

DU Range of Moulded Case Circuit Breakers

A Journey of Continuous Upgradation



UTILITY



BUILDING



DG SET



BATTERY BANKS



UPS



ABOUT US



Switchgear Factory, Baroda

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.

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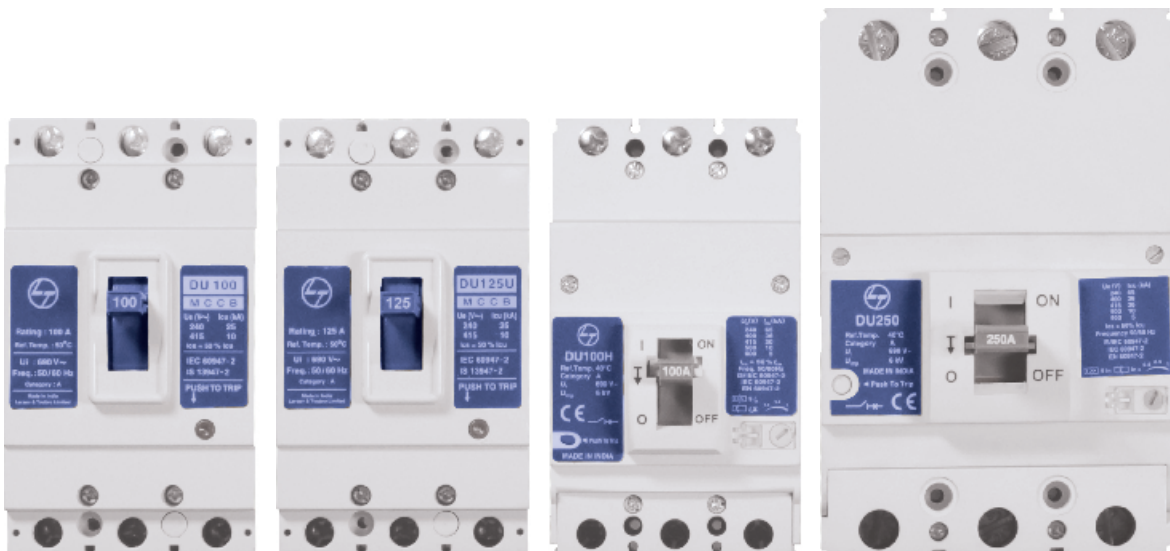
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INTRODUCTION

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/DU400 Series complies with the latest standards like IEC 60947-2, EN 60947-2 & IS/IEC 60947-2. The products conform to international standards, carry CE 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

- Current Limiting MCCBs: The unique speed contact system with current limiting feature accelerates the opening of contacts during short circuit resulting in very low let through energy
- No load line bias: Either side of MCCB terminal can be used as load or line*
- MCCB Mechanism: Quick make, quick break & trip free mechanism



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 upto 250A
- Suitable for side by side mounting#



Internal Accessories

- Snap fit type 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 upto 250A
- Optional DIN rail mounting available**



Safe to Use

- Finger proof terminals
- Phase barriers supplied to enhance the clearance between the phases
- Lockable shroud on thermal knob to prevent unauthorized operation*
- CE 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 / DU400

** For DU100 / DU125U / DU100H

For DU100H / DU250

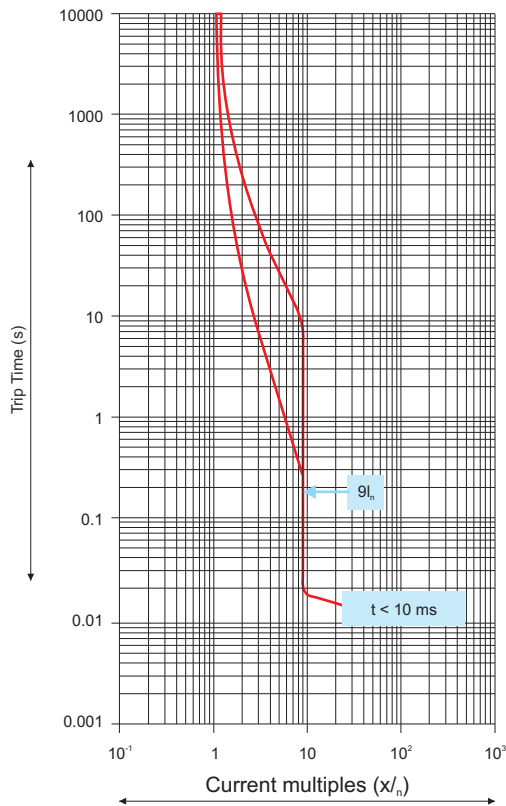
TECHNICAL SPECIFICATIONS

DU Series

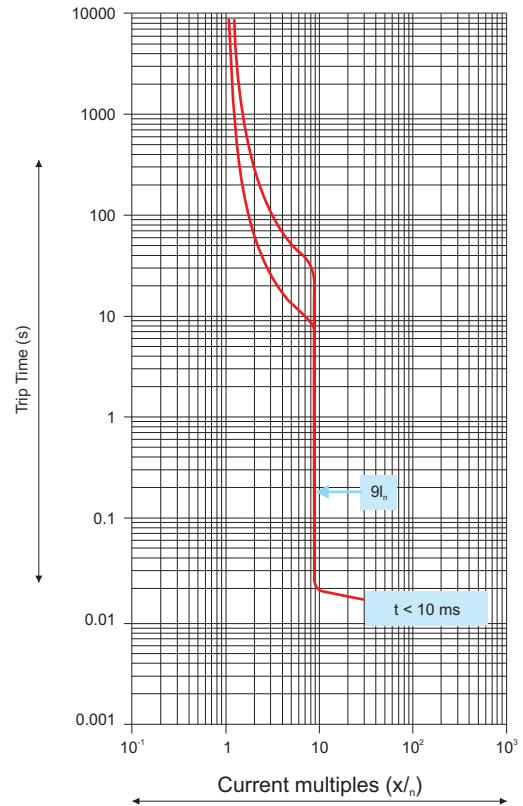
Technical Parameters		Specification				
Type Designation		DU100	DU125U	DU100H	DU250	DU400
No. of Poles		2/3	3	2/3/4	3/4	3/4
Rated Current	I_n (A)	16, 20, 25, 32, 40, 50, 63, 80, 100	125	20, 25, 32, 40, 50, 63, 80, 100	100, 125, 160, 200, 250	320, 400
Impulse withstand voltage	U_{imp} (kV) AC	6				8
Rated operational voltage	U_e (V) AC	415				690
Rated insulation voltage	U_i (V) AC	690				800
Operational frequency (Hz)		50 / 60				
Utilisation Category		A				
Reference Temperature		50°C		40°C		
Operating Temperature		-5°C to + 55°C				
Standard		IS/IEC60947-2		IS/IEC60947-2, EN60947-2		
I_{cu} (kA)	240V a.c.	25		65	65	65
	415V a.c.	10		30	36	50
	250V d.c. (2P in series) L/R<15 msec	5		10	-	-
	250V d.c (3P in series) L/R<15 msec	10		15	15	15
	500V d.c. (3P in series) L/R<15 msec	-		5	5	5
Rated Service S. C. Breaking Capacity (I_{cs})		50% of I_{cu}				
Mechanical Life	No. of operations	20000	10000	30000	10000	10000
Electrical Life	No. of operations	6000	1000	4000	3000	4000
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	185
Link (mm)		<17			<26	<32
Overall Dimensions						
Width (mm)		75		75/75/100	105/140	140/184
Height (mm)		130		130	165	205
Mounting Depth (mm)		60		60	60	111
Weight (2/3/4 Pole) (kg)		0.56/0.68	0.8	0.6/0.73/1	1.45/1.8	4/5

I-T CHARACTERISTICS CURVES

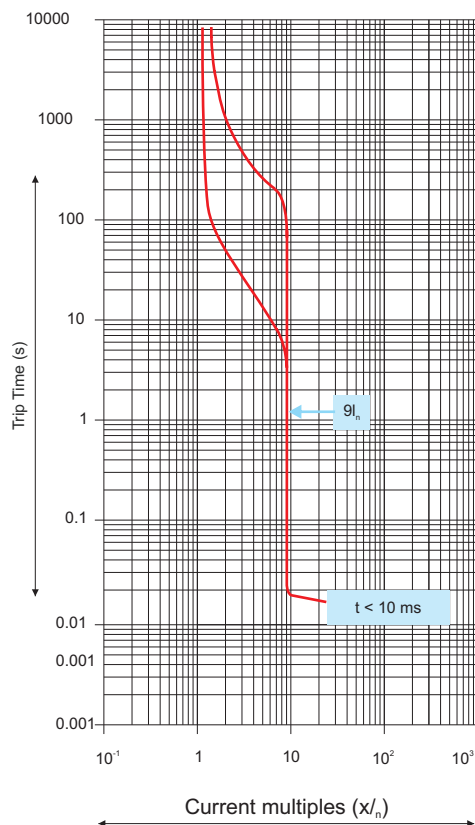
DU100/DU125U/DU100H



DU250

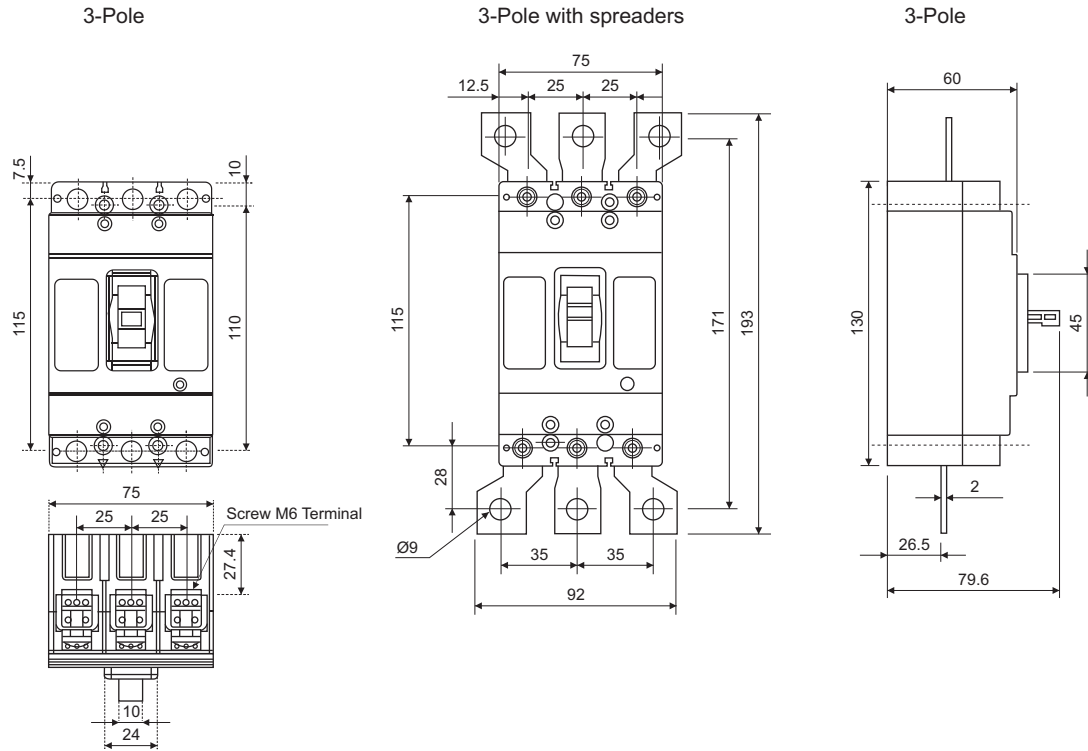


DU400

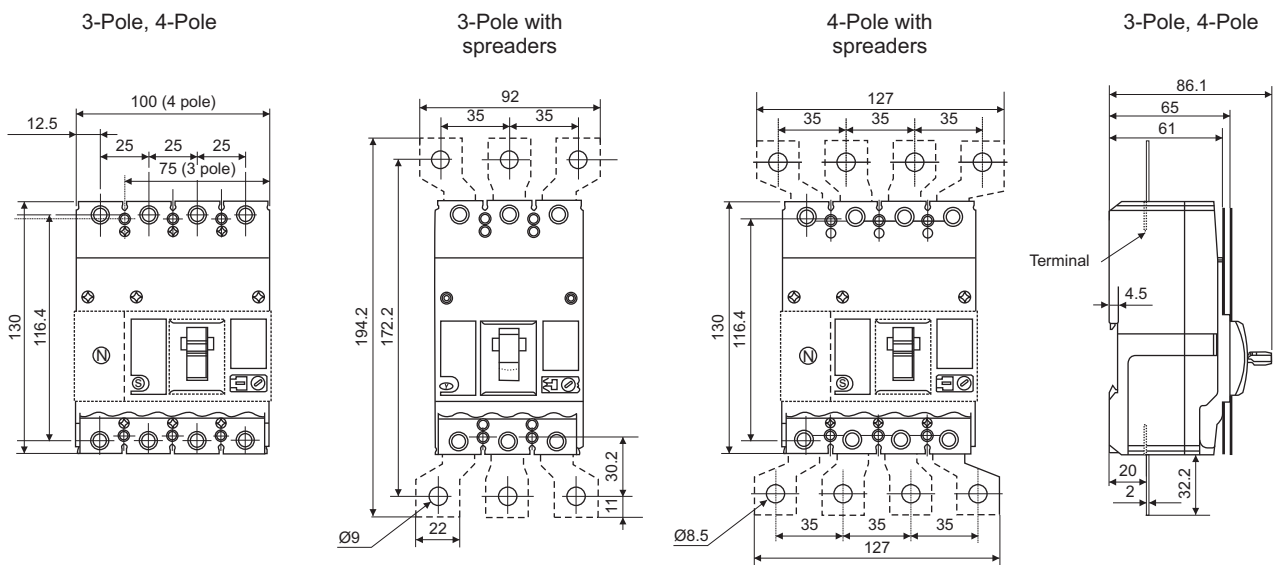


OVERALL DIMENSIONS

DU100/125U



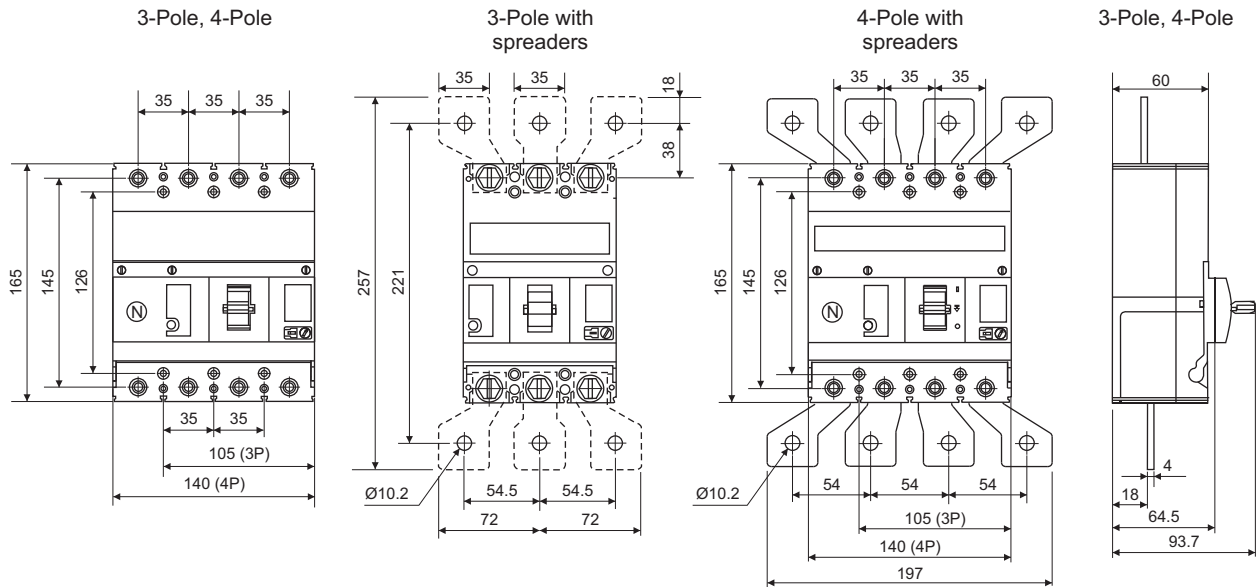
DU100H



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.

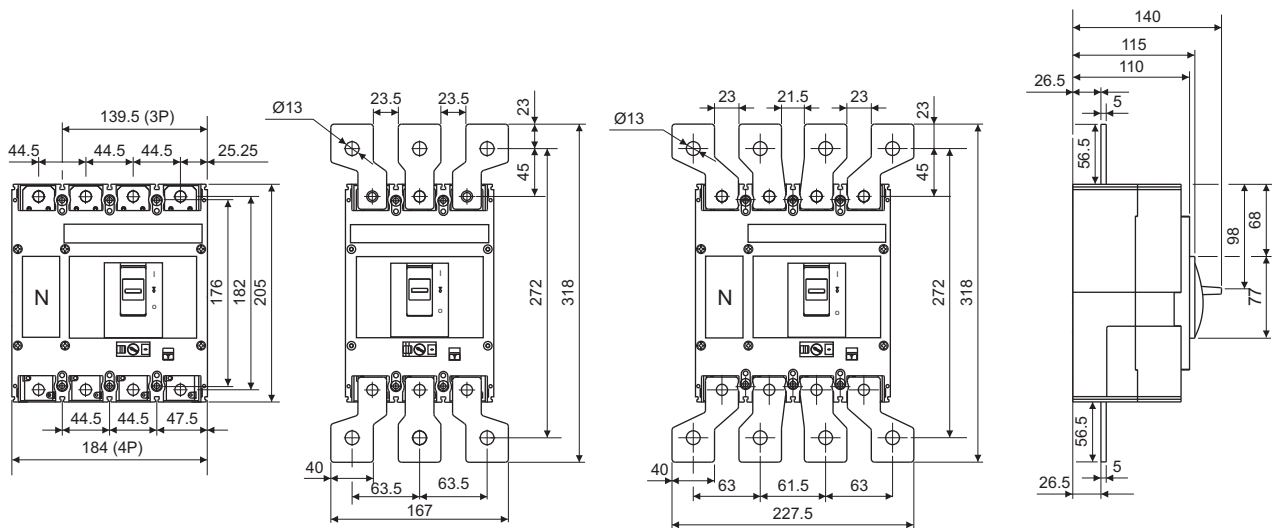
OVERALL DIMENSIONS

DU250



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

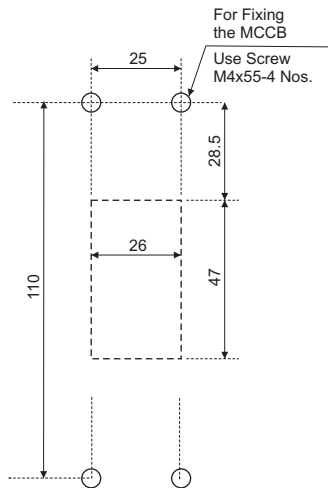
DU400



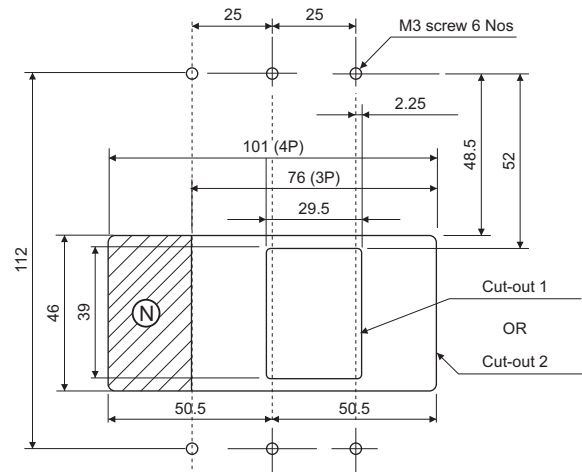
Note: Spreaders are available as spare.
It is recommended to use spreader links for enhancing termination capacity.

PANEL CUT-OUT DIMENSION

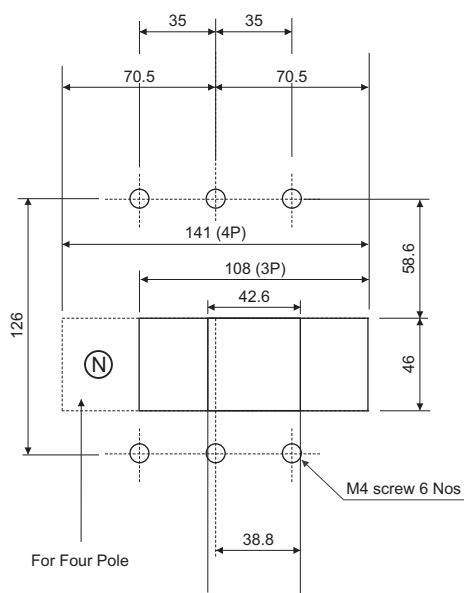
DU100/DU125U



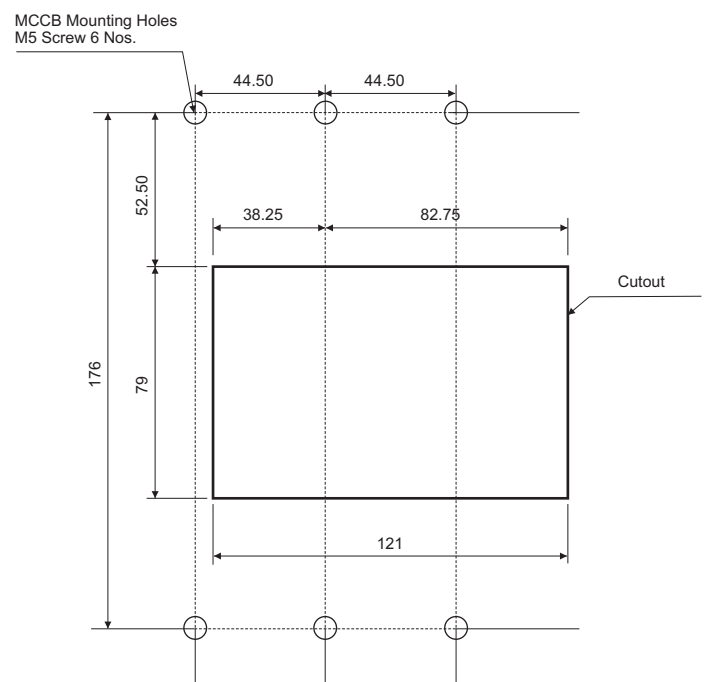
DU100H



DU250

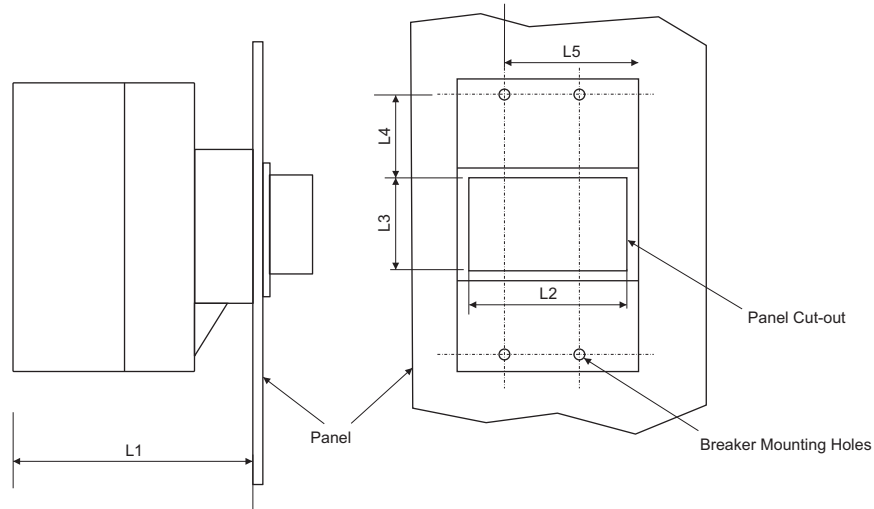


DU400



ROM MOUNTING DIMENSION

Direct ROM



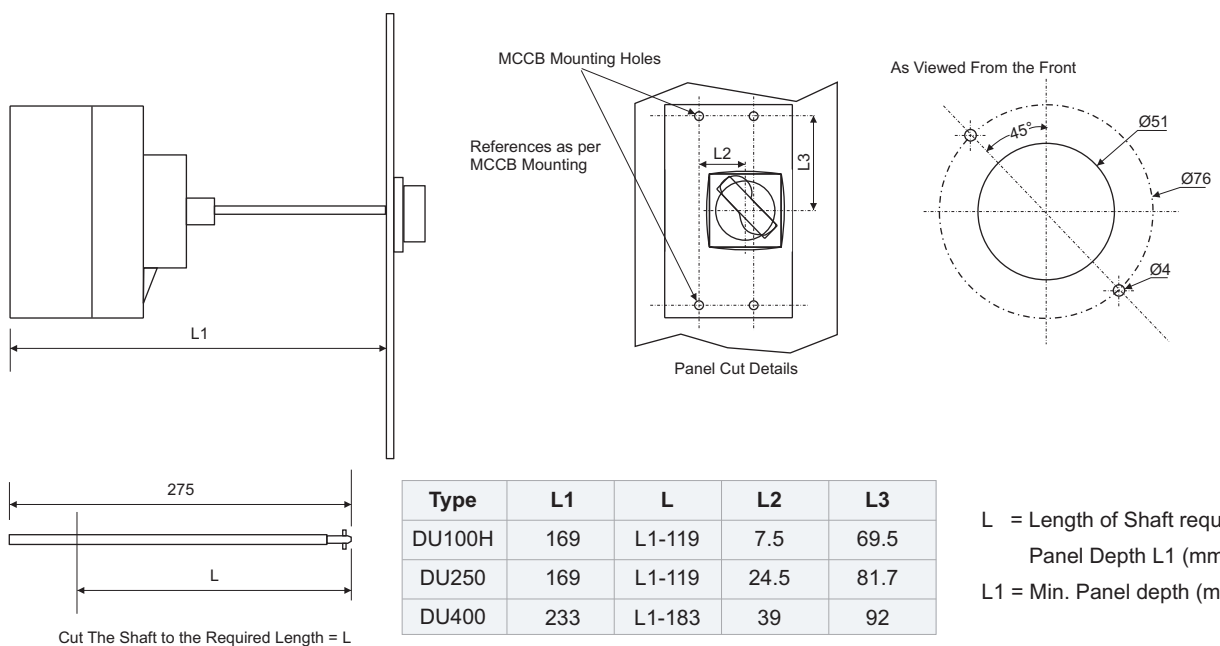
Type	L1	L2	L3	L4	L5
DU100	133	-	-	-	-
DU100H	96.5	58	52	43.5	37
DU250	96.5	75	52	56.5	54
DU400	146	121	87	49	82.5

L1 = Mounting Depth

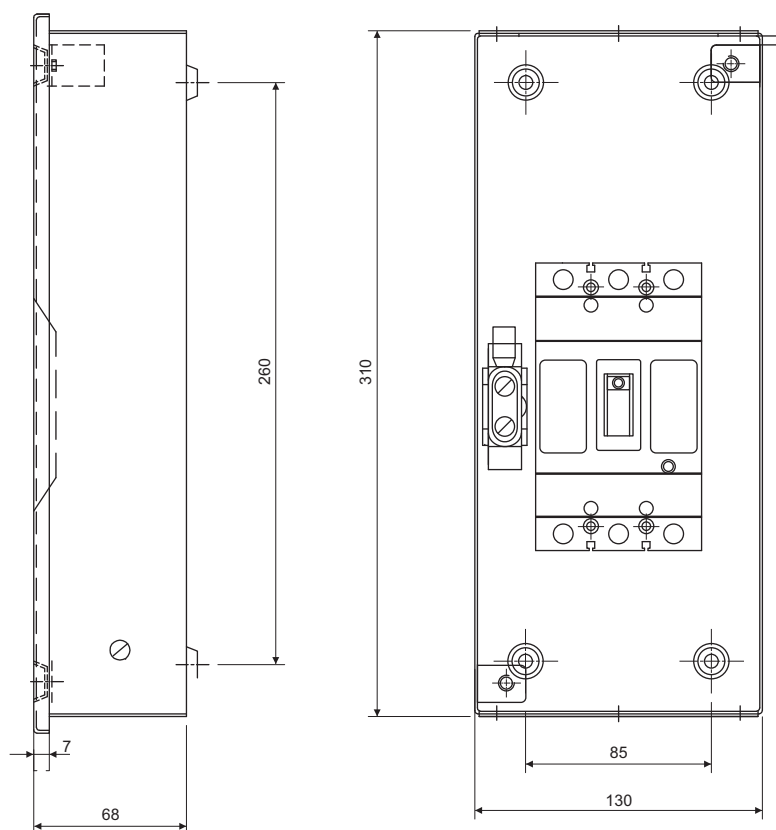
L2/L3 = Panel Cut-out

L4/L5 = Breaker Mounting Reference

Extended ROM



SS ENCLOSURE MOUNTING DIMENSION



Cat. No.	Frame
ST980500000	DU100 SS Enclosure
ST420210000	DU100H SS Enclosure

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



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