SIEMENS

Data sheet

3RT2035-1AK60

CONTACTOR,AC3:18.5KW/400V, 1NO+1NC,110VAC 50HZ/120V 60HZ, 3-POLE, SIZE S2, SCREW TERMINAL



Figure similar

product brand name	SIRIUS	
Product designation	3RT2 contactor	
General technical data:		
Size of contactor	S2	
Product expansion		
 function module for communication 	No	
 Auxiliary switch 	Yes	
Insulation voltage		
Rated value	690 V	
Surge voltage resistance Rated value	6 kV	
maximum permissible voltage for safe isolation	400 V	
between coil and main contacts acc. to EN 60947-1		
Protection class IP		
• on the front	IP00	
• of the terminal	IP00	
Degree of pollution	3	
Shock resistance		
• at rectangular impulse		
— at AC	11.8g / 5 ms, 7.4g / 10 ms	

 with sine pulse at AC 18,6 y 5 ms, 11.6 y 10 ms of the contactor typical 10 000 000 of the contactor with added electronics: compatible auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical Ambient conditions: and the contactor with added auxiliary switch block typical and the contactor with added auxiliary switch block typical Ambient conditions: and the contactor with added auxiliary switch block typical and the contactor with added auxiliary switch block typical and the conditions: and the conditions: and the conditions: and the conditions: and the conditions: and the conditions: and the conditions: and conditions: and the condition meanitic tenditenditence tendition			
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— at 690 V Rated value24 AConnectable conductor cross-section in main circuit at AC-1-• at 60 °C minimum permissible16 mm²• at 40 °C minimum permissible16 mm²• at 40 °C minimum permissible16 mm²Operating current for ≥ 200000 operating cycles at AC-4-• at 400 V Rated value22 A• at 690 V Rated value18.5 AOperating current • at 1 current path at DC-1-	— at 400 V Rated value	40 A	
Connectable conductor cross-section in main circuit at AC-1 16 mm² • at 60 °C minimum permissible 16 mm² • at 40 °C minimum permissible 16 mm² Operating current for ≥ 200000 operating cycles at AC-4 22 A • at 400 V Rated value 22 A • at 690 V Rated value 18.5 A Operating current • at 1 current path at DC-1	— at 500 V Rated value	40 A	
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Operating current for ≥ 200000 operating cycles at AC-4 • at 400 V Rated value • at 690 V Rated value 22 A 18.5 A	• at 60 °C minimum permissible	16 mm ²	
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• at 690 V Rated value 18.5 A Operating current • at 1 current path at DC-1	AC-4		
Operating current • at 1 current path at DC-1	• at 400 V Rated value		
• at 1 current path at DC-1		18.5 A	
	Operating current		
	• at 1 current path at DC-1		
— at 24 V Rated value 55 A	— at 24 V Rated value	55 A	
— at 110 V Rated value 4.5 A	— at 110 V Rated value	4.5 A	

— at 220 V Rated value	1 A
— at 440 V Rated value	0.4 A
— at 600 V Rated value	0.25 A
 with 2 current paths in series at DC-1 	
— at 24 V Rated value	55 A
— at 110 V Rated value	45 A
— at 220 V Rated value	5 A
— at 440 V Rated value	1 A
— at 600 V Rated value	0.8 A
 with 3 current paths in series at DC-1 	
— at 24 V Rated value	55 A
— at 110 V Rated value	55 A
— at 220 V Rated value	45 A
— at 440 V Rated value	2.9 A
— at 600 V Rated value	1.4 A
Operating current	
 at 1 current path at DC-3 at DC-5 	
— at 24 V Rated value	35 A
— at 110 V Rated value	2.5 A
— at 220 V Rated value	1 A
— at 440 V Rated value	0.1 A
— at 600 V Rated value	0.06 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 110 V Rated value	25 A
— at 220 V Rated value	5 A
— at 24 V Rated value	55 A
— at 440 V Rated value	0.27 A
— at 600 V Rated value	0.16 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	55 A
— at 220 V Rated value	25 A
— at 24 V Rated value	55 A
— at 440 V Rated value	0.6 A
— at 600 V Rated value	0.35 A
Operating power	
● at AC-1	
— at 230 V Rated value	23 kW
— at 230 V at 60 °C Rated value	21 kW
— at 400 V Rated value	39 kW
— at 400 V at 60 °C Rated value	36 kW
— at 690 V Rated value	68 kW

— at 690 V at 60 °C Rated value	62 kW
• at AC-2 at 400 V Rated value	18.5 kW
• at AC-3	
— at 230 V Rated value	11 kW
— at 400 V Rated value	18.5 kW
— at 500 V Rated value	22 kW
— at 690 V Rated value	22 kW
Operating power for ≥ 200000 operating cycles at AC-4	
• at 400 V Rated value	11.6 kW
• at 690 V Rated value	16.8 kW
Thermal short-time current limited to 10 s	400 A
Active power loss at AC-3 at 400 V for rated value of	2.2 W
the operating current per conductor	
No-load switching frequency	
• at AC	5 000 1/h
Operating frequency	
• at AC-1 maximum	1 200 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	1 000 1/h
● at AC-4 maximum	300 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Type of voltage of the control supply voltage	AC 110 V
Type of voltage of the control supply voltage Control supply voltage at AC	
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value	110 V
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value Operating range factor control supply voltage rated	110 V
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value Operating range factor control supply voltage rated value of the magnet coil at AC	110 V 120 V
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value Operating range factor control supply voltage rated value of the magnet coil at AC • at 50 Hz	110 V 120 V 0.8 1.1
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value Operating range factor control supply voltage rated value of the magnet coil at AC • at 50 Hz • at 60 Hz	110 V 120 V 0.8 1.1
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value Operating range factor control supply voltage rated value of the magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of the magnet coil at AC	110 V 120 V 0.8 1.1 0.8 1.1
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value Operating range factor control supply voltage rated value of the magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of the magnet coil at AC • at 50 Hz	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz Rated value • at 60 Hz Rated value Operating range factor control supply voltage rated value of the magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of the magnet coil at AC • at 50 Hz • at 60 Hz	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A
Type of voltage of the control supply voltageControl supply voltage at AC• at 50 Hz Rated value• at 60 Hz Rated valueOperating range factor control supply voltage ratedvalue of the magnet coil at AC• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 60 Hz• at 60 Hz• at 60 Hz• at 60 Hz• at 60 Hz	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A 188 V·A
Type of voltage of the control supply voltageControl supply voltage at AC• at 50 Hz Rated value• at 60 Hz Rated valueOperating range factor control supply voltage ratedvalue of the magnet coil at AC• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 60 Hz• at 50 Hz• at 60 Hz	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A 188 V·A 18.5 V·A
Type of voltage of the control supply voltageControl supply voltage at AC• at 50 Hz Rated value• at 60 Hz Rated valueOperating range factor control supply voltage ratedvalue of the magnet coil at AC• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 60 HzApparent holding power of the magnet coil at AC• at 50 Hz• at 60 Hz	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A 188 V·A 18.5 V·A
Type of voltage of the control supply voltageControl supply voltage at AC• at 50 Hz Rated value• at 60 Hz Rated valueOperating range factor control supply voltage ratedvalue of the magnet coil at AC• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 60 HzClosing delay	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A 188 V·A 18.5 V·A 16.5 V·A
Type of voltage of the control supply voltageControl supply voltage at AC• at 50 Hz Rated value• at 60 Hz Rated valueOperating range factor control supply voltage ratedvalue of the magnet coil at AC• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 60 HzClosing delay• at AC	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A 188 V·A 18.5 V·A 16.5 V·A
Type of voltage of the control supply voltageControl supply voltage at AC• at 50 Hz Rated value• at 60 Hz Rated valueOperating range factor control supply voltage ratedvalue of the magnet coil at AC• at 50 Hz• at 60 HzApparent pick-up power of the magnet coil at AC• at 50 Hz• at 50 Hz• at 60 HzClosing delay• at AC• at AC	110 V 120 V 0.8 1.1 0.8 1.1 212 V·A 188 V·A 18.5 V·A 16.5 V·A 10 80 ms

Number of NC contacts	
for auxiliary contacts	
— instantaneous contact	1
Number of NO contacts	
 for auxiliary contacts 	
— instantaneous contact	1
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value	10 A
• at 400 V Rated value	3 A
• at 500 V Rated value	2 A
• at 690 V Rated value	1 A
Operating current at DC-12	
• at 24 V Rated value	10 A
• at 48 V Rated value	6 A
• at 60 V Rated value	6 A
• at 110 V Rated value	3 A
• at 125 V Rated value	2 A
• at 220 V Rated value	1 A
• at 600 V Rated value	0.15 A
Operating current at DC-13	
• at 24 V Rated value	10 A
• at 48 V Rated value	2 A
• at 60 V Rated value	2 A
• at 110 V Rated value	1 A
• at 125 V Rated value	0.9 A
• at 220 V Rated value	0.3 A
• at 600 V Rated value	0.1 A
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:	
Full-load current (FLA) for three-phase AC motor	
• at 480 V Rated value	40 A
• at 600 V Rated value	41 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V Rated value	3 hp
— at 230 V Rated value	7.5 hp
 for three-phase AC motor 	
— at 200/208 V Rated value	10 hp
— at 220/230 V Rated value	15 hp
— at 460/480 V Rated value	30 hp

— at 575/600 V Rated value	40 hp		
Contact rating of the auxiliary contacts acc. to UL	A600 / P600		
Chart size it protection			
Short-circuit protection Design of the fuse link			
for short-circuit protection of the main circuit			
- with type of assignment 1 required	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A		
— with type of assignment 2 required	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A		
 for short-circuit protection of the auxiliary switch 	fuse gL/gG: 10 A		
required			
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		
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022		
 Side-by-side mounting 	Yes		
Height	114 mm		
Width	55 mm		
Depth	130 mm		
Required spacing			
 with side-by-side mounting 			
— forwards	0 mm		
— Backwards	0 mm		
— upwards	0 mm		
— downwards	0 mm		
— at the side	0 mm		
 for grounded parts 			
— forwards	0 mm		
— Backwards	0 mm		
— upwards	50 mm		
— at the side	6 mm		
— downwards	50 mm		
• for live parts			
— forwards	0 mm		
— Backwards	0 mm		
— upwards	50 mm		
— downwards	50 mm		
— at the side	6 mm		
Connections/ Terminals:			
Type of electrical connection			
 for main current circuit 	screw-type terminals		

 for auxiliary and control current circuit 	screw-type terminals	
Type of connectable conductor cross-section		
• for main contacts		
— single or multi-stranded	2x (1 35 mm²), 1x (1 50 mm²)	
 — finely stranded with core end processing 	2x (1 25 mm²), 1x (1 35 mm²)	
 for AWG conductors for main contacts 	2x (18 2), 1x (18 1)	
Type of connectable conductor cross-section		
 for auxiliary contacts 		
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)	
 — finely stranded with core 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)	
Safety related data:		
Proportion of dangerous failures		
 with low demand rate acc. to SN 31920 	40 %	
 with high demand rate acc. to SN 31920 	73 %	
Product function		
 Mirror contact acc. to IEC 60947-4-1 	Yes	
 positively driven operation acc. to IEC 60947-5- 	No	
1		
Certificates/ approvals:		

General Proc	duct Approval	Declaration of Conformity	Test Certificates	other
(SA) CSA	EHC	EG-Konf.	Typprüfbescheinigu ng/Werkszeugnis	Bestätigungen

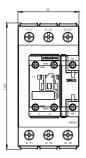
other

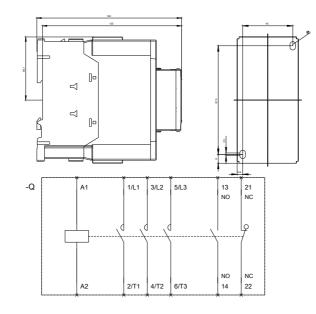
Umweltbestätigung

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://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20351AK60

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last modified:

27.08.2015