



MCB 5SY5 CRH 440V DC 10KA 2P B50

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
design of the product	For railway applications
General technical data	
number of poles	2
design of pole	2P
tripping characteristic class	B
mechanical service life (operating cycles) typical	10 000
overvoltage category	3
degree of pollution	3
Voltage	
type of voltage of the operating voltage	DC
insulation voltage (Ui)	
• at DC rated value	440 V
• operational current	
— at 40 °C rated value	47.2 A
— at 50 °C rated value	44.25 A
— at 55 °C rated value	42.65 A
— at 60 °C rated value	41.05 A
• operational current at AC rated value	50 A
Supply voltage	
supply voltage	
• at DC rated value	440 V
operating voltage at DC rated value maximum	500 V
Protection class	
protection class IP	IP20, with connected conductors
Breaking Capacity	
switching capacity current	
• at DC according to IEC 60947-2 rated value	10 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	4.3 W
suitability for operation	Infrastructure / Industry / Mobility
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 with EN 60204-1	Yes
product feature halogen-free	Yes
product feature sealable	Yes
product feature silicon-free	Yes
product extension installable supplementary devices	Yes

Connections

connectable conductor cross-section solid	
• minimum	0.75 mm ²
• maximum	35 mm ²
connectable conductor cross-section stranded	
• minimum	0.75 mm ²
• maximum	35 mm ²
connectable conductor cross-section finely stranded with core end processing	
• minimum	0.75 mm ²
• maximum	25 mm ²
tightening torque [lbf-in] with screw-type terminals	
• minimum	22 lbf-in
• maximum	31 lbf-in
tightening torque with screw-type terminals	
• minimum	2.5 N·m
• maximum	3.5 N·m
position of power supply cord	Consider polarity

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	0.28 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
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25 Hz; 50 m/s ² at 25 to 150 Hz and 60 m/s ² at 35 Hz (4 sec)
ambient temperature during operation	
• minimum	-40 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	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 Confirmations](#)

[Environmental Confirmations](#)



[Miscellaneous](#)



General Product Approval	Maritime application	other
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[Confirmation](#)



[CCS \(China Classification Society\)](#)

[Confirmation](#)



[Confirmation](#)[Transport Information](#)**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=5SY5250-6CC12>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/5SY5250-6CC12>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5250-6CC12**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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