Product data sheet



LOAD FEEDER FUSELESS REVERSING DUTY,
AC 400V, SZ S0, 20. . .25A,
AC 230V SCREW CONNECTION FOR RAIL-MOUNTING,
W. DIN RAIL ADAPTER 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	4.3
Item designation		
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		Q
according to DIN EN 61346-2		Q
Type of assignement		2

$\label{lem:mechanical operating cycles} \ \ \text{as operating time / of the contactor}$		
• typical		10,000,000
Manufacturer article number		
 of the standard mounting rail adapter included in the scope of supply 		3RA2922-1AA00
• of the circuit-breakers included in the scope of supply		3RV2021-4DA10
of the contactor included in the scope of supply		3RT2027-1AP00
 of the link module included in the scope of supply 		3RA2921-1AA00
of the RH applied assembly kit		3RA2923-1BB1
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
of the current-dependent overload release	Α	20 25
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	Α	25
• at AC-2 / at 400 V / rated value	Α	22
• at AC-3 / at 400 V / rated value	Α	22
• at AC-4 / at 400 V / rated value	Α	22
Service power		
• at AC-2 / at 400 V / rated value	W	11,000
• at AC-3		
• at 400 V / rated value	W	11,000
	W	15,000
• at 500 V / rated value	• • • • • • • • • • • • • • • • • • • •	
at 500 V / rated valueat 690 V / rated value	W	22,000
		22,000 11,000
• at 690 V / rated value	W	

• 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		AC
Control supply voltage frequency		
• 1 / rated value	Hz	50
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
Apparent holding power / of the solenoid / for AC	V-A	9.8
Inductive power factor / with the pull-in power of the coil		0.27
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
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	Α	25,000
• at 500 V / rated value	Α	5,000
• at 690 V / rated value	Α	2,000
Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
	mm	90
Width		
Width Height	mm	265
	mm mm	265 120.3
at 500 V / rated value at 690 V / rated value Installation/mounting/dimensions: Built in orientation	Α	5,000 2,000 vertical screw and snap-on mounting onto 35 mm s

1/h

1,000

• forwards

• backwards

• at AC-1 / according to IEC 60947-6-2 / maximum

10

0

mm

mm

• upwards	mm	30
• downwards	mm	30
• 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:	
Design of the electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control current circuit	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	
 with conductor end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
• for AWG conductors / for main contacts	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	
 with conductor end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for auxiliary contacts	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 Certificates

ROSTEST



 $\frac{\mathsf{DEKRA}\;\mathsf{EXAM},}{\mathsf{DMT}}$

Manufacturer

Shipping Approval









Manufacturer other

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 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)

 $\underline{\text{http://www.siemens.com/industrial-controls/mall}}$

CAx-Online-Generator

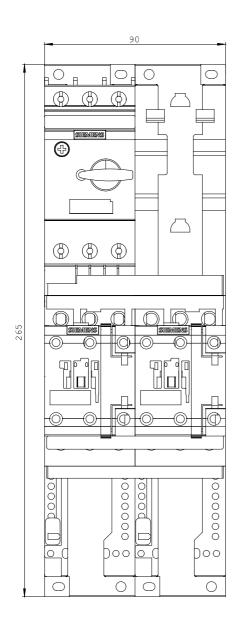
http://www.siemens.com/cax

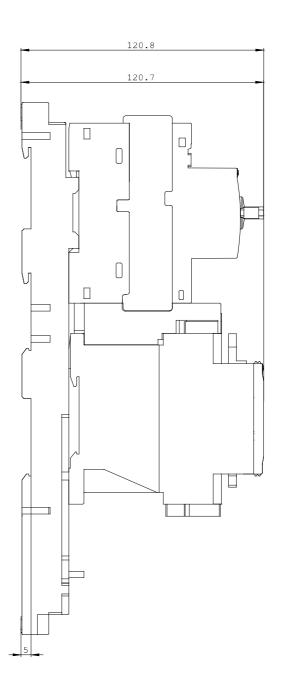
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

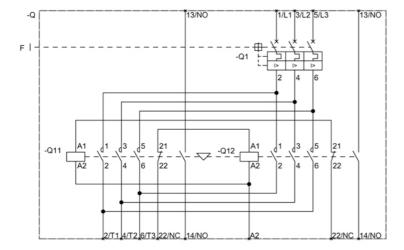
 $\underline{\text{http://support.automation.siemens.com/WW/view/en/3RA2220-4DB27-0AP0/all}}$

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2220-4DB27-0AP0







last change: Oct 24, 2011