Product data sheet



LOAD FEEDER FUSELESS REVERSING DUTY, AC 400V, SZ S00, 3.5. . .5A, AC 230V SCREW CONNECTION FOR BUSBAR SYSTEMS 60MM TYPE OF COORDINATION 1, IQ = 150KA 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		S00
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	2.3
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		1

• typical	$\label{lem:mechanical operating cycles} \ \ \text{as operating time I} \ \ \text{of the contactor}$		
of the circuit-breakers included in the scope of supply of the contactor included in the scope of supply of the RS applied assembly kit of the link module included in the scope of supply of the link module included in the scope of supply of the busbar adapter included in the scope of supply of the busbar adapter included in the scope of supply of the busbar adapter included in the scope of supply BuS1251-5DS10 Design of the switching contact Type of the motor protection Adjustable response current of the current-dependent overload release A 3.5 5 Communication: Product function / bus-communication Protocol / will be supported AS interface protocol PROFIBUS DP protocol PROFIBUS DP protocol PROFINET protocol Product extension / function module for communication Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum V 690 Operating current • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value	• typical		10,000,000
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of the link module included in the scope of supply of the busbar adapter included in the scope of supply Bust251-5DS10 Design of the switching contact mechanical bimetal Type of the motor protection bimetal Adjustable response current of the current-dependent overload release A 3.5 5 Communication: Product function / bus-communication No Protocol / will be supported As interface protocol PROFIBUS DP protocol PROFIBUS DP protocol PROFINET protocol Product extension / function module for communication No Main circuit: Number of NC contacts / 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 A 3.6 at AC-2 / at 400 V / rated value A 3.6 at AC-3 / at 400 V / rated value A 3.6	 of the contactor included in the scope of supply 		3RT2015-1AP02
• of the busbar adapter included in the scope of supply Design of the switching contact Type of the motor protection Adjustable response current • of the current-dependent overload release A 3.5 5 Communication: Product function / bus-communication Protocol / will be supported • AS interface protocol • PROFIBUS DP protocol • PROFINET protocol Product extension / function module for communication No Main circuit: Number of Poles / for main current circuit Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value	of the RS applied assembly kit		8US1250-5AS10
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Type of the motor protection Adjustable response current • of the current-dependent overload release A 3.5 5 Communication: Product function / bus-communication Protocol / will be supported • AS interface protocol • PROFIBUS DP protocol • PROFINET protocol Product extension / function module for communication No Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value	• of the busbar adapter included in the scope of supply		<u>8US1251-5DS10</u>
Adjustable response current of the current-dependent overload release A 3.5 5 Communication: Product function / bus-communication Protocol / will be supported • AS interface protocol • PROFIBUS DP protocol • PROFINET protocol Product extension / function module for communication No Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum • 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-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value	Design of the switching contact		mechanical
of the current-dependent overload release A 3.5 5 Communication: Product function / bus-communication Protocol / will be supported • AS interface protocol • PROFIBUS DP protocol • PROFINET protocol Product extension / function module for communication Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum • at AC-1 / at 400 V / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value	Type of the motor protection		bimetal
Communication: Product function / bus-communication Protocol / will be supported • AS interface protocol • PROFIBUS DP protocol • PROFINET protocol Product extension / function module for communication Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum • 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-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value	Adjustable response current		
Product function / bus-communication Protocol / will be supported • AS interface protocol • PROFIBUS DP protocol • PROFINET protocol Product extension / function module for communication Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum • 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-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value	of the current-dependent overload release	Α	3.5 5
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PROFIBUS DP protocol Product extension / function module for communication Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts 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-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value	Protocol / will be supported		
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Product extension / function module for communication Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum V 690 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-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-3 / at 400 V / rated value	PROFIBUS DP protocol		No
Main circuit: Number of poles / for main current circuit Number of NC contacts / for main contacts 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 • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value A 3.6 • at AC-3 / at 400 V / rated value A 3.6	PROFINET protocol		No
Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts 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 3.6 • at AC-3 / at 400 V / rated value A 3.6	Product extension / function module for communication		No
Number of poles / for main current circuit Number of NC contacts / for main contacts Number of NO contacts / for main contacts 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 3.6 • at AC-3 / at 400 V / rated value A 3.6	Main circuit:		
Number of NO contacts / for main contacts Operating voltage / at AC-3 / rated value / maximum V 690 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 3.6 • at AC-3 / at 400 V / rated value A 3.6			3
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 3.6 • at AC-3 / at 400 V / rated value A 3.6	Number of NC contacts / for main contacts		0
Operating current A 5 • at AC-1 / at 400 V / rated value A 5 • at AC-2 / at 400 V / rated value A 3.6 • at AC-3 / at 400 V / rated value A 3.6	Number of NO contacts / for main contacts		3
Operating current A 5 • at AC-1 / at 400 V / rated value A 5 • at AC-2 / at 400 V / rated value A 3.6 • at AC-3 / at 400 V / rated value A 3.6	Operating voltage / at AC-3 / rated value / maximum	V	690
• at AC-2 / at 400 V / rated value A 3.6 • at AC-3 / at 400 V / rated value A 3.6	Operating current		
• at AC-3 / at 400 V / rated value A 3.6	• at AC-1 / at 400 V / rated value	Α	5
	• at AC-2 / at 400 V / rated value	Α	3.6
• at AC-4 / at 400 V / rated value	• at AC-3 / at 400 V / rated value	Α	3.6
··· - · · · · · · · · · · · · · · · · ·	• at AC-4 / at 400 V / rated value	А	3.6
Service power	Service power	_	
• at AC-2 / at 400 V / rated value W 1,500	• at AC-2 / at 400 V / rated value	W	1,500
• at AC-3	• at AC-3		
• at 400 V / rated value W 1,500	• at 400 V / rated value	W	1,500
• at 500 V / rated value W 2,200	• at 500 V / rated value	W	2,200
• at 690 V / rated value W 3,000	• at 690 V / rated value	W	3,000
• at AC-4 / at 400 V / rated value W 1,500	• at AC-4 / at 400 V / rated value	W	1,500
Off-load operating frequency 1/h 10,000		- "	40,000

Frequency of operation

• 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	750	
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	750	
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	250	
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	4.2	
Inductive power factor / with the pull-in power of the coil		0.25	
Auxiliary circuit:			
Product extension / auxiliary switch		Yes	
Number of NC contacts / for auxiliary contacts		1	
Number of NO contacts / for auxiliary contacts		0	
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 (Icu)			

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	100,000
• at 500 V / rated value	Α	100,000
• at 690 V / rated value	Α	4,000

Installation/mounting/dimensions:			
Built in orientation		vertical	
Type of mounting		for snapping onto 60 mm busbar systems	
Width	mm	90	
Height	mm	200	
Depth	mm	155.1	
Center line spacing	mm	60	
Distance, to be maintained, to the ranks assembly			
• forwards	mm	0	
• backwards	mm	0	

• upwards	mm	20
• downwards	mm	30
• sidewards	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	20
• downwards	mm	10
• sidewards	mm	9
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	20
• 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 (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x (1 4 mm²)
• stranded	2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2), 2x (1 4 mm2)
• finely stranded	
 with conductor end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for main contacts	2x (20 16), 2x (18 14), 2x 12
for auxiliary contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 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 16), 2x (18 14), 2x 12

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

other



UL





Manufacturer other

UL/CSA ratings		
yielded mechanical performance (hp)		
 for single-phase squirrel cage motors 		
• at 110/120 V / rated value	hp	0.167
• at 230 V / rated value	hp	0.5
 for three-phase squirrel cage motors 		
• at 200/208 V / rated value	hp	1
• at 220/230 V / rated value	hp	1
• at 460/480 V / rated value	hp	3
• at 575/600 V / rated value	hp	3
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	4.8
• at 600 V / rated value	Α	5
Contact rating designation / for auxiliary 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 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

CAx-Online-Generator

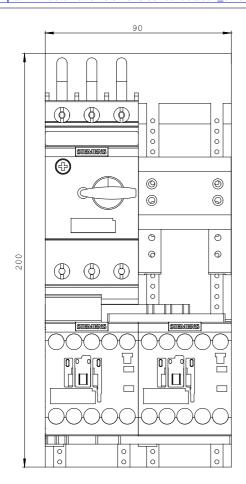
http://www.siemens.com/cax

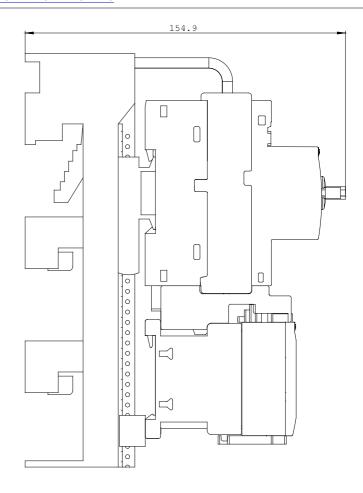
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

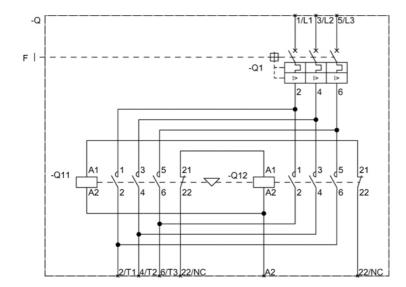
http://support.automation.siemens.com/WW/view/en/3RA2210-1FD15-2AP0/all

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2210-1FD15-2AP0}$







last change: Oct 24, 2011