# **DATASHEET - PL6-C40/3**



## Miniature circuit breaker (MCB), 40A, 3 p, type C characteristic

Powering Business Worldwide\*

Part no. PL6-C40/3 Catalog No. 286605

Similar to illustration

Delivery program			
Basic function			Miniature circuit-breakers
Number of poles			3 pole
Tripping characteristic			С
Application			Switchgear for residential and commercial applications
Rated current	In	Α	40

kA

6

PL6

 $\rm I_{\rm cn}$ 

### **Technical data**

**Electrical** 

Product range

Pated quitabing capacity according to IEC/EN 60000 1		kΛ	c
switching capacity according to IEC/EN 60898-1	cn	KA	D

#### Design verification as per IEC/EN 61439

Rated switching capacity according to IEC/EN 60898-1

lesign verification as per IEC/EN 61439			
echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	40
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	11.2
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	75
			linear, per +1 °C, results in a 0.5% reduction of current carrying capacity
C/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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.

## **Technical data ETIM 7.0**

	Technical data Ettivi 7.0					
Act	Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000	042)				
Author of poles (total) Author of protected poles Alted current Alted voltage Alted voltage Alted voltage Alted impulse withstand voltage Uimp Alted short-circuit breaking capacity Icn EN 60898 at 200 V Alted short-circuit breaking capacity Icn EN 60898 at 400 V Alted short-circuit breaking capacity Icn E	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])					
Author of protected poles Acted current Acted voltage Acted insulation voltage Ui Acted insulation voltage Uimp Acted short-circuit breaking capacity Icn EN 60898 at 230 V Acted short-circuit breaking capacity Icn EN 60898 at 400 V Acted short-circuit breaking capacity Icn EN 60898 at 400 V Acted short-circuit breaking capacity Icu IEC 60947-2 at 230 V Acted short-circuit breaking capacity Icu IEC 60947-2 at 400 V Acted short-circuit breaking capacity Icu IEC 60947-2	Release characteristic			С		
Asted dourent Asted current Asted outside Course Asted insulation voltage Uin Asted insulation voltage Uin Asted insulation voltage Uin Asted insulation voltage Uin Asted short-circuit breaking capacity Icn EN 60898 at 420 V	Number of poles (total)			3		
No.	Number of protected poles			3		
Asted insulation voltage Uimp         V         440           Asted impulse withstand voltage Uimp         kV         4           Asted short-circuit breaking capacity Icn EN 60898 at 230 V         kA         6           Asted short-circuit breaking capacity Icn EN 60898 at 400 V         kA         6           Asted short-circuit breaking capacity Icu IEC 60947-2 at 230 V         kA         0           Asted short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         0           Acc         AC         Concurrent limiting class         3           Accurrent limiting class         3         3           Accurrently switching N-neutral         No         No           Over voltage category         3         3           Pollution degree         2         2           Action of includer spacings         3         3           Additional equipment possible         Yes         3           Vidit in number of modular spacings         3         3           Built-in depth         Pol         70.5           Degree of protection (IP)         IP20           Action of the policy of	Rated current		Α	40		
Sated impulse withstand voltage Ulimp  KV 4  Abated short-circuit breaking capacity Icn EN 60898 at 230 V  Abated short-circuit breaking capacity Icn EN 60898 at 400 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 400 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 400 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 400 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 400 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 400 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 400 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 230 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 250 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 250 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at 250 V  Abated short-circuit breaking capacity Icn IEC 60947-2 at	Rated voltage		V	400		
Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn ICn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn ICn IEC 60947-2 at 200 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 200 V Rated short-circuit breaking	Rated insulation voltage Ui		V	440		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V kA 0 Rated	Rated impulse withstand voltage Uimp		kV	4		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking capacity ICu IEC 60947-2 at 400 V Rated short-circuit breaking c	Rated short-circuit breaking capacity Icn EN 60898 at 230 V		kA	6		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V  AC  AC  Frequency  By 50 - 60  Current limiting class  Suitable for flush-mounted installation  Concurrently switching N-neutral  Over voltage category  Pollution degree  Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  AC  AC  AC  AC  AC  AC  AC  AC  AC  A	Rated short-circuit breaking capacity Icn EN 60898 at 400 V		kA	6		
ACC prequency ACC preduction ACC prequency ACC preduction ACC pr	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V		kA	0		
Frequency  Hz  50 - 60  Current limiting class  Suitable for flush-mounted installation  Concurrently switching N-neutral  Over voltage category  3  Cultion degree  4  Additional equipment possible  Width in number of modular spacings  Suilt-in depth  mm  70.5  Connectable conductor cross section multi-wired  Hz  50 - 60  No  No  No  No  70  70  70  70  70  70  70  70  70  7	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V		kA	0		
Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Over voltage category  2 Additional equipment possible Width in number of modular spacings Suilt-in depth Over voltage category  The suilt-in depth Over voltage cat	Voltage type			AC		
Suitable for flush-mounted installation  Concurrently switching N-neutral  Over voltage category  Sultition degree  Conditional equipment possible  Width in number of modular spacings  Suilt-in depth  Over voltage category  The sultition degree  The sultition degree of protection (IP)  The su	Frequency		Hz	50 - 60		
Concurrently switching N-neutral  Over voltage category  3 Pollution degree  Additional equipment possible  Width in number of modular spacings  Built-in depth  mm  70.5  Degree of protection (IP)  Ambient temperature during operating  "C -25 - 55  Connectable conductor cross section multi-wired  No  No  No  1  2  About 1  Pes  1  1  1  1  1  1  1  1  1  1  1  1  1	Current limiting class			3		
Over voltage category  Over voltage category  Output on degree  Additional equipment possible  Ves  Vidth in number of modular spacings  Suilt-in depth  Degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  3  Polytic degree of protection (IP)  Ambient temperature during operating  Connectable conductor cross section multi-wired  3  Ves  Ves  Ves  1  1  1  1  1  1  1  1  1  1  1  1  1	Suitable for flush-mounted installation			No		
Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 3 Built-in depth mm 70.5 Degree of protection (IP) Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 1 - 25	Concurrently switching N-neutral			No		
Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  "C"  -25 - 55  Connectable conductor cross section multi-wired  "Mark Mark Mark Mark Mark Mark Mark Mark	Over voltage category			3		
Width in number of modular spacings  Built-in depth  mm 70.5  Degree of protection (IP)  Ambient temperature during operating  °C -25 - 55  Connectable conductor cross section multi-wired  mm² 1 - 25	Pollution degree			2		
Built-in depth mm 70.5 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 1 - 25	Additional equipment possible			Yes		
Degree of protection (IP)  Ambient temperature during operating  °C -25 - 55  Connectable conductor cross section multi-wired  mm² 1 - 25	Width in number of modular spacings			3		
Ambient temperature during operating  °C -25 - 55  Connectable conductor cross section multi-wired  mm² 1 - 25	Built-in depth		mm	70.5		
Connectable conductor cross section multi-wired mm <sup>2</sup> 1 - 25	Degree of protection (IP)			IP20		
	Ambient temperature during operating		°C	-25 - 55		
Connectable conductor cross section solid-core mm <sup>2</sup> 1 - 25	Connectable conductor cross section multi-wired		mm²	1 - 25		
	Connectable conductor cross section solid-core		mm²	1 - 25		