SIEMENS

Product data sheet

3RT2016-1AP02-ZX95



CONTACTOR, AC-3, 4KW/400V, 1NC, AC 230V, 50/60 HZ, 3-POLE, SZ S00 SCREW TERMINAL REUSABLE PACKAGING; PACKAGE = 144 UNITS

General technical data:		
product brand name		SIRIUS
Size of the contactor		S00
Product extension / auxiliary switch		Yes
Product extension / function module for communication		No
Protection class IP / on the front		IP20
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
Shock resistance		
at rectangular impulse		
• at AC		6,7g / 5 ms, 4,2g / 10 ms
• at sine pulse		
• at AC		10,5g / 5 ms, 6,6g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690

Maximum permissible voltage for protective separation / between coil and main contacts / in accordance with EN 60947-1	V	400
Mechanical operating cycles as operating time		
of the contactor / typical		30,000,000
• 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	0
Number of NO contacts / for main contacts	3
Operating current / at AC-1 / at 400 V	
• at 40 °C ambient temperature / rated value	22
• at 60 °C ambient temperature / rated value	20
Connectable conductor cross-section / in main circuit	
• at AC-1	
• at 40 °C / minimum permissible m²	4
• at 60 °C / minimum permissible m²	2.5
Operational current	
• at AC-2 / at 400 V / rated value	9
• at AC-3	
at 400 V / rated value	9
at 500 V / rated value A	7.7
at 690 V / rated value A	6.7
• at AC-4 / at 400 V / rated value	8.5
Operational current	
• with 1 current path / at DC-1	
• at 24 V / rated value	20
• at 110 V / rated value	2.1
at 220 V / rated value	0.8
at 440 V / rated value	0.6
• at 600 V / rated value	0.6
• with 2 current paths in series / at DC-1	
• at 24 V / rated value	20
at 110 V / rated value	12
at 220 V / rated value A	1.6
at 440 V / rated value	0.8
• at 600 V / rated value A	0.7
• with 3 current paths in series / at DC-1	
• at 24 V / rated value A	20
at 110 V / rated value	20

• at 220 V / rated value	Α	20
• at 440 V / rated value	Α	1.3
• at 600 V / rated value	Α	1
Operational current		
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	0.1
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	0.35
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	20
• at 220 V / rated value	Α	1.5
• at 440 V / rated value	Α	0.2
• at 600 V / rated value	Α	0.2
Service power		
• at AC-1		
• at 230 V / rated value	kW	7.5
• at 400 V / rated value	kW	13
• at 500 V / rated value	kW	17
• at 690 V / rated value	kW	22
• at AC-2 / at 400 V / rated value	kW	4
• at AC-3		
• at 230 V / rated value	kW	2.2
• at 400 V / rated value	kW	4
• at 690 V / rated value	kW	5.5
at AC-4 / at 400 V / rated value	kW	4
Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor	W	0.7
Off-load operating frequency		
• at AC	1/h	10,000
• at DC	1/h	10,000
Frequency of operation		
• at AC-1 / according to IEC 60947-6-2	1/h	1,000
• at AC-2 / according to IEC 60947-6-2	1/h	750
• at AC-3 / according to IEC 60947-6-2	1/h	750
• at AC-4 / according to IEC 60947-6-2	1/h	250

Control circuit:

Type of voltage / of the controlled supply 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		0.85 1.1
Apparent pull-in power / of the solenoid / for AC	V-A	27
Apparent holding power / of the solenoid / for AC	V-A	4.2
Inductive power factor		
with the pull-in power of the coil		0.8
with the pull-in power of the coil		0.25
Closing delay		
• at AC	ms	9 35
Opening delay		
• at AC	ms	3.5 14
Arcing time	ms	10 15
Residual current / of electronics / for control with signal <0>		
• at 230 V / with AC / maximum permissible	mA	3
• at 24 V / with DC / maximum permissible	mA	10
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		1
Number of NO contacts / for auxiliary contacts / instantaneous switching		0
Operating current / of the auxiliary contacts		
• [nicht versorgt: PMD_ABP551_001_000]		
•	Α	2
• at 690 V	А	1
UL/CSA ratings:		

UL/CSA ratings:			
yielded mechanical performance (hp)			
 for single-phase squirrel cage motors 			
• at 110/120 V / rated value	hp	0.33	
• at 230 V / rated value	hp	1	
 for three-phase squirrel cage motors 			
• at 200/208 V / rated value	hp	2	
• at 220/230 V / rated value	hp	3	

• at 460/480 V / rated value	hp	5
• at 575/600 V / rated value	hp	7.5
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	7.6
• at 600 V / rated value	Α	9
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

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	

• at type of coordination 2 / required gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:

Installation/mounting/dimensions:			
mounting position		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface	
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022	
Type of fixing/fixation / series installation		Yes	
Width	mm	45	
Height	mm	57.5	
Depth	mm	73	
Distance, to be maintained, to the ranks assembly / sidewards	mm	0	

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 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)

• with type of assignment 1 / required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35

Sicherheitsrelevante Kenngrößen:		
B10 value / with high demand rate		
according to SN 31920		1,000,000
T1 value / for proof test interval or service life		
according to IEC 61508	а	20
Proportion of dangerous failures		
with low demand rate / according to SN 31920	%	40
with high demand rate / according to SN 31920	%	73
Failure rate (FIT value) / with low demand rate		
according to SN 31920	FIT	100
Product function		
mirror contact to IEC 60947-4-1		Yes
 positively driven operation to IEC 60947-5-1 		No

Certificates/approvals:

General Product Approval

Functional Safety / Safety of Machinery Declaration of Conformity









Type Examination



Shipping Approval













Shipping Approval





Confirmation

other



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

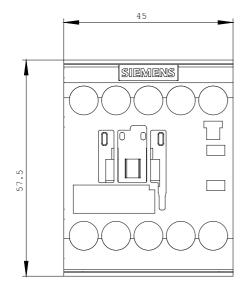
http://www.siemens.com/cax

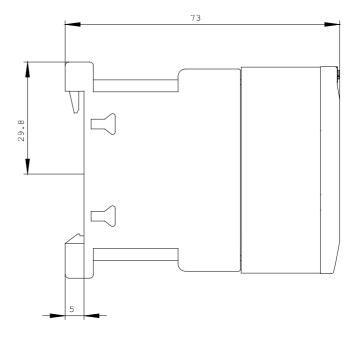
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

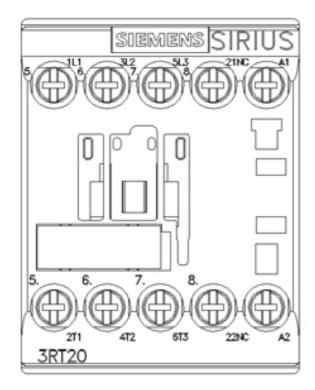
http://support.automation.siemens.com/WW/view/en/3RT2016-1AP02-ZX95/all

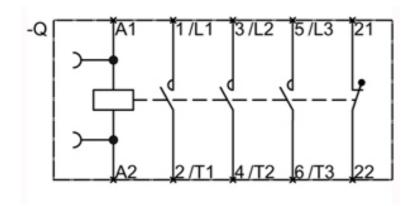
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2016-1AP02-ZX95









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