



Moulded Case Circuit Breakers

DU Series

About us

Larsen & Toubro is a technology-driven company that 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.



Switchgear Factory, Baroda

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Introduction

The DU Series, a new generation of MCCBs, stands out due to its state-of-the-art design, contemporary user-friendly features, ergonomics, aesthetics and compactness.

DU100H/DU250 Series complies with the latest standards like IEC 60947-2, EN 60947-2 & IS/IEC 60947-2. The products conform to international standards, carry $\zeta\zeta$ marking and are *KEMA* & CB certified. The range is specially designed for tropical conditions, ensuring reliable performance at high ambient and humid environments. The range can satisfy the most demanding system requirements.

The DU Series, has a wide range of accessories, ensuring operational safety, reliability and versatility.

Salient Features

Technology

- Specially designed arc suction effect & speedo quench contact system
- No load line bias: Either side of MCCB terminal can be used as load and line*



Ergonomic design & user friendliness

- Knob designed for better grip
- Color indication of ON/TRIP/OFF*
- Current rating on the knob
- Overload adjustment from front*
- Easy ON/OFF/RESET operations
- Wide variety of snap fit accessories*



Compact

- Compact size
- Common depth throughout the range
- Suitable for side by side mounting
- Suitable for use in Distribution Board



Internal Accessories

- Auxiliary contacts
- Trip alarm contacts*
- Combined Auxiliary + Trip alarm contacts*
- Shunt release
- Under Voltage release*



External Accessories

- Direct & Extended ROM
- Spreader links
- Padlock is available (with ROM)
- SS Enclosure**
- GF module for earth fault protection



Easy to Install

- 45mm door cutout*
- Optional DIN rail mounting available**



Safe to Use

- Finger proof terminals
- Lockable shroud on thermal knob to prevent unauthorized operation*
- $\zeta\zeta$ marked range*
- 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*



* For DU100H & DU250 3P & 4P MCCBs

** For DU100 & DU100H

Technical Specifications

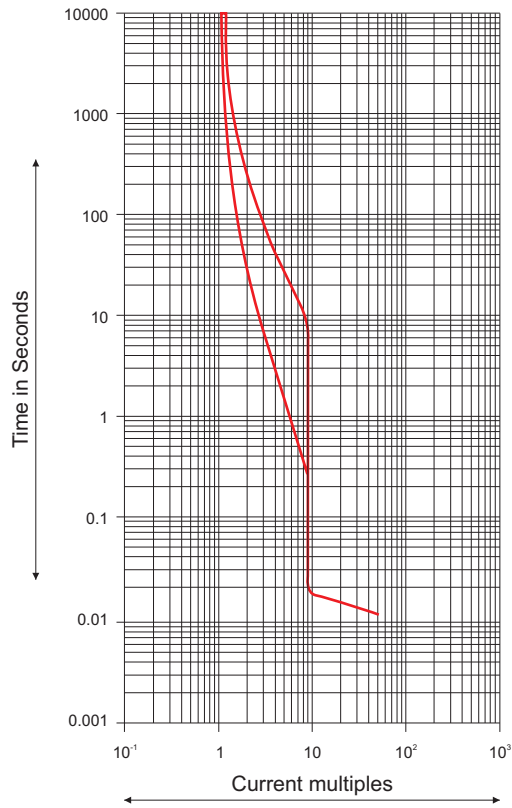


DU Series

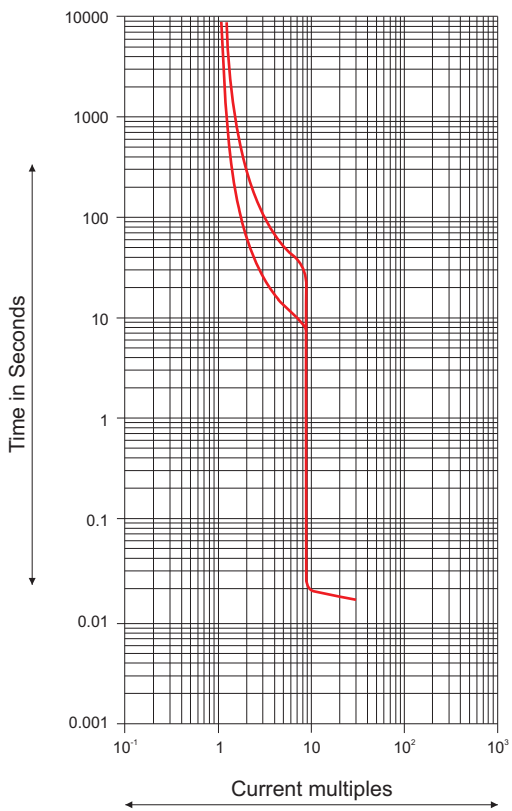
Technical Parameters		Specification		
Type Designation		DU100	DU100H	DU250
No. of Poles		3	2/3/4	3/4
Rated Current	I_n (A)	16,20,25,32,40,50,63,80,100	20,25,32,40,50,63,80,100	100,125,160,200,250
Impulse withstand voltage	U_{imp} (kV)	6		
Rated operational voltage	U_e (V)	415		
Rated insulation voltage	U_i (V)	690		
Operational frequency (Hz)		50 / 60		
Utilisation Category		A		
Reference Temperature		50°C	40°C	
Operating Temperature		-5°C to + 55°C		
I_{cu} (kA)	240V a.c.	25	65	65
	415V a.c.	10	30	36
	250V d.c. (3P in series) L/R<15 msec	5	15	15
	500V d.c. (3P in series) L/R<15 msec	-	5	5
Rated Service S. C. Breaking Capacity (I_{cs})		50% of I_{cu}		
Mechanical Life	No. of operations	20000	30000	10000
Electrical Life	No. of operations	6000	4000	3000
IP Protection (from front side)		IP40		
Pollution Degree		III		
Type of Release		Thermal - Magnetic		
Thermal		Fixed	Variable (0.8 - 1.0 I_n)	
Magnetic		Fixed (9 I_n)		
Terminal Capacity (without spreaders)				
Cables with Lug (mm ²)		50	35	120
Link (mm)		<17		<26
Overall Dimensions				
Width (mm)		75	75/75/100	105/140
Height (mm)		130	130	165
Mounting Depth (mm)		60	60	60
Weight (2/3/4 Pole) (kg)		0.68	0.6/0.73/1	1.45/1.8

I-T Characteristics Curves

DU100/DU100H

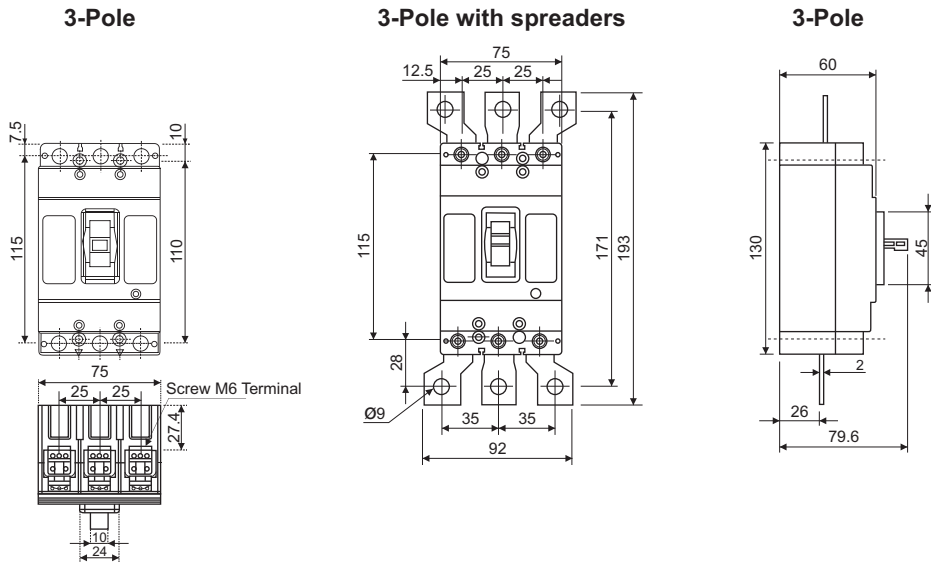


DU250

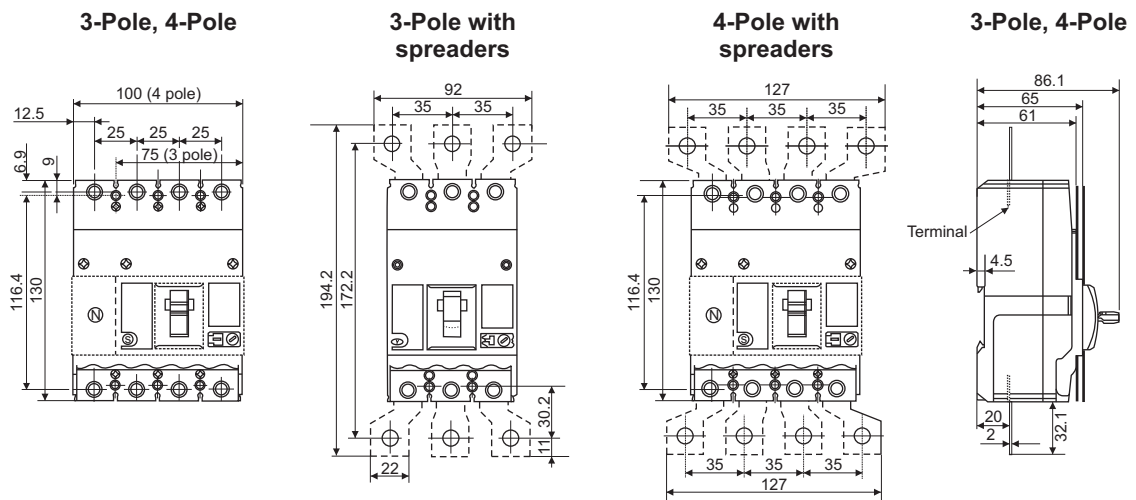


Overall Dimensions

DU100

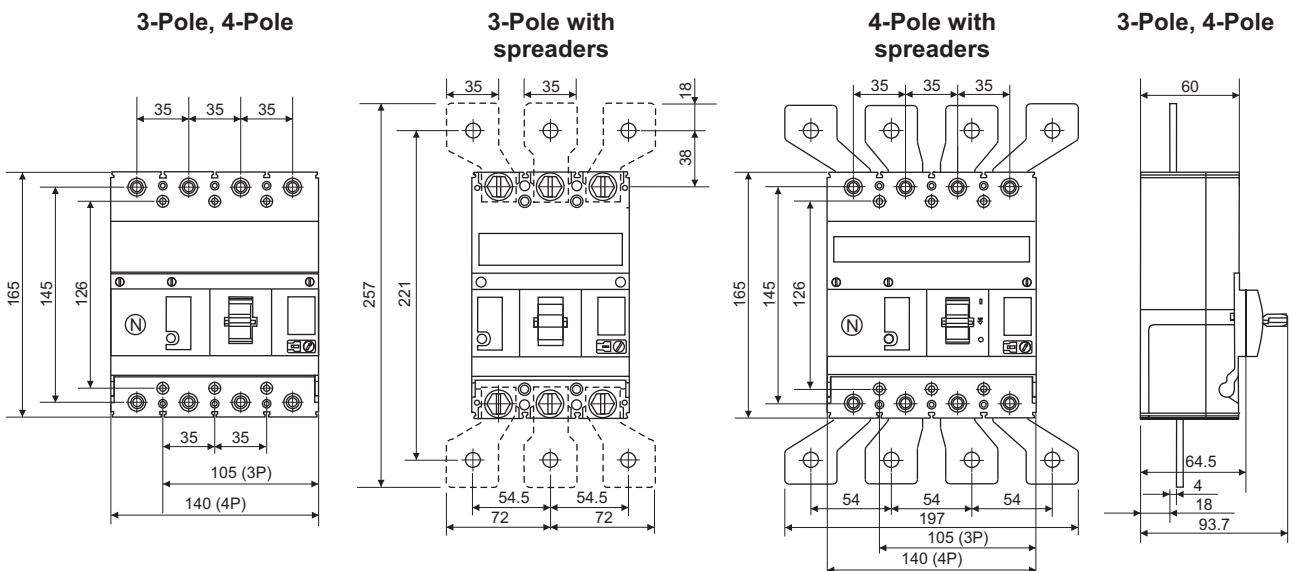


DU100H



For 2-Pole MCCB, refer 3-Pole dimensions. Spreader links are available as spare. It is recommended to use spreader links for enhancing termination capacity.

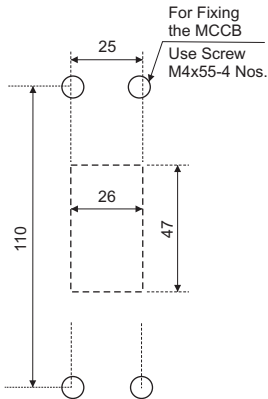
DU250



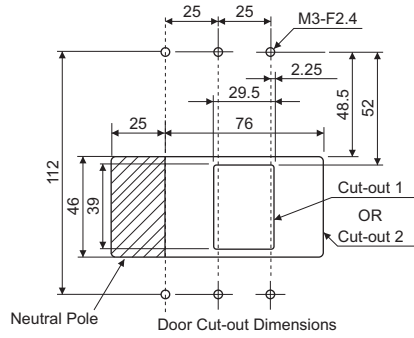
Spreader links are available as spare. It is recommended to use spreader links for enhancing termination capacity.

Panel Cut-out Dimension

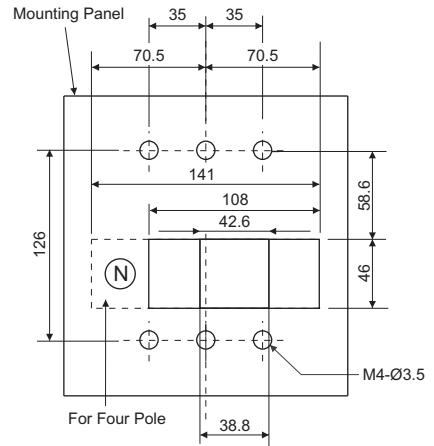
DU100



DU100H

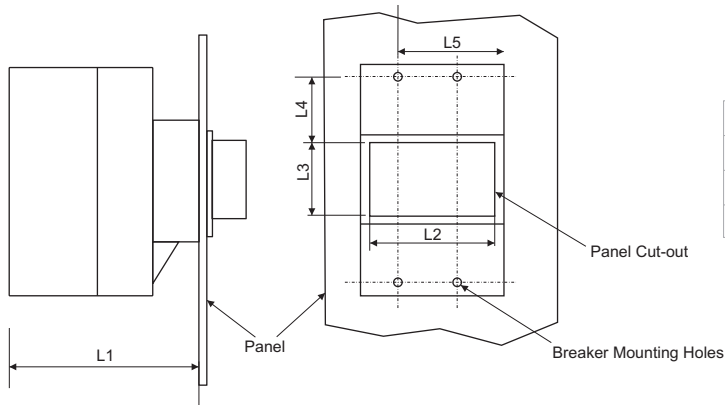


DU250



ROM Mounting Dimension

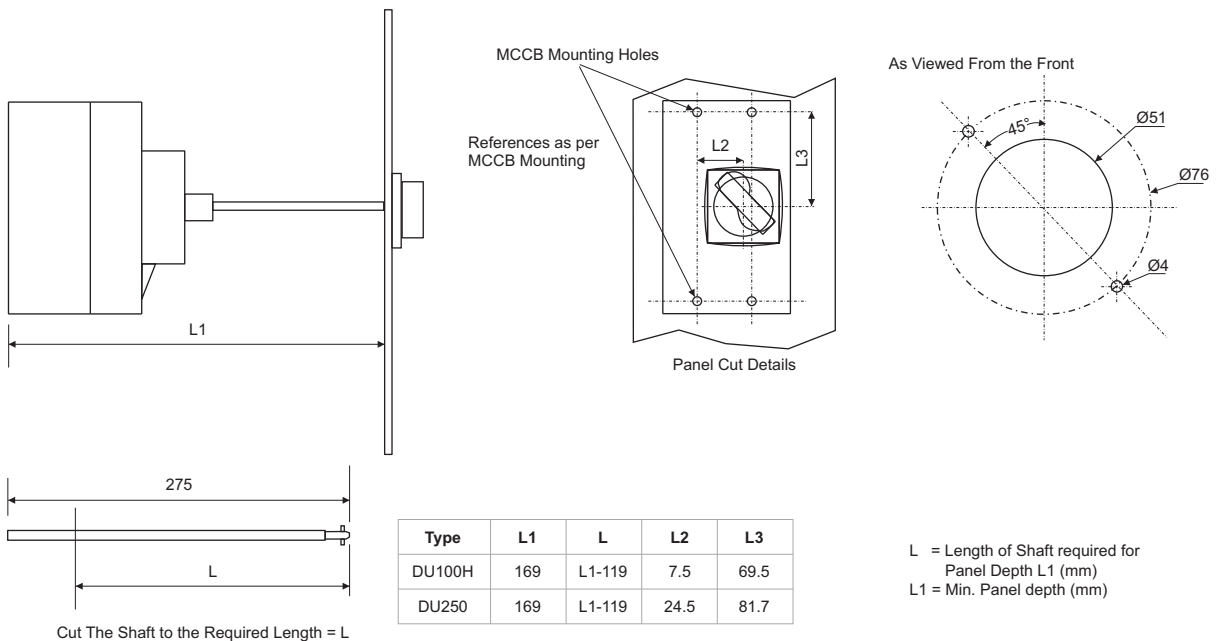
Direct ROM



Type	L1	L2	L3	L4	L5
DU100	133	-	-	-	-
DU100H	96.5	58	52	44	37
DU250	96.5	75	52	56.5	55

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

Extended ROM



Type	L1	L	L2	L3
DU100H	169	L1-119	7.5	69.5
DU250	169	L1-119	24.5	81.7

L = Length of Shaft required for Panel Depth L1 (mm)
 L1 = Min. Panel depth (mm)

Cut The Shaft to the Required Length = L