SIEMENS

Data sheet 3RA2120-1KA24-0AP0

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 9.00...12.5 A 230 V AC screw terminal for installation on standard mounting rail (also fulfills type of coordination 1) Type of coordination 2, Iq = 150 kA 1 NO+1 NC (contactor)

product brand name	SIRIUS
product designation	Direct (on-line) starter
design of the product	for standard rail or screw mounting
product type designation	3RA21
manufacturer's article number	
● of the supplied contactor	3RT2024-1AP00
● of the supplied circuit-breakers	3RV2011-1KA10
● of the supplied link module	3RA2921-1AA00
General technical data	
size of the circuit-breaker	S00
size of load feeder	S0
power loss [W] for rated value of the current	
● at AC in hot operating state per pole	3.4 W
● without load current share typical	7.6 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
degree of protection NEMA rating	other
shock resistance according to IEC 60068-2-27	6g / 11 ms
mechanical service life (operating cycles) of contactor typical	10 000 000
type of assignment	2
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 81346-2:2019	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
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
design of the switching contact	electromechanical
adjustable current response value current of the current-dependent overload release	9 ... 12.5 A
operating voltage	
● rated value	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	
● at AC-3 at 400 V rated value	12 A
● at AC-3e at 400 V rated value	12 A
operating power	
● at AC-3	
— at 400 V rated value	5 500 W
● at AC-3e	
— at 400 V rated value	5 500 kW
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
● at 50 Hz rated value	230 V
● at 50 Hz rated value	230 ... 230 V
apparent holding power of magnet coil at AC	7.6 VA
● at 50 Hz	7.6 VA
inductive power factor with the holding power of the coil	0.25
● at 50 Hz	0.25
Auxiliary circuit	
product extension auxiliary switch	Yes
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal (bimetallic)
response value current of instantaneous short-circuit trip unit	163 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
● at 480 V rated value	11 A
● at 600 V rated value	10 A
yielded mechanical performance [hp]	
● for single-phase AC motor	
— at 110/120 V rated value	0.75 hp
— at 230 V rated value	2 hp
● for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (Iq)	
● at 400 V according to IEC 60947-4-1 rated value	150 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	193 mm
width	45 mm
depth	97 mm
required spacing	
● for grounded parts	
— forwards	20 mm
— backwards	0 mm
— upwards	50 mm
— at the side	20 mm
— downwards	10 mm
● for live parts	
— forwards	20 mm
— backwards	0 mm
— upwards	50 mm
— downwards	10 mm

— at the side	20 mm
Connections/ Terminals	
type of electrical connection	
● for main current circuit	screw-type terminals
● for auxiliary and control circuit	screw-type terminals
Safety related data	
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
● with high demand rate according to SN 31920	73 %
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Communication/ Protocol	
protocol is supported	
● PROFINET IO protocol	No
● PROFIsafe protocol	No
protocol is supported AS-Interface protocol	No

Certificates/ approvals

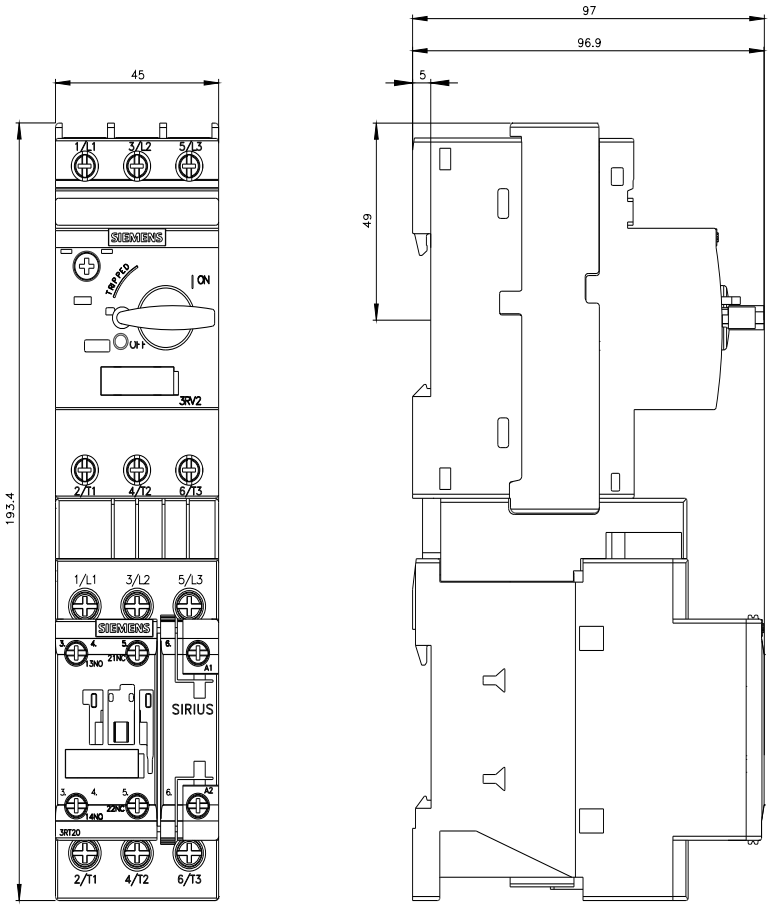
General Product Approval			For use in hazard-ous locations	Declaration of Conformity	
Confirmation	UL	EAC	ATEX	EG-Konf.	UKCA

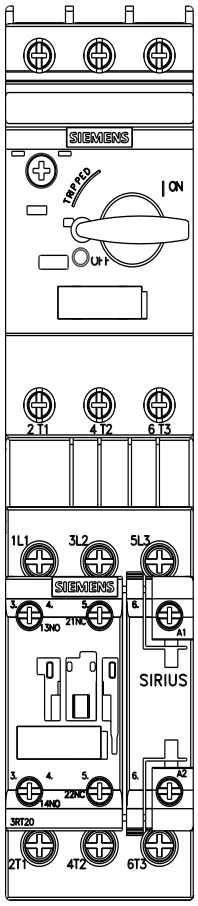
Test Certificates		Marine / Shipping			
Type Test Certific-ates/Test Report	Special Test Certific-ate	ABS	BUREAU VERITAS	LRS	PRS

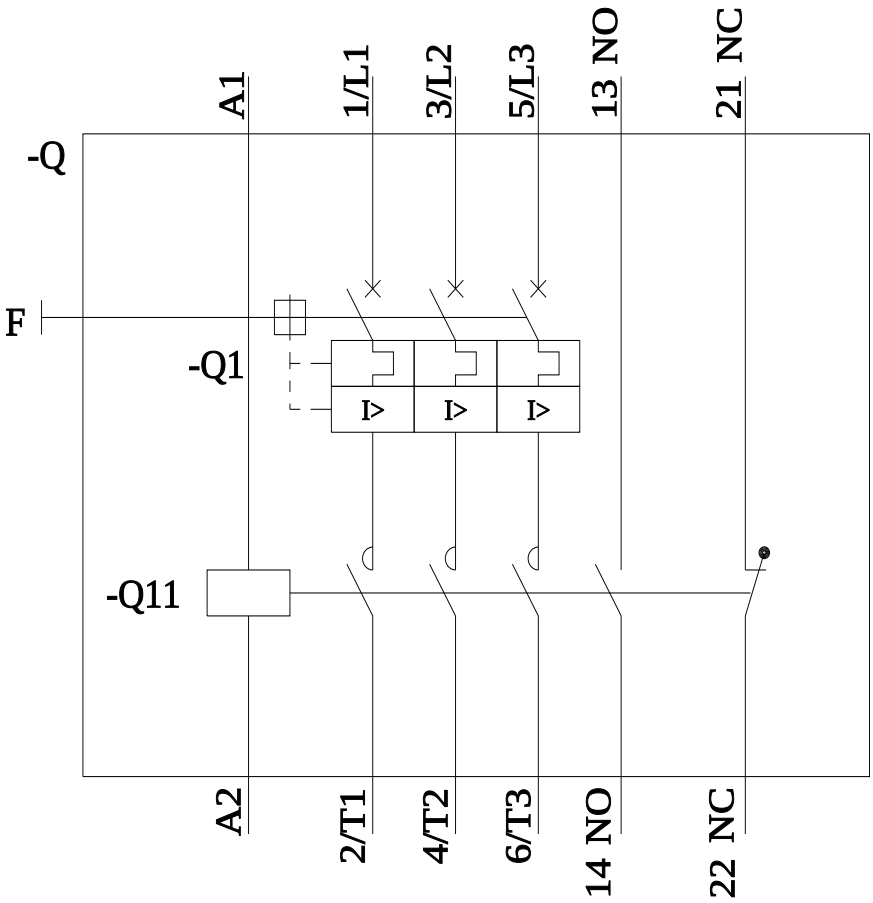
Marine / Shipping			other	Railway	Environment
RINA	RMRS	DNV·GL	Confirmation	Vibration and Shock	Environmental Con-firmations

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=3RA2120-1KA24-0AP0
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1KA24-0AP0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1KA24-0AP0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1KA24-0AP0&lang=en
Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1KA24-0AP0/char
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1KA24-0AP0&objecttype=14&gridview=view1







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