

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
Number of poles / Note	2P
Tripping characteristic class	C
circuit-breaker / Design	5SY4
Mechanical service life (switching cycles) / typical	10 000
Overtoltage category	III
Voltage	
Insulation voltage	
<ul style="list-style-type: none"> with single-phase operation / at AC / rated value 	440 V
<ul style="list-style-type: none"> with multi-phase operation / at AC / rated value 	440 V
Supply voltage	
Type of voltage	AC
Current / at AC / rated value	45 A

Supply voltage	
<ul style="list-style-type: none"> • at AC / rated value 	400 V
Operating voltage	
<ul style="list-style-type: none"> • at DC / rated value / maximum 	72 V
Supply voltage frequency	
<ul style="list-style-type: none"> • rated value 	50/60 Hz

Protection class	
Protection class IP	IP20, with connected conductors

Switching capacity	
Switching capacity current	
<ul style="list-style-type: none"> • at DC / acc. to IEC 60947-2 / rated value 	15 kA
<ul style="list-style-type: none"> • acc. to EN 60898 / rated value 	10 kA
<ul style="list-style-type: none"> • acc. to IEC 60947-2 / rated value 	15 kA
Energy limiting class	3

Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	3.1 W
Suitability for operation	Mechanical engineering / industry

Product details	
Product function / neutral conductor switching	No
Product feature / Touch protection	Yes
Product component	
<ul style="list-style-type: none"> • combined terminal top 	Yes
<ul style="list-style-type: none"> • combined terminal bottom 	Yes
Product feature	
<ul style="list-style-type: none"> • Properties for main switches in accordance with EN 60204-1 	Yes
<ul style="list-style-type: none"> • halogen-free 	Yes
<ul style="list-style-type: none"> • sealable 	Yes
<ul style="list-style-type: none"> • silicon-free 	Yes
Product extension / can be installed / supplementary devices	Yes

Short circuit	
Breaking capacity short-circuit current (I _{cn})	
<ul style="list-style-type: none"> • at AC / acc. to UL 1077 and CSA C22.2 No.235 	5 kA

Connections	
<ul style="list-style-type: none"> • Connectable conductor cross-section 	
<ul style="list-style-type: none"> — solid 	0.75 ... 35 mm ²
<ul style="list-style-type: none"> — stranded 	0.75 ... 35 mm ²

• Connectable conductor cross-section / finely stranded / with core end processing	0.75 ... 25 mm ²
AWG number / as coded connectable conductor cross section	18 ... 4
Tightening torque [lbf·in] / with screw-type terminals	22 ... 31 lbf·in
Tightening torque / with screw-type terminals	2.5 ... 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 width units	2
Mounting type	Quick assembly system
Mounting position	any
Net weight	290 g

Environmental conditions

Influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
Ambient temperature	-40 ... +70 °C
• during storage	-40 ... +75 °C

Certificates

Reference code	
• acc. to DIN EN 61346-2	F
• acc. to DIN EN 81346-2	F

General Product Approval					Declaration of Conformity
 CCC	 UR	 VDE	 RCM	Miscellaneous	 EG-Konf.

Test Certificates	Shipping Approval				Railway
Miscellaneous	 ABS	 BUREAU VERITAS	 LRS	 RINA	Confirmation

Railway

[Vibration and Shock](#)

Further information

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

<http://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, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4245-7

CAX-Online-Generator

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

Tender specifications

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

