



MCCB

Moulded Case Circuit Breakers





Don't compromise on the essentials of an industrial-grade MCCB.

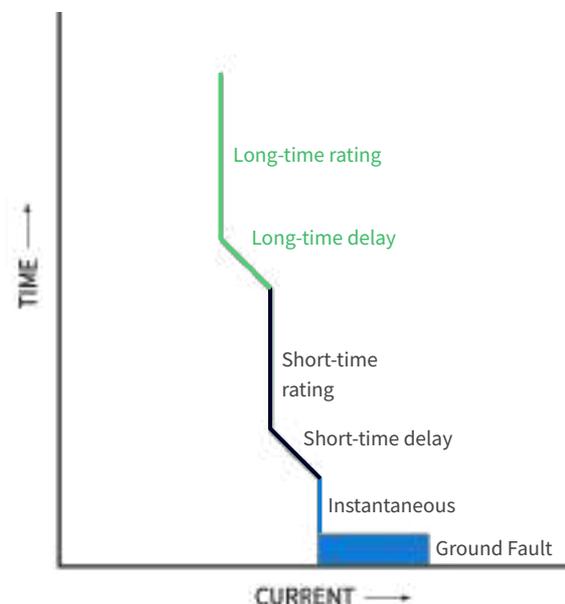
Safety. Performance. And high durability.

Safety, performance, and durability are the essentials for any electrical equipments or systems. Moulded Case Circuit Breakers (MCCBs) - forms the backbone of any electrical system. These MCCBs are designed to provide the highest level of protection for your equipment and personnel while withstanding even the toughest environments such as foundry or mining. With a wide range of products, easy installation, and advanced protection features, Elmeasure MCCBs can be your ideal choice for any industrial or commercial application.

Key features that provide you with an array of benefits.

■ LSIG Comprehensive Protection

LSIG (Long-Time, Short-Time, Instantaneous, Ground) protection is a key feature of MCCBs. With LSIG protection, MCCBs can provide accurate and reliable protection against short circuits, ground faults, and other electrical faults that can cause damage or downtime. This advanced protection technology allows for precise and customizable settings, ensuring that your electrical systems are protected at all times. By providing comprehensive protection, MCCBs can help you to improve system reliability and reduce the risk of costly downtime and repairs.



■ Enhanced Flexibility

The wide range of MCCBs, including Thermal Magnetic and Micro-Processor based MCCBs can help you choose the right MCCB for the specific applications.

■ Flexible mounting options

With the ability to mount the MCCBs in a variety of ways, you will find it suitable for a wide range of applications and installations.

■ Highest quality of standards

Compliant to International Standard

- IS/IEC 60947-2 Low Voltage Switchgear and Controlgear, Part 2: Circuit-breakers

■ Advanced tripping adjustments

Our range of MCCBs offers adjustable overload setting from 0.4 to 1.0x I_n to allow precise protection, with customizable settings for different applications.

■ Optional BEMS Connectivity

Optional communication module features enable MCCBs to provide real-time data on the status of the circuit breaker and the electrical system, including current, voltage, power, and energy consumption. This helps operators to monitor and diagnose faults, such as overload or short circuit, and take corrective actions before a catastrophic failure occurs.

Performance and safety across diverse applications.

MCCB — An essential component of electrical systems

From commercial and industrial settings to healthcare and residential environments, MCCBs are a vital system component that offers reliable protection for electrical equipment from overcurrents and short circuits, ensuring the safety of people and equipment alike. It also assists in providing an uninterrupted operation of large-scale critical machineries, making sure of optimal performance and safety.



Industrial/Manufacturing Plants

Industrial plants rely on complex electrical systems to power essential machinery, equipment, and production processes. These systems are often under high stress and are susceptible to damage from overcurrents and short circuits, leading to downtime. MCCBs play a critical role in safeguarding all such electrical systems and equipment.

Commercial Buildings

Electrical power is critical to the smooth operation of commercial office buildings, providing lighting, heating, air conditioning, and other essential services. MCCBs safeguards against electrical faults that can result in significant downtime, causing inconvenience to the occupants and leading to a loss of productivity.

Retail stores / Shopping Malls

MCCBs protects essential systems such as lighting, HVAC systems, and security systems. Without protection, these systems can be vulnerable to electrical faults, which can lead to business downtime, equipment damage, and safety hazards for shoppers and employees.



Healthcare Facilities

Medical equipment, lighting, and HVAC systems forms the critical part of a typical healthcare facility. MCCBs safeguards against electrical faults that can pose a significant risk to patients, staff safety as well as result in a downtime of critical medical systems and procedures.



Data Centers

Data centers rely on uninterrupted power supply for their critical operations. MCCBs ensures that all electrical systems are protected against overloads, short circuits, and other electrical faults. They also offer a high level of modularity and scalability, allowing operators to easily modify electrical systems as their needs change.



Hotels/Hospitality venue

The power distribution systems, lighting systems, HVAC systems, elevators, and escalators all require a stable and secure power supply to operate efficiently. MCCBs can offer reliable and precise protection against overloads, short circuits, and other electrical faults, ensuring the electrical systems stay operational and downtime is minimized.



Telecommunications

MCCBs offers reliable protection against overloads and short circuits, that can cause damage to mission critical systems such as PDUs, gensets, battery banks, rectifiers, inverters, and other surge protection devices.



Oil and Gas

MCCBs are crucial components for protecting electrical systems in oil and gas plants including power distribution systems, motor control centers, generators, transformers and other high-voltage equipment.



Residential Buildings

MCCBs can ensure safety and reliable operation of electrical systems in residential buildings by protecting against overloads, short circuits, and ground faults.

E_XY/E_XU Series

Compact Thermal Magnetic MCCBs

The E3Y/E4Y MCCB series is an excellent solution for both industrial and commercial applications. These Moulded Case Circuit Breakers offer high breaking capacities, reliability, and ease of installation. Their design is built to withstand extreme conditions, such as electrical faults, overloads, and short circuits. The E3Y/E4Y MCCBs come in different frame sizes and are equipped with advanced trip units that offer accurate protection and monitoring. With these features, users can ensure the safety and efficiency of their electrical systems while minimizing downtime and maintenance costs. Additionally, they offer a wide range of accessories and customization options, making them adaptable to various applications and user requirements. Overall, the E3Y/E4Y MCCB series provides a comprehensive and versatile solution for all low-voltage circuit protection needs.



E3Y/E4Y — Thermal Magnetic MCCBs



Ordering Information

Frame	Model	CAT Code	Breaker Rating	kA Rating
3 Pole	E3Y 125	E3Y1250063	63A	10 kA
		E3Y1250100	100A	
		E3Y1250125	125A	
4 Pole	E4Y 125	E4Y1250063	63A	
		E4Y1250100	100A	
		E4Y1250125	125A	

Technical Specification

Technical Parameters		Specifications
Type		E3Y / E4Y
No. of Poles		2 / 3 / 4
Rated Current	I_n (A)	63, 80, 100, 125
Impulse Withstand Voltage	U_{imp} (kV)	8
Rated Operational Voltage	U_e (V AC)	415
	U_e (V DC)	250
Rated Insulation Voltage	U_i (V AC)	800
Operational Frequency (Hz)		50 / 60
Utilisation Category		A
Reference Temperature		40°C
Operating Temperature		-5°C to +55°C
Standard		IS60947-2, IEC60947-2 & EN60947-2
I_{cu} (kA)	240 V AC	25
	415 V AC	10
	250 V DC	10
Rated Service S. C. Breaking Capacity (I_{cs})		100% of I_{cu}
Mechanical Life	No. of operations	30000
Electrical Life	No. of operations	8000
IP Protection (from front side)		IP40
Pollution Degree		III
Type of Release		Thermal - Magnetic
Thermal		Fixed
Magnetic		Fixed (10 I_n)
Terminal Capacity (without spreaders)		
Cables with Lug (mm ²)		50
Link (mm)		≤ 17
Overall Dimensions		
Width (3/4 Pole) (mm)		75 / 100
Height (mm)		130
Depth (mm)		60
Weight (2/3/4 Pole) (kg)		0.60 / 0.67 / 0.92

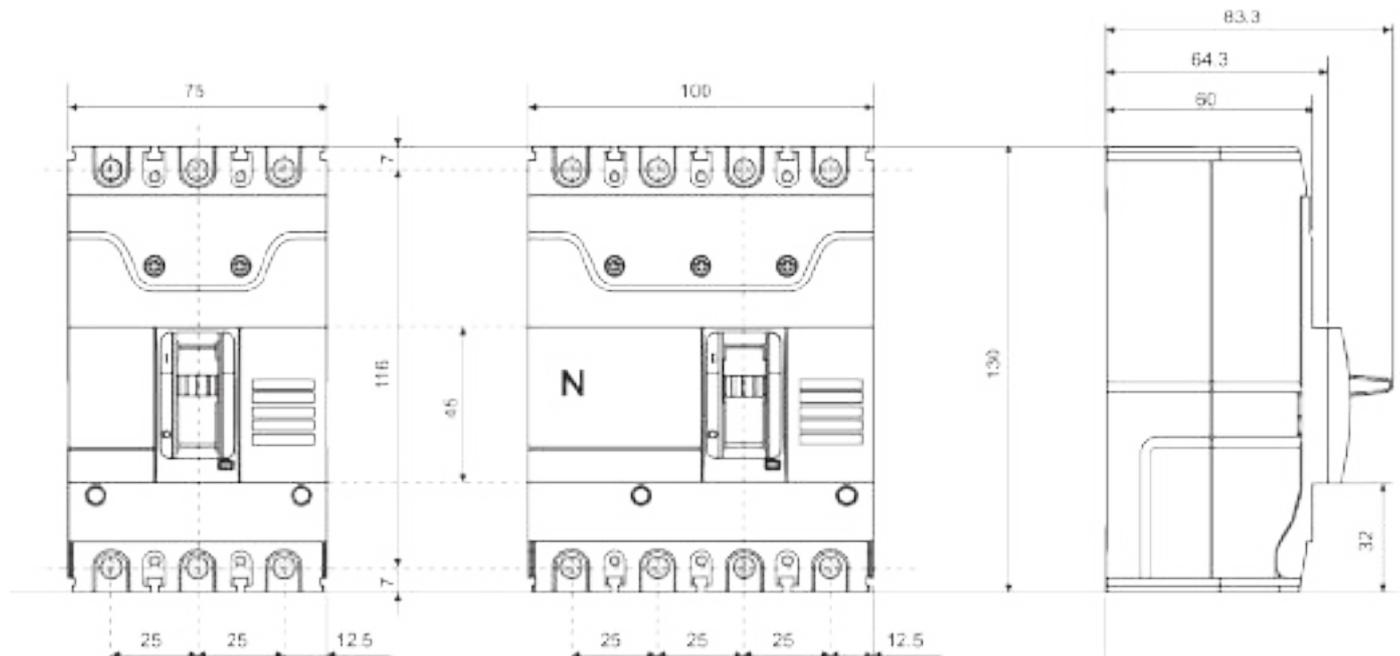
Mechanical Diagram:

E3Y/E4Y MCCB (63-125A)

3-Pole

4-Pole

2-Pole, 3-Pole, 4-Pole



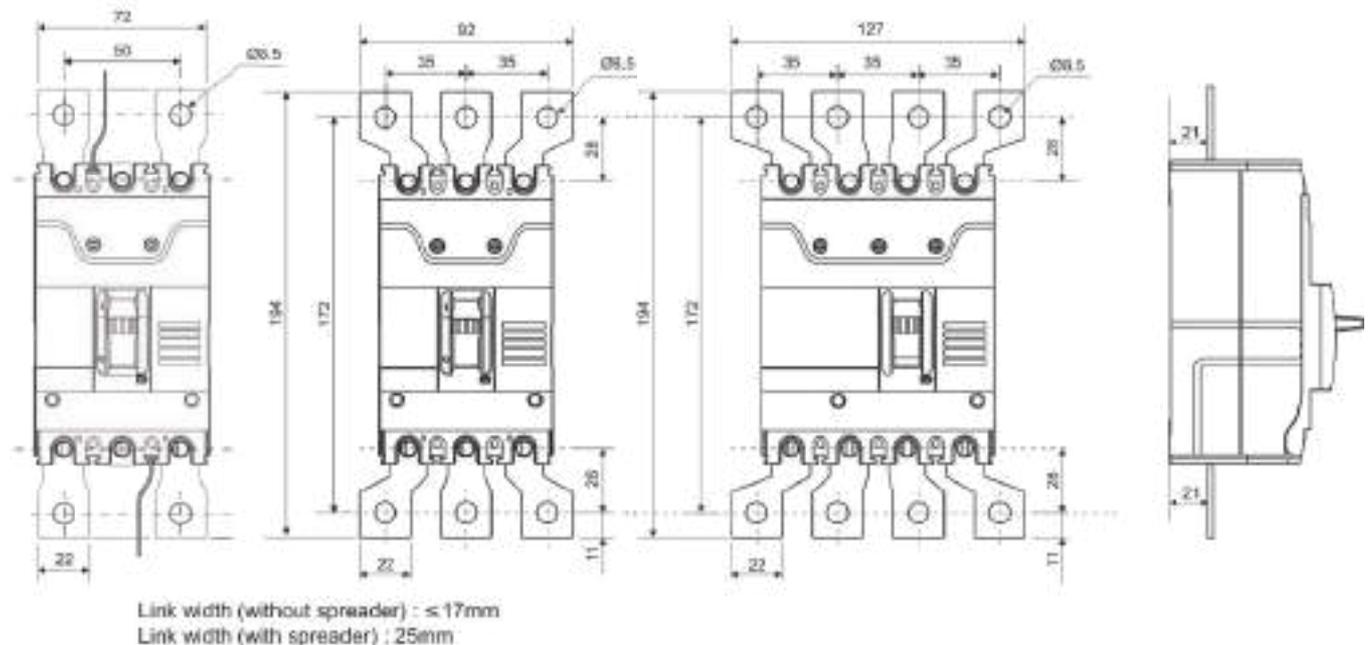
E3Y/E4Y MCCB (63-125A) with Spreader Links

2-Pole

3-Pole

4-Pole

2-Pole, 3-Pole, 4-Pole



E3U/E4U – Thermal Magnetic MCCBs



Ordering Information

Frame	Model	CAT Code	Rating	Breaking capacity	Ics Rating	
3 Pole	E3U 100B	E3U100B0063	50-63A	18 kA	50% of I_{cu}	
		E3U100B0080	63-80A			
		E3U100B0100	80-100A			
E3U 125B	E3U125B0125	100-125A				
	4 Pole	E4U 100B	E4U100B0063			50-63A
			E4U100B0080			63-80A
E4U100B0100			80-100A			
E4U 125B	E4U125B0125	100-125A				
	3 Pole	E3U 250C	E3U250C0160	125-160A	25 kA	100% of I_{cu}
			E3U250C0200	160-200A		
E3U250C0250			200-250A			
4 Pole	E4U 250C	E4U250C0160	125-160A			
		E4U250C0200	160-200A			
		E4U250C0250	200-250A			
3 Pole	E3U 250D	E3U250D0160	125-160A	36 kA	100% of I_{cu}	
		E3U250D0200	160-200A			
		E3U250D0250	200-250A			
4 Pole	E4U 250D	E4U250D0160	125-160A			
		E4U250D0200	160-200A			
		E4U250D0250	200-250A			
3 Pole	E3U 400N	E3U400N0320	250-320A	50 kA		
		E3U400N0400	320-400A			
4 Pole	E4U 400N	E4U400N0320	250-320A			
		E4U400N0400	320-400A			

- Ranges from 50A–400A
- Adjustable overload setting 0.8 to 1.0 x In

E3U/E4U – Thermal Magnetic MCCBs



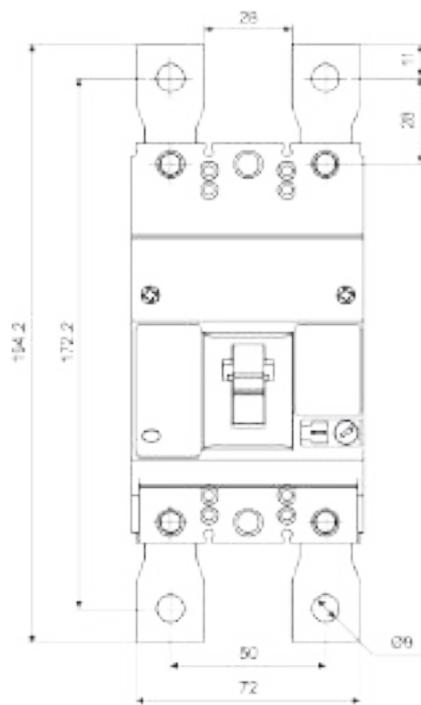
Technical Specification

Technical Parameters		Specifications			
Type		E3U/E4U-(100D,125D)	E3U/E4U-250C	E3U/E4U-250D	E3U/E4U-400N
No. of Poles		3/4	2/3/4	2/3/4	2/3/4
Rated Current	I_n (A)	20, 25, 32, 40, 50, 63, 80, 100, 125	160, 200, 250		320, 400
Impulse Withstand Voltage	U_{imp} (kV)	8			
Rated Operational Voltage	U_e (V AC)	415			690
Rated Insulation Voltage	U_i (V AC)	800			
Operational Frequency (Hz)		50 / 60			
Utilisation Category		A			
Reference Temperature		40°C			
Operating Temperature		-5°C to +55°C			
Standard		IS/IEC60947-2, IEC60947, & IEC			
I_{cu} (kA)	240 V AC	32	65	65	65
	415 V AC	18	25	36	50
	250 V DC (2P in series) L/R<10msec	-	-	15	25
	250 V DC (3P in series) L/R<10msec	15	15	20	30
	500 V DC (3P in series) L/R<10msec	10	10	15	20
Rated Service S. C. Breaking Capacity (I_{cs})		100% of I_{cu}	50% of I_{cu}		
Single Stage Capacitor Rating at 415V, 50Hz (kVAr)		Upto 50 kVAr (for 100A) & 65kVAr (for 125A)	Upto 95 kVAr		Upto 150 kVAr
Mechanical Life	No. of operations	40000	15000		10000
Electrical Life	No. of operations	8000	5000		4000
IP Protection (from front side)		IP40			
Pollution Degree		III			
Type of Release		Thermal - Magnetic			
Thermal		Variable (0.8 - 1.0 I_n)			
Magnetic		Fixed (9 I_n)			
Terminal Capacity (without spreaders)					
Cables with Lug (mm ²)		35	120	185	
Link (mm)		≤ 17	≤ 26	≤ 32	
Overall Dimensions					
Width (3/4 Pole) (mm)		75 / 100	105/140	140/184	
Height (mm)		130	165	205	
Depth (mm)		60	60	110.5	
Weight (2/3/4 Pole) (kg)		0.85 / 1.1	1.55 / 2	4/5	

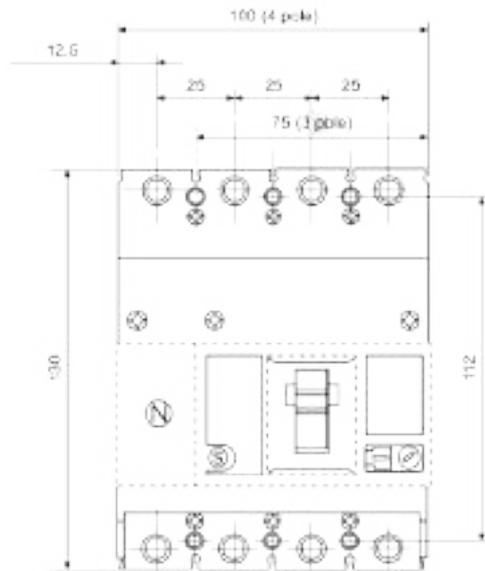
Mechanical Diagram:

E3U/E4U 100-125D MCCB

2-Pole

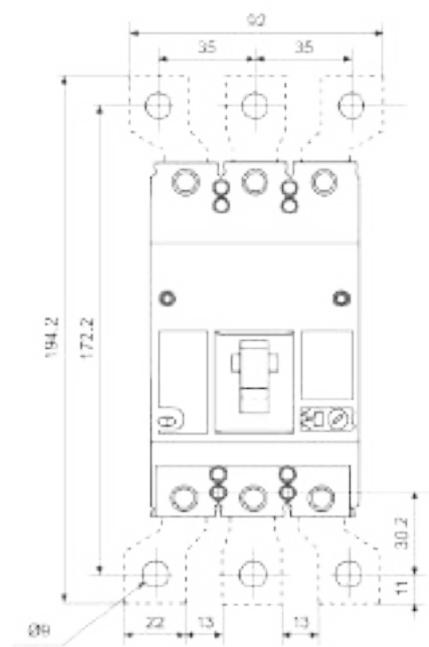


3-Pole, 4-Pole

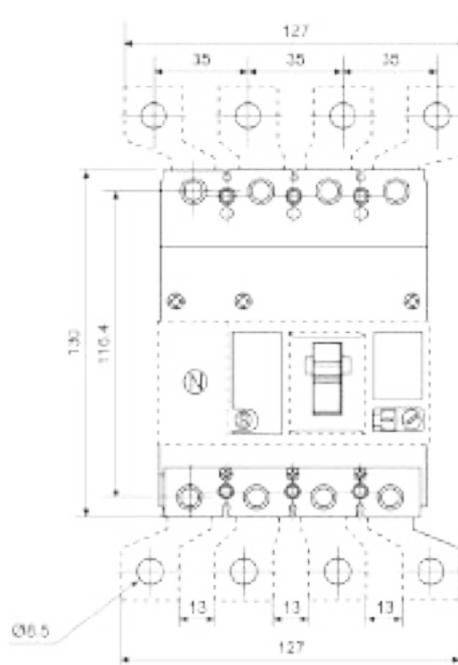


E3U/E4U 100-125D MCCB with Spreader Links

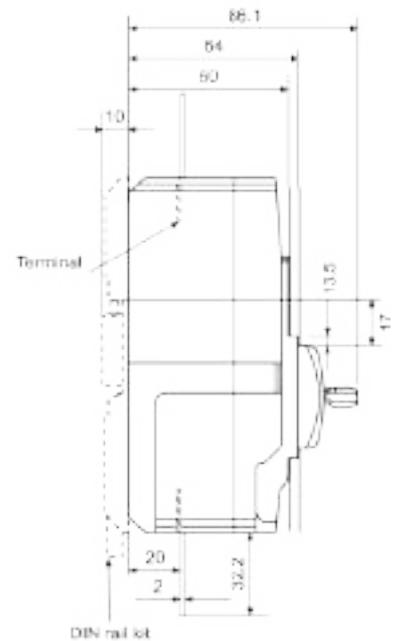
3-Pole



4-Pole



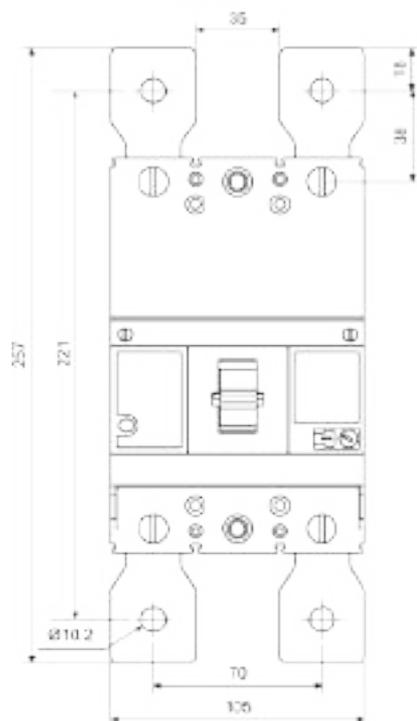
2-Pole, 3-Pole, 4-Pole



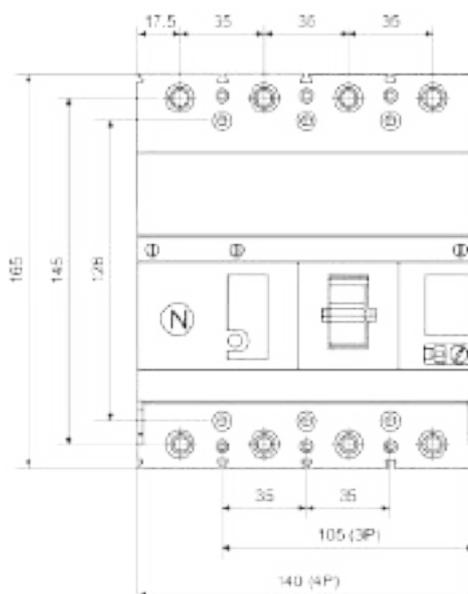
Link width (without spreader) : ≤17mm
 Link width (with spreader) : 22mm

E3U/E4U-250C/250D MCCB

2-Pole

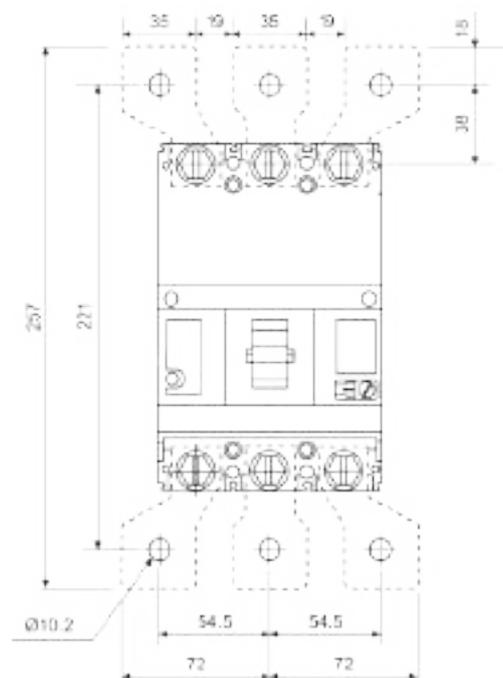


3-Pole, 4-Pole

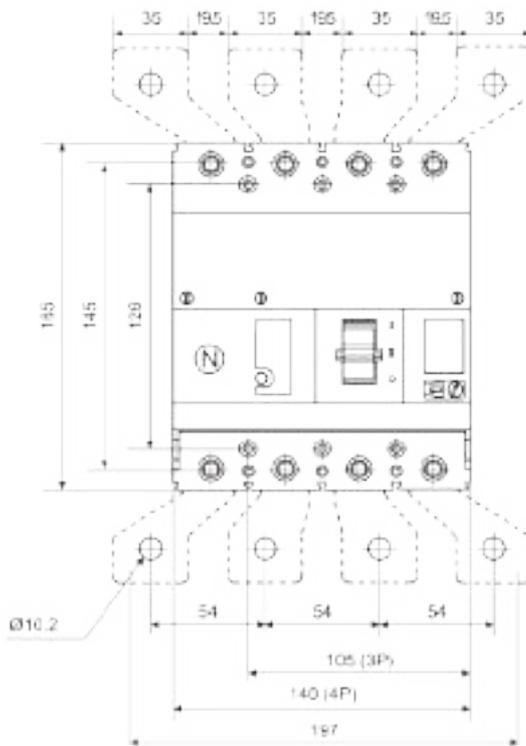


E3U/E4U-250C/250D MCCB with Spreader Links

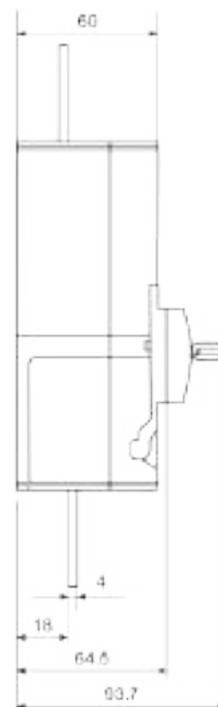
3-Pole



4-Pole



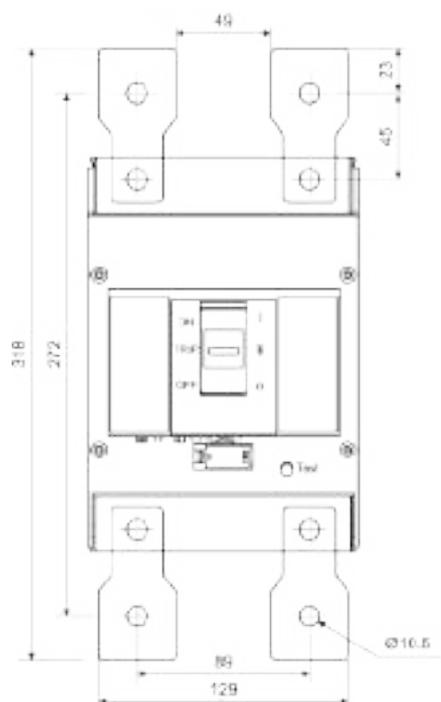
2-Pole, 3-Pole, 4-Pole



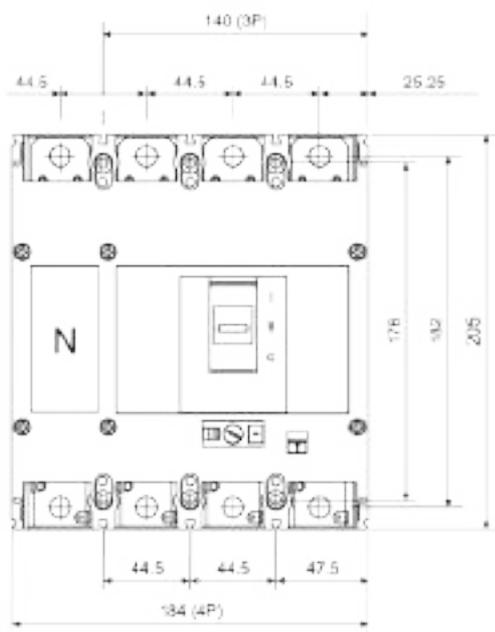
Link width (without spreader) : ≤26 mm
 Link width (with spreader) : 35 mm

E3U/E4U-400N MCCB

2-Pole

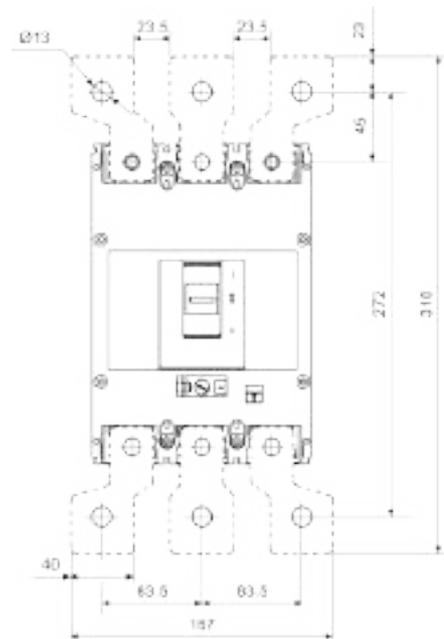


3-Pole, 4-Pole

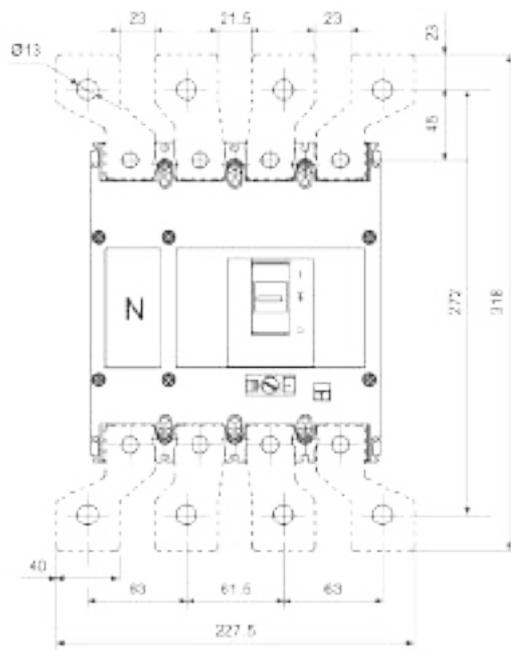


E3U/E4U-400N MCCB with Spreader Links

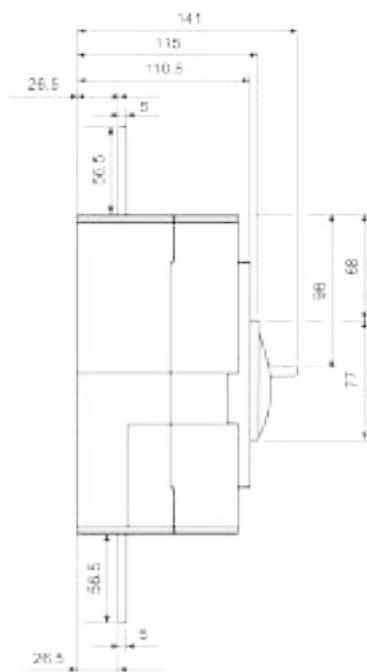
3-Pole



4-Pole



2-Pole, 3-Pole, 4-Pole



Link width (without spreader) : ≤32 mm
 Link width (with spreader) : 40 mm

EWave Series

Microprocessor (LSIG) MCCBs

Microprocessor-based MCCBs are the latest innovation in circuit protection technology, offering precise and reliable protection against electrical faults. With advanced features such as adjustable trip settings, real-time monitoring, and communication capabilities, they provide greater flexibility and control over your electrical systems. These MCCBs also offer enhanced safety and efficiency, reducing the risk of electrical fires, equipment damage, and downtime. Plus, their compact design and ease of installation make them ideal for a variety of applications, from industrial plants to commercial buildings.



Ordering Information **EWave Thermal Magnetic MCCBs**

Frame	Model	CAT Code	Rating	kA Rating
3 Pole	E3N 250D	E3N250D0125	100–125A	36kA
		E3N250D0160	125–160A	
		E3N250D0200	160–200A	
		E3N250D0250	200–250A	
	E3N 400D	E3N400D0320	250–320A	
		E3N400D0400	320–400A	
E3N 630D	E3N630D0500	400–500A		
	E3N630D0630	500–630A		
4 Pole	E3N 250D	E4N250D0125	100–125A	
		E4N250D0160	125–160A	
		E4N250D0200	160–200A	
		E4N250D0250	200–250A	
	E3N 400D	E4N400D0320	250–320A	
		E4N400D0400	320–400A	
	E3N 630D	E4N630D0500	400–500A	
		E4N630D0630	500–630A	



- Ranges from 100A–630A
- $I_{cs} = 100\%$ of I_{cu}
- Adjustable overload setting 0.8 to $1.0 \times I_n$
- Adjustable short-circuit setting 6 to $10 \times I_n$

Ordering Information **EWave Microprocessor LSIG MCCBs**

Frame	Model	CAT Code	Rating	kA Rating
3 Pole	E3Z 160DM	E3Z160DM0160	40–160A	36kA
	E3N 250DM	E3N250DM0250	100–250A	
	E3N 400DM	E3N400DM0400	160–400A	
	E3N 630DM	E3N630DM0630	250–630A	50kA
	E3N 1250NM	E3N1250NM1000	400–1000A	
		E3N1250NM1250	500–1250A	
4 Pole	E4Z 160DM	E4Z160DM0160	40–160A	36kA
	E4N 250DM	E4N250DM0250	100–250A	
	E4N 400DM	E4N400DM0400	160–400A	
	E4N 630DM	E4N630DM0630	250–630A	50kA
	E4N 1250NM	E4N1250NM1000	400–1000A	
		E4N1250NM1250	500–1250A	

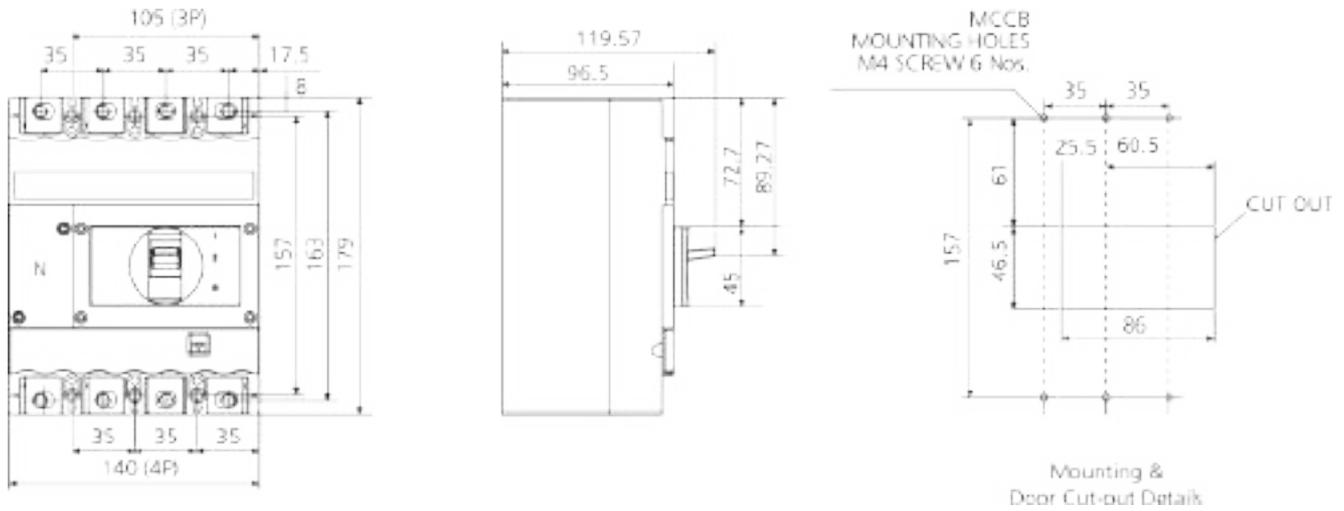


Note: Models are available with up to **100kA** breaking capacity, on request.

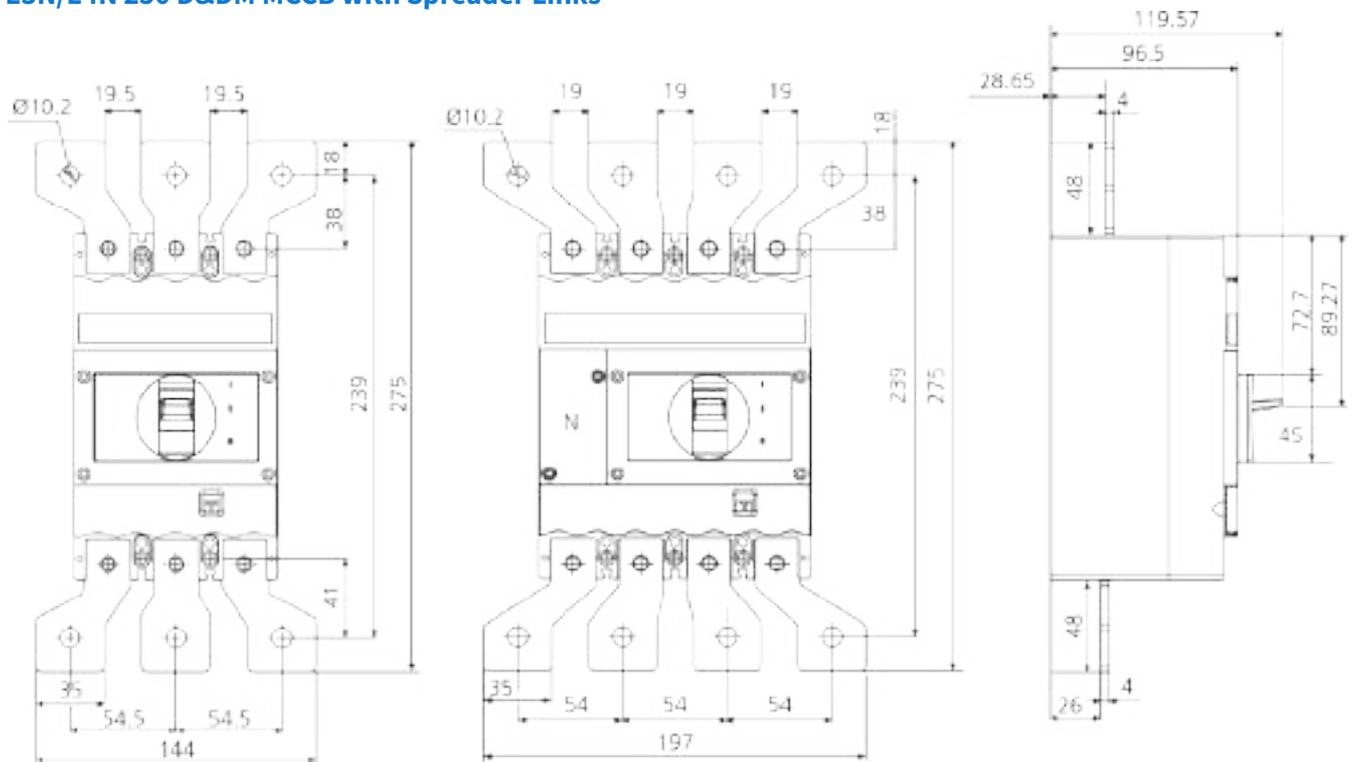
- Ranges from 40A–1250A
- $I_{cs} = 100\%$ of I_{cu}
- Adjustable overload setting 0.4 to $1.0 \times I_n$
- Adjustable short-circuit setting 1.5 to $8 \times I_n$
- In-built ground fault protection from 20% to 50% of I_n
- In-built instantaneous protection against short circuits
- Adjustable neutral overload protection from 50–150% of I_r
- Variable trip class (LSIG) for advanced flexibility and customization
- Optional communication module for BEMS/SCADA

Mechanical Diagram:

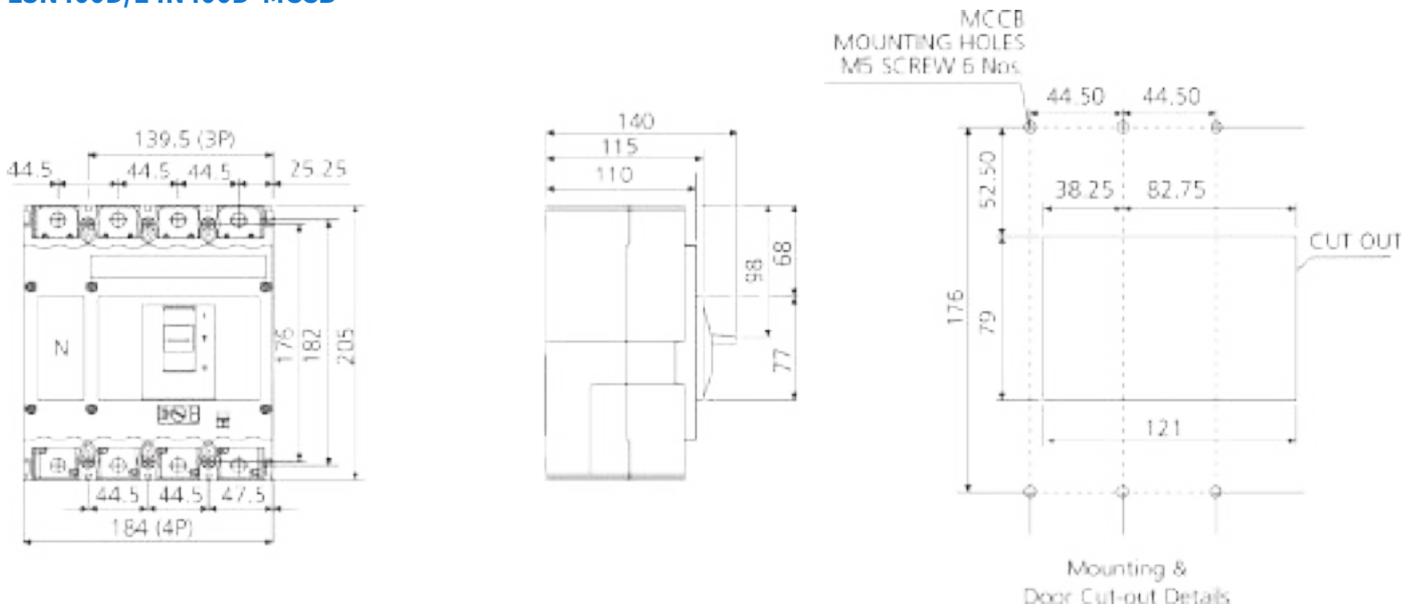
E3N/E4N 250 D&DM MCCB



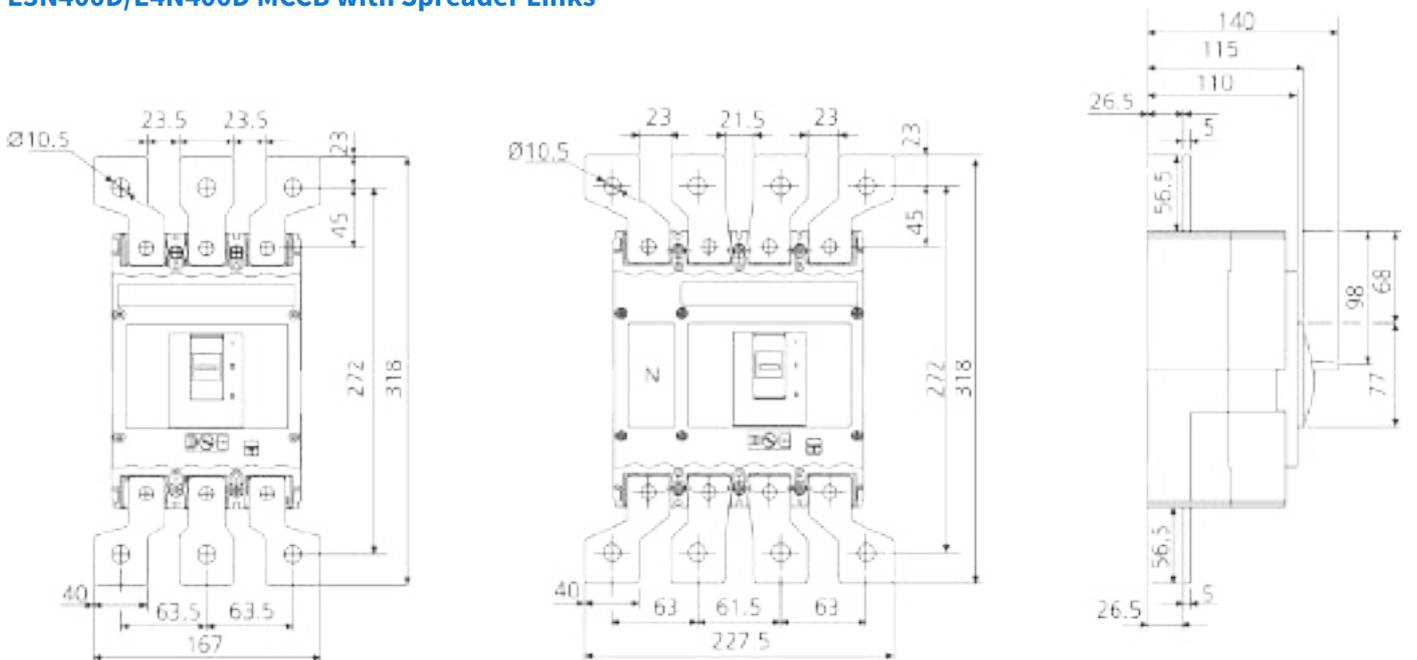
E3N/E4N 250 D&DM MCCB with Spreader Links



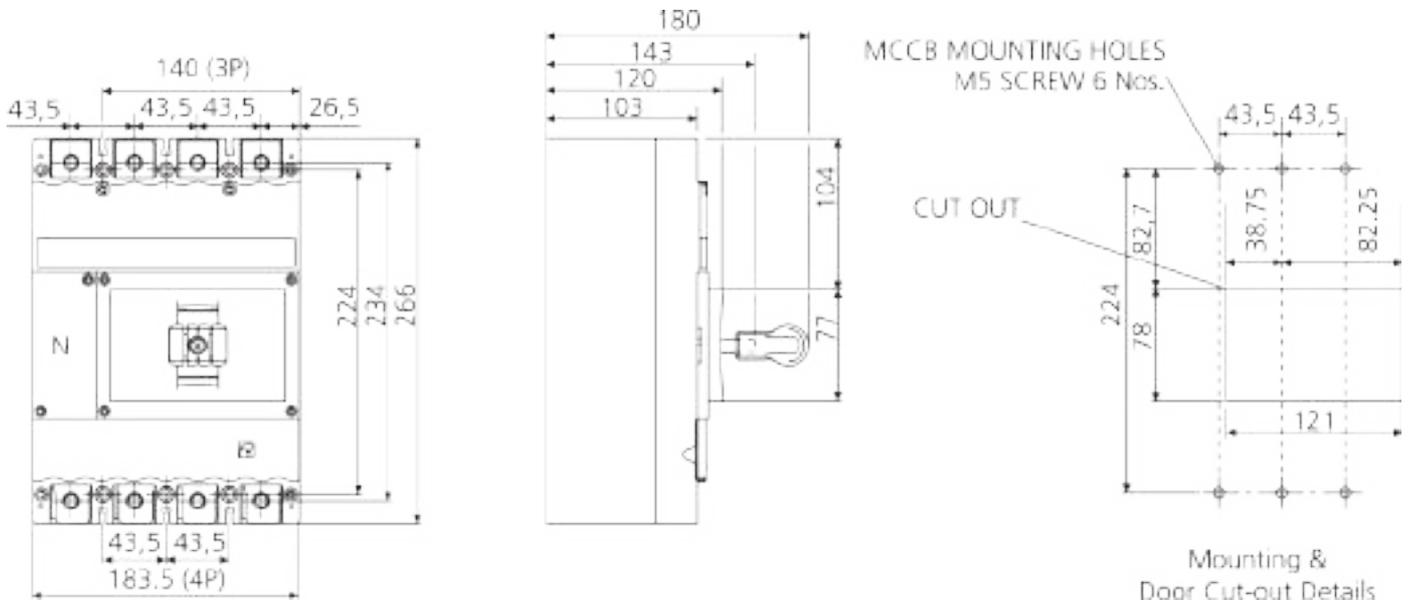
E3N400D/E4N400D MCCB



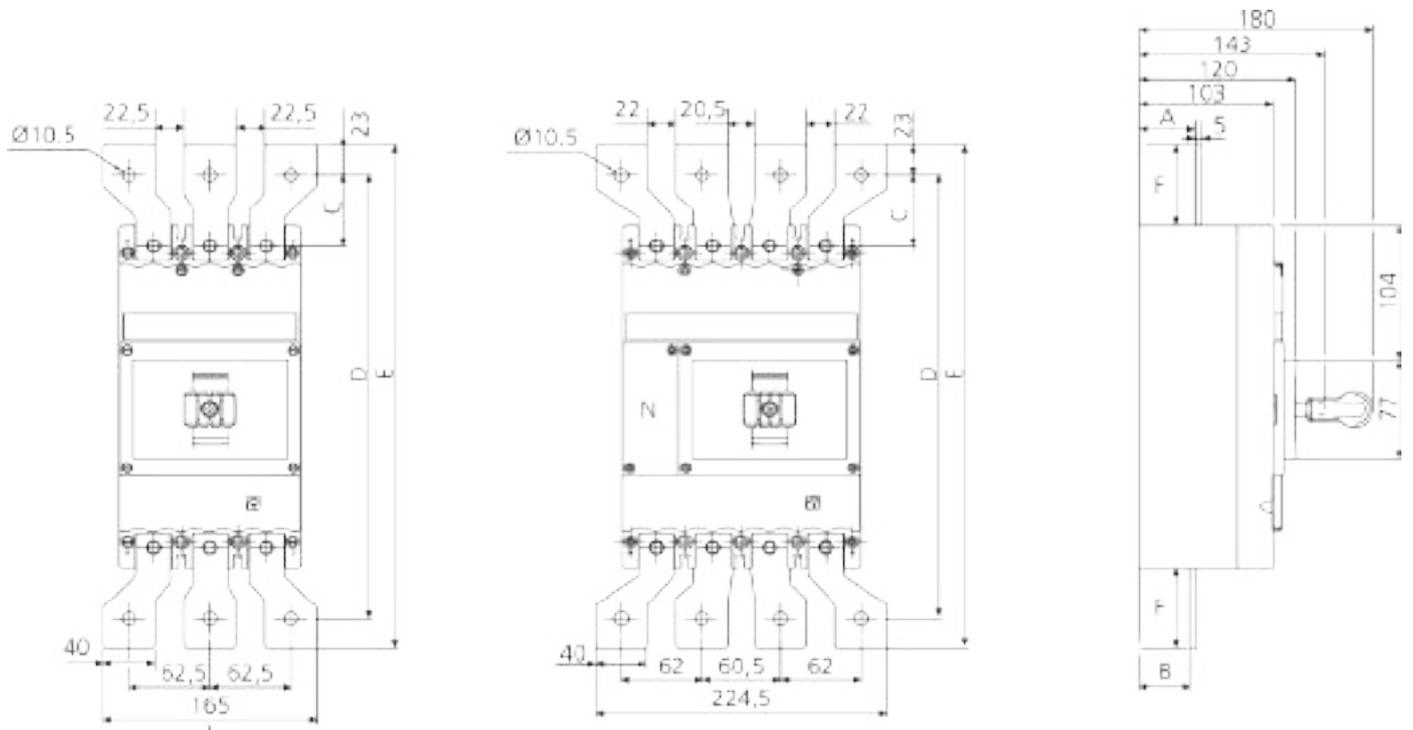
E3N400D/E4N400D MCCB with Spreader Links



E3N/E4N 400/630 D&DM MCCB

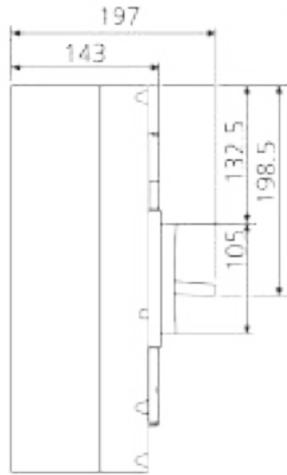
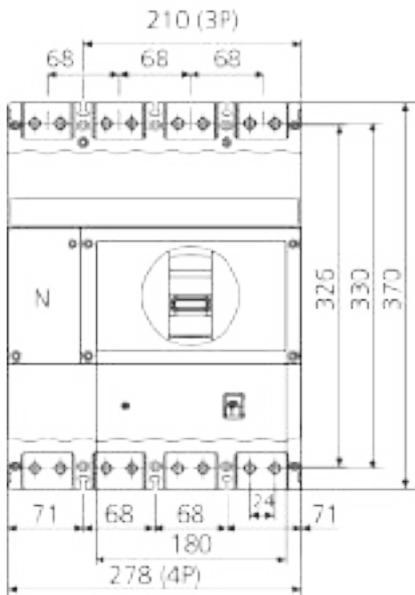


E3N/E4N 400/630 D&DM MCCB with Spreader Links

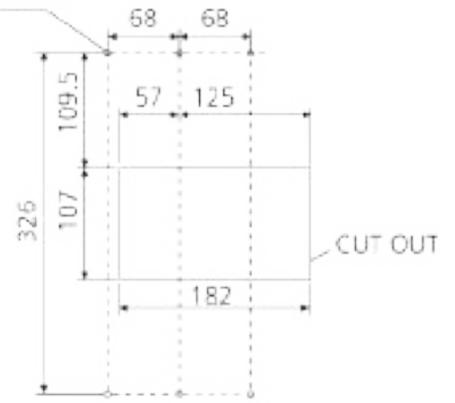


Type	DN3-400	DN3-630
A	39	43
B	37	39
C	45	55
D	324	344
E	370	390
F	52	62

E3N1250NM/E4N1250NM MCCB

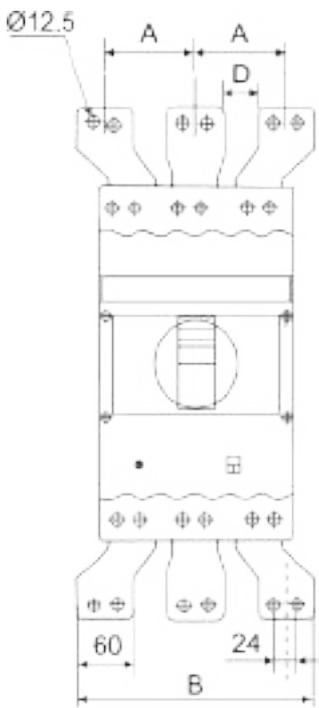


MCCB MOUNTING HOLES M5 SCREW 6 Nos.



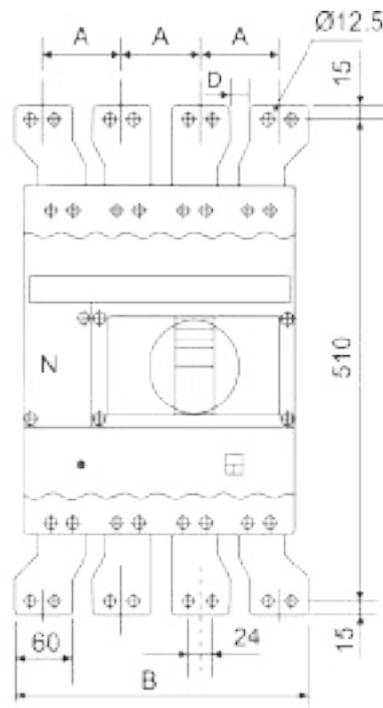
Mounting & Door Cut-out Details

E3N1250NM/E4N1250NM MCCB with Spreader Links



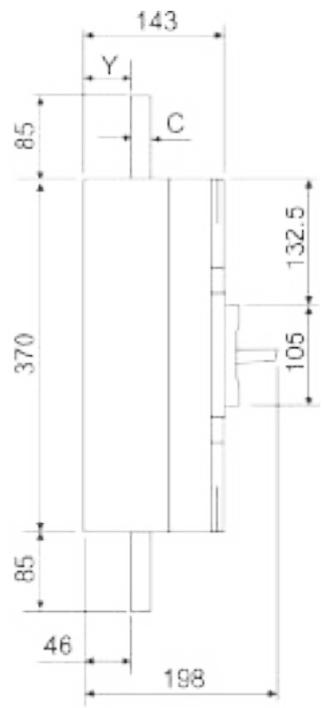
3P Frame

Type	A	B	C	D
800A	98	256	6	38
1000A	98	256	12	38
1250A	86	232	20	26

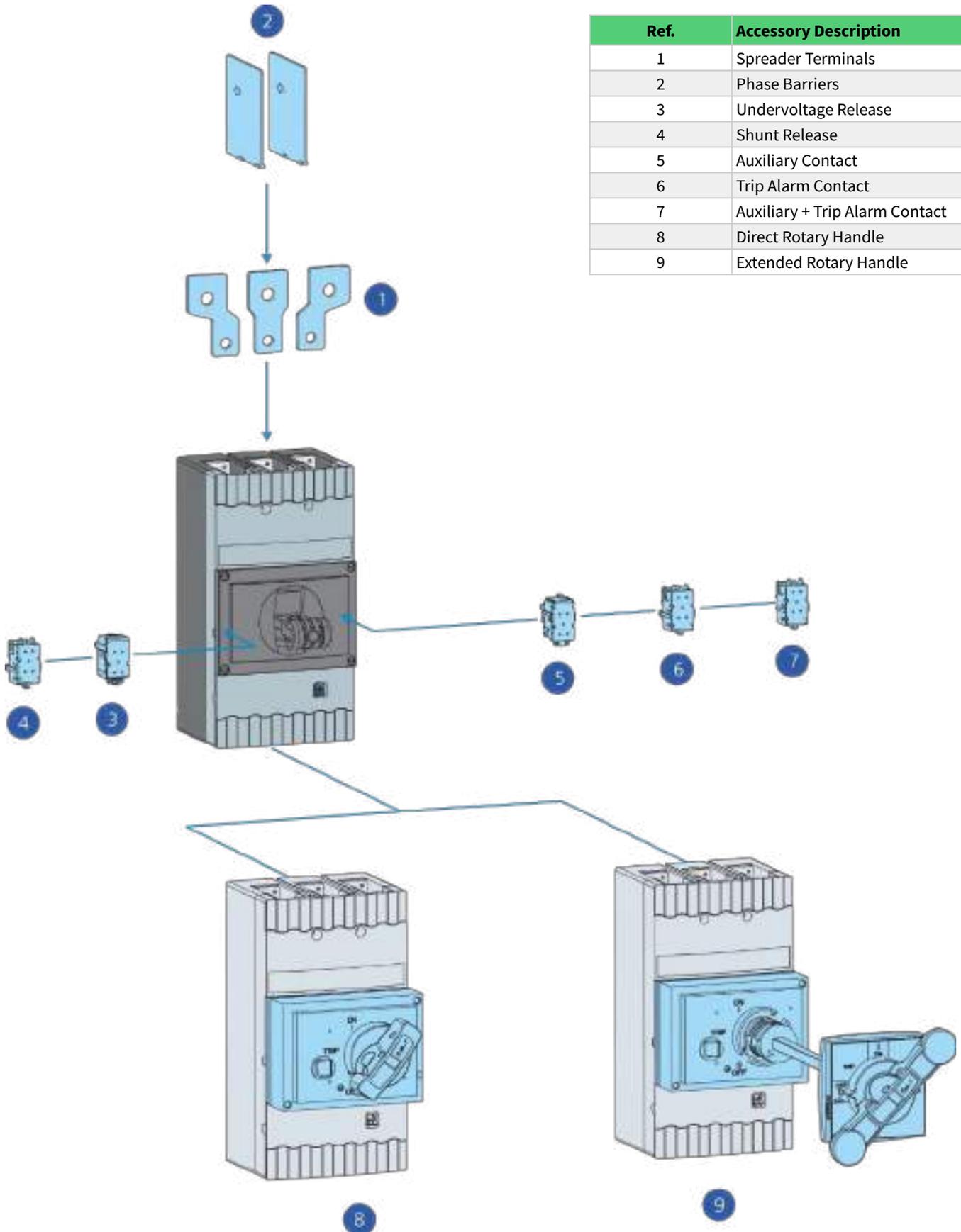


4P Frame

Type	A	B	C	D
800A	88	324	6	28
1000A	88	324	12	28
1250A	80	300	20	20



EWave MCCB Accessories



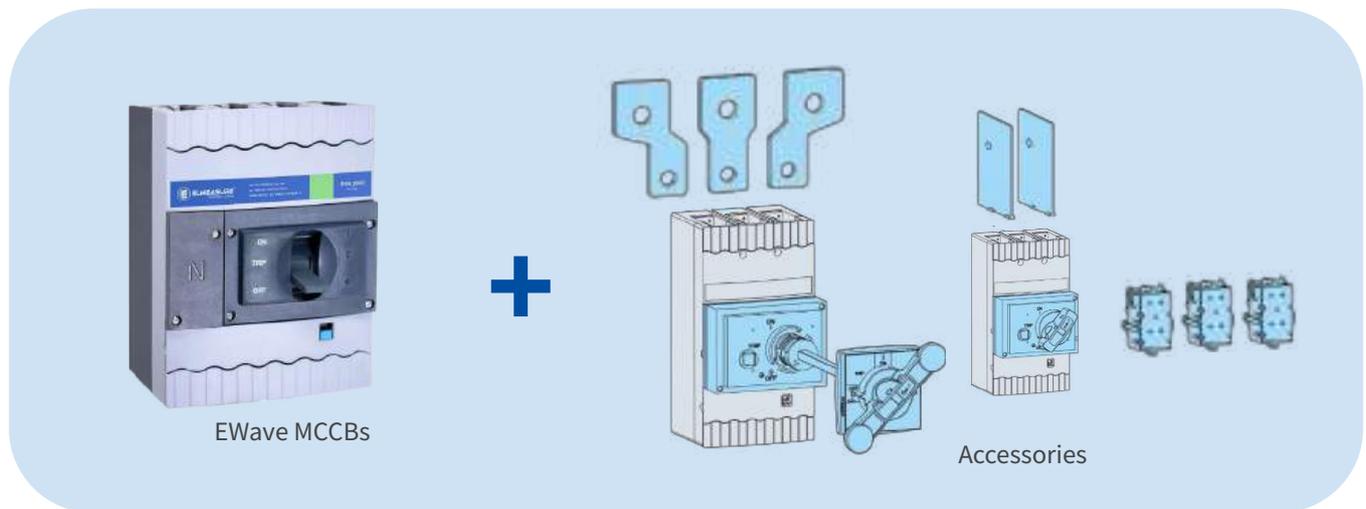


Accessories Ordering Info — E3Y/E4Y MCCBs

Frame	Model	CAT Code	Shunt Release	Spreader Terminal	U/V Release	Suitable ROM
3 Pole	E3Y 125	E3Y1250063	On Request	Included	On Request	EROMEY125U
		E3Y1250100				
		E3Y1250125				
4 Pole	E4Y 125	E4Y1250063				
		E4Y1250100				
		E4Y1250125				

Accessories Ordering Info — E3U/E4U MCCBs

Frame	Model	CAT Code	Shunt Release	Spreader Terminal	U/V Release	Suitable ROM		
3 Pole	E3U 100B	E3U100B0063	SREU250C415V	STE3U100D	UVEU250C240V	EROMEN0125		
		E3U100B0080						
		E3U100B0100						
E3U 125B	E3U125B0125	STE3U125D						
	4 Pole			E4U 100B			E4U100B0063	STE4U100D
							E4U100B0080	
E4U100B0100								
E4N 125B	E4U125B0125	STE4U125D						
	3 Pole			E3U 250C		E3U250C0160	STEN3250	EROMEU250C
						E3U250C0200		
E3U250C0250								
4 Pole	E4U 250C	E4U250C0160		STEN4250				
		E4U250C0200						
		E4U250C0250						
3 Pole	E3U 250D	E3U250D0160	STEN3250					
		E3U250D0200						
		E3U250D0250						
4 Pole	E4U 250D	E4U250D0160		STEN4250				
		E4U250D0200						
		E4U250D0250						
3 Pole	E4U 400N	E3U400N0320	SRE1250N415V	STEN3400	UVEN630D240V	EROMEN3630		
		E3U400N0400						
		4 Pole					E4U 400N	E4U400N0320
E4U400N0400								



Accessories Ordering Info — EWave Thermal Magnetic MCCBs

Frame	Model	CAT Code	Shunt Release	Spreader Terminal	U/V Release	Suitable ROM	
3 Pole	E3N 250D	E3N250D0125	SRE1250N415V	STEN3250	UVEN630D240V	EROMEN2250	
		E3N250D0160					
		E3N250D0200					
		E3N250D0250					
	E3N 400D	E3N400D0320		STEN3400			EROMEN3630
		E3N400D0400					
E3N 630D	E3N630D0500	STEN3630					
	E3N630D0630						
4 Pole	E3N 250D	E4N250D0125		STEN4250		EROMEN2250	
		E4N250D0160					
		E4N250D0200					
		E4N250D0250					
	E3N 400D	E4N400D0320	STEN4400	EROMEN3630			
		E4N400D0400					
	E3N 630D	E4N630D0500	STEN4630				
		E4N630D0630					

Accessories Ordering Info — EWave Microprocessor MCCBs

Frame	Model	CAT Code	Shunt Release	Spreader Terminal	U/V Release	Suitable ROM
3 Pole	E3Z 160DM	E3Z160DM0160	On Request	STEZ13160	On Request	On Request
	E3N 250DM	E3N250DM0250	SRE1250N415V	STEN3250	UVEN630D240V	EROMEN2250
	E3N 400DM	E3N400DM0400		STEN3400		EROMEN3630
	E3N 630DM	E3N630DM0630		STEN3630		
	E3N 1250NM	E3N1250NM1000		STEN3800,STEN31000	UVE1250D240V	EROMEN41250
		E3N1250NM1250		STEN31250		
4 Pole	E4Z 160DM	E4Z160DM0160		On Request	STEZ14160	On Request
	E4N 250DM	E4N250DM0250	SRE1250N415V	STEN4250	UVEN630D240V	EROMEN2250
	E4N 400DM	E4N400DM0400		STEN4400		EROMEN3630
	E4N 630DM	E4N630DM0630		STEN4630		
	E3N 1250NM	E4N1250NM1000		STEN4800,STEN41000	UVE1250D240V	EROMEN41250
		E4N1250NM1250		STEN41250		

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