3RV2041-4MA10-0DA0

Data sheet



Circuit breaker size S3 for system protection without phase failure protection A-release 80...100 A N-release 1300 A screw terminal Standard switching capacity



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	for system protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S3
size of contactor can be combined company-specific	S3
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	44 W
 at AC in hot operating state per pole 	14.7 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (operating cycles)	
 of the main contacts typical 	25 000
of auxiliary contacts typical	25 000
electrical endurance (operating cycles) typical	25 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
SVHC substance name	Lead - 7439-92-1
Weight	2.264 kg
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
relative humidity during operation	10 95 %
Environmental footprint	
global warming potential [CO2 eq] total	283.24 kg
global warming potential [CO2 eq] during manufacturing	18.5 kg
global warming potential [CO2 eq] during sales	1.24 kg
global warming potential [CO2 eq] during operation	265 kg
global warming potential [CO2 eq] after end of life	-1.5 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
Main circuit	

number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	80 100 A
operating voltage	
• rated value	20 690 V
at AC-3 rated value maximum	690 V
at AC-3 rated value maximum at AC-3e rated value maximum	690 V
	50 60 Hz
operating frequency rated value operational current rated value	100 A
operational current operational current	100 A
at AC-3 at 400 V rated value	100 A
	100 A
at AC-3e at 400 V rated value	100 A
operating power • at AC-3	
	20 kW
— at 230 V rated value	30 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	90 kW
• at AC-3e	20 144
— at 230 V rated value	30 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	90 kW
operating frequency	
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
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 	No
phase failure detection	No
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	
 at AC at 240 V rated value 	100 kA
 at AC at 400 V rated value 	65 kA
 at AC at 500 V rated value 	8 kA
at AC at 690 V rated value	5 kA
operating short-circuit current breaking capacity (lcs) at AC	
• at 400 V rated value	30 kA
at 500 V rated value	4 kA
at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip unit	1 300 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	gG 160 A
• at 400 V	gG 125 A
• at 500 V	gG 100 A
• at 690 V	gG 100 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	165 mm
width	70 mm
depth	176 mm

required spacing	
with side-by-side mounting at the side	0 mm
 for grounded parts at 400 V 	
— downwards	70 mm
— upwards	70 mm
— at the side	10 mm
 for live parts at 400 V 	
— downwards	70 mm
— upwards	70 mm
— at the side	10 mm
 for grounded parts at 500 V 	
— downwards	110 mm
— upwards	110 mm
— at the side	10 mm
• for live parts at 500 V	
— downwards	110 mm
— upwards	110 mm
— at the side	10 mm
• for grounded parts at 690 V	
— downwards	150 mm
— upwards	150 mm
— at the side	30 mm
• for live parts at 690 V	
— downwards	150 mm
— upwards	150 mm
— at the side	30 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
arrangement of electrical connectors for main current	Top and bottom
type of connectable conductor cross-sections	
for main contacts	
— solid	2x (2.5 16 mm²)
solid - solid or stranded	2x (2,5 10 mm²), 1x (10 70 mm²)
— finely stranded with core end processing	2x (2.5 35 mm²), 1x (10 70 mm²)
— finely stranded without core end processing	2x (10 35 mm²), 1x (2.5 36 mm²)
tightening torque	2x (10 33 mm), 1x (10 30 mm)
for main contacts for ring cable lug	4.5 6 N·m
outer diameter of the usable ring cable lug maximum	19 mm
tightening torque	13 11111
for main contacts with screw-type terminals	4.5 6 N·m
design of the thread of the connection screw	7.0 V W III
• for main contacts	M8
Safety related data	WO
	Yes
product function suitable for safety function suitability for use	160
safety-related switching on	No
safety-related switching OFF safety-related switching OFF	No Yes
service life maximum test wear-related service life necessary	10 a
	Yes
proportion of dangerous failureswith low demand rate according to SN 31920	40 %
with high demand rate according to SN 31920 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	
T1 value		
 for proof test interval or service life according to IEC 61508 	10 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	Handle	
Approvals Certificates		

General Product Approval

Test Certificates

Confirmation





<u>KC</u>



Special Test Certific-<u>ate</u>

Test Certificates

Marine / Shipping

Type Test Certificates/Test Report











Marine / Shipping

other





Railway

Confirmation

Environment







Environmental Confirmations

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RV2041-4MA10-0DA0

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2041-4MA10-0DA0}$

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4MA10-0DA0

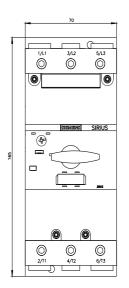
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

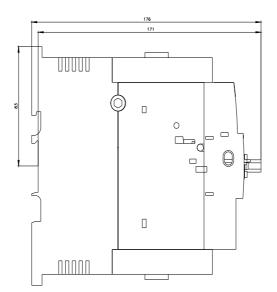
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2041-4MA10-0DA0&lang=en

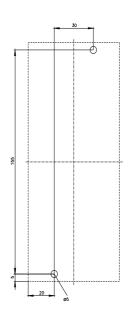
Characteristic: Tripping characteristics, I2t, Let-through current

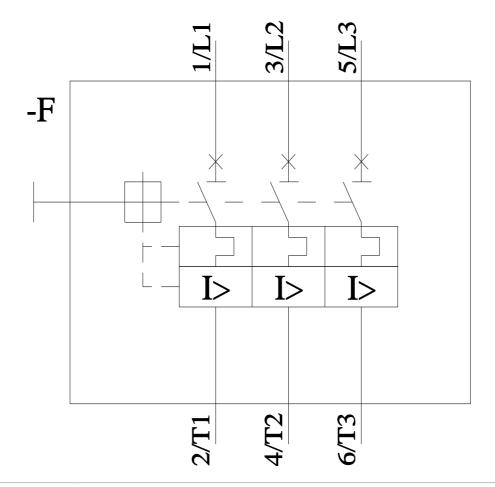
https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4MA10-0DA0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2041-4MA10-0DA0&objecttype=14&gridview=view1









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