SIEMENS

Data sheet 3RV1011-1JA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 7...10 A N release 130 A Screw terminal Standard switching capacity

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] 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
insulation voltage with degree of pollution 3 at AC 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
● between main and auxiliary circuit	400 V
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 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 acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.01.2013
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	7 ... 10 A

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operating voltage	
● rated value	690 V
● rated value	20 ... 690 V
● at AC-3 rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	10 A
operational current at AC-3 at 400 V rated value	10 A
operating power at AC-3	
● at 230 V rated value	2.2 kW
● at 400 V rated value	4 kW
● at 500 V rated value	5.5 kW
● at 690 V rated value	7.5 kW
operating frequency at AC-3 maximum	15 1/h
Auxiliary circuit	
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
● ground fault detection	No
● phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
breaking capacity operating short-circuit current (Ics) at AC	
● at 240 V rated value	100 kA
● at 400 V rated value	13 kA
● at 500 V rated value	3 kA
● at 690 V rated value	2 kA
breaking capacity maximum short-circuit current (Icu)	
● at AC at 240 V rated value	100 kA
● at AC at 400 V rated value	50 kA
● at AC at 500 V rated value	3 kA
● at AC at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	130 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
● at 480 V rated value	10 A
● at 600 V rated value	10 A
yielded mechanical performance [hp]	
● for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	1.5 hp
● for 3-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 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	
● at 240 V	gL/gG 80 A
● at 400 V	gL/gG 63 A
● at 500 V	gL/gG 50 A
● at 690 V	gL/gG 50 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715

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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 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
type of connectable conductor cross-sections	
● for auxiliary contacts	
— solid or stranded	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
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
size of the screwdriver tip	Pozidriv 2
design of the thread of the connection screw	
● for main contacts	M3
Safety related data	
B10 value	
● with high demand rate acc. to SN 31920	5 000
proportion of dangerous failures	
● with low demand rate acc. to SN 31920	50 %
● with high demand rate acc. to SN 31920	50 %
failure rate [FIT]	
● with low demand rate acc. to SN 31920	50 FIT

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protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
display version for switching status	Rocker switch

Certificates/ approvals

General Product Approval					For use in hazard-ous locations
CSA	Confirmation	CCC	UL	EAC	ATEX

For use in hazard-ous locations	Declaration of Conformity		Test Certificates		Marine / Shipping
IECEx	UK Declaration of Conformity	EG-Konf.	Type Test Certific-ates/Test Report	Special Test Certific-ate	ABS

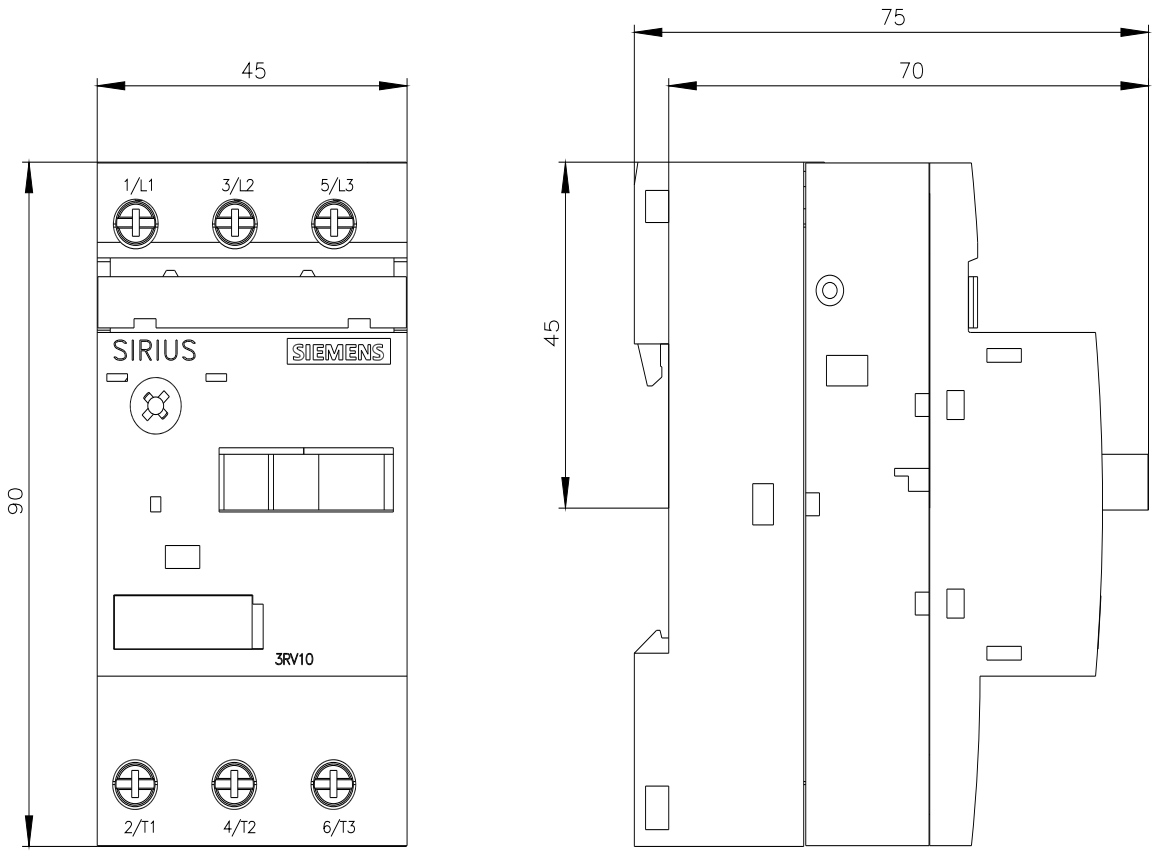
Marine / Shipping				other
BUREAU VERITAS	Lloyd's Register LRS	RMRS	DNV·GL	Miscellaneous

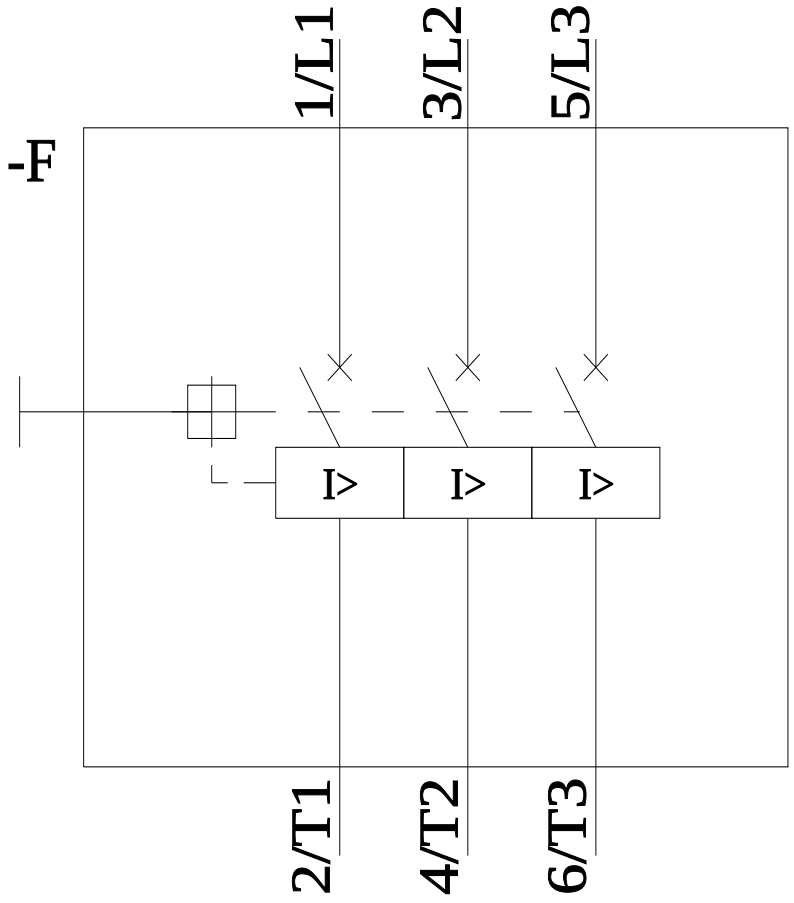
other		Railway
Confirmation	VDE	Special Test Certific-ate

Further information

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=3RV1011-1JA10
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1JA10
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1JA10
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1JA10&lang=en
Characteristic: Tripping characteristics, I^2t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1JA10/char
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1JA10&objecttype=14&gridview=view1

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