SIEMENS

Data sheet 5SY4245-7



Miniature circuit breaker 400 V 10kA, 2-pole, C, 45 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	C
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 40 °C rated value	42.27 A
— at 50 °C rated value	39.33 A
— at 55 °C rated value	37.8 A
— at 60 °C rated value	36.18 A
● **operational current at AC rated value**	45 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	10 kA
● according to IEC 60947-2 rated value	15 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	3.1 W

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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	7
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, max. 55% RH up to 70°C, max. 35% RH up to 75°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	-40 °C
● maximum	70 °C
ambient temperature during storage	
● minimum	-40 °C

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● 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	16.8 kg
global warming potential [CO2 eq] during manufacturing	1.13 kg
global warming potential [CO2 eq] during operation	15.7 kg
global warming potential [CO2 eq] after end of life	-0.00046 kg

Approvals Certificates

General Product Approval

CCC EG-Konf. Confirmation UR VDE

General Product Approval		EMV	Test Certificates	
Miscellaneous			Special Test Certific-ate	Miscellaneous

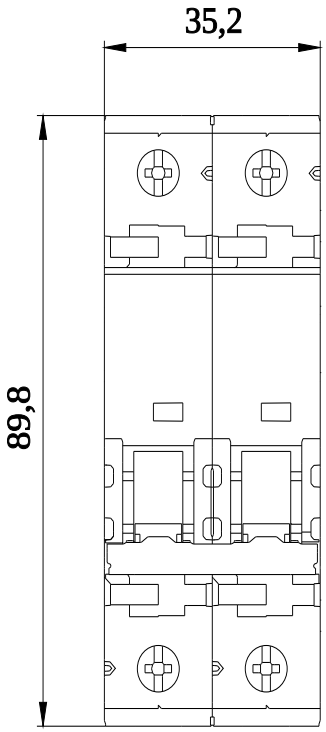
Maritime application					other
ABS	BUREAU VERITAS	DNV	LRS	RINA	Confirmation

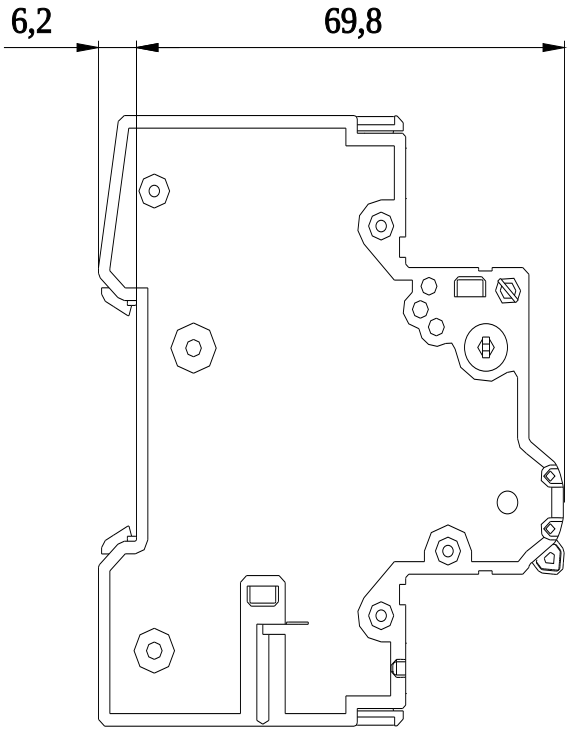
other	Railway		Environment		
产品合格 QC PASS	Special Test Certific-ate	Confirmation	Environmental Con-firmations	EPD	Environmental Con-firmations

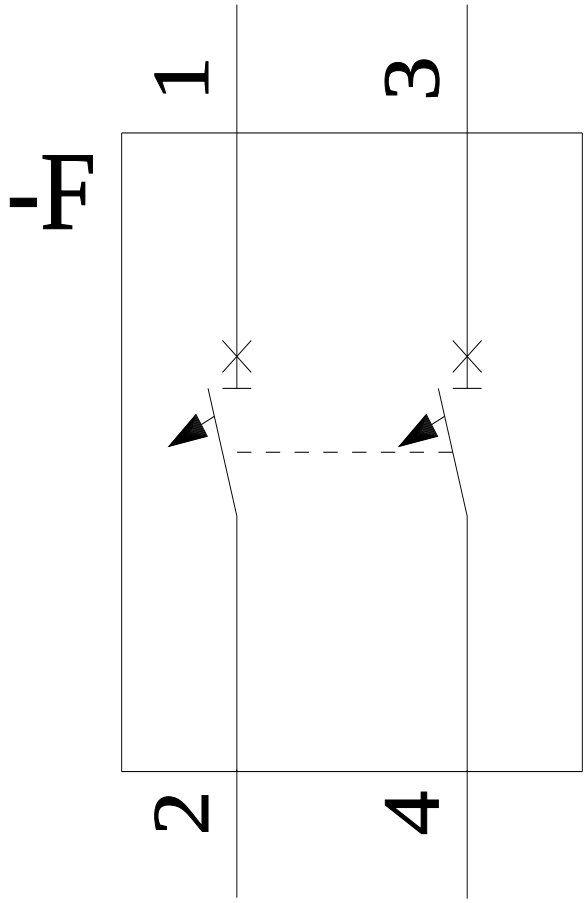
Further information

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=5SY4245-7
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SY4245-7
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4245-7
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications

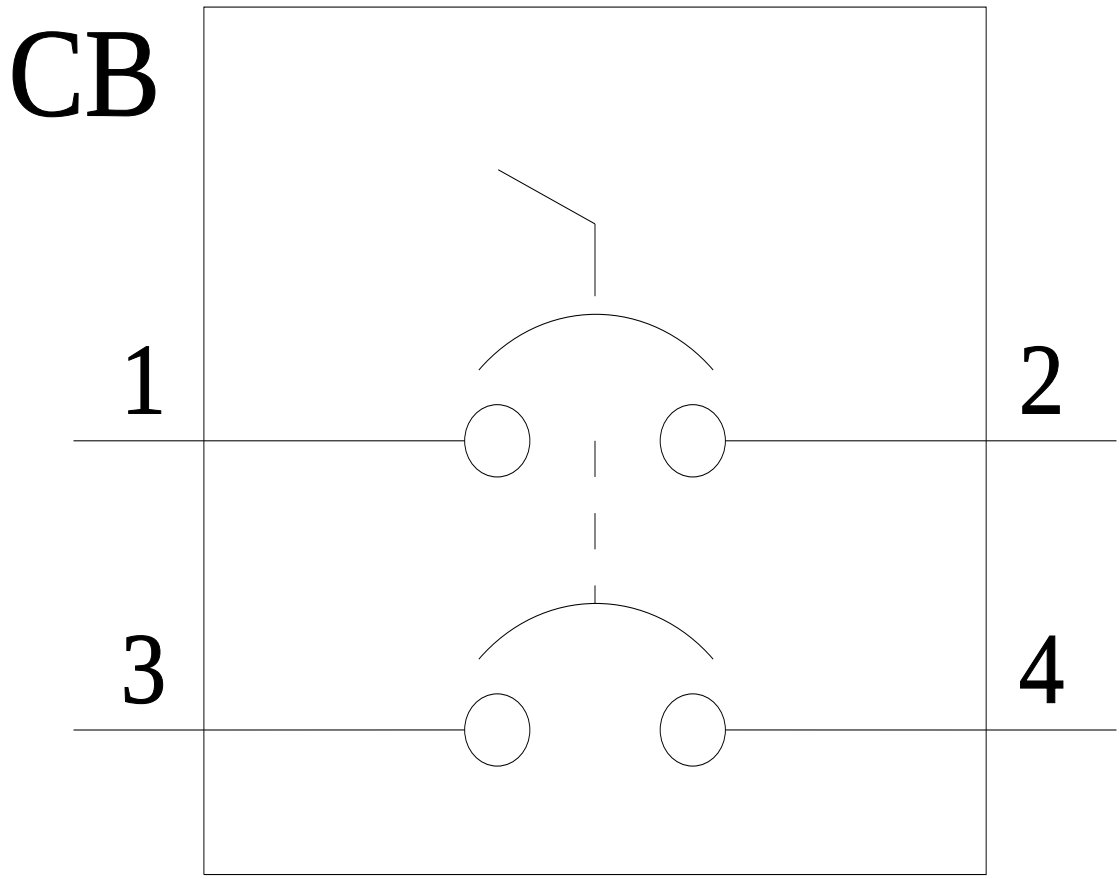
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