## SIEMENS

## **Product data sheet**

## 3RA2220-1HD24-0BB4



LOAD FEEDER FUSELESS REVERSING DUTY, AC 400V, SZ S0, 5,5...8A, DC 24V SCREW CONNECTION FOR BUSBAR SYSTEMS 60MM TYPE OF COORDINATION 2, IQ = 150KA (ALSO FULFILLS TYPE OF COORDINATION 1) 1NO+1NC (CONTACTOR)

General technical data:			
Product brand name		SIRIUS	
product designation		non-fused load feeders 3RA2	
Design of the product		reversing starter	
Size of the load feeder		S0	
Protection class IP / on the front		IP20	
Degree of pollution		3	
Insulation voltage / rated value	V	690	
Installation altitude / at a height over sea level / maximum	m	2,000	
Ambient temperature			
during transport	°C	-55 80	
during storage	°C	-55 80	
during operating	°C	-20 60	
Impulse voltage resistance / rated value	kV	6	
Active power loss / per conductor / typical	W	3.5	
Item designation			
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		Q	
according to DIN EN 61346-2		Q	
Type of assignement		2	

Mechanical operating cycles as operating time / of the contactor		
• typical		10,000,000
Manufacturer article number		
• of the circuit-breakers included in the scope of supply		<u>3RV2011-1HA10</u>
• of the contactor included in the scope of supply		<u>3RT2024-1BB40</u>
<ul> <li>of the RS applied assembly kit</li> </ul>		8US1250-5AT10
• of the link module included in the scope of supply		3RA2921-1BA00
<ul> <li>of the busbar adapter included in the scope of supply</li> </ul>		8US1251-5NT10
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
• of the current-dependent overload release	А	5.5 8
Communication:		
Product function / bus-communication		No
Protocol / will be supported		
AS interface protocol		No
PROFIBUS DP protocol		No
PROFINET protocol		No
Product extension / function module for communication		No
Main circuit:		
Number of poles / for main current circuit		3
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Operating voltage / at AC-3 / rated value / maximum	V	690
Operating current		
• at AC-1 / at 400 V / rated value	А	8
	А	6.5
<ul> <li>at AC-2 / at 400 V / rated value</li> </ul>		
<ul> <li>at AC-2 / at 400 V / rated value</li> <li>at AC-3 / at 400 V / rated value</li> </ul>	A	6.5

Frequency of operation		
Off-load operating frequency	1/h	10,000
• at AC-4 / at 400 V / rated value	W	3,000
• at 690 V / rated value	W	5,500
• at 500 V / rated value	W	4,000
• at 400 V / rated value	W	3,000
• at AC-3		
• at AC-2 / at 400 V / rated value	W	3,000
Service power		
• at AC-4 / at 400 V / fated value	A	0.0

• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
at AC-2 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300

Control circuit:		
Type of voltage / of the controlled supply voltage		DC
Control supply voltage frequency		
• 1 / rated value	Hz	0
Control supply voltage / 1		
• for DC / rated value	V	24
Holding power / of the solenoid / for DC	W	5.9

Auxiliary circuit:		
Product extension / auxiliary switch	•	Yes
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of change-over switches / for auxiliary contacts	(	0

Inputs/ Outputs:	
Number of digital inputs	0
Number of digital inputs	0

Short-circuit:		
Product function / short circuit protection		Yes
Design of the short-circuit protection		circuit-breakers
Breaking capacity limit short-circuit current (lcu)		
• at 400 V / rated value	А	100,000
• at 500 V / rated value	А	42,000
• at 690 V / rated value	А	4,000

Installation/mounting/dimensions:			
Built in orientation		vertical	
Type of mounting		for snapping onto 60 mm busbar systems	
Width	mm	90	
Height	mm	260	
Depth	mm	164.5	
Center line spacing	mm	60	
Distance, to be maintained, to the ranks assembly			
forwards	mm	10	
backwards	mm	0	
• upwards	mm	30	
downwards	mm	30	

		2
• sidewards	mm	0
Distance, to be maintained, to earthed part		
forwards	mm	10
backwards	mm	0
• upwards	mm	30
downwards	mm	10
• sidewards	mm	9
Distance, to be maintained, conductive elements		
• forwards	mm	10
backwards	mm	0
• upwards	mm	30
downwards	mm	10
• sidewards	mm	9
Connections:		
- connections:		
Design of the electrical connection		

Design of the electrical connection	
for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of the connectable conductor cross-section	
• for main contacts	
• solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
• stranded	2x (1.0 2.5 mm2), 2x (2.5 10 mm2)
finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
<ul> <li>for AWG conductors / for main contacts</li> </ul>	2 x (16 14), 2x (14 8)
for auxiliary contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG conductors / for auxiliary contacts</li> </ul>	2x (20 14)
Certificates/approvals:	
Verification of suitability	CE / UL / CSA / CCC
Varification of suitability / ATEX	No

General Product Approval	For use in hazardous locations	Test Certific	cates
ROSTEST	DEKRA EXAM, DMT	Manufacture	ī
Shipping Approval		other	
ABS PRS	RINA	Manufacture	<u>r</u> <u>other</u>
UL/CSA ratings			
yielded mechanical performance (hp)			
<ul> <li>for single-phase squirrel cage motors</li> </ul>			
• at 110/120 V / rated value		hp	0.333
<ul> <li>for three-phase squirrel cage motors</li> </ul>			
• at 220/230 V / rated value		hp	2
• at 460/480 V / rated value		hp	5
• at 575/600 V / rated value	ed value		5
Operating current (FLA) / for three-phase s	squirrel cage motors	-	
• at 480 V / rated value		А	8
• at 600 V / rated value		А	8
Contact rating designation / for auxiliary c UL	contacts / according to		A600 / Q600
Safety:			
B10 value / with high demand rate			
according to SN 31920			1,000,000
Failure rate (FIT value) / with low demand	rate		
according to SN 31920		FIT	250
Proportion of dangerous failures			
• with low demand rate / according to SN 3	31920	%	40
• with high demand rate / according to SN	31920	%	75
T1 value / for proof test interval or service life			
according to IEC 61508		а	10
Protection against electrical shock			finger-safe

## Further information:

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

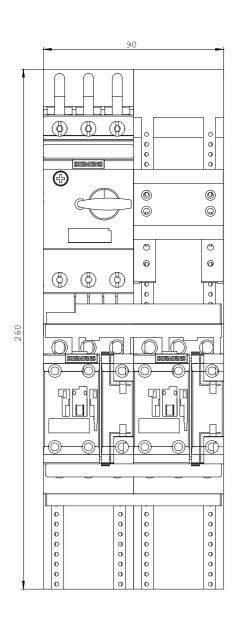
Industry Mall (Online ordering system)

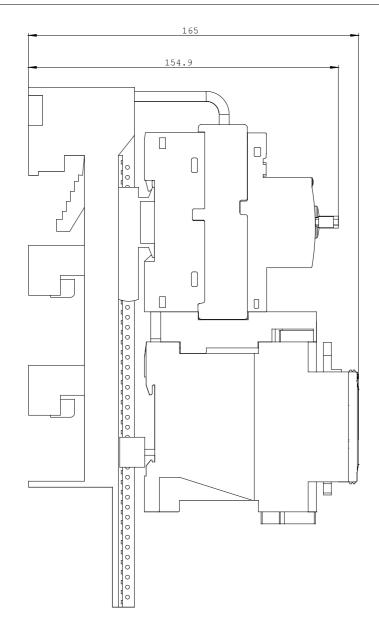
http://www.siemens.com/industrial-controls/mall

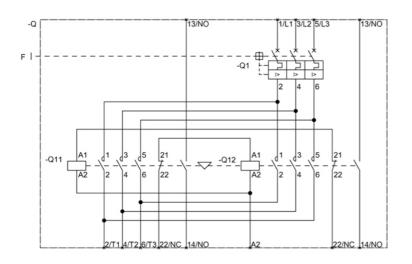
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA2220-1HD24-0BB4/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA2220-1HD24-0BB4







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