















Miniature circuit breaker 230/400 V 10kA, 1-pole, C, 20 A, D=70 mm

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	1
design of pole	1P
tripping characteristic class	C
mechanical service life (switching cycles) / typical	10 000
overvoltage category	III
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
Supply voltage	
supply voltage	
• at AC / rated value	400 V
operating voltage / at DC / rated value / maximum	72 V
Protection class	
protection class IP	IP20, with connected conductors
Switching capacity	
switching capacity current	
• at DC / acc. to IEC 60947-2 / rated value	15 kA
• acc. to EN 60898 / rated value	10 kA
• acc. to IEC 60947-2 / rated value	20 kA
energy limitation class	3
Dissipation	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	1.7 W
Current	
operational current	
• at 35 °C / rated value	20 A
• at 40 °C / rated value	18.78 A
• at 45 °C / rated value	18.14 A
• at 50 °C / rated value	17.48 A
• at 55 °C / rated value	16.8 A

<ul style="list-style-type: none"> <li>• at 60 °C / rated value</li> </ul>	16.08 A
<ul style="list-style-type: none"> <li>• at AC / rated value</li> </ul>	20 A
suitability for operation	Mechanical engineering / industry
<b>Product details</b>	
product component / neutral conductor switching	No
product feature / touch protection	Yes
product component	
<ul style="list-style-type: none"> <li>• combined terminal top</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• combined terminal bottom</li> </ul>	Yes
product feature	
<ul style="list-style-type: none"> <li>• properties for main switches in accordance with EN 60204-1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• halogen-free</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• sealable</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• silicon-free</li> </ul>	Yes
product extension / installable / supplementary devices	Yes
<b>Short circuit</b>	
breaking capacity short-circuit current (I <sub>cn</sub> )	
<ul style="list-style-type: none"> <li>• at AC / acc. to UL 1077 and CSA C22.2 No.235</li> </ul>	5 kA
<b>Connections</b>	
connectable conductor cross-section / solid	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	0.75 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	35 mm <sup>2</sup>
connectable conductor cross-section / stranded	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	0.75 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	35 mm <sup>2</sup>
connectable conductor cross-section / finely stranded / with core end processing	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	0.75 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	25 mm <sup>2</sup>
AWG number / as coded connectable conductor cross section	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	18
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	4
tightening torque [lbf·in] / with screw-type terminals	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	22 lbf·in
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	31 lbf·in
tightening torque / with screw-type terminals	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	2.5 N·m
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	3.5 N·m
position / of power supply cord	Any
<b>Mechanical Design</b>	
height	90 mm
width	18 mm
depth	76 mm
installation depth	70 mm
number of modular width units	1
fastening method	Quick assembly system
mounting position	any
net weight	162 g
<b>Environmental conditions</b>	
influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
vibration resistance / acc. to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s <sup>2</sup> at 25 to 150Hz
ambient temperature / during operation	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	70 °C
ambient temperature / during storage	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	75 °C
number of test cycles / for environmental testing / acc. to	6

IEC 60068-2-30				
Certificates				
reference code				
<ul style="list-style-type: none"><li>• acc. to DIN EN 61346-2</li><li>• acc. to IEC 81346-2</li></ul>	F F			
General Product Approval				
<div><div> CCC</div><div> IMQ</div><div> UR</div><div> VDE</div></div>				
General Product Approval	EMC	Declaration of Conformity	Test Certificates	Marine / Shipping
	 RCM	 EG-Konf.		 ABS
Marine / Shipping			other	Railway
<div><div> BUREAU VERITAS</div><div> LRS</div><div> RINA</div><div> DNV-GL DNV GL CERTIFIED</div></div>				
Railway				
Further information				

