Product data sheet



LOAD FEEDER FUSELESS REVERSING DUTY, AC 400V, SZ S0, 27...32A, AC 230V SPRING-LOADED 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	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		

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		3RV2021-4EA20
• of the contactor included in the scope of supply		3RT2027-2AP00
of the RS applied assembly kit		8US1250-5AT10
• of the link module included in the scope of supply		3RA2921-2AA00
• of the busbar adapter included in the scope of supply		8US1251-5NT11
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
of the current-dependent overload release	А	27 32
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
		0
Number of NO contacts / for main contacts		
Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum	V	0
	V	0 3
Operating voltage / at AC-3 / rated value / maximum	V	0 3
Operating voltage / at AC-3 / rated value / maximum Operating current		0 3 690
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value	A	0 3 690
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value	A A	0 3 690 32 29
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value	A A A	0 3 690 32 29 29
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-4 / at 400 V / rated value	A A A	0 3 690 32 29 29
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-4 / at 400 V / rated value Service power	A A A	0 3 690 32 29 29
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-4 / at 400 V / rated value Service power • at AC-2 / at 400 V / rated value	A A A	0 3 690 32 29 29
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-4 / at 400 V / rated value Service power • at AC-2 / at 400 V / rated value • at AC-3	A A A W	0 3 690 32 29 29 29 15,000
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-4 / at 400 V / rated value Service power • at AC-2 / at 400 V / rated value • at AC-3 • at 400 V / rated value	A A A W	0 3 690 32 29 29 29 15,000
Operating voltage / at AC-3 / rated value / maximum Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-4 / at 400 V / rated value Service power • at AC-2 / at 400 V / rated value • at AC-3 • at 400 V / rated value • at 500 V / rated value	A A A W	0 3 690 32 29 29 29 15,000 15,000

Frequency of operation

Control supply voltage frequency		
Type of voltage / of the controlled supply voltage		AC
Control circuit:		
at No 47 according to 120 00047 0 27 maximum	1711	300
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300
 at AC-3 / 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-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000

	AC
Hz	50
V	230
V	230
V-A	9.8
	0.27
	V

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		for snapping onto 60 mm busbar systems		
Width mm		90		
Height mm		260		
Depth mm		164.9		
Center line spacing mm		60		
Distance, to be maintained, to the ranks assembly				
• forwards m		10		
• backwards	mm	0		

• 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	spring-loaded terminals
• for auxiliary and control current circuit	spring-loaded terminals
Type of the connectable conductor cross-section	
for main contacts	
• solid	2x (1 10 mm²)
• stranded	2x (1.0 10 mm2)
• finely stranded	
 with conductor end processing 	2x (1 6 mm²)
 without conductor final cutting 	2x (1 6 mm²)
• for AWG conductors / for main contacts	2x (18 8)
for auxiliary contacts	
• solid	2x (0.5 2.5 mm²)
• finely stranded	
 with conductor end processing 	2x (0.5 1.5 mm²)
 without conductor final cutting 	2x (0.5 1.5 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	Shipping Approval		
ROSTEST	DEKRA EXAM, DMT	Manufacturer	ABS	PRS	RINA

other

Manufacturer other

UL/CSA ratings			
yielded mechanical performance (hp)			
• for single-phase squirrel cage motors			
• at 230 V / rated value	hp	5	
• for three-phase squirrel cage motors			
• at 220/230 V / rated value	hp	10	
• at 460/480 V / rated value	hp	20	
• at 575/600 V / rated value	hp	25	
Operating current (FLA) / for three-phase squirrel cage motors			
• at 480 V / rated value	Α	14	
• at 600 V / rated value	Α	17	
Contact rating designation / for auxiliary contacts / according to UL		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 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)

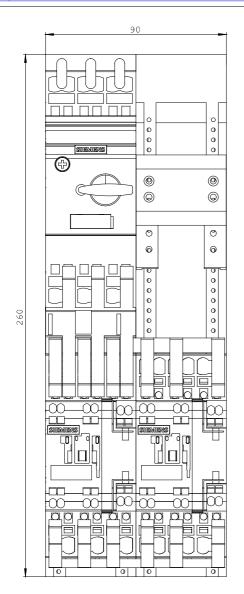
http://www.siemens.com/industrial-controls/mall

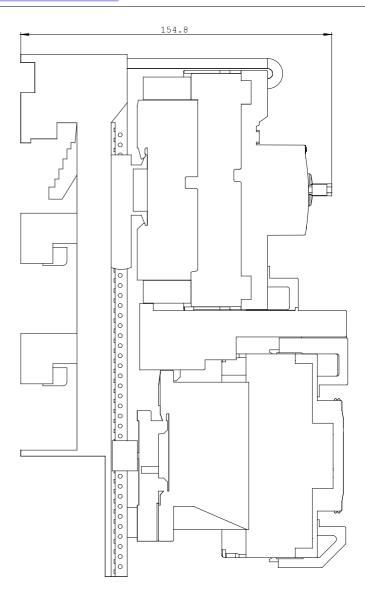
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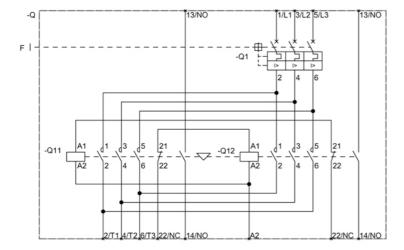
http://www.siemens.com/cax

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2220-4EH27-0AP0







last change: Oct 24, 2011