SIEMENS

Product data sheet 3RT1535-1AL20

CONTACTOR, AC-3 18,5 KW,400V, AC 230 V, 50/60 HZ 4-POLE, 2NO + 2NC, SIZE S2, SCREW CONNECTION

General technical data:		
product brand name		SIRIUS
Size of the contactor		S2
Protection class IP / on the front		IP00
Protection against electrical shock		finger-safe
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-55 … +80
• during operating	°C	-25 … +60
Insulation voltage / rated value	V	690
Mechanical operating cycles as operating time		
• of the contactor / typical		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		5,000,000

Main circuit:		
Number of NC contacts / for main contacts		2
Number of NO contacts / for main contacts		2
Operational current / at AC-1 / up to 690 V		

• at 40 °C ambient temperature / rated value	A	60
• at 60 °C ambient temperature / rated value	A	55
Operating current / at AC-2 / at AC-3		
• at 400 V		
• per NO contact / rated value	A	40
• per NC contact / rated value	A	40
Operating current		
• with 1 current path / at DC-1		
• at 24 V / rated value	A	50
• at 110 V / rated value	A	4.5
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.4
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	50
• at 110 V / rated value	A	45
• at 220 V / rated value	A	5
• at 440 V / rated value	A	1
Operating current		
• with 1 current path / at DC-3 / at DC-5		
• at 24 V		
• per NO contact / rated value	A	35
• per NC contact / rated value	A	35
• at 110 V		
• per NO contact / rated value	A	2.5
• per NC contact / rated value	A	1.25
• at 220 V		
• per NO contact / rated value	A	1
• per NC contact / rated value	A	0.5
• at 440 V		
• per NO contact / rated value	A	0.1
• per NC contact / rated value	A	0.05
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V		
• per NO contact / rated value	A	50
• per NC contact / rated value	A	50
• at 110 V		
• per NO contact / rated value	A	25
• per NC contact / rated value	A	12.5
• at 220 V		
• per NO contact / rated value	A	5

• per NC contact / rated value	A	2.5
• at 440 V		
• per NO contact / rated value	A	0.27
• per NC contact / rated value	A	0.135
Operating performance		
• at AC-1		
• at 230 V / rated value	kW	20
• at 400 V / rated value	kW	36
• at AC-2 / at AC-3		
• at 230 V		
• per NO contact / rated value	kW	9.5
• per NC contact / rated value	kW	9.5
• at 400 V		
• per NO contact / rated value	kW	18.5
• per NC contact / rated value	kW	18.5
Active power loss / at AC-3 / at 400 V / with rated Operating current value / per conductor	W	2.6
Frequency of operation		
• with AC-1 / maximum	1/h	1,000
• at AC-2 / at AC-3 / maximum	1/h	750

Control circuit/ Control:

Voltage type / of control feed voltage		AC
Control supply voltage		
• at 50 Hz / at AC / rated value	V	230
• at 60 Hz / at AC / rated value	V	230
operating range factor control supply voltage rated value / of the magnet coil		
• at 50 Hz / for AC		0.8 … 1.1
• at 60 Hz / for AC		0.8 … 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	170
Apparent holding power / of the solenoid / for AC	V·A	15
Inductive power factor		
• with the pull-in power of the coil		0.76
• with the pull-in power of the coil		0.35
Closing delay		
• at AC	ms	4 … 35
• at DC	ms	50 … 110
Opening delay		
• at AC	ms	10 … 30
• at DC	ms	15 … 30

Arcing time	ms	10 … 15
Residual current / of electronics / for control with signal <0>		
• at 230 V / with AC / maximum permissible	A	0.018

Auxiliary circuit:

Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts / instantaneous switching		0
Number of NO contacts / for auxiliary contacts / instantaneous switching		0
Operating current		
• at AC-12 / maximum	A	10
• at AC-15 / at 230 V / rated value	A	6
• at AC-15 / at 400 V / rated value	A	3
Operating current / at DC-12		
• at 60 V / rated value	A	6
• at 110 V / rated value	A	3
• at 220 V / rated value	A	1
Operating current / at DC-13		
• at 24 V / rated value	A	10
• at 60 V / rated value	A	2
• at 110 V / rated value	A	1
• at 220 V / rated value	A	0.3

Short-circuit:

Design of the fuse link		
• for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 10 A
• for short-circuit protection of the main circuit		
• with type of assignment 1 / required		fuse gL/gG: 160 A
• at type of coordination 2 / required		fuse gL/gG: 80 A

Installation/ mounting/ dimensions:

mounting position		with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Mounting type / series installation		Yes
Width	mm	73
Height	mm	112
Depth	mm	115

Connections/ terminals:

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 (0.75 ... 16 mm²)
• finely stranded	
• with conductor end processing	2x (0.75 ... 16 mm²)
• without conductor final cutting	2x (0.75 ... 16 mm²)
• stranded	2x (0.75 ... 25 mm²)
• for AWG conductors / for main contacts	2x (18 ... 2)
• for auxiliary contacts	
• solid	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 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), 1x 12

Certificates/ approvals:

General Product Approval				Functional Safety / Safety of Machinery	Declaration of Conformity
CCC	CSA		UL	Type Examination	EG-Konf.

Test Certificates	Shipping Approval				
Special Test Certificate	ABS	GL	LRS	RINA	RMRS

other		
Confirmation	other	Environmental Confirmations

Further information:

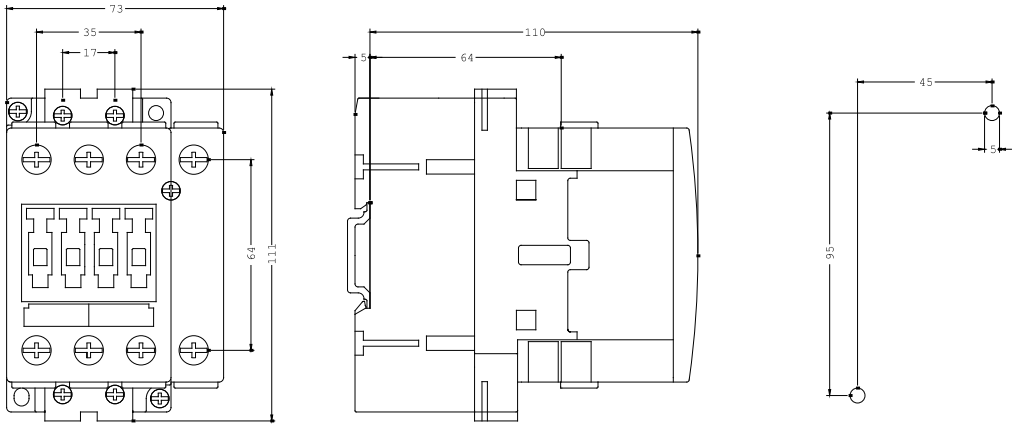
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)
http://www.siemens.com/industrymall

Cax online generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RT1535-1AL20/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT1535-1AL20



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