DATASHEET - AZ-3N-D100



Miniature circuit breaker (MCB), 100A, 3p+N, D-Char

Part no. AZ-3N-D100 Catalog No. 211829 Alternate Catalog AZ-3N-D100 No.



Similar to illustration

Delivery program Basic function Miniature circuit-breakers Number of poles 3 pole+N D Tripping characteristic Application Switchgear for industrial and advanced commercial applications Rated current I_n 100 А Rated switching capacity acc. to IEC/EN 60947-2 I_{cu} kA 15 Product range ΑZ

Technical data

Electrical			
Standards			IEC/EN 60947-2
Rated operational voltage	U _e	V	
	U _e	V AC	230/400
		V DC	60 (per pole)
Rated switching capacity acc. to IEC/EN 60947-2	I _{cu}	kA	15
Operational switching capacity		kA	20
Characteristic			Similar: D, C
Max. back-up fuse		A gL/gG	200
Selectivity Class			Compliant with Class 3
lifespan			
Lifespan	Operations		> 10000
Direction of incoming supply			as required
Mechanical			
Standard front dimension		mm	45
Enclosure height		mm	90
Mounting width per pole		mm	27
Mounting			IEC/EN 60715 top-hat rail
Degree of Protection			IP20, IP40 (when fitted)
Terminals top and bottom			Lift terminals
Terminal protection			Finger and back-of-hand proof to BGV A2
Terminal capacities		mm ²	
		mm ²	2.5 50

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	А	100
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	28.29
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
			linear, per +1 °C, results in a 0.5% reduction of current carrying capacity

IEC/EN 61439 design verification

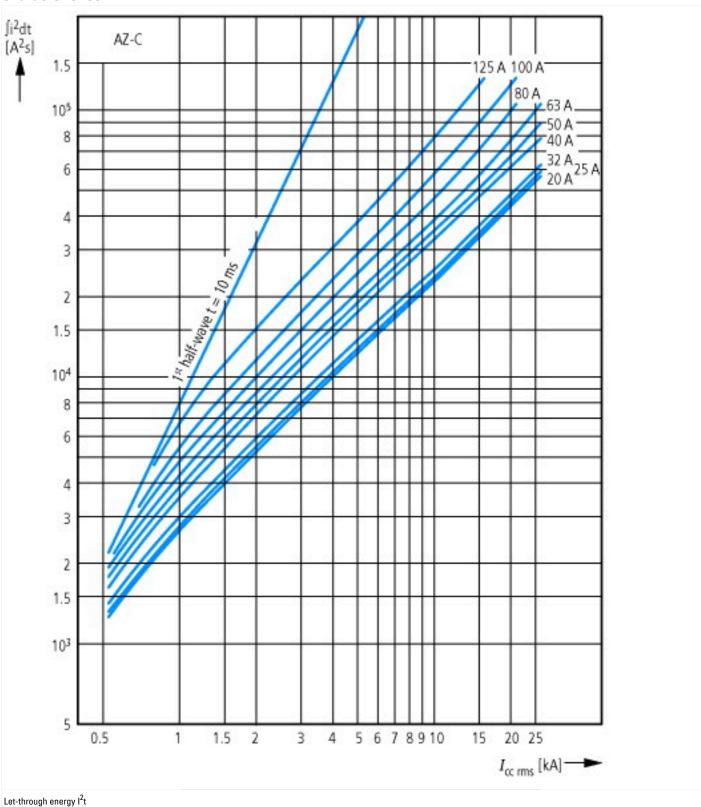
10.2 Strength of materials and parts	
10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product 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.

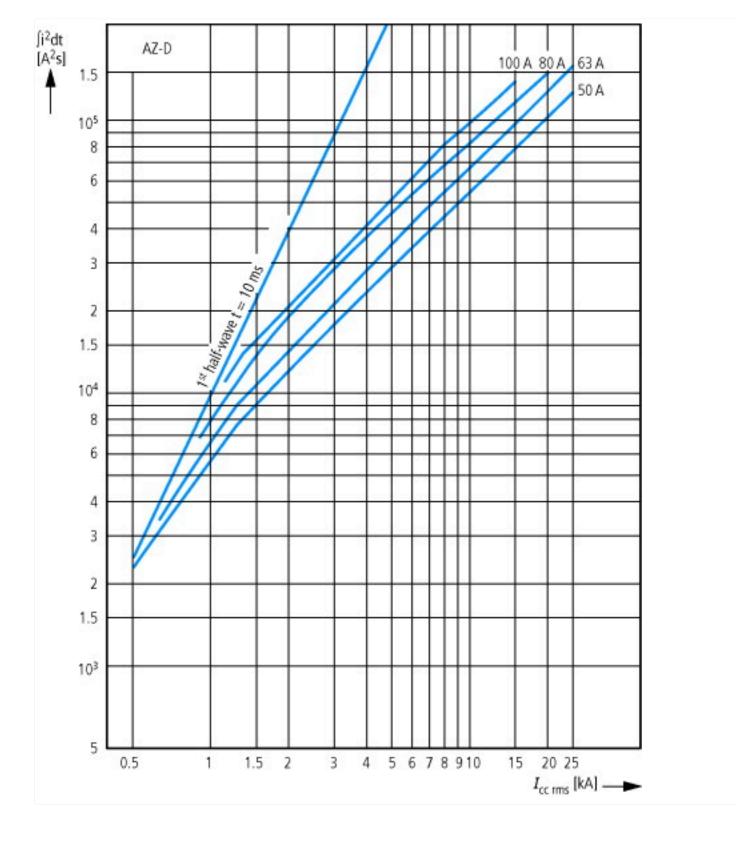
Technical data ETIM 7.0

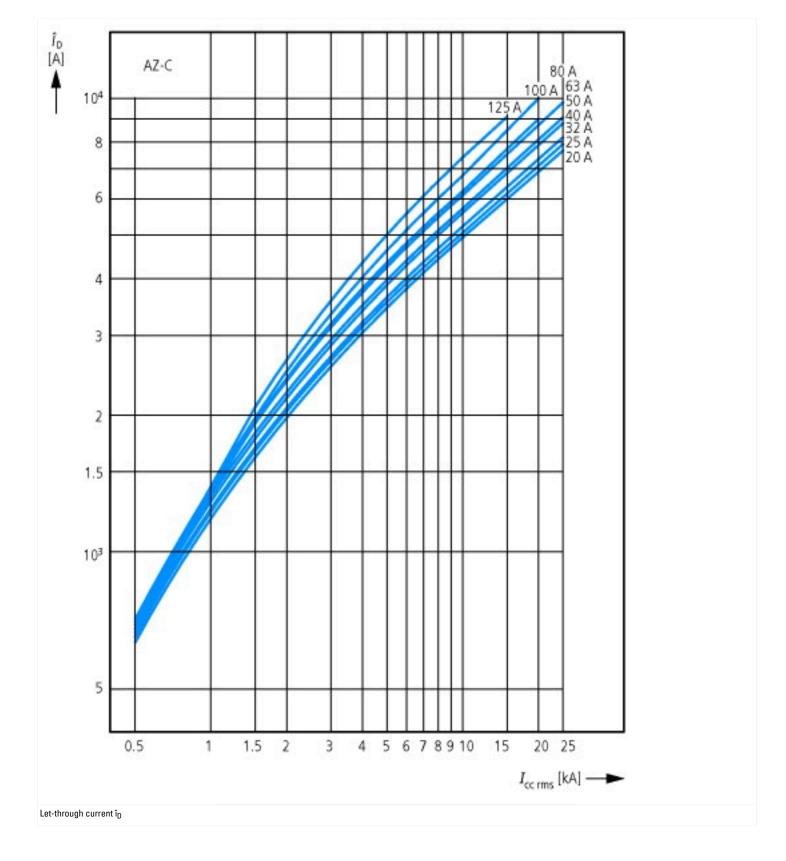
Circuit breakers and fuses	(EG000020) / Miniaturi	circuit hreaker	(MCB) (FC000042)

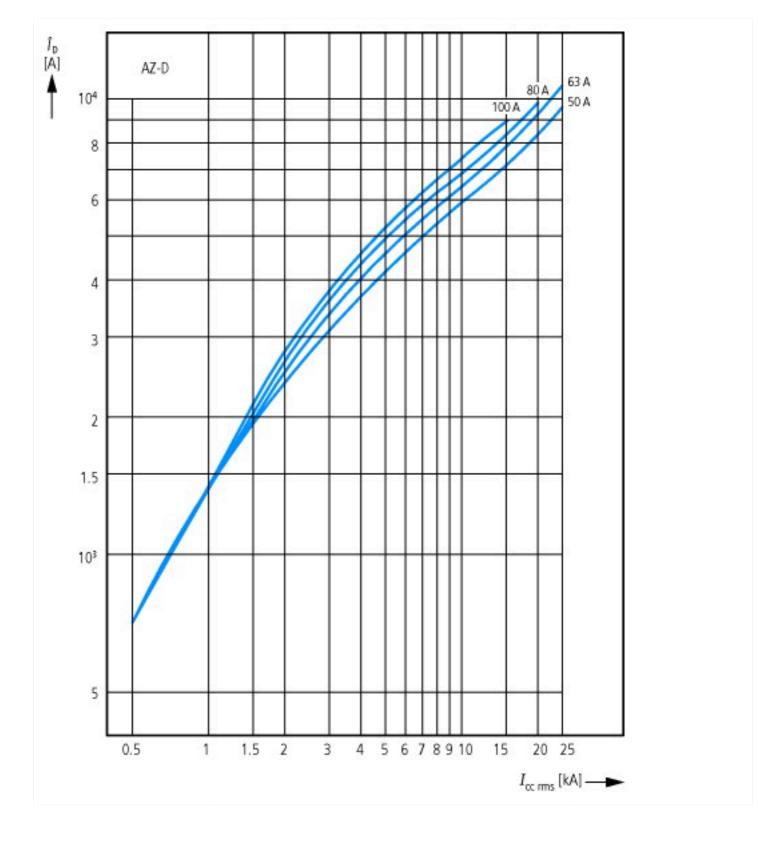
Circuit oreakers and tuses (EG000020) / Miniature Circuit breaker (MCB) (EC000042)				
Electric engineering, automation, process control engineering / Electrical installation, (ecl@ss10.0.1-27-14-19-01 [AAB905014])	device / Miniature cir	cuit breaker system (MCB) / Miniature circuit breaker (MCB)		
Release characteristic		D		
Number of poles (total)		4		
Number of protected poles		3		
Rated current	А	100		
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	0		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V	kA	15		
Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V	kA	15		
Voltage type		AC		
Frequency	Hz	50 - 60		
Current limiting class		3		
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		6		
Built-in depth	mm	75		
Degree of protection (IP)		IP20		
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		

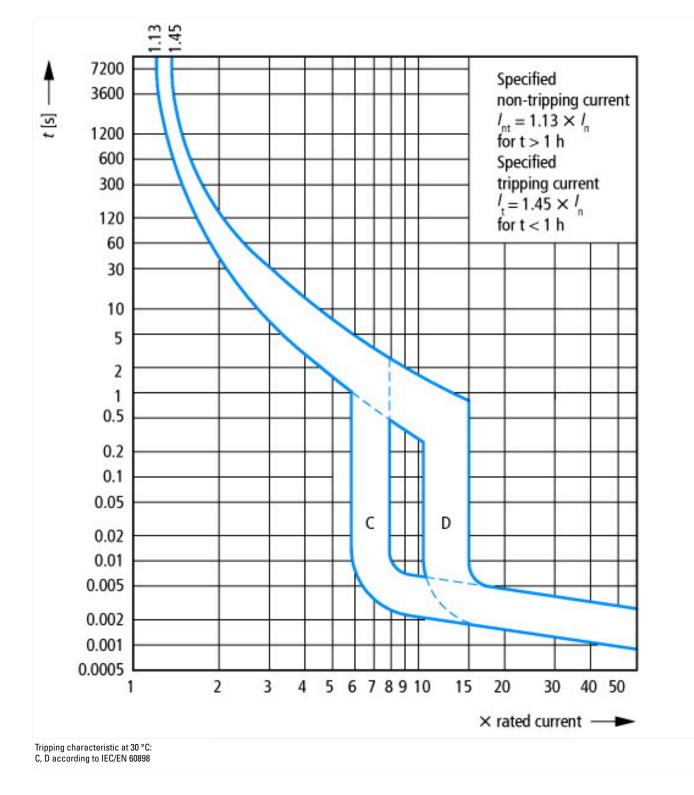












Dimensions

