

Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.22...0.32 A N-release 4.2 A Screw terminal Standard switching capacity with transverse auxiliary switch 1 NO+1 NC



Figure similar

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] total typical	5 W
Insulation voltage with degree of pollution 3 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
• in networks with grounded star point between main and auxiliary circuit	400 V

Protection class IP	
• on the front	IP20
• of the terminal	IP00
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	Increased safety
Certificate of suitability ATEX	Yes
Protection against electrical shock	finger-safe
Reference code acc. to DIN EN 81346-2	Q

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 pick-up value current of the current-dependent overload release	0.22 ... 0.32 A
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	0.32 A
Operating current	
• at AC-3	
— at 400 V rated value	0.32 A
Operating power	
• at AC-3	
— at 400 V rated value	90 W
— at 500 V rated value	90 W
— at 690 V rated value	120 W
Operating frequency	
• at AC-3 maximum	15 1/h

Auxiliary circuit

Design of the auxiliary switch	transverse
Number of NC contacts for auxiliary contacts	1
• Note	1
Number of NO contacts for auxiliary contacts	1
• Note	1
Number of CO contacts	
• for auxiliary contacts	0
Operating current of auxiliary contacts at AC-15	
• at 24 V	2 A
• at 110 V	2 A
• at 120 V	2 A
• at 125 V	2 A
• at 230 V	0.5 A
Operating current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 60 V	0.15 A

Protective and monitoring functions	
Product function	
• Ground fault detection	No
• Phase failure detection	Yes
Trip class	CLASS 10
Design of the overload release	thermal
Operational short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 000 A
• at 400 V rated value	100 000 A
• at 500 V rated value	100 000 A
• at 690 V rated value	100 000 A
Maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at AC at 500 V rated value	100 kA
• at AC at 690 V rated value	100 kA
Breaking capacity short-circuit current (Icn)	
• at 1 current path at DC at 150 V rated value	10 kA
• with 2 current paths in series at DC at 300 V rated value	10 kA
• with 3 current paths in series at DC at 450 V rated value	10 kA
Response value current	
• of instantaneous short-circuit trip unit	4.2 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	0.32 A 0.32 A
Contact rating of auxiliary contacts according to UL	C300 / R300

Short-circuit protection

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required 	fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A)
Design of the fuse link for IT network for short-circuit protection of the main circuit	
<ul style="list-style-type: none"> • at 240 V • at 400 V • at 500 V • at 690 V 	none required None required None required None required

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	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

Connections/Terminals

Product function	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	No
Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	screw-type terminals screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x (1 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
Tightening torque	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • for main contacts 	M3
<ul style="list-style-type: none"> • of the auxiliary and control contacts 	M3




Safety related data

B10 value	
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	5 000
Proportion of dangerous failures	
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	50 %
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	50 %
Failure rate [FIT]	
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	50 FIT
Display version	
<ul style="list-style-type: none"> • for switching status 	Rocker switch

Certificates/approvals

General Product Approval			For use in hazardous locations		
					
CCC	CSA	UL	EAC	ATEX	IECEX

Declaration of Conformity	Test Certificates	Marine / Shipping			
	Special Test Certificate				
EG-Konf.		ABS	BUREAU VERITAS	LRS	RINA

Marine / Shipping	other				
		Confirmation	Miscellaneous		
RMRS	DNV-GL			VDE	

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV1011-0DA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-0DA15>

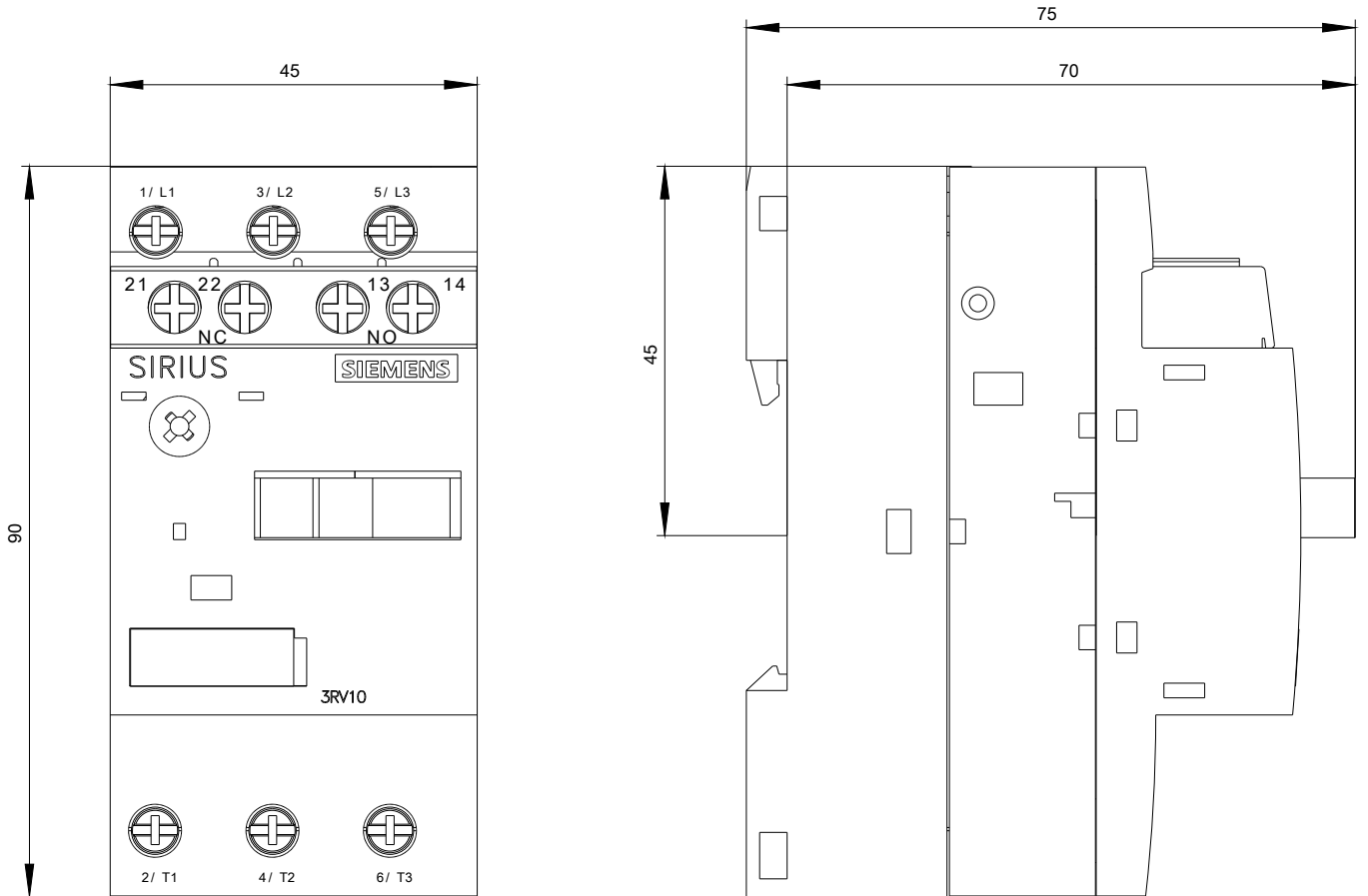
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

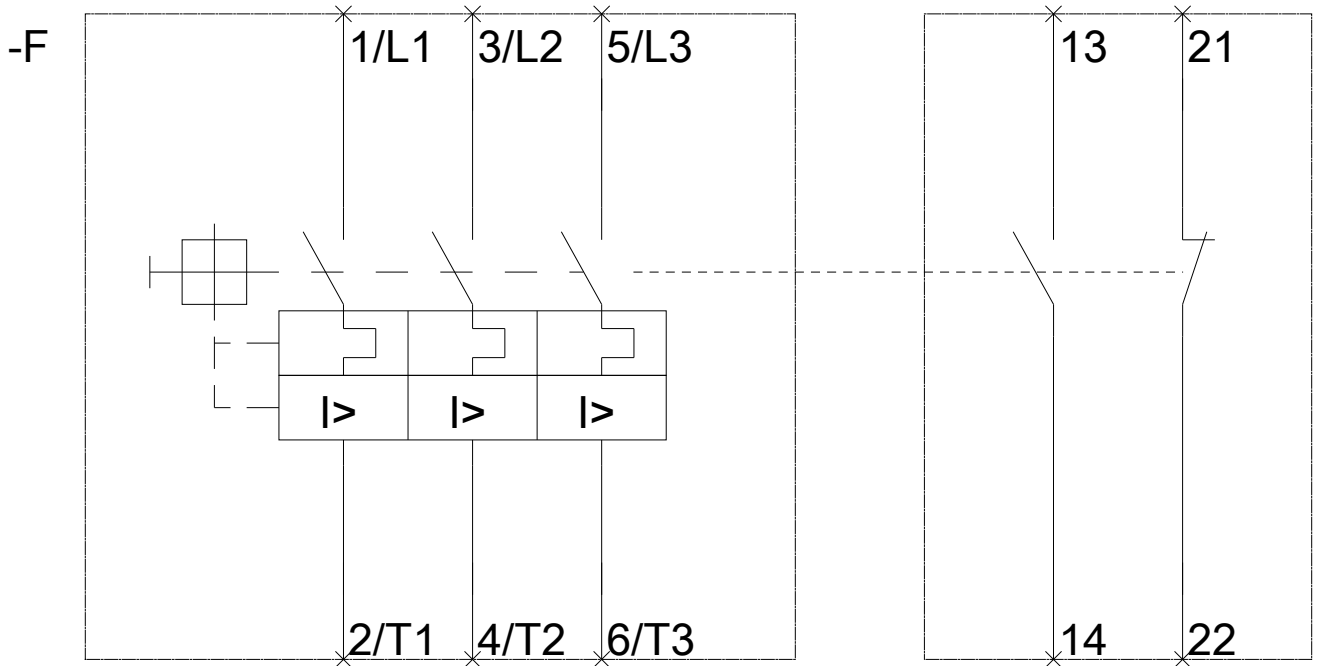
<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0DA15>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-0DA15&lang=en

Characteristic: Tripping characteristics, I^2t , Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0DA15/char>

Further characteristics (e.g. electrical endurance, switching frequency)
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-0DA15&objecttype=14&gridview=view1>





last modified:

09/27/2018