



248013
PLHT-C80/2



Overview



Specifications



Resources



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per IEC/EN 61439 >](#)

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DELIVERY PROGRAM

Basic function
Miniature circuit-breakers

Number of poles
2 pole

Tripping characteristic
C

Application
Switchgear for industrial and advanced
commercial applications

Rated current [I_n]
80 A

Rated switching capacity acc. to IEC/EN 60947-2
[I_{cu}]
20 kA

Product range

TECHNICAL DATA

Electrical

Rated switching capacity acc. to IEC/EN 60947-2
[I_{cu}]
20 kA

DESIGN VERIFICATION AS PER IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat
dissipation [I_n]
80 A

Heat dissipation per pole, current-dependent [P_{vid}]
0 W

Equipment heat dissipation, current-dependent
[P_{vid}]
14.3 W

Static heat dissipation, non-current-dependent [P_{vs}]
0 W

Heat dissipation capacity [P_{diss}]
0 W

Operating ambient temperature min.
-25 °C

Operating ambient temperature max.
+55 °C

linear, per +1 °C, results in a 0.35% reduction of
current carrying capacity

IEC/EN 61439 design verification

10.2 Strength of materials and parts
10.2.2 Corrosion resistance
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.3.1 Verification of thermal stability of enclosures
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts
10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts
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 Insulation properties
10.9.2 Power-frequency electric strength
Is the panel builder's responsibility.

10.9 Insulation properties
10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.

10.9 Insulation properties
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.

TECHNICAL DATA ETIM 7.0

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) (ec@ss10.0.1-27-14-19-01 [AAB905014])

Release characteristic
C

Number of poles (total)
2

Number of protected poles
2

Rated current
80 A

Rated voltage
400 V

Rated insulation voltage U_i
440 V

Rated impulse withstand voltage U_{imp}
4 kV

Rated short-circuit breaking capacity I_{cn} EN 60898
at 230 V
0 kA

Rated short-circuit breaking capacity I_{cn} EN 60898
at 400 V
0 kA

Rated short-circuit breaking capacity I_{cu} IEC
60947-2 at 230 V
20 kA

Rated short-circuit breaking capacity I_{cu} IEC
60947-2 at 400 V
20 kA

Voltage type
AC

Frequency
50 - 60 Hz

Current limiting class
3

Suitable for flush-mounted installation
No

Concurrently switching N-neutral
No

Over voltage category
3

Pollution degree
2

Additional equipment possible
Yes

Width in number of modular spacings
3

Built-in depth
75 mm

Degree of protection (IP)
IP20

Ambient temperature during operating
-25 - 55 °C

Connectable conductor cross section multi-wired
2.5 - 50 mm²

Connectable conductor cross section solid-core
2.5 - 50 mm²

