SIEMENS

Data sheet

3RV2041-4JA10



Circuit breaker size S3 for motor protection, CLASS 10 A-release 45...63 A N-release 819 A screw terminal Standard switching capacity

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product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor 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 	34 W
 at AC in hot operating state per pole 	11.3 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
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 according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
SVHC substance name	Blei - 7439-92-1
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 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	45 63 A
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	63 A

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operational current	
 at AC-3 at 400 V rated value 	63 A
 at AC-3e at 400 V rated value 	63 A
operating power	
• at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	55 kW
• at AC-3e	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	55 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Protective and monitoring functions	
product function	
ground fault detection	No
phase failure detection	Yes
phase failure detection trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	400.14
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	12 kA
at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	30 kA
• at 500 V rated value	6 kA
at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip unit	819 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	63 A
at 600 V rated value	63 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	5 hp
— at 230 V rated value	15 hp
 for 3-phase AC motor 	
— at 200/208 V rated value	20 hp
— at 220/230 V rated value	25 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
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
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— 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				
	50 mm				
for live parts at 690 V	450				
— 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				
circuit					
type of connectable conductor cross-sections					
for main contacts					
— solid	2x (2.5 16 mm²)				
— solid or stranded	2x (2,5 50 mm²), 1x (10 70 mm²)				
 finely stranded with core end processing 	2x (2.5 35 mm²), 1x (2.5 50 mm²)				
 finely stranded without core end processing 	2x (10 35 mm²), 1x (10 50 mm²)				
tightening torque					
 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					
 for main contacts with screw-type terminals 	4.5 6 N·m				
Safety related data					
proportion of dangerous failures					
 with low demand rate according to SN 31920 	50 %				
 with high demand rate according to SN 31920 	50 %				
B10 value with high demand rate according to SN 31920	5 000				
IEC 61508					
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 version for switching status	Handle				
Approvals Certificates					
General Product Approval					
CE UK Confirmation					
General Product Approval For use in hazardous locations	Test Certificates Marine / Shipping				

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EHC	K ATEX	IECEx IECEx	Special Test Certific- ate	Type Test Certific- ates/Test Report	ABS			
Marine / Shipping					other			
BUREAU VERITAS		Lloyds Register uis	PRS	RINA	<u>Miscellaneous</u>			
other		Railway	Environment					
<u>Confirmation</u>		<u>Confirmation</u>	EPD Typ II/III (with life cylce assessment)					
Further information Siemens has decided to exit the Russian market (see here).								
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business Siemens is working on the renewal of the current EAC certificates. Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus). 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=3RV2041-4JA10 Cax online generator								
http://support.automation	http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2041-4JA10							

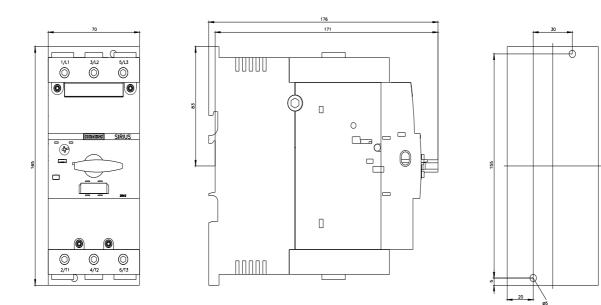
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) <u>https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4JA10</u> Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

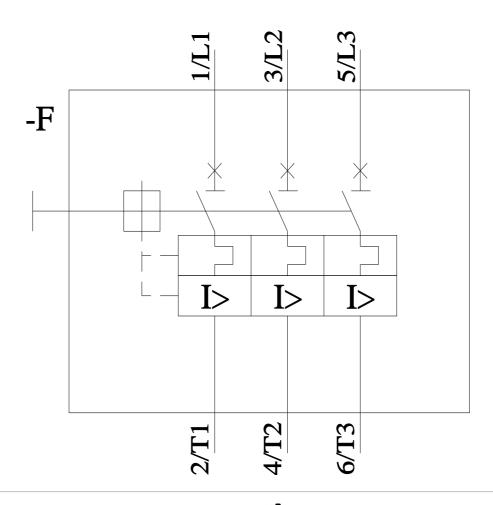
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2041-4JA10&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4JA10/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2041-4JA10&objecttype=14&gridview=view1





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