SIEMENS

Data sheet

3RV2031-4VA10







operational current rated value	45 A
operational current	
 at AC-3 at 400 V rated value 	45 A
 at AC-3e at 400 V rated value 	45 A
operating power	
• at AC-3	
— at 230 V rated value	11 kW
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	37 kW
• at AC-3e	
— at 230 V rated value	11 kW
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	37 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
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	10 kA
at AC at 690 V rated value	4 kA
operating short-circuit current breaking capacity (lcs) at AC	4 MA
at 240 V rated value	100 kA
at 240 V rated value at 400 V rated value	30 kA
 at 500 V rated value at 690 V rated value 	5 kA 2 kA
response value current of instantaneous short-circuit trip unit	650 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	45 A
at 600 V rated value	45 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	10 hp
for 3-phase AC motor	
— at 200/208 V rated value	15 hp
— at 220/230 V rated value	15 hp
— at 460/480 V rated value	40 hp
— at 575/600 V rated value	50 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	
•	none required
• at 240 V	none required
• at 400 V	125
• at 500 V	100
• at 690 V	80
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	140 mm

width	55 mm
depth	149 mm
required spacing	
with side-by-side mounting at the side	0 mm
 for grounded parts at 400 V 	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for grounded parts at 500 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 500 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
 for grounded parts at 690 V 	
- downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
Connections/ Terminals	
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 (1 25 mm²), 1x (1 35 mm²)
 finely stranded with core end processing 	2x (1 16 mm²), 1x (1 25 mm²)
 for AWG cables for main contacts 	2x (18 3), 1x (18 2)
tightening torque	
 for main contacts with screw-type terminals 	3 4.5 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 	M6
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	

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safety device type acco	ording to IEC 61508-2	Т	уре А				
 for proof test interval or service life according to IEC 61508 		ling to IEC 1	10 a				
Electrical Safety							
protection class IP on	the front according to	IEC 60529	20				
touch protection on the front according to IEC 60529			finger-safe, for vertical contact from the front				
Display	-						
display version for switcl	hing status	Н	andle				
Approvals Certificates							
General Product Approval							
C C EG-Konf.	UK CA		Confirmation		KC		
General Product Approval	For use in hazardous	slocations	Test Certificates		Marine / Shipping		
EHC	KEx ATEX	IECEx	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report	ABS		
Marine / Shipping					other		
BUREAU YERITAS		Lloyd's Register urs	PRS	RINA	<u>Miscellaneous</u>		
other		Railway		Environment			
<u>Confirmation</u>	VDE	<u>Special Test Certifi</u> <u>ate</u>	<u>2- Confirmation</u>	EPD	Siemens EcoTech		
Environment							
Environmental Con- firmations							
Further information							
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://millindustry.siemens.com/mail/en/en/Catalog/product?mlfb=3RV2031-4VA10							

Cax online generator <u>http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4VA10</u> Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

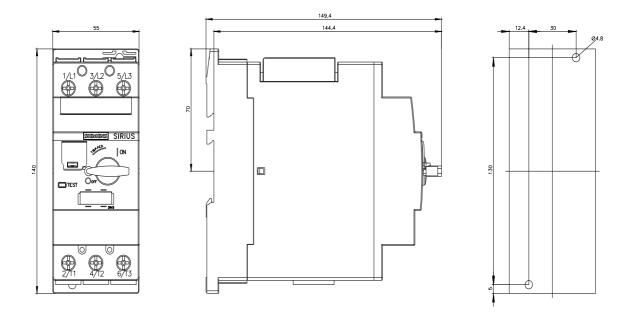
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4VA10

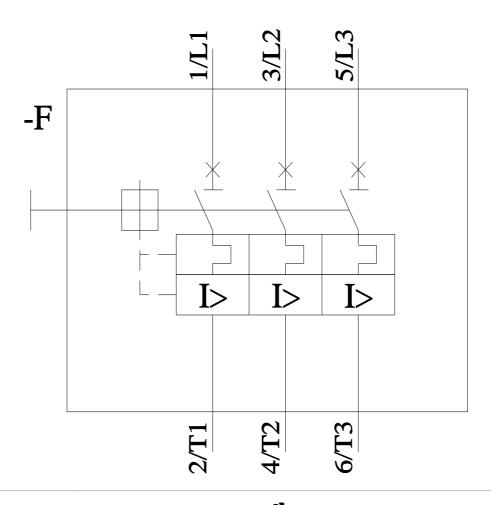
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4VA10/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4VA10&objecttype=14&gridview=view1





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