



Load feeder fuseless, Reversing duty 400 V AC, Size S0 3.50...5.00 A 230 V AC  
Spring-type terminal for installation on standard mounting rail with standard  
mounting rail adapter (also fulfills type of coordination 1) Type of coordination 2, I<sub>q</sub>  
= 150 kA 1 NO+1 NC (contactor)

product brand name	SIRIUS
product designation	Reversing starter
design of the product	for standard rail or screw mounting
product type designation	3RA22
manufacturer's article number	
• of the supplied contactor	<a href="#">3RT2024-2AP00</a>
• of the supplied circuit-breakers	<a href="#">3RV2021-1FA20</a>
• of the supplied RH assembly kit	<a href="#">3RA2923-1BB2</a>
• of the supplied link module	<a href="#">3RA2921-2AA00</a>
• of the supplied standard mounting rail adapter	<a href="#">3RA2922-1AA00</a>
<b>General technical data</b>	
size of the circuit-breaker	S0
size of load feeder	S0
power loss [W] for rated value of the current	
• at AC in hot operating state per pole	2.7 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 Prohibition (Date)	03/01/2017
<b>Ambient conditions</b>	
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 %
<b>Main circuit</b>	
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	3.5 ... 5 A
operating voltage	
• rated value	690 V

<ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• at AC-3e rated value maximum</li> </ul>	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current</b>	
<ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>	5 A
<ul style="list-style-type: none"> <li>• at AC-3e at 400 V rated value</li> </ul>	5 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	1 500 W
<ul style="list-style-type: none"> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	1 500 kW
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC
<b>control supply voltage at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> </ul>	230 V
<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> </ul>	230 ... 230 V
<b>apparent holding power of magnet coil at AC</b>	7.6 VA
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	7.6 VA
<b>inductive power factor with the holding power of the coil</b>	0.25
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	0.25
<b>Auxiliary circuit</b>	
<b>product extension auxiliary switch</b>	Yes
<b>Protective and monitoring functions</b>	
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal (bimetallic)
<b>response value current of instantaneous short-circuit trip unit</b>	65 A
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V rated value</li> </ul>	5 A
<ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>	5 A
<b>yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> </ul> </li> </ul>	0.25 hp
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at 230 V rated value</li> </ul> </li> </ul>	0.5 hp
<ul style="list-style-type: none"> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> </ul> </li> </ul>	1.5 hp
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at 220/230 V rated value</li> </ul> </li> </ul>	1.5 hp
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> </ul> </li> </ul>	3 hp
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at 575/600 V rated value</li> </ul> </li> </ul>	5 hp
<b>Short-circuit protection</b>	
<b>product function short circuit protection</b>	Yes
<b>design of the short-circuit trip</b>	magnetic
<b>conditional short-circuit current (I<sub>q</sub>)</b>	
<ul style="list-style-type: none"> <li>• at 400 V according to IEC 60947-4-1 rated value</li> </ul>	150 000 A
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	vertical
<b>fastening method</b>	On adapter for screw and snap-on mounting on 35 mm DIN rail
<b>height</b>	269 mm
<b>width</b>	90 mm
<b>depth</b>	130 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> </ul> </li> </ul>	32 mm
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— backwards</li> </ul> </li> </ul>	0 mm
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— upwards</li> </ul> </li> </ul>	50 mm
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> </ul>	10 mm
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— downwards</li> </ul> </li> </ul>	10 mm
<ul style="list-style-type: none"> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> </ul> </li> </ul>	32 mm
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— backwards</li> </ul> </li> </ul>	0 mm

— upwards	50 mm
— downwards	10 mm
— at the side	10 mm

#### Connections/ Terminals

##### type of electrical connection

• for main current circuit	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals

#### Safety related data

B10 value with high demand rate according to SN 31920	1 000 000
<b>proportion of dangerous failures</b>	
• with high demand rate according to SN 31920	73 %
<b>touch protection on the front according to IEC 60529</b>	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
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#### Certificates/ approvals

General Product Approval	For use in hazardous locations	Declaration of Conformity
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[Confirmation](#)



#### Test Certificates

#### Marine / Shipping

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### Marine / Shipping

#### other

#### Railway



[Confirmation](#)

[Vibration and Shock](#)

#### 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=3RA2220-1FF24-0AP0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-1FF24-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1FF24-0AP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2220-1FF24-0AP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-1FF24-0AP0&lang=en)

Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1FF24-0AP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1FF24-0AP0&objecttype=14&gridview=view1>





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