



Circuit breaker size S00 for motor protection, CLASS 10 A-release 9...12 A
N-release 156 A Screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1
General technical data	
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
maximum permissible voltage for safe isolation in networks with grounded star point	
• between main and auxiliary circuit	400 V
• between main and auxiliary circuit	400 V
mechanical service life (switching cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (switching cycles) typical	100 000
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.01.2013
Ambient conditions	
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
temperature compensation	-20 ... +60 °C
relative humidity during operation	10 ... 95 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	9 ... 12.5 A

operating voltage	
• rated value	690 V
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	12 A
operational current at AC-3 at 400 V rated value	12.5 A
operating power at AC-3	
• at 230 V rated value	3 kW
• at 400 V rated value	5.5 kW
• at 500 V rated value	5.5 kW
operating frequency at AC-3 maximum	15 1/h
Auxiliary circuit	
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
• ground fault detection	No
• phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
breaking capacity operating short-circuit current (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	13 kA
• at 500 V rated value	3 kA
• at 690 V rated value	2 kA
breaking capacity maximum short-circuit current (Icu)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	50 kA
• at AC at 500 V rated value	3 kA
• at AC at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	156 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	12 A
• at 600 V rated value	12 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	8 hp
— at 575/600 V rated value	10 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 240 V	gL/gG 80 A
• at 400 V	gL/gG 80 A
• at 500 V	gL/gG 50 A
• at 690 V	gL/gG 50 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
height	90 mm

width	45 mm
depth	75 mm
required spacing	
• for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — upwards — at the side • for grounded parts at 690 V — downwards — upwards — backwards — at the side — forwards • for live parts at 690 V — downwards — upwards — backwards — at the side — forwards	20 mm 20 mm 9 mm 20 mm 20 mm 9 mm 20 mm 20 mm 9 mm 20 mm 20 mm 0 mm 9 mm 0 mm 20 mm 20 mm 0 mm 9 mm 0 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection	
• for main current 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 — finely stranded with core end processing	2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²) 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
type of connectable conductor cross-sections	
• for auxiliary contacts — solid or stranded	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
tightening torque	
• for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m 0.8 ... 1.2 N·m
size of the screwdriver tip	Pozidriv 2
design of the thread of the connection screw	
• for main contacts	M3
Safety related data	
B10 value	
• with high demand rate acc. to SN 31920	5 000
proportion of dangerous failures	
• with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920	50 % 50 %
failure rate [FIT]	
• with low demand rate acc. to SN 31920	50 FIT
protection class IP on the front acc. to IEC 60529	IP20

touch protection on the front acc. to IEC 60529		finger-safe, for vertical contact from the front			
display version for switching status		Rocker switch			
Certificates/ approvals					
General Product Approval					For use in hazardous locations
		Confirmation			
For use in hazardous locations	Declaration of Conformity		Test Certificates		Marine / Shipping
		UK Declaration of Conformity	Type Test Certificates/Test Report	Special Test Certificate	
Marine / Shipping					other
					Miscellaneous
other		Railway			
Confirmation		Special Test Certificate			
Further information					
Information- and Downloadcenter (Catalogs, Brochures,...) https://www.siemens.com/ic10					
Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV1011-1KA10					
Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1KA10					
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1KA10					
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1KA10&lang=en					
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1KA10/char					
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1KA10&objecttype=14&gridview=view1					



