



circuit breaker frame size S00 for motor protection, Class 10 thermal overload release 10...16 A short-circuit release 208 A screw terminal standard switching capacity special design with limited on-load factor use only on request

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1
General technical data	
Product equipment of circuit breaker for motor protection complete unit with protection device	Yes
size of the circuit-breaker	S00
product function disconnecter functionality	Yes
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
type of calculation of power loss current-dependent	quadratic
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
• in networks with ungrounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V
protection class IP	
• on the front according to IEC 60529	IP20
• on the front	IP20
• of the terminal	IP00
mechanical service life (operating cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
reference code according to IEC 81346-2	Q
continuous current rated value	16 A
Substance Prohibitance (day/month/year)	01/01/2013
Net Weight	270 g
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	10 ... 16 A
type of voltage for main current circuit	AC
operating voltage • rated value • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum	690 V 20 ... 690 V 690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	16 A
operational current • at AC-3 at 400 V rated value • at AC-3e at 400 V rated value	16 A 16 A
operating power • at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value • at AC-3e — at 230 V rated value — at 400 V rated value — at 500 V rated value	3 kW 7.5 kW 5.5 kW 3 kW 7.5 kW 5.5 kW
Auxiliary circuit	
type of voltage for auxiliary and control circuit	AC/DC
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function • ground fault detection • phase failure detection	No Yes
trip class	CLASS 10
design of the overload release	thermal
protection function thermal overload protection (ANSI 49)	Yes
maximum short-circuit current breaking capacity (I _{cu}) • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value	100 kA 50 kA 3 kA 2 kA
operating short-circuit current breaking capacity (I _{cs}) at AC • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value	100 kA 12.5 kA 3 kA 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 • at 600 V rated value	16 A 16 A
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 • at 400 V • at 500 V	gG 80 A gG 80 A 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
Mounting method of circuit breaker for Transformer protection, Generator protection and system protection optional standard bar mounting	Yes
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	
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	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x (1 ... 4 mm ²)
— finely stranded with core end processing	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
connectable conductor cross-section for main contacts	
• solid or stranded	0,5 ... 4 mm ²
• finely stranded with core end processing	0,5 ... 2,5 mm ²
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid or stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
AWG number as coded connectable conductor cross section for main contacts	18 ... 14
tightening torque	
• for main contacts with screw-type terminals	0,8 ... 1,2 N·m

• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
• for main contacts	M3
Safety related data	
product function suitable for safety function	Yes
suitability for use	
• safety-related switching on	No
• safety-related switching OFF	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
• with low demand rate according to SN 31920	40 %
• with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Display	
display version for switching status	Rocker switch
Further information	
Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875	
Information for data generation and storage https://support.industry.siemens.com/cs/ww/en/view/109995012	
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=3RV1011-4AA10-0AA4	
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-4AA10-0AA4	
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-4AA10-0AA4&lang=en	
Cax online generator https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-4AA10-0AA4	
Characteristic curves <a haupt"><="" href="https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=" mmp_prod_no>"="">https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>	



