3RA2110-4AE18-1AP0

Data sheet



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S00 10...16 A 230 V AC Spring-type terminal for installation on standard mounting rail Type of coordination 1, Iq = 150 kA 1 NO (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 	3RT2018-2AP01
 of the supplied circuit-breakers 	3RV2011-4AA20
 of the supplied link module 	3RA2911-2AA00
General technical data	
size of the circuit-breaker	S00
size of load feeder	S00
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 (switching cycles) of contactor typical	30 000 000
type of assignment	1
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
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	10 16 A
operating voltage	
• rated value	690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz

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operational current at AC-3 at 400 V rated value	15.5 A
operating power at AC-3	
 at 400 V rated value 	7 500 W
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
at 60 Hz rated value	230 V
at 60 Hz rated value	230 230 V
apparent holding power of magnet coil at AC	5.7 VA
Auxiliary circuit	
product extension auxiliary switch	Yes
Protective and monitoring functions	100
trip class	CLASS 10
design of the overload release	
	thermal (bimetallic)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	44.0
• at 480 V rated value	14 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 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	
Installation/ mounting/ dimensions mounting position	vertical
	vertical screw and snap-on mounting onto 35 mm standard mounting rail
mounting position	
mounting position fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
mounting position fastening method height	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm
mounting position fastening method height width	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm
mounting position fastening method height width depth	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm
mounting position fastening method height width depth required spacing	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm
mounting position fastening method height width depth required spacing • for grounded parts	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 20 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 20 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 20 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 50 mm 20 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards • for live parts — forwards — upwards — upwards	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 0 mm
mounting position fastening method height width depth required spacing	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — at the side — at the side — downwards — for live parts — forwards — backwards — backwards — at the side	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — at the side — downwards • for live parts — forwards — backwards — backwards — upwards — at the side Connections/ Terminals	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — torwards — backwards — torwards — backwards — at the side Connections/ Terminals type of electrical connection	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 0 mm 50 mm 10 mm 20 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards • for live parts — forwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 0 mm 50 mm 0 mm 50 mm 20 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards — at the side Connections/ Terminals type of electrical connection • for auxiliary and control circuit Safety related data	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 20 mm 0 mm 50 mm 20 mm spring-loaded terminals spring-loaded terminals
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — a the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit Safety related data B10 value with high demand rate according to SN 31920	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 0 mm 50 mm 0 mm 50 mm 20 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 20 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — a the side — downwards — towards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures • with high demand rate according to SN 31920	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 20 mm 0 mm 50 mm 10 mm 50 mm 10 mm 10 mm 20 mm 10 mm 20 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — a the side — downwards • for live parts — forwards — backwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures • with high demand rate according to IEC 60529	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 10 mm 20 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — a the side — downwards — towards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures • with high demand rate according to SN 31920	screw and snap-on mounting onto 35 mm standard mounting rail 198 mm 45 mm 97 mm 20 mm 0 mm 50 mm 10 mm 20 mm 0 mm 50 mm 10 mm 50 mm 10 mm 10 mm 20 mm 10 mm 20 mm

 PROFINET IO protocol 	No
 PROFIsafe protocol 	No
protocol is supported AS-Interface protocol	No

Certificates/ approvals

General Product Approval

For use in hazardous locations Declaration of Conformity



Confirmation



EAC





Declaration of Conformity

Test Certificates

Marine / Shipping



Special Test Certificate

Type Test Certificates/Test Report





Confirmation



Marine / Shipping





other Railway

Vibration and Shock

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=3RA2110-4AE18-1AP0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2110-4AE18-1AP0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2110-4AE18-1AP0

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

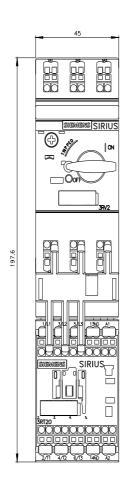
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2110-4AE18-1AP0&lang=en

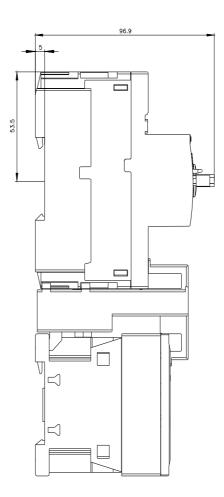
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2110-4AE18-1AP0/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2110-4AE18-1AP0&objecttype=14&gridview=view1





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