SIEMENS

Data sheet 3RV2011-1EA40

Circuit breaker size S00 for motor protection, CLASS 10 A-release 2.8...4 A N release 52 A ring cable lug connection Standard switching capacity

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	S00
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
● at AC in hot operating state	7.25 W
● at AC in hot operating state per pole	2.4 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
shock resistance acc. to IEC 60068-2-27	25g / 11 ms
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
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
● ambient temperature during operation	-20 ... +60 °C
● ambient temperature during storage	-50 ... +80 °C
● ambient temperature 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	2.8 ... 4 A

current-dependent overload release	
● operating voltage rated value	690 V
● operating voltage at AC-3 rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	4 A
operational current at AC-3 at 400 V rated value	4 A
operating power at AC-3	
● at 230 V rated value	750 W
● at 400 V rated value	1 500 W
● at 500 V rated value	2 200 W
● at 690 V rated value	3 000 W
operating frequency at AC-3 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	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	100 kA
● at 500 V rated value	100 kA
● at 690 V rated value	4 kA
breaking capacity maximum short-circuit current (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	6 kA
response value current of instantaneous short-circuit trip unit	52 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
● at 480 V rated value	4 A
● at 600 V rated value	4 A
yielded mechanical performance [hp]	
● for single-phase AC motor	
— at 110/120 V rated value	0.125 hp
— at 230 V rated value	0.333 hp
● for 3-phase AC motor	
— at 200/208 V rated value	0.75 hp
— at 220/230 V rated value	0.75 hp
— at 460/480 V rated value	2 hp
— at 575/600 V rated value	3 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 400 V	gL/gG 32 A
● at 500 V	gL/gG 32 A
● at 690 V	gL/gG 25 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
height	97 mm
width	45 mm
depth	97 mm
required spacing	
● for grounded parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
● for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
product function removable terminal for auxiliary and control circuit	No
type of electrical connection	
● for main current circuit	Ring cable lug connection
● for auxiliary and control circuit	ring cable connection
arrangement of electrical connectors for main current circuit	Top and bottom
● **tightening torque**	
— for main contacts for ring cable lug	0.8 ... 1.2 N·m
— for auxiliary contacts for ring cable lug	1.2 ... 0.8 N·m
outer diameter of the usable ring cable lug maximum	7.5 mm
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Size 2 and Pozidriv 2
design of the thread of the connection screw	
● for main contacts	M3
● of the auxiliary and control 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

T1 value for proof test interval or service life acc. to IEC 61508	10 y
protection class IP on the front acc. to IEC 60529	IP00
display version for switching status	Handle

Certificates/ approvals

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

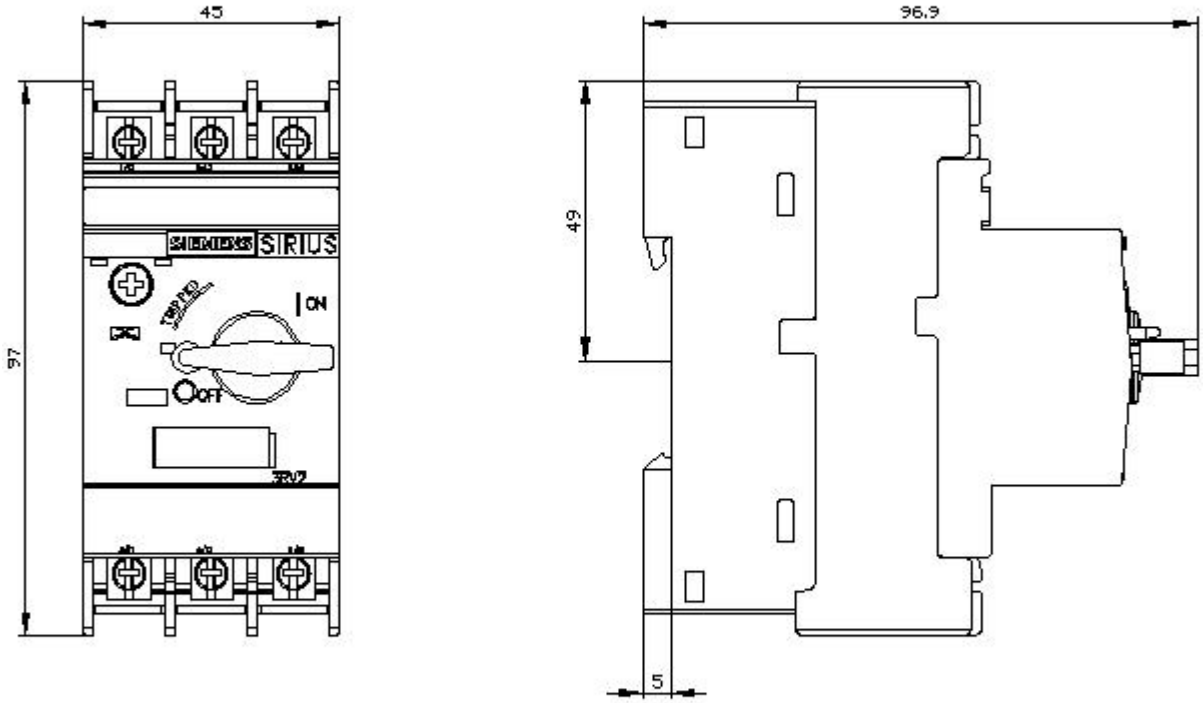
Declaration of Conformity	Test Certificates		Marine / Shipping	
EG-Konf.	Miscellaneous	Type Test Certificates/Test Report	Special Test Certificate	ABS	BUREAU VERITAS

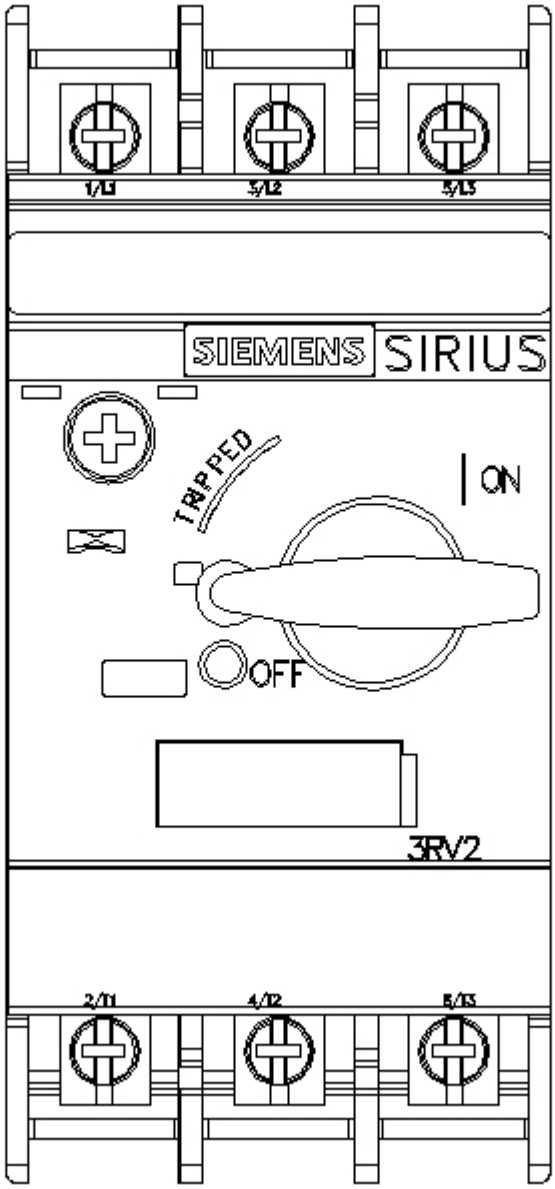
Marine / Shipping					other
LRS	PRS	RINA	RMRS	DNV·GL	Confirmation

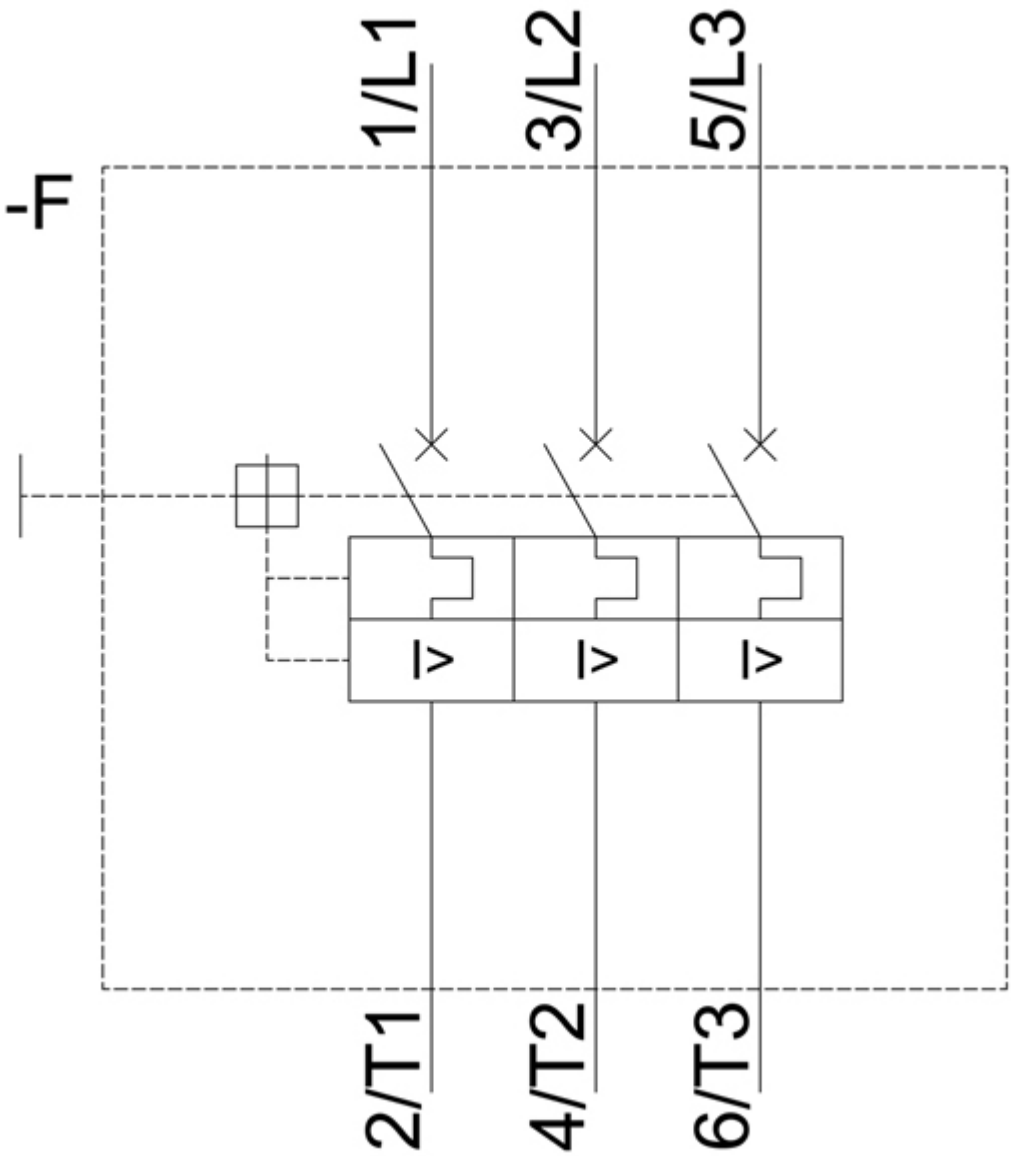
other	Railway	
VDE	Vibration and Shock	Confirmation

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=3RV2011-1EA40
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1EA40
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1EA40
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1EA40&lang=en
Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1EA40/char
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1EA40&objecttype=14&gridview=view1







last modified: 12/9/2020