



Miniature circuit breakers 400V Icu 25kA 2 pole, 20 A, only magnetic

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
design of the product	Only magnetic tripping operation
General technical data	
number of poles	2
design of pole	2P
tripping characteristic class	D
mechanical service life (operating cycles) typical	10 000
overvoltage category	3
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui)	
• with single-phase operation at AC rated value	440 V
• with multi-phase operation at AC rated value	440 V
• operational current at AC rated value	20 A
Supply voltage	
supply voltage	
• at AC	400 V
value range of the supply voltage frequency	50/60 Hz
operating voltage at DC rated value maximum	72 V
Protection class	
protection class IP	IP20, with connected conductors
Breaking Capacity	
switching capacity current	
• according to IEC 60947-2 rated value	25 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	1.6 W
suitability for operation	Infrastructure / Industry
Product details	
product feature touch protection	Yes
product component	
• combined terminal top	Yes
• combined terminal bottom	Yes
• neutral conductor switching	No
product feature properties for main switches in accordance	No

with EN 60204-1	
product feature halogen-free	Yes
product feature sealable	Yes
product feature silicon-free	Yes
product extension installable supplementary devices	Yes

Product function

set values setting current (Ii) for I-tripping	14
reference value setting current (Ii) for I-tripping	x In

Connections

connectable conductor cross-section solid	
<ul style="list-style-type: none"> • minimum • maximum 	0.75 mm ² 35 mm ²
connectable conductor cross-section stranded	
<ul style="list-style-type: none"> • minimum • maximum 	0.75 mm ² 35 mm ²
connectable conductor cross-section finely stranded with core end processing	
<ul style="list-style-type: none"> • minimum • maximum 	0.75 mm ² 25 mm ²
tightening torque [lbf-in] with screw-type terminals	
<ul style="list-style-type: none"> • minimum • maximum 	22 lbf-in 31 lbf-in
tightening torque with screw-type terminals	
<ul style="list-style-type: none"> • minimum • maximum 	2.5 N·m 3.5 N·m
position of power supply cord	Any

Mechanical Design

height	90 mm
width	36 mm
depth	76 mm
installation depth	70 mm
number of modular width units	2
fastening method	DIN rail
mounting position	any
Net Weight	0.33 kg

Environmental conditions

influence of the surrounding temperature	max. 95% RH up to 55°C, max. 55% RH up to 70°C, max. 35% RH up to 75°C
standard	IEC / EN 60947-2
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s ² at 25 to 150Hz
ambient temperature during operation	
<ul style="list-style-type: none"> • minimum • maximum 	-35 °C 70 °C
ambient temperature during storage	
<ul style="list-style-type: none"> • minimum • maximum 	-40 °C 75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	28

Approvals Certificates

Environment	General Product Approval
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[Environmental Certifications](#)



[Environmental Certifications](#)

[Miscellaneous](#)



[Confirmation](#)

General Product Approval	Maritime application	other	Railway
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CCS (China Classification Society)



Confirmation

Confirmation

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SY7220-8MA>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/5SY7220-8MA>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY7220-8MA

CAX-Online-Generator

<https://www.siemens.com/cax>

Tender specifications

<https://www.siemens.com/specifications>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



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