DATASHEET - PLHT-D100/3N

Miniature circuit breaker (MCB), 100A, 3Np, D-Char, AC

Part no. **PLHT-D100/3N**
248075

Powering Business Worldwide™

General specifications	
Product name	Eaton Moeller series xPole - PLHT/-V MCB
Part no.	PLHT-D100/3N
EAN	4015082480752
Product Length/Depth	90 millimetre
Product height	75 millimetre
Product width	108 millimetre
Product weight	0.862 kilogram
Compliances	RoHS conform
Product Tradename	xPole - PLHT/-V
Product Type	MCB
Product Sub Type	None
Delivery program	
Application	Switchgear for industrial and advanced commercial applications
Number of poles	Three-pole + N
Number of poles (total)	4
Number of poles (protected)	3
Tripping characteristic	D
Release characteristic	D
Amperage Rating	100 A
Type	Miniature circuit breaker PLHT
Technical Data - Electrical	
Voltage type	AC
Rated operational voltage (Ue) - max	400 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating - min	50 Hz
Frequency rating - max	60 Hz
Rated switching capacity (IEC/EN 60947-2)	15 kA
Rated short-circuit breaking capacity (EN 60898) at 230 V	0 kA
Rated short-circuit breaking capacity (EN 60898) at 400 V	0 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 230 V	15 kA
Rated short-circuit breaking capacity (IEC 60947-2) at 400 V	15 kA
Overvoltage category	III
Pollution degree	2
Technical Data - Mechanical	
Width in number of modular spacings	6
Built-in depth	75 mm
Degree of protection	IP20
Connectable conductor cross section (solid-core) - min	2.5 mm^2
Connectable conductor cross section (solid-core) - max	50 mm^2
Connectable conductor cross section (multi-wired) - min	2.5 mm^2
Connectable conductor cross section (multi-wired) - max	50 mm^2
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	100 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	28.29 W

Static heat dissipation, non-current-dependent	0 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	55 °C

Design verification as per IEC/EN 61439

10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of assemblies	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Additional information

Current limiting class	3
Features	Additional equipment possible Concurrently switching N-neutral
Special features	Ambient temperature hint: a 1 °C increase results in a 0.35% linear reduction of current carrying capacity

Technical data ETIM 8.0

Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

Built-in depth	mm	75
Release characteristic		D
Number of poles (total)		4
Number of protected poles		3
Rated current	A	100
Rated voltage	V	400
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V	kA	0
Voltage type		AC
Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V	kA	0
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V	kA	15
Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V	kA	15
Frequency	Hz	50 - 60
Current limiting class		3
Flush-mounted installation		No
Concurrently switching neutral conductor		Yes

Over voltage category			3
Pollution degree			2
Additional equipment possible			Yes
Width in number of modular spacings			6
Degree of protection (IP)			IP20
Ambient temperature during operating		°C	-25 - 55
Connectable conductor cross section multi-wired		mm^2	2.5 - 50
Connectable conductor cross section solid-core		mm^2	2.5 - 50
Explosion-proof			No