



Circuit breaker size S0 for motor protection, CLASS 10 A-release 9...12 A  
N-release 163 A screw terminal Switching capacity 30 kA at 600 V  
according to UL/CSA

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Circuit breaker
<b>design of the product</b>	For motor protection
<b>product type designation</b>	3RV2
<b>General technical data</b>	
<b>size of the circuit-breaker</b>	S0
<b>size of contactor can be combined company-specific</b>	S00, S0
product extension auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	9.25 W
• at AC in hot operating state per pole	3.1 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
<b>surge voltage resistance rated value</b>	6 kV
<b>maximum permissible voltage for safe isolation in networks with grounded star point</b>	
• between main and auxiliary circuit	400 V
• between main and auxiliary circuit	400 V
shock resistance according to IEC 60068-2-27	25g / 11 ms
<b>mechanical service life (switching cycles)</b>	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (switching cycles) typical	100 000
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (Date)</b>	10/01/2009
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
<b>temperature compensation</b>	-20 ... +60 °C
relative humidity during operation	10 ... 95 %
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>adjustable current response value current of the current-dependent overload release</b>	9 ... 12.5 A
<b>operating voltage</b>	
• rated value	690 V
• rated value	20 ... 690 V

<ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	12.5 A
<b>operational current</b>	
<ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>	12.5 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	3 kW 5.5 kW 7.5 kW 7.5 kW
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>	15 1/h
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	0
number of CO contacts for auxiliary contacts	0
<b>Protective and monitoring functions</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• ground fault detection</li> <li>• phase failure detection</li> </ul>	No Yes
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal
<b>breaking capacity operating short-circuit current (Ics) at AC</b>	
<ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>	4 kA
<b>breaking capacity maximum short-circuit current (Icu)</b>	
<ul style="list-style-type: none"> <li>• at AC at 690 V rated value</li> </ul>	6 kA
response value current of instantaneous short-circuit trip unit	163 A
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>	12.5 A 12.5 A
<b>yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>	0.5 hp 2 hp 3 hp 3 hp 8 hp 10 hp
<b>Short-circuit protection</b>	
<b>product function short circuit protection</b>	Yes
<b>design of the short-circuit trip</b>	magnetic
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<b>height</b>	97 mm
<b>width</b>	45 mm
<b>depth</b>	97 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• for grounded parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> </ul>	50 mm 50 mm 0 mm 30 mm 0 mm

- for live parts at 690 V
  - downwards 50 mm
  - upwards 50 mm
  - backwards 0 mm
  - at the side 30 mm
  - forwards 0 mm

Connections/ Terminals	
<b>product component removable terminal for auxiliary and control circuit</b>	No
<b>type of electrical connection</b>	
• for main current circuit	screw-type terminals
<b>arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>type of connectable conductor cross-sections</b>	
• for main contacts	
— solid or stranded	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
— finely stranded with core end processing	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
• at AWG cables for main contacts	2x (16 ... 12), 2x (14 ... 8)
<b>tightening torque</b>	
• for main contacts with screw-type terminals	2 ... 2.5 N·m
<b>design of screwdriver shaft</b>	Diameter 5 to 6 mm
<b>size of the screwdriver tip</b>	Pozidriv size 2
<b>design of the thread of the connection screw</b>	
• for main contacts	M4

Safety related data	
<b>B10 value</b>	
• with high demand rate according to SN 31920	5 000
<b>proportion of dangerous failures</b>	
• with low demand rate according to SN 31920	50 %
• with high demand rate according to SN 31920	50 %
<b>failure rate [FIT]</b>	
• with low demand rate according to SN 31920	50 FIT
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
display version for switching status	Handle

Certificates/ approvals	
General Product Approval	Declaration of Conformity



[Confirmation](#)



Declaration of Conformity	Test Certificates	Marine / Shipping
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