



**Miniature circuit breaker (MCB), 20A, 1p, type B characteristic**



**Part no.** CLS4-B20-DE  
**Catalog No.** 247830

Similar to illustration

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

Technical data for design verification				
Rated operational current for specified heat dissipation	$I_n$	A		20
Heat dissipation per pole, current-dependent	$P_{vid}$	W		0
Equipment heat dissipation, current-dependent	$P_{vid}$	W		3.2
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 6.0**

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@ss8.1-27-14-19-01 [AAB905011])				
Release characteristic				B

Number of poles (total)		1
Number of protected poles		1
Nominal rated current	A	20
Nominal rated voltage	V	230
Rated short-circuit breaking capacity Icn EN 60898 at 230 V	kA	4.5
Rated short-circuit breaking capacity Icn EN 60898 at 400 V	kA	4.5
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
Voltage type		AC
Current limiting class		3
Frequency	Hz	50 - 60
Concurrently switching N-neutral		No
Suitable for flush-mounted installation		No
Over voltage category		3
Pollution degree		2
Width in number of modular spacings		1
Built-in depth	mm	70.5
Additional equipment possible		Yes
Degree of protection (IP)		IP20