SIEMENS

Data sheet 5SY6250-6



Miniature circuit breaker 400 V 6kA, 2-pole, B, 50 A, D=70 mm

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
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	AC
insulation voltage (Ui)	
● with single-phase operation at AC rated value	440 V
● with multi-phase operation at AC rated value	440 V
supply voltage with single-phase operation at AC rated value	230 V
● **operational current**	
— at 40 °C rated value	47.6 A
— at 50 °C rated value	45.1 A
— at 55 °C rated value	43.75 A
● **operational current at AC rated value**	50 A
Supply voltage	
supply voltage	
● at AC	400 V
● at DC rated value	60 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	
● at DC according to IEC 60947-2 rated value	15 kA
● according to EN 60898 rated value	6 kA
● according to IEC 60947-2 rated value	10 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot	4.3 W

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operating state per pole	
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 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
Product function	
set values setting current (Ii) for I-tripping	4
reference value setting current (Ii) for I-tripping	x In
Short circuit	
short-circuit current breaking capacity (Icn)	
● at AC according to UL 1077 and CSA C22.2 No.235	5 kA
Connections	
connectable conductor cross-section solid	
● minimum	0.75 mm²
● maximum	35 mm²
connectable conductor cross-section stranded	
● minimum	0.75 mm²
● maximum	35 mm²
connectable conductor cross-section finely stranded with core end processing	
● minimum	0.75 mm²
● maximum	25 mm²
AWG number as coded connectable conductor cross section	
● minimum	18
● maximum	4
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	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	329 g
Environmental conditions	
influence of the surrounding temperature	max. 95% RH up to 55°C
standard	IEC / EN 60898-1, IEC / EN 60947-2 / UL1077
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz
ambient temperature during operation	
● minimum	-25 °C
● maximum	55 °C
ambient temperature during storage	

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• minimum	-40 °C
• maximum	75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	6

Environmental footprint

Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	8.93 kg
global warming potential [CO2 eq] during manufacturing	1.08 kg
global warming potential [CO2 eq] during operation	7.83 kg
global warming potential [CO2 eq] after end of life	0.028 kg

Approvals Certificates

General Product Approval

CCC EG-Konf. UKCA Confirmation IMQ UR

General Product Approval				EMV	Test Certificates
VDE	Miscellaneous	EAC	AR	RCM	Miscellaneous

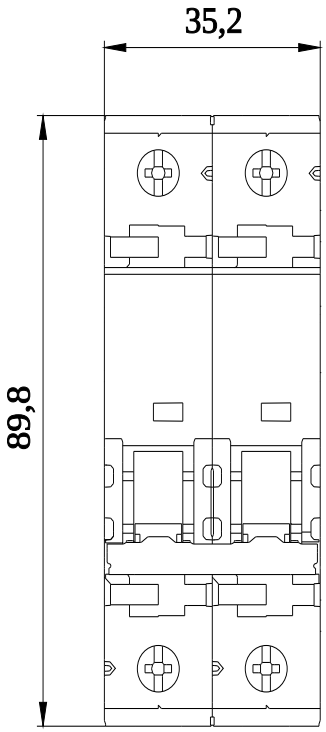
Maritime application					other
ABS	BUREAU VERITAS	DNV	LRS	RINA	Confirmation

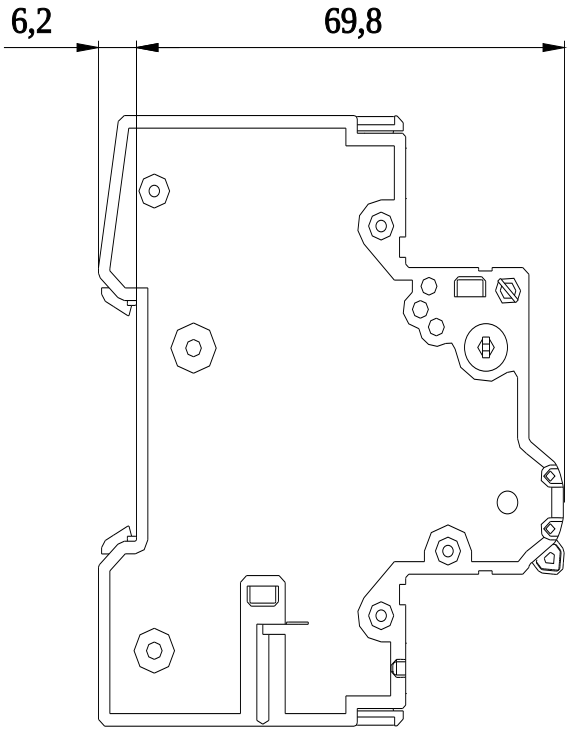
other	Environment		
产品合格 QC PASS	Environmental Confirmations	EPD	Environmental Confirmations

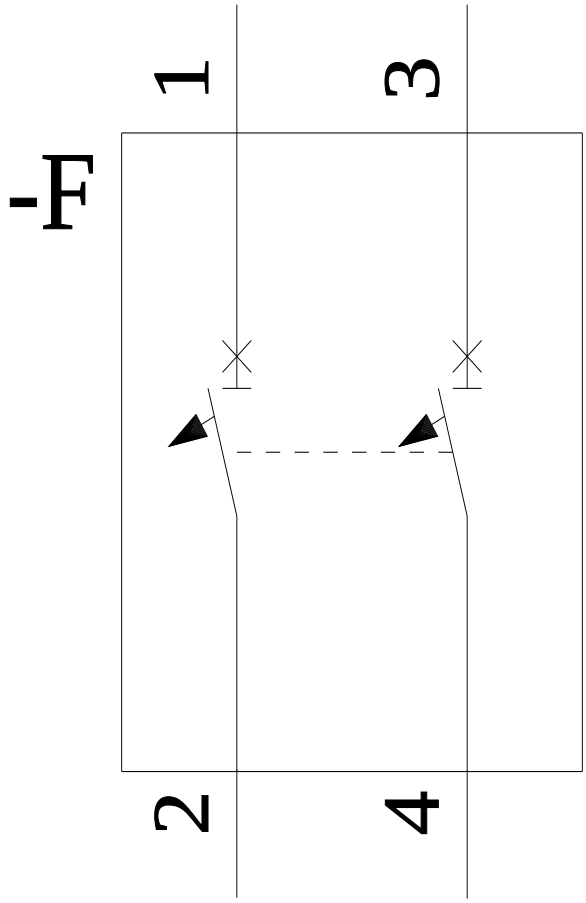
Further information

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=5SY6250-6
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SY6250-6
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY6250-6
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications

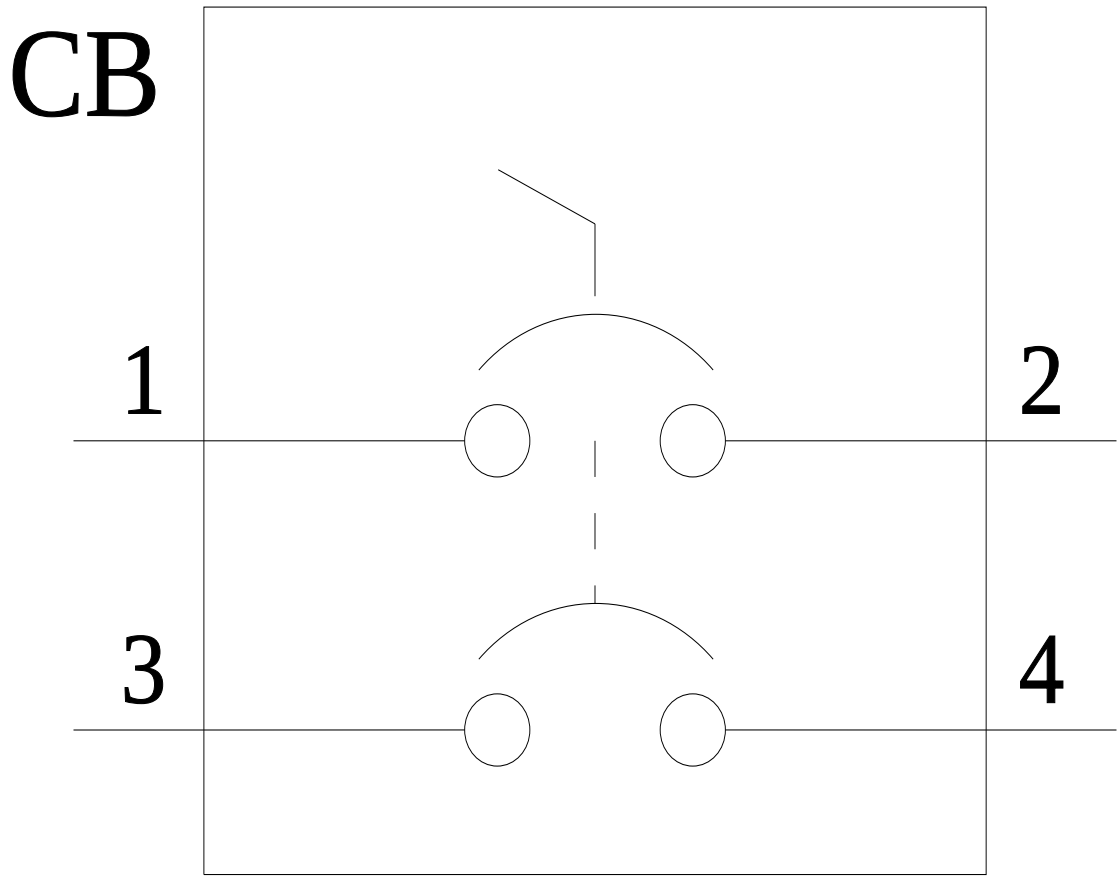
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