



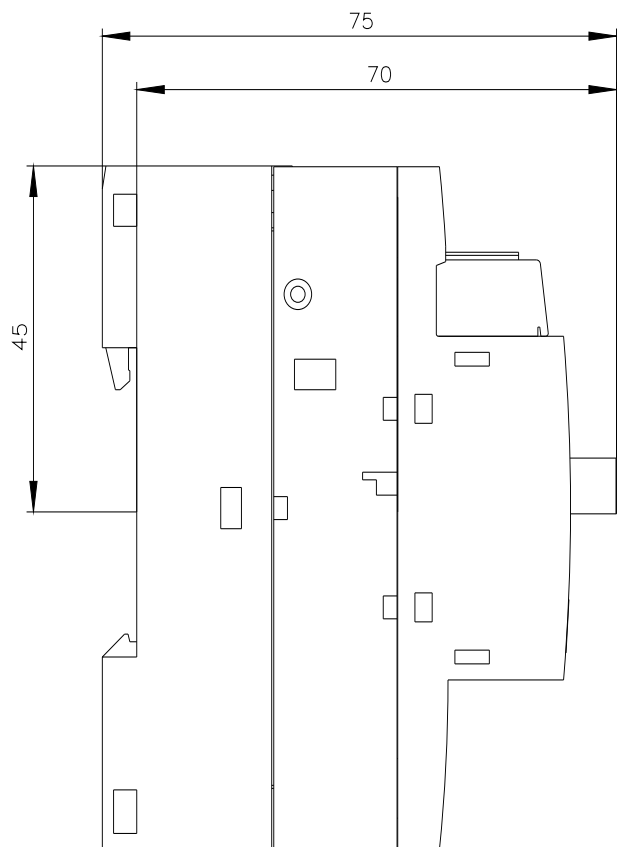
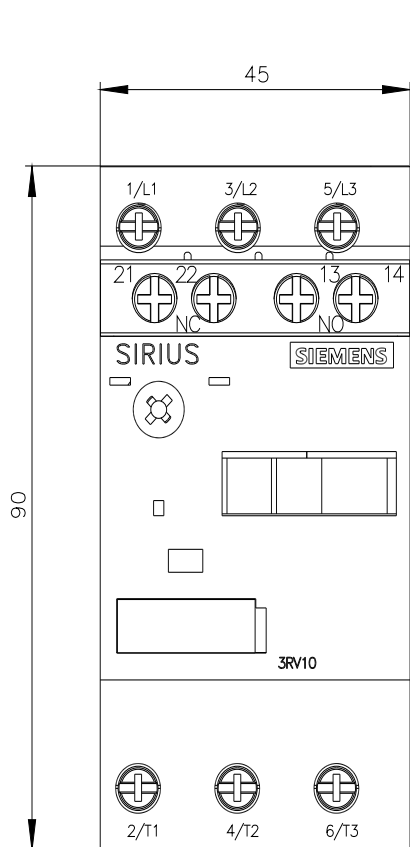
Circuit breaker size S00 for motor protection, CLASS 10 A-release 7...10 A N release 130 A Screw terminal Standard switching capacity with transverse auxiliary switch 1 NO+1 NC

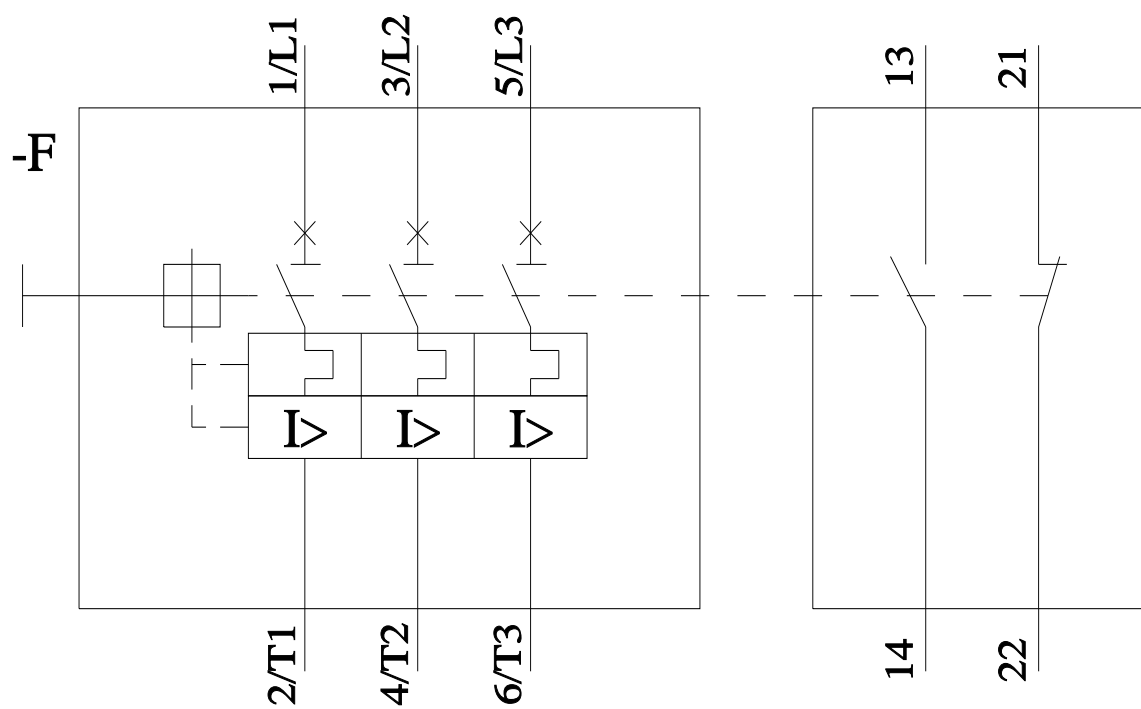
product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1
<b>General technical data</b>	
size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• 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
surge voltage resistance rated value	6 kV
mechanical service life (operating cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibittance (Date)	01/01/2013
Net Weight	296 g
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
relative humidity during operation	10 ... 95 %
<b>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	7 ... 10 A
type of voltage for main current circuit	AC
operating voltage	
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	10 A
operational current	

<ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at AC-3e at 400 V rated value</li> </ul>	10 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>	2.2 kW 4 kW 5.5 kW 7.5 kW
<ul style="list-style-type: none"> <li>• at AC-3e <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>	2.2 kW 4 kW 5.5 kW 7.5 kW
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>	15 1/h
<ul style="list-style-type: none"> <li>• at AC-3e maximum</li> </ul>	15 1/h
<b>Auxiliary circuit</b>	
<b>design of the auxiliary switch</b>	transverse
<b>type of voltage for auxiliary and control circuit</b>	AC/DC
<b>number of NC contacts for auxiliary contacts</b>	1
<b>number of NO contacts for auxiliary contacts</b>	1
number of CO contacts for auxiliary contacts	0
<b>operational current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• at 110 V</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• at 120 V</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• at 125 V</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• at 230 V</li> </ul>	0.5 A
<b>operational current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	1 A
<ul style="list-style-type: none"> <li>• at 60 V</li> </ul>	0.15 A
<b>Protective and monitoring functions</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• ground fault detection</li> </ul>	No
<ul style="list-style-type: none"> <li>• phase failure detection</li> </ul>	Yes
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal
<b>maximum short-circuit current breaking capacity (Icu)</b>	
<ul style="list-style-type: none"> <li>• at AC at 240 V rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at AC at 400 V rated value</li> </ul>	50 kA
<ul style="list-style-type: none"> <li>• at AC at 500 V rated value</li> </ul>	3 kA
<ul style="list-style-type: none"> <li>• at AC at 690 V rated value</li> </ul>	2 kA
<b>operating short-circuit current breaking capacity (Ics) at AC</b>	
<ul style="list-style-type: none"> <li>• at 240 V rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>	12.5 kA
<ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul>	3 kA
<ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>	2 kA
response value current of instantaneous short-circuit trip unit	130 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> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>	10 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> </ul>	0.5 hp 1.5 hp
<ul style="list-style-type: none"> <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> </ul> </li> </ul>	2 hp 3 hp

— at 460/480 V rated value	5 hp	
— at 575/600 V rated value	7.5 hp	
contact rating of auxiliary contacts according to UL	C300 / R300	
Short-circuit protection		
product function short circuit protection	Yes	
design of the short-circuit trip	magnetic	
design of the fuse link	fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I <sub>k</sub> < 400 A)	
• for short-circuit protection of the auxiliary switch required		
design of the fuse link for IT network for short-circuit protection of the main circuit		
• at 240 V		gG 80 A
• at 400 V		gG 63 A
• at 500 V	gG 50 A	
• at 690 V	gG 50 A	
Installation/ mounting/ dimensions		
mounting position	any	
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	
height	90 mm	
width	45 mm	
depth	75 mm	
required spacing		
• for grounded parts at 400 V		
— downwards		20 mm
— upwards		20 mm
— at the side		9 mm
• for live parts at 400 V		
— downwards		20 mm
— upwards		20 mm
— at the side		9 mm
• for grounded parts at 500 V		
— downwards		20 mm
— upwards		20 mm
— at the side		9 mm
• for live parts at 500 V		
— downwards		20 mm
— upwards		20 mm
— at the side		9 mm
• for grounded parts at 690 V		
— downwards		20 mm
— upwards		20 mm
— backwards		0 mm
— at the side		9 mm
— forwards		0 mm
• for live parts at 690 V		
— downwards	20 mm	
— upwards	20 mm	
— backwards	0 mm	
— at the side	9 mm	
— forwards	0 mm	
Connections/ Terminals		
type of electrical connection	screw-type terminals	
• for main current circuit		
• for auxiliary and control circuit	screw-type terminals	
arrangement of electrical connectors for main current circuit	Top and bottom	
type of connectable conductor cross-sections		
• for main contacts		
— solid or stranded		2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)	

<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— solid or stranded</li> </ul>	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
<b>tightening torque</b>	
<ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary contacts with screw-type terminals</li> </ul>	0.8 ... 1.2 N·m 0.8 ... 1.2 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>	
<ul style="list-style-type: none"> <li>• for main contacts</li> <li>• of the auxiliary and control contacts</li> </ul>	M3 M3
<b>Safety related data</b>	
product function suitable for safety function	Yes
<b>suitability for use</b>	
<ul style="list-style-type: none"> <li>• safety-related switching on</li> <li>• safety-related switching OFF</li> </ul>	No Yes
<b>service life maximum</b>	10 a
<b>test wear-related service life necessary</b>	Yes
<b>proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>• with low demand rate according to SN 31920</li> <li>• with high demand rate according to SN 31920</li> </ul>	40 % 50 %
<b>B10 value with high demand rate according to SN 31920</b>	5 000
<b>failure rate [FIT] with low demand rate according to SN 31920</b>	50 FIT
ISO 13849	
<b>device type according to ISO 13849-1</b>	3
<b>overdimensioning according to ISO 13849-2 necessary</b>	Yes
IEC 61508	
<b>safety device type according to IEC 61508-2</b>	Type A
Electrical Safety	
<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
<b>Display</b>	
display version for switching status	Rocker switch
<b>Approvals Certificates</b>	
<b>Environment</b>	<b>General Product Approval</b>





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