# **DATASHEET - PLHT-D32/4**



# Miniature circuit breaker (MCB), 32A, 4p, D-Char, AC

Powering Business Worldwide\*

Part no. PLHT-D32/4 Catalog No. 248096

Similar to illustration

Delivery program			
Basic function			Miniature circuit-breakers
Number of poles			4 pole
Tripping characteristic			D
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	32
Rated switching capacity acc. to IEC/EN 60947-2	I <sub>cu</sub>	kA	25
Product range			PLHT

# **Technical data**

**Electrical** 

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### Design verification as per IEC/EN 61439

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echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	32
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	3.8
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	55
			linear, per +1 °C, results in a 0.35% 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**

Release characteristic	ICCIIIICAI UALA LTIIVI 7.0					
Release characteristic	Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000	042)				
Number of poles (total)         4           Number of protected poles         4           Rated current         A         32           Rated voltage         V         400           Rated insulation voltage Uimp         kV         440           Rated short-circuit breaking capacity Icn EN 60898 at 230 V         kA         0           Rated short-circuit breaking capacity Icn EN 60898 at 400 V         kA         0           Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         25           Voltage type         Hz         50 - 60           Frequency         Corcurrent limiting class         3           Suitable for flush-mounted installation         No           Concurrently switching N-neutral         Yes           Over voltage category         Yes           Pollution degree         Yes           Additional equipment possible         Yes           Width in number of modular spacings         Fe           Bull-in depth         Pull         Pull           Degree of protection (IP)         Pull         25-55	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])					
Number of protected poles         4           Rated current         A         32           Rated voltage         V         400           Rated insulation voltage Ui         V         440           Rated impulse withstand voltage Uimp         kV         4           Rated short-circuit breaking capacity Icn EN 60898 at 230 V         kA         0           Rated short-circuit breaking capacity Icn EN 60898 at 400 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         25           Voltage type         AC         F         60           Frequency         KA         25           Concurrent limiting class         Suitable for flush-mounted installation         No         No           Concurrently switching N-neutral         Yes         2           Over voltage category         2         3           Pollution degree         2         2           Additional equipment possible         Yes           Width in number of modular spacings         6         1920           Built-in d	Release characteristic			D		
Rated current         A         32           Rated voltage         V         400           Rated insulation voltage Ui         V         440           Rated short-circuit breaking capacity Icn EN 60898 at 230 V         kA         0           Rated short-circuit breaking capacity Icn EN 60898 at 400 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         25           Voltage type         L         AC           Frequency         L         AC           Current limiting class         3         3           Suitable for flush-mounted installation         No         No           Concurrently switching N-neutral         Yes         Additional equipment possible         Yes           Width in number of modular spacings         Yes         Additional equipment possible         Yes           Width in number of modular spacings         mm         75           Built-in depth         mm         75           Degree of protection (IP)         PID20           Ambient temperature during operating         °C         25.55	Number of poles (total)			4		
Rated voltage         V         400           Rated insulation voltage Uin         V         440           Rated impulse withstand voltage Uimp         kV         4           Rated short-circuit breaking capacity Icn EN 60898 at 230 V         kA         0           Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V         kA         25           Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V         kA         25           Voltage type         kA         25           Frequency         kA         25           Current limiting class         AC         C           Suitable for flush-mounted installation         Mo         No           Concurrently switching N-neutral         Yes         Additional equipment possible         Yes           Voltage extegory         Yes         Yes           Pollution degree         Yes         Additional equipment possible         Yes           Width in number of modular spacings         mm         75           Built-in depth         mm         75           Degree of protection (IP)         Pollution degree         25-55	Number of protected poles			4		
Rated insulation voltage Uin Rated inpulse withstand voltage Uinp 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 EN 60898 at 400 V Rated short-circuit breaking capacity Icn EN 60894 r-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 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 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 230 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 230 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 230 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 230 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 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capaci	Rated current		Α	32		
Rated impulse withstand voltage Uimp 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 Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Voltage type Frequency 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  **V **V **A **  **A **  **C **  **  **  **  **	Rated voltage		V	400		
Rated short-circuit breaking capacity Icn EN 60898 at 230 V KA 0 Rated short-circuit breaking capacity Icn EN 60898 at 400 V KA 25 Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V KA 25 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 25 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 25 Voltage type AC Frequency Hz 50 - 60 Current limiting class Suitable for flush-mounted installation No Concurrently switching N-neutral Yes Over voltage category 3 Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings Built-in depth mm 75 Degree of protection (IP) IP20 Ambient temperature during operating *C - 25 - 55	Rated insulation voltage Ui		V	440		
Rated short-circuit breaking capacity Icn EN 60898 at 400 V RAted short-circuit breaking capacity Icu IEC 60947-2 at 230 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 STATES	Rated impulse withstand voltage Uimp		kV	4		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 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 RAC Requency Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V RAC Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V RAC Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V RAC Rated short-circuit breaking capacity Icu IEC 60947-2 at 200 V RAC	Rated short-circuit breaking capacity Icn EN 60898 at 230 V		kA	0		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V  Voltage type  AC  Frequency  Hz 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  kA 25  AC  AC  AC  AC  Frequency  AC  AC  Frequency  No  Ves  3  4  5  6  Frequency  IP20  Anding a pacity Icu IEC 60947-2 at 400 V  AC  AC  AC  AC  AC  AC  AC  AC  AC  A	Rated short-circuit breaking capacity Icn EN 60898 at 400 V		kA	0		
Voltage type  Frequency  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  AC  AC  AC  AC  AC  BUILT-IN AC  Hz 50 - 60  No  Ves  Ves  Yes  6  Frequency  AC  No  Yes  6  IP20  PD20  PD20  PD3 - 25 - 55	Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V		kA	25		
Frequency  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 Memory Ambient temperature during operating  Hz 50 - 60  No  Yes  Yes  Yes  6  Frequency Mrz 75  Frequency IP20  Concurrently switching N-neutral No  No  Yes  2  Arbitable for flush-mounted installation No  No  Yes  2  Arbitable for flush-mounted installation No  Yes  1 2  Arbitable for flush-mounted installation No  Yes  1 2  Arbitable for flush-mounted installation No  Yes  2 2  Arbitable for flush-mounted installation No  Yes  4 2  Arbitable for flush-mounted installation No  No  Yes  4 2  Arbitable for flush-mounted installation No  Yes  4 2  Arbitable for flush-mounted installation No  No  Yes  4 2  Arbitable for flush-mounted installation No  No  Yes  4 2  Arbitable for flush-mounted installation No  No  No  Arbitable for flush-mounted installation No  No  Arbitable for flush-mounted installation No  No  No  No  Arbitable for flush-mounted installation No  No  No  Arbitable for flush-mounted installation No  No  No  Arbitable for flush-mounted installation No  No  No  No  No  No  No  No  No  N	Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V		kA	25		
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)  Anhient temperature during operating  Suitable for flush-mounted installation  No  Yes  2  4  5  6  10  10  10  10  10  10  10  10  10	Voltage type			AC		
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  No  Yes  3  4  6  For any operating  No  Any operation (IP)  No  Poly operation (IP)  Any operation (IP)  Poly operation (IP)  Any operation (IP)  Poly operation (IP)  Any operation (IP)  Poly operation (IP)	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  75  Degree of protection (IP)  Ambient temperature during operating  Yes  Yes  6  Figure 2  The space of protection (IP)  Protection (IP)  Ambient temperature during operating  Yes  1  1  1  1  1  1  1  1  1  1  1  1  1	Current limiting class			3		
Over voltage category  Solution degree  Additional equipment possible  Width in number of modular spacings  Built-in depth  Degree of protection (IP)  Ambient temperature during operating  3  Yes  6  Protection (IP)  IP20  Ambient temperature during operating  3  Yes  6  Protection (IP)  IP20  Ambient temperature during operating	Suitable for flush-mounted installation			No		
Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 6 Built-in depth mm 75 Degree of protection (IP) IP20 Ambient temperature during operating °C -25 - 55	Concurrently switching N-neutral			Yes		
Additional equipment possible  Width in number of modular spacings  Built-in depth  mm 75  Degree of protection (IP)  Ambient temperature during operating  Yes  6  IP20  -25 - 55	Over voltage category			3		
Width in number of modular spacings  Built-in depth  mm  75  Degree of protection (IP)  Ambient temperature during operating  °C  -25 - 55	Pollution degree			2		
Built-in depth mm 75  Degree of protection (IP) IP20  Ambient temperature during operating °C -25 - 55	Additional equipment possible			Yes		
Degree of protection (IP)  Ambient temperature during operating  C -25 - 55	Width in number of modular spacings			6		
Ambient temperature during operating °C -25 - 55	Built-in depth		mm	75		
	Degree of protection (IP)			IP20		
Connectable conductor cross section multi-wired mm <sup>2</sup> 2.5 - 50	Ambient temperature during operating		°C	-25 - 55		
	Connectable conductor cross section multi-wired		mm²	2.5 - 50		
Connectable conductor cross section solid-core mm² 2.5 - 50	Connectable conductor cross section solid-core		mm²	2.5 - 50		