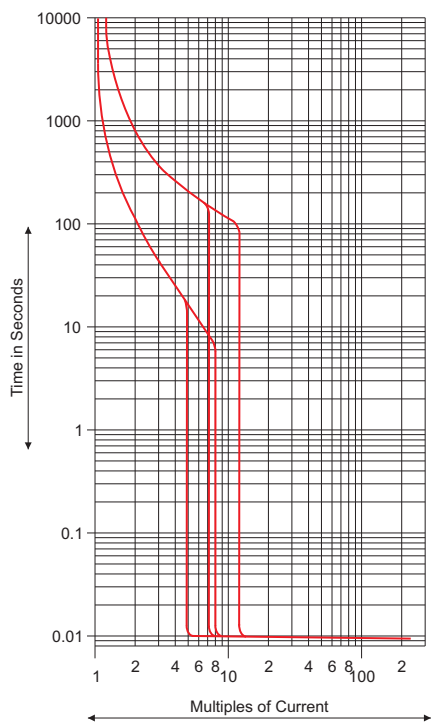
**DN0-100**



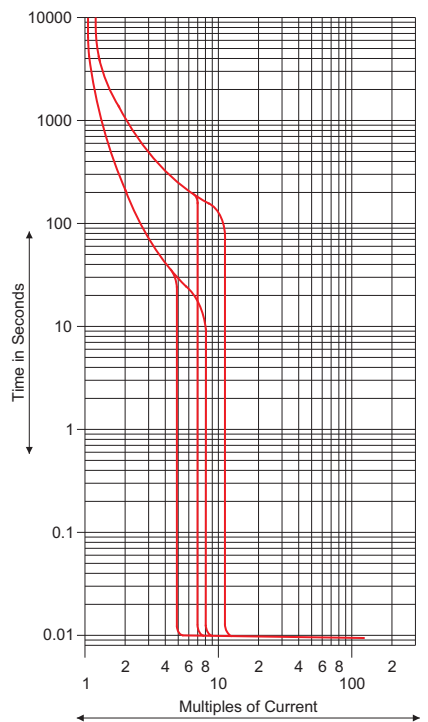
**DN1-250**



**DN2-160/250**

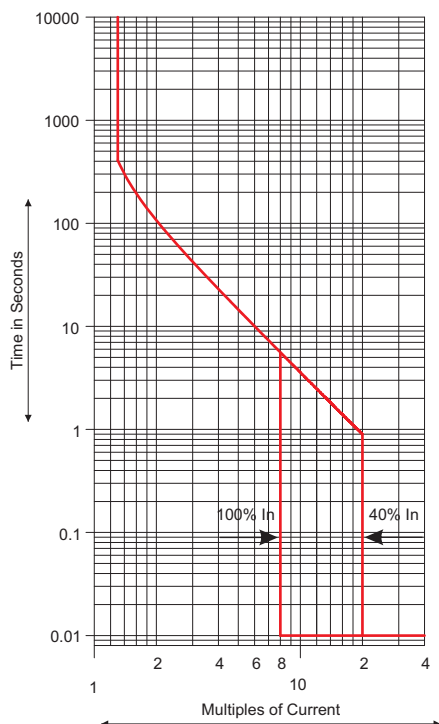


**DN3-400/630**

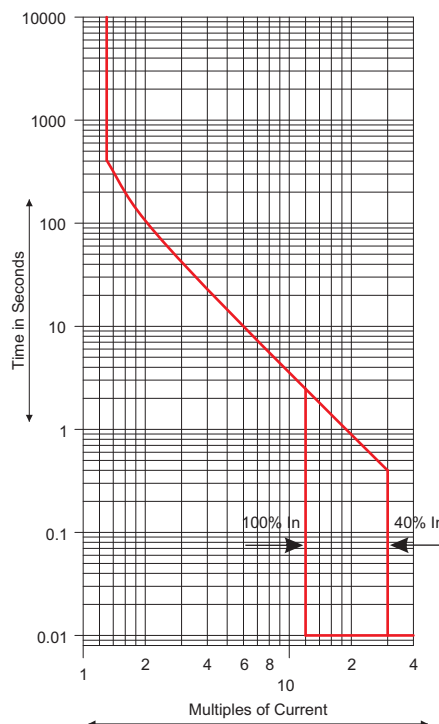


## Microprocessor Release-RC10

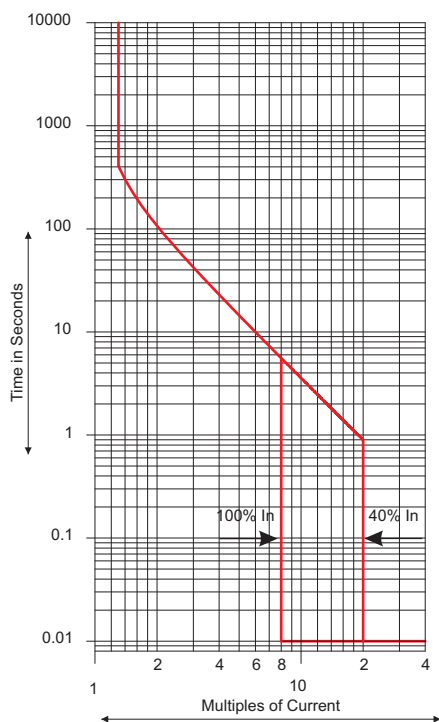
### DN2-250A



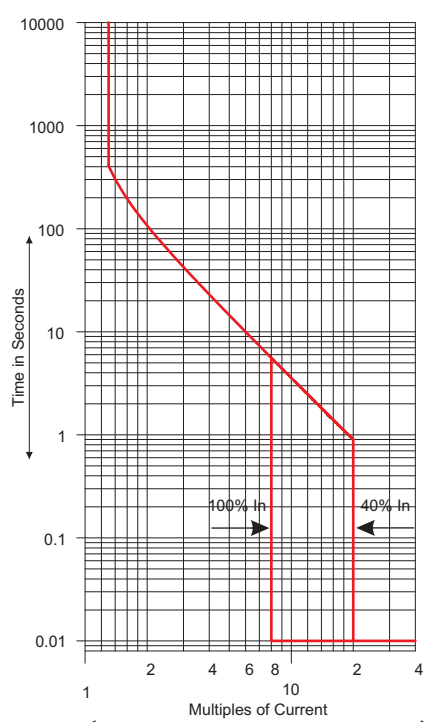
### DN3-400A



### DN3-630A

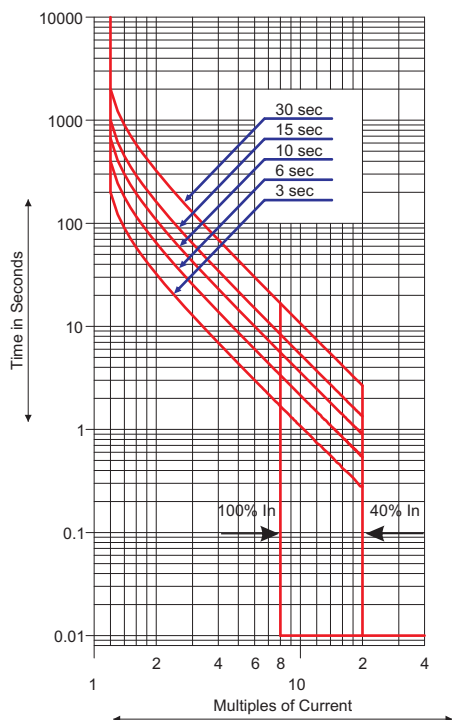


### DN4-1250A

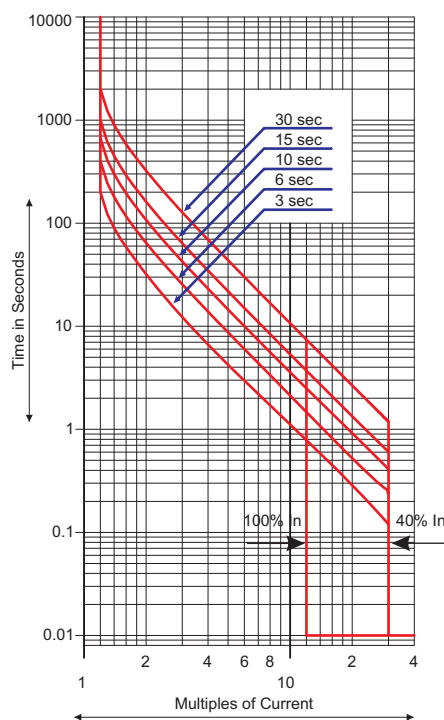


## Microprocessor Release-RC20

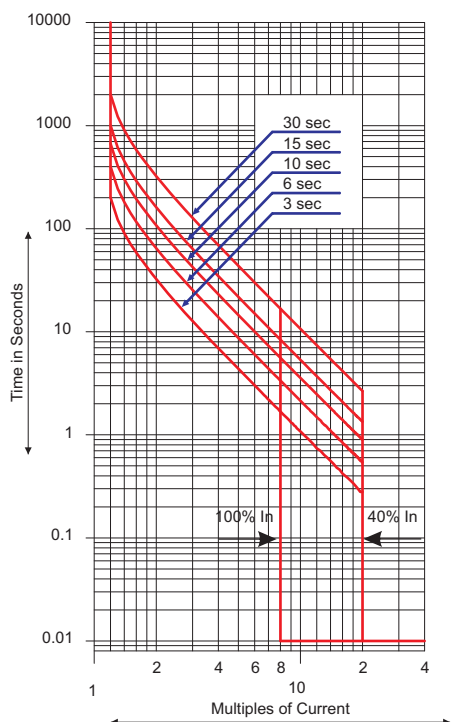
### DN2-250A



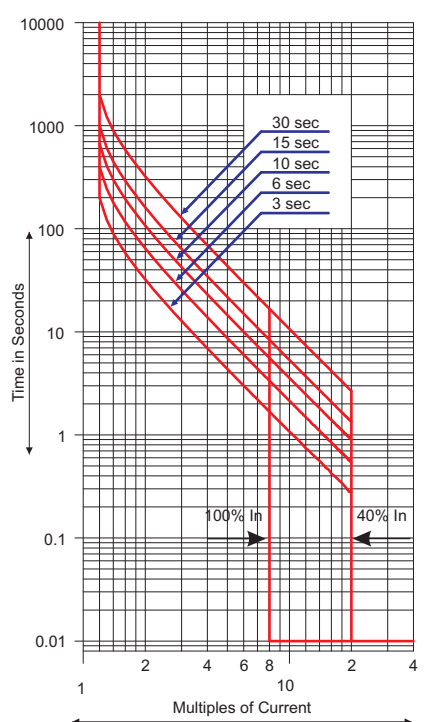
### DN3-400A



### DN3-630A

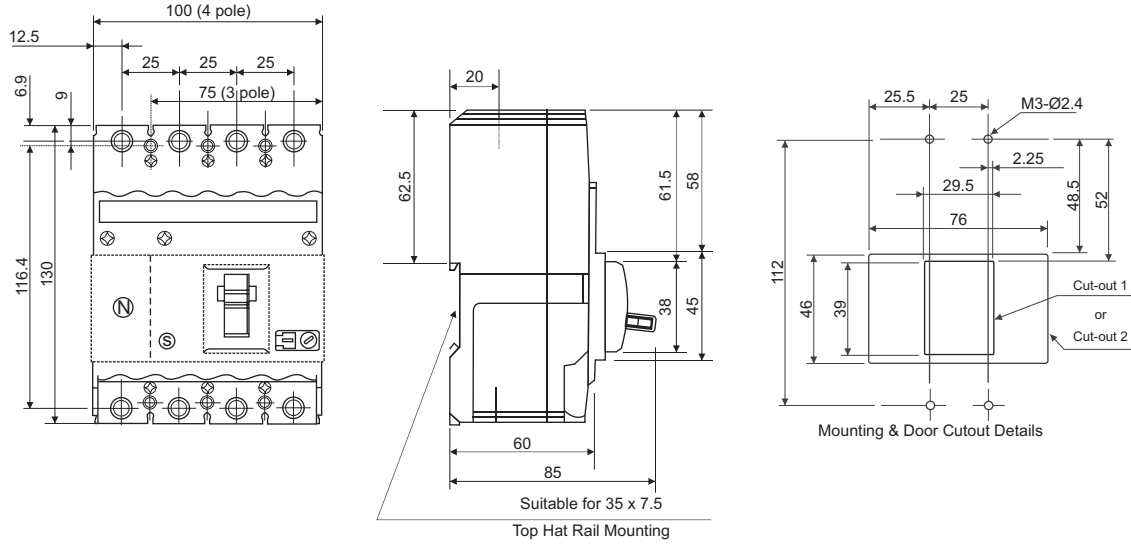


### DN4-1250A

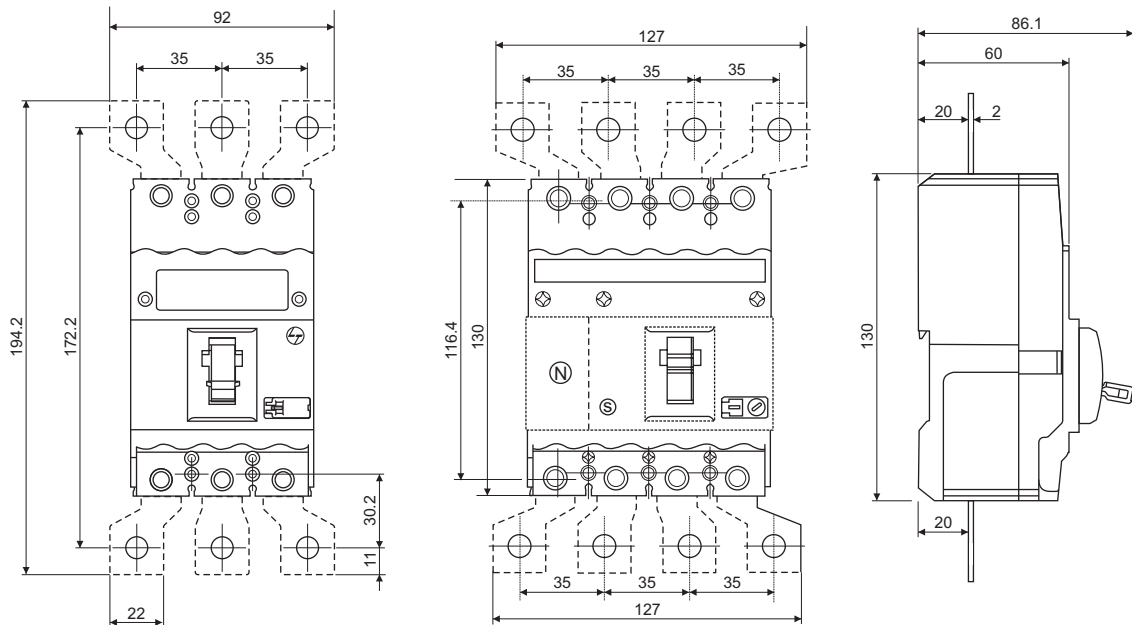




**DN0-100 MCCB**



**DN0-100 with Spreader Links**



Recommended CAT number for DN0 spreaders

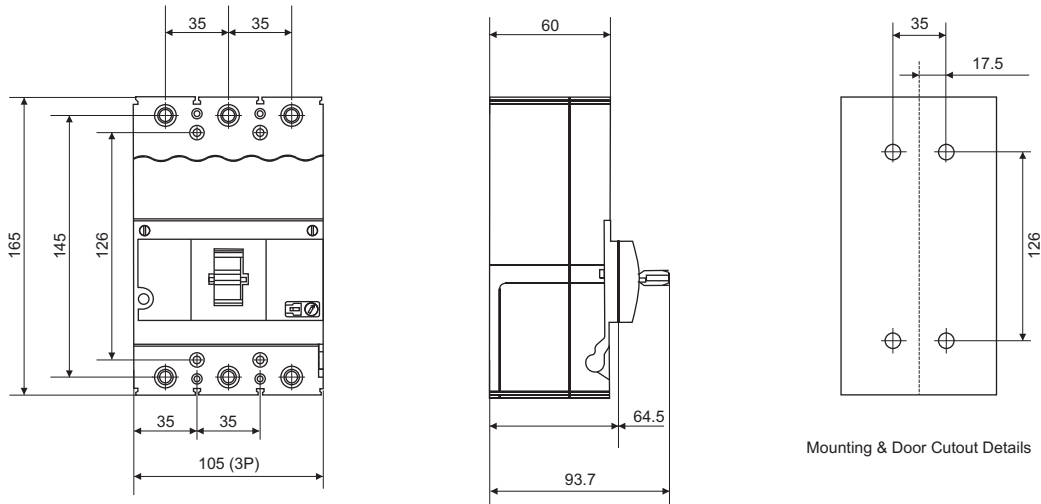
3P	4P
CM977850000	CM979210000

Note : Spreaders are available as spare

Note : Spreaders are available as spare. It is recommended to use spreader links for enhancing termination capacity

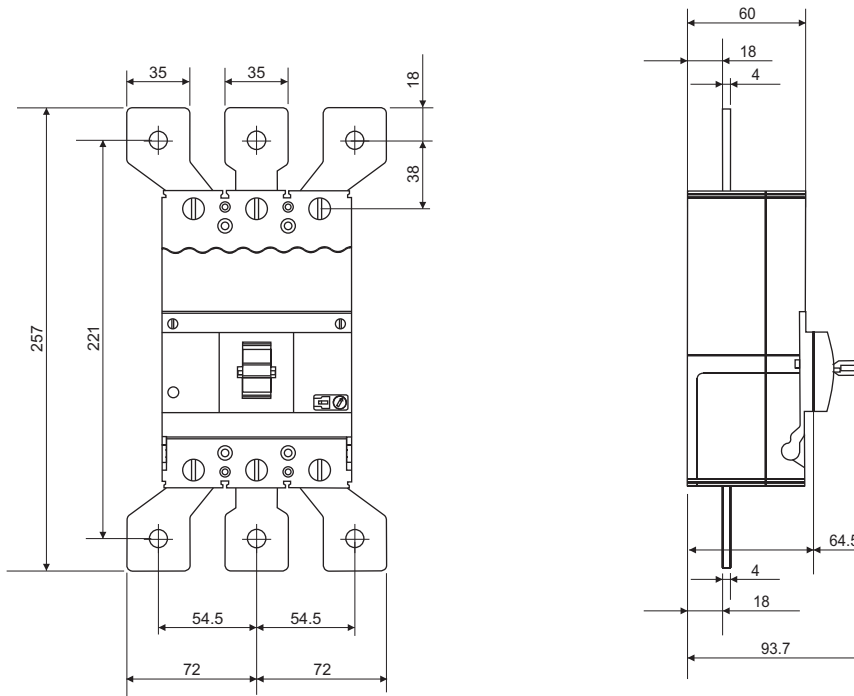
All dimension are in mm

**DN1-250 MCCB**



Mounting & Door Cutout Details

**DN1-250 with Spreader Links**



Spreader Link 3P MCCB

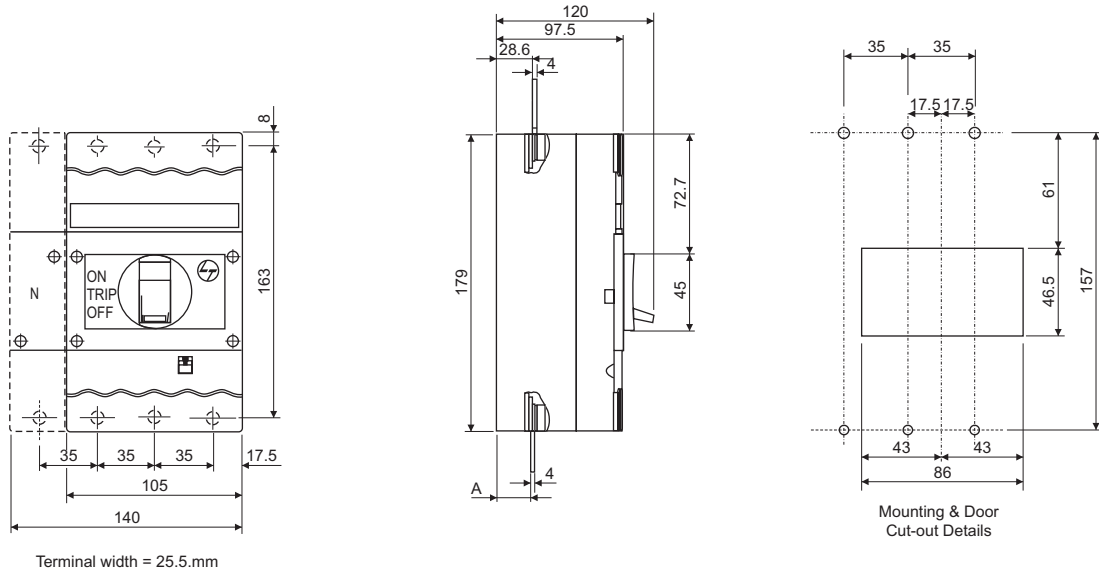
Recommended CAT number for DN1 spreaders

3P	4P
ST980530000	CM920070000

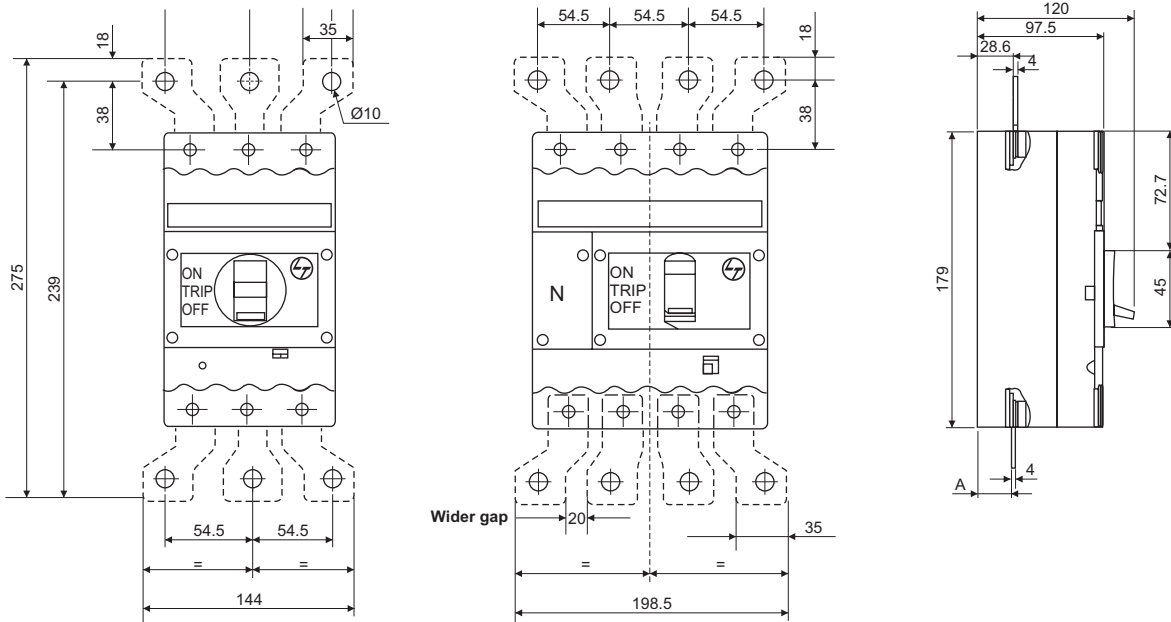
Note : Spreader links are available as spare. It is recommended to use spreader links for enhancing termination capacity.

All dimension are in mm

## DN2-250 MCCB



## DN2-250 with Spreader Links



Rating	Dimension (A)
125-250A TM	26
63-100A TM	25.5
32-50A	26.25
RC breakers	28

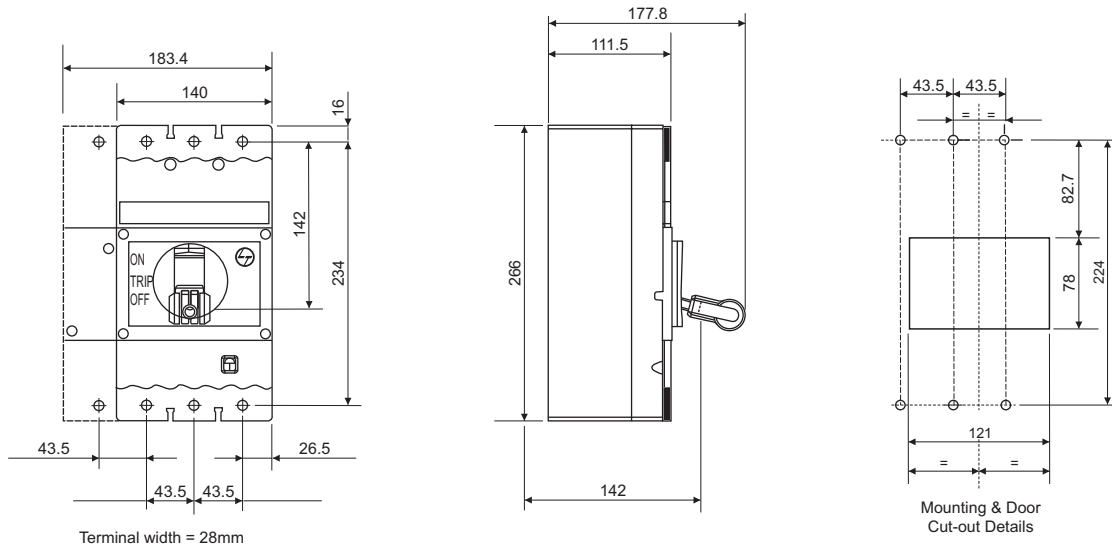
Recommended CAT number for DN2 spreaders

3P	4P
ST980530000	CM920070000

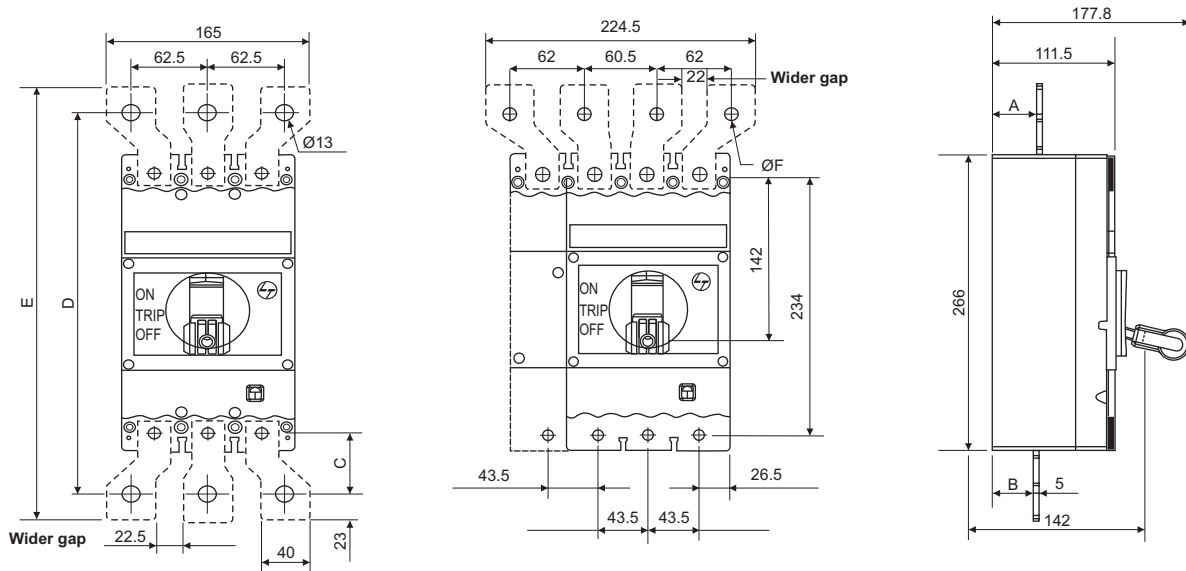
Note : Spreaders are available as spare. It is recommended to use spreader links for enhancing termination capacity.

All dimension are in mm

**DN3-400/630 MCCB**



**DN3-400/630 with Spreader Links**



Type	DN3-400	DN3-630
A	39	41
B	37	38
C	45	55
D	324	344
E	370	390
F	13	11

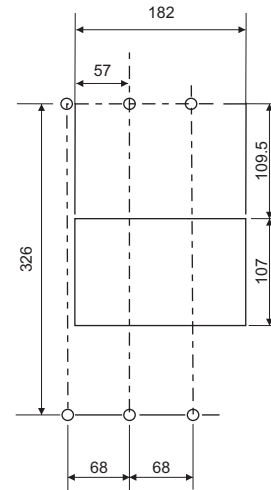
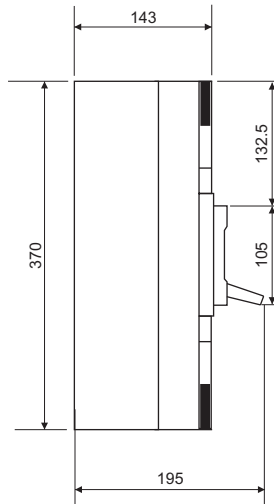
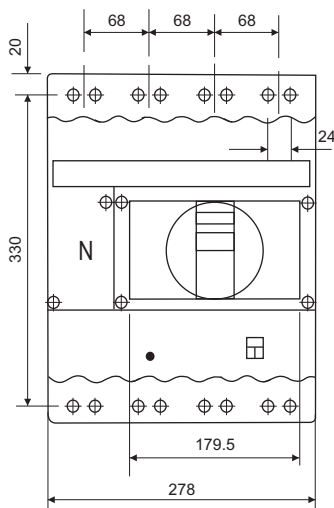
Recommended CAT numbers for DN3 spreaders

Rating	3P	4P
400A	ST980650000	ST980660000
630A	ST980540000	CM920040000

Note : Spreader links are available as spare. It is recommended to use spreader links for enhancing termination capacity.

All dimension are in mm

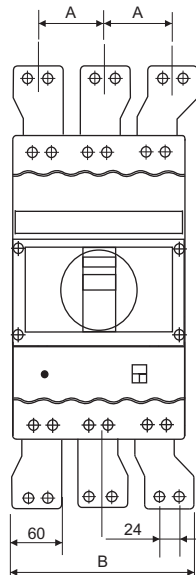
## DN4-800/1000/1250 MCCB



46 (N version)  
42 (S version)

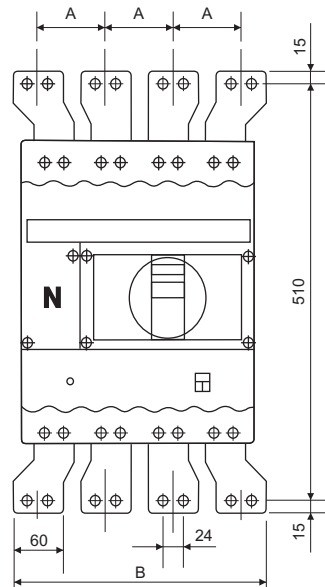
Mounting & Door  
Cut-out Details

## DN4 3 Pole with Spreader Links

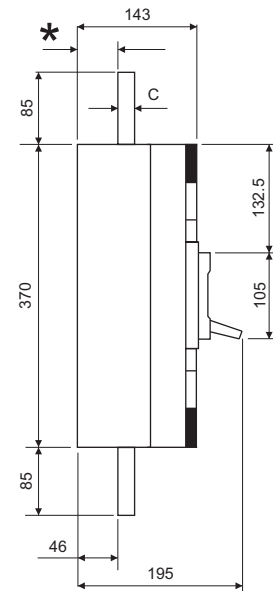


Dimensions

## DN4 4 Pole with Spreader Links



## DN4-800/1000/1250 MCCB



\* - 46 (N version)  
42 (S version)

### 4 Pole Frame

Type	A	B	C
800A	88	324	6
1000/ 1250/ 1600A	80	300	20

### 3 Pole Frame

Type	A	B	C
800A	88	232	6
1000/ 1250/	88	232	20

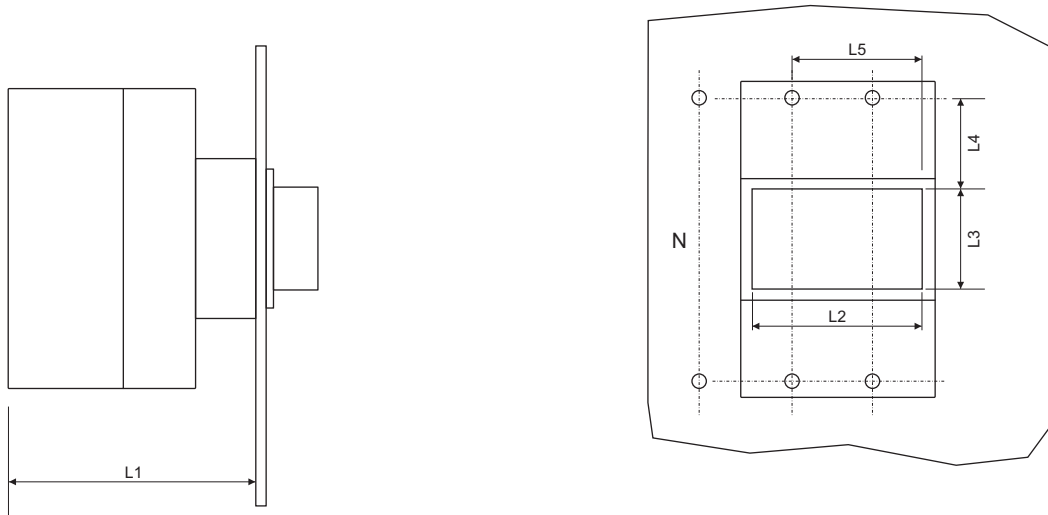
### Recommended CAT numbers for DN4 spreaders

Rating	3P	4P
800A	ST90361O000	ST90362O000
1000A /1250A	ST98055O000	ST98058O000

Note : Spreader links are available as spare. It is recommended to use spreader links for enhancing termination capacity.

All dimension are in mm

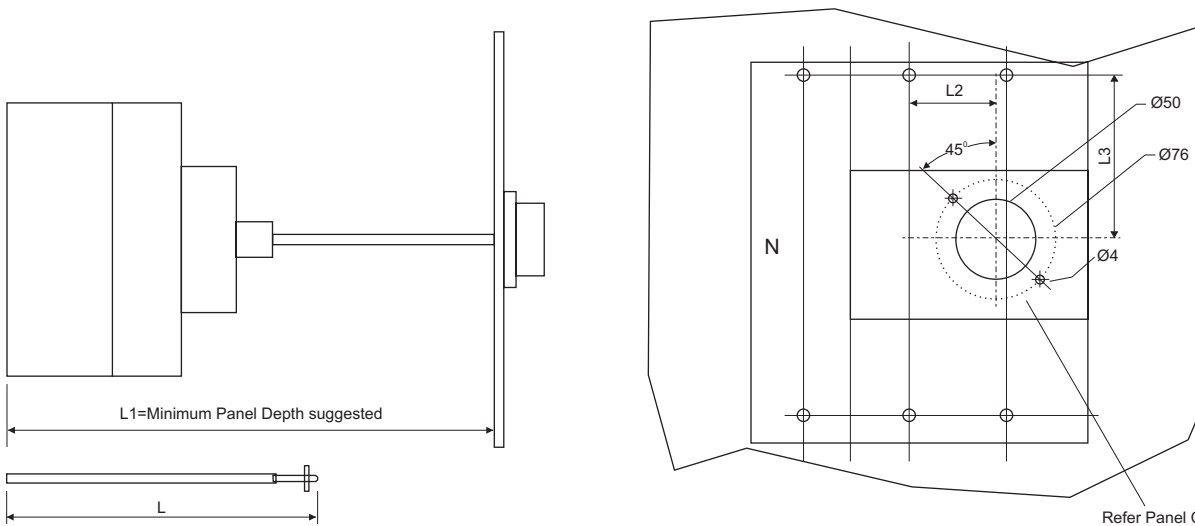
## Direct ROM door cut-out detail



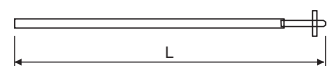
L1 = Mounting Depth  
 L2/L3 = Panel Cut-out  
 L4/L5 = Breaker Mounting Refer

Type	L1	L2	L3	L4	L5
DN0	96.5	58	52	43.5	37
DN1	96.5	73	52	56.5	54
DN2	122	96	63	53	66
DN3	146	121	87	78	82

## Extended ROM door cut-out detail



L1=Minimum Panel Depth suggested



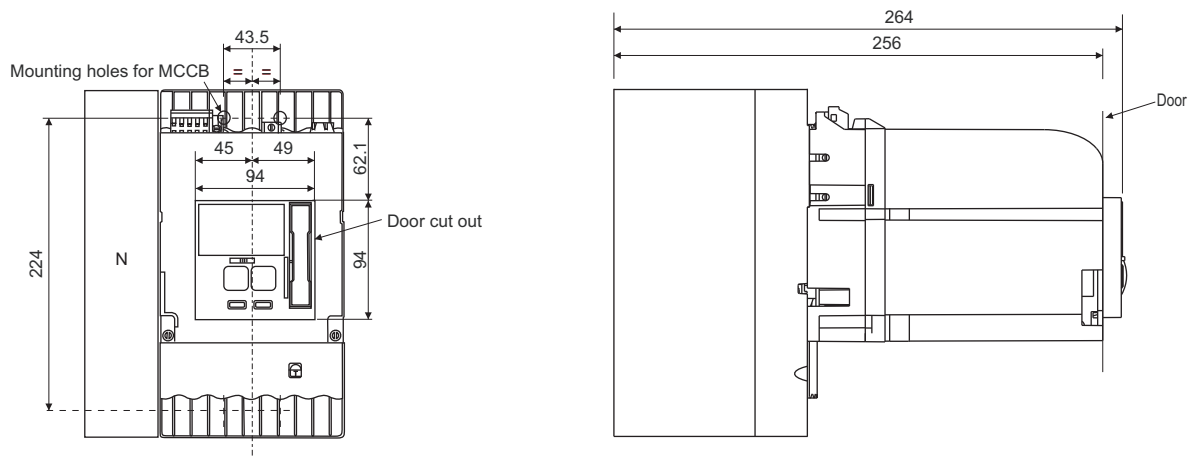
L = Length of Shaft Required for Panel Depth L1  
 Total Length of Shaft =275mm

Refer Panel Cut Details

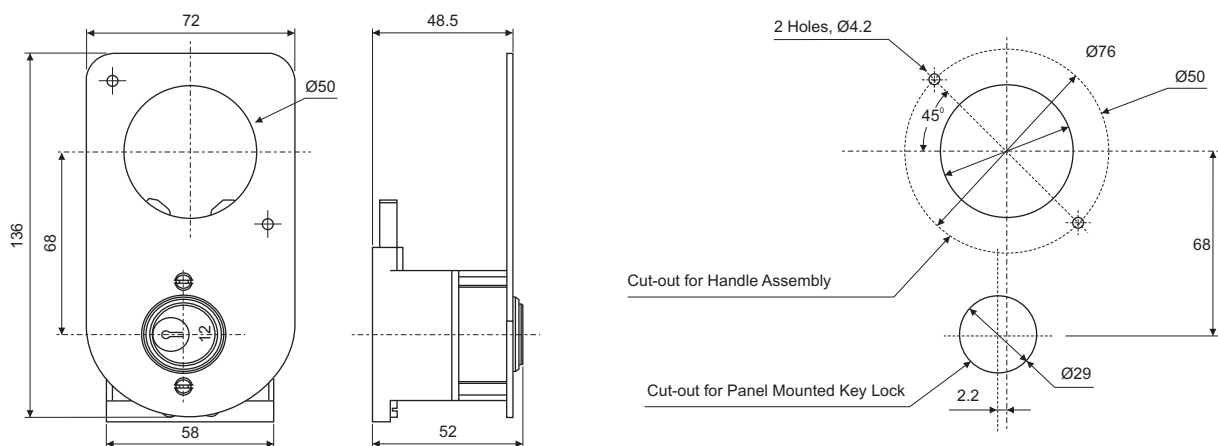
TYPE	L1	L	L2	L3
DN0	169	L1 - 119	7.5	69.5
DN1	169	L1 - 119	24.5	81.7
DN2	202	L1 - 152	27	84
DN3	233	L1 - 183	39	122
DN4	302	L1 - 252	69	170

All dimension are in mm

### MCCB with Stored Energy EOM DN3

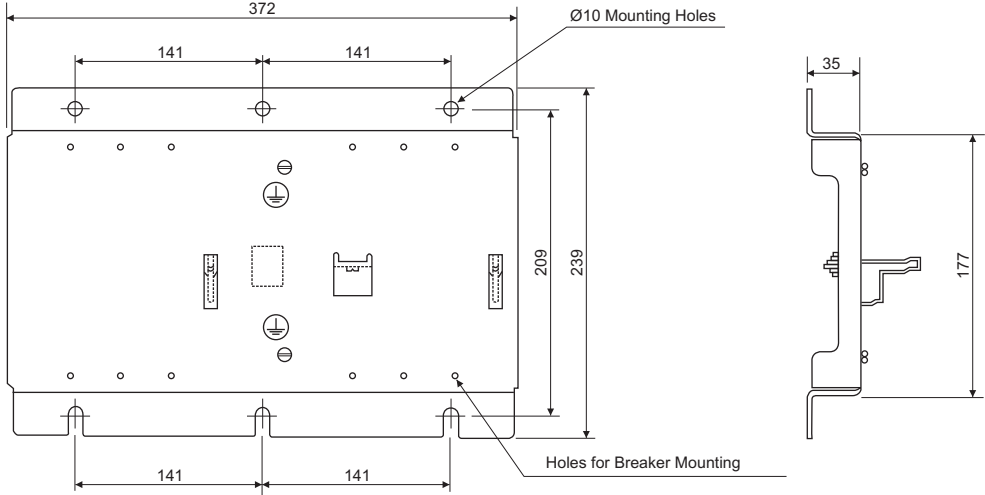


### Panel Mounted Key Lock

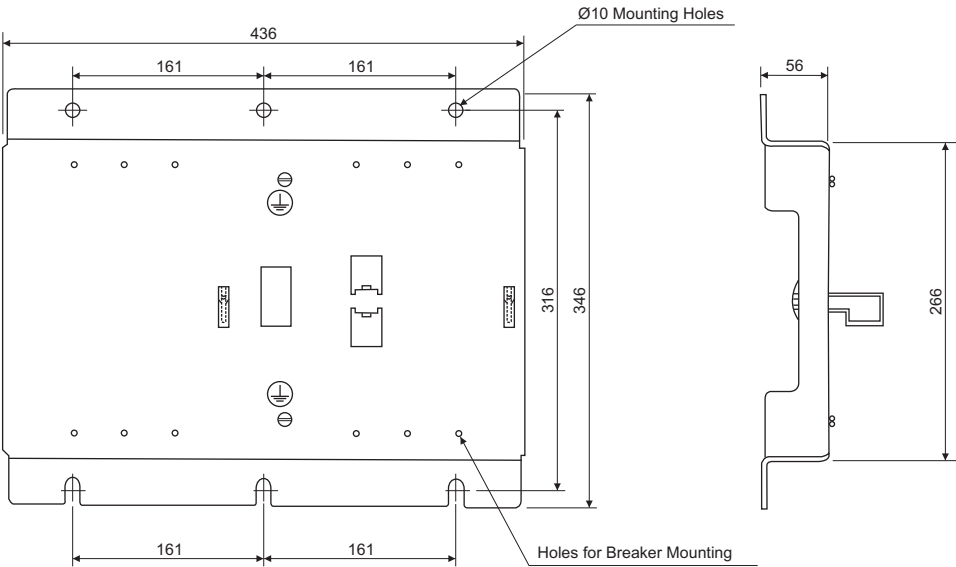


All dimension are in mm

DN2 MIL Kit



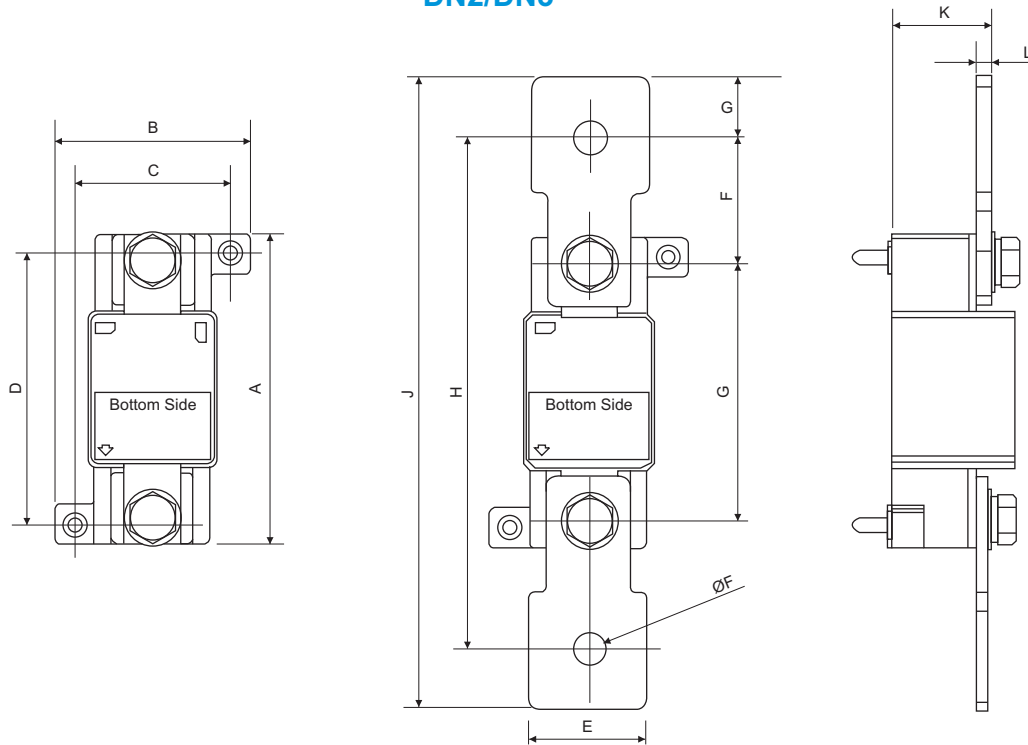
DN3 MIL Kit



All dimension are in mm



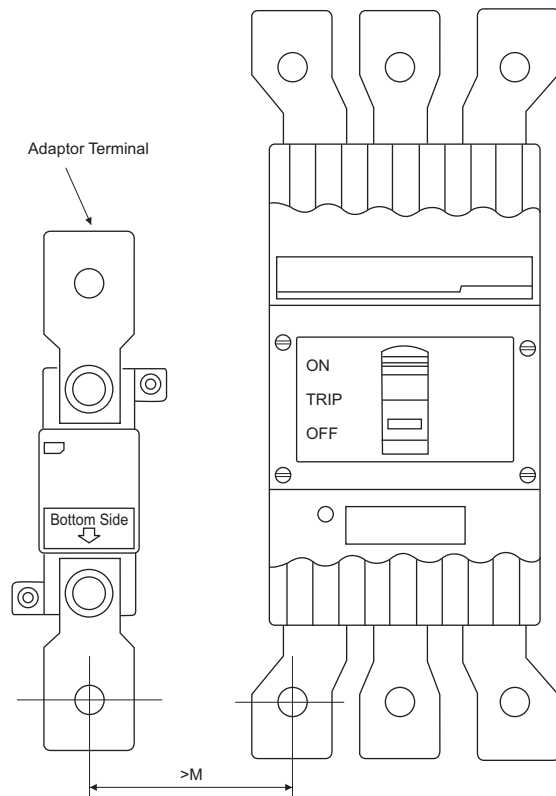
## External Neutral DN2/DN3



	A	B	C	D	E	F	G
DN2 250A	93	59	47	81	35	10.2	77
DN3 400A	93.5	58	46	81.5	40	13	63.5
DN3 630A	93.5	58	46	81.5	40	10.5	63.5

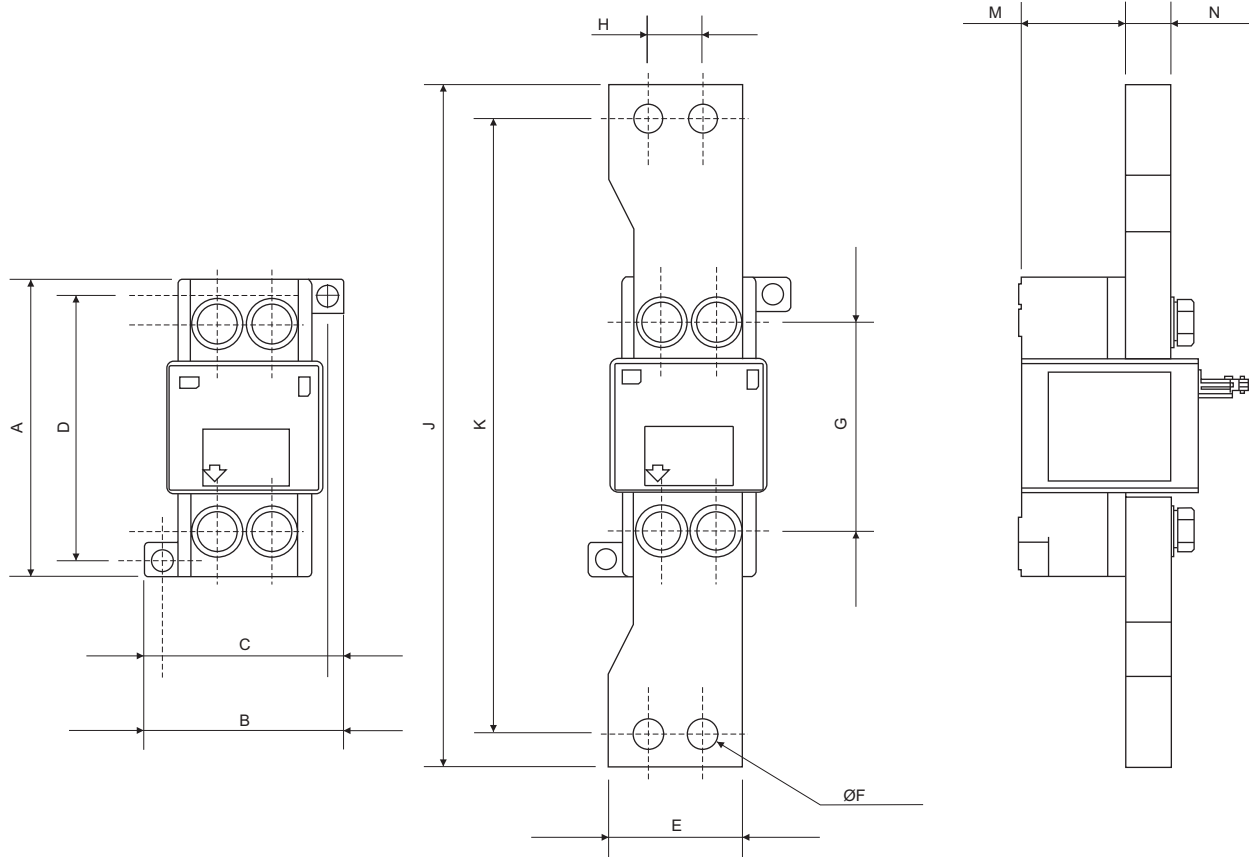
	H	J	K	L	M
DN2 250A	153	189	26	4	55
DN3 400A	153.5	199.5	39	5	60
DN 630A	173.5	219.5	39	5	60

Note: Adaptor Terminals shown are not available with product.  
kindly refer accessories data for ordering separately.  
Circuit Breaker shown for reference only.



All dimension are in mm

## External Neutral CTs DN4

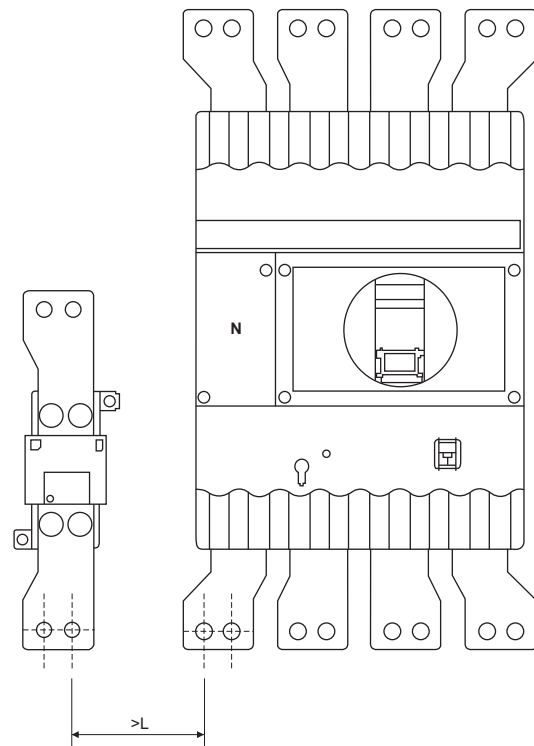


DN4	A	B	C	D	E	F	G
800A	132	88.5	73.5	117	60	12.5	92
1000/1250A	132	88.5	73.5	117	60	12.5	92

DN4	H	J	K	L	M	N
800A	24	302	272	80	73.5	6
1000/1250A	24	302	272	80	73.5	20

Note: Adapter Terminals shown are not available with product.  
kindly refer accessories data for ordering separately.  
Circuit Breaker shown for reference only.

Special Note: Adapter Terminals for DN4 range of product are not symmetrical.  
Kindly insure proper orientation in assembly as shown in figure below.



All dimension are in mm

## OVERSEAS OFFICES OF L&T AND ITS SUBSIDIARIES

### AUSTRALIA

Tamco Electrical Industries Pty Ltd.  
31 Kitchen Road, Dandenong  
3175, Melbourne, Victoria  
Australia  
email: international-sales@LNTEBG.com

### GERMANY

Lyonerstrasse 14  
60528, Frankfurt am Main  
Germany

Euro-Asia Business Centre  
Messe-Allee 2  
D-04356 Leipzig  
Germany  
email: esp-de@LNTEBG.com

### INDONESIA

PT. Tamco Indonesia  
Jl. Raya Pasar Serang No. 15, kandang  
Roda Cikarang, Bekasi 17330  
Indonesia  
email: Prateek.Puri@LNTEBG.com

### ITALY

Via Filippo Tajani, No. 11  
3 Piano, Milan  
Italy, C. A. P. 20133  
email: rlomash@gmail.com

### JAPAN

C/o Larsen & Toubro Infotech Limited  
Kundan Okazava Bldg.  
6F, 1-7-3 Kundan Kita, Chiyoda-Ku  
Tokyo 1202-0073, Japan  
email: manikandan.rajendra@hed.Ltindia.com

### KUWAIT

Villa No. 642, Block 1  
Egaila  
Kuwait  
email: international-sales@LNTEBG.com

### MALAYSIA

Sub Lot 24, Lot 16505, Jalan keluli 1  
Kawasan Perindustrian Bukit Raja  
Seksyen 7, 40000 Shah Alam  
Selangor Darul Ehsan, Malaysia  
email: kokateug@LNTEBG.com

### OMAN

P. O. Box 598, Ruwi  
Postal Code 112  
Ghala, Muscat, Sultanate of Oman  
email: mvs@LNToman.com

P. O. Box 1999

Ruwi, Postal Code 112  
Sultanate of Oman  
email: nravi@LNTemoman.com

### QATAR

P. O. Box 24399  
Doha - Qatar  
email: GoyalP@LNTEBG.com

### RUSSIA

3 Ulitsa Dorogobuzhskaya  
Moscos 121354, Russia  
email: LNTMOS@gmail.com

### SAUDI ARABIA

L&T Electricals Saudi Arabia Co. Ltd.  
MH-4, Plot no. 17+19  
Dammam Industrial City-II  
Dammam, Kingdom of Saudi Arabia  
email: rameshpm@LNTEBG.com

### U. A. E.

L&T Electrical & Automation FZE  
Plot No. S30223  
P. O. Box 262158, Jebel Ali Free Zone  
Dubai, U. A. E  
email: ParanjpeAK@LNTEBG.com

Larsen & Toubro Limited

Villa No. 8/2, Street no. 15, Al Khalidya  
Abu Dhabi, U. A. E

### U. S. A.

1051 Perimeter Drive, Suite 470  
Schaumburg  
IL 60173, U. S. A.  
email: bhosalesb@LNTEBG.com

*Product improvement is a continuous process. For the latest information and special applications, please contact any of our offices listed here.*



Larsen & Toubro Limited  
Electrical Standard Products  
**International Sales**  
Powai Campus, Mumbai 400 072, INDIA  
Tel.: +91-22 - 6705 1233  
Fax: +91-22 - 6705 1630  
E-mail: international-sales@LNTEBG.com  
website: www.LNTEBG.com