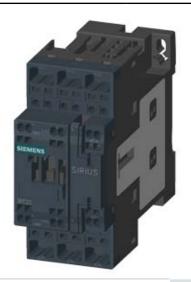
SIEMENS

Data sheet 3RT2027-2KF40



COUPLING RELAY, AC-3, 15KW/400V, 1NO+1NC, DC 110V, W. PLUGGED-IN VARISTOR 3-POLE, SZ S0 SPRING-LOADED TERMINAL

product brand name Product designation General technical data: Insulation voltage • Rated value Degree of pollution Surge voltage resistance Rated value kV	SIRIUS Coupling relay 690 3 6
General technical data: Insulation voltage • Rated value Degree of pollution	690
Insulation voltage ● Rated value Degree of pollution	3
• Rated value V Degree of pollution	3
Degree of pollution	3
Surge voltage resistance Rated value kV	6
	T T T T T T T T T T T T T T T T T T T
Mechanical service life (switching cycles)	
of the contactor typical	10 000 000
of the contactor with added electronics-	5 000 000
compatible auxiliary switch block typical	
of the contactor with added auxiliary switch	10 000 000
block typical	
Thermal short-time current restricted to 10 s	260
Protection class IP	
• on the front	IP20
of the terminal	IP20
Equipment marking	
• acc. to DIN EN 61346-2	Q
● acc. to DIN EN 81346-2	Q
Main circuit:	
Number of poles 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 at ambient temperature 40 °C Rated value	Α	50
— up to 690 V at ambient temperature 40 °C Rated value	Α	50
— up to 690 V at ambient temperature 60 °C Rated value	Α	42
● at AC-2 at 400 V Rated value	Α	32
• at AC-3		
— at 400 V Rated value	Α	32
— at 500 V Rated value	Α	32
— at 690 V Rated value	Α	21
• at AC-4 at 400 V Rated value	Α	22
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	4.5
— at 220 V Rated value	Α	1
— at 440 V Rated value	Α	0.4
— at 600 V Rated value	Α	0.25
• at DC-3 at DC-5		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	2.5
— at 220 V Rated value	Α	1
— at 440 V Rated value	Α	0.09
— at 600 V Rated value	Α	0.06
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	35
— at 220 V Rated value	Α	5
— at 440 V Rated value	Α	1
— at 600 V Rated value	Α	0.8
• at DC-3 at DC-5		
— at 110 V Rated value	Α	15
— at 220 V Rated value	Α	3
— at 24 V Rated value	Α	35
— at 440 V Rated value	Α	0.27
— at 600 V Rated value	Α	0.16
Operating current with 3 current paths in series		

• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	35
— at 220 V Rated value	Α	35
— at 440 V Rated value	Α	2.9
— at 600 V Rated value	Α	1.4
• at DC-3 at DC-5		
— at 110 V Rated value	Α	35
— at 220 V Rated value	Α	10
— at 24 V Rated value	Α	35
— at 440 V Rated value	Α	0.6
— at 600 V Rated value	Α	0.6
Operating power		
• at AC-1 at 400 V Rated value	kW	28
● at AC-2 at 400 V Rated value	kW	15
• at AC-4 at 400 V Rated value	kW	11
Operating power		
• at AC-1		
— at 230 V at 60 °C Rated value	kW	15.5
— at 230 V Rated value	kW	16
— at 400 V at 60 °C Rated value	kW	27.5
— at 690 V at 60 °C Rated value	kW	47.5
— at 690 V Rated value	kW	48
• at AC-3		
— at 230 V Rated value	kW	7.5
— at 400 V Rated value	kW	15
— at 690 V Rated value	kW	18.5
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	6
• at 690 V Rated value	kW	10.3
Operating frequency		
• at AC-3 maximum	1/h	750

Control circuit/ Control:		
Type of voltage of the control supply voltage		DC
Control supply voltage for DC		
Rated value	V	110
Operating range factor control supply voltage rated		0.7 1.25
value of the magnet coil for DC		
Design of the surge suppressor		with varistor
Closing power of the magnet coil for DC	W	4.5
Holding power of the magnet coil for DC	W	4.5

Auxiliary circuit:		
Number of NC contacts		
for auxiliary contacts		
— instantaneous contact		1
Number of NO contacts		
 for auxiliary contacts 		
— instantaneous contact		1
Product expansion Auxiliary switch		No
Operating current at AC-15		
• at 230 V Rated value	Α	10
• at 400 V Rated value	Α	3
• at 690 V Rated value	Α	1
Operating current		
• at DC-12 at 125 V Rated value	Α	2
• at DC-12 at 220 V Rated value	Α	1
• at DC-12 at 600 V Rated value	Α	0.15
• at DC-13 at 125 V Rated value	Α	0.9
• at DC-13 at 220 V Rated value	Α	0.3
• at DC-13 at 600 V Rated value	Α	0.1
Operating current		
• at DC-12		
— at 60 V Rated value	Α	6
— at 110 V Rated value	Α	3
● at DC-13		
— at 24 V Rated value	Α	10
— at 60 V Rated value	Α	2
— at 110 V Rated value	Α	1
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	Α	27
● at 600 V Rated value	Α	27
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	2
 for single-phase AC motor at 230 V Rated value 	metric hp	5
 for three-phase AC motor at 200/208 V Rated value 	metric hp	10
• for three-phase AC motor at 220/230 V Rated value	metric hp	10

 for three-phase AC motor at 460/480 V Rated value 	metric hp	20
 for three-phase AC motor at 575/600 V Rated value 	metric hp	25
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

value	hp	
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600
Short-circuit:		
Design of the fuse link		
• for short-circuit protection of the main circuit		
— with type of assignment 1 required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A
— with type of assignment 2 required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
 for short-circuit protection of the auxiliary switch required 		fuse gL/gG: 10 A
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	mm	102
Width	mm	45
Depth	mm	107
Required spacing		
with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0

		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	mm	102
Width	mm	45
Depth	mm	107
Required spacing		
with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	0
• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— at the side	mm	6
— downwards	mm	0
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0

— at the side	mm	6		
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Type of electrical connection • for main current circuit • for auxiliary and control current circuit Type of connectable conductor cross-section • for main contacts — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG conductors for main contacts — single or multi-stranded — finely stranded without core end processing • for auxiliary contacts — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing — finely stranded without core end processing • for AWG conductors for auxiliary contacts 2x (0.5 2,5 mm²) 7x (0.5 2,5 mm²) 7	Connectional Terminals		
• for main current circuit • for auxiliary and control current circuit Type of connectable conductor cross-section • for main contacts — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing — for AWG conductors for main contacts • for auxiliary contacts — single or multi-stranded — finely stranded without core end processing — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing — fin	Connections/ Terminals:		
• for auxiliary and control current circuit Type of connectable conductor cross-section • for main contacts — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • for AWG conductors for main contacts — single or multi-stranded — finely stranded without core end processing — finely stranded with core end processing — finely stranded without core end processing — with light demand rate acc. to SN 31920 • for AWG conductors for auxiliary contacts alterty related data: B10 value with high demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with low demand rate acc. to SN 31	••		spring-loaded terminals
Type of connectable conductor cross-section • for main contacts — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • for AWG conductors for main contacts — single or multi-stranded — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing • for AWG conductors for auxiliary contacts 2x (0.5 2,5 mm²) 2x (0.5 2,5 mm²) 2x (0.5 2,5 mm²) 2x (0.5 2,5 mm²) 2x (20 14) iafety related data: B10 value with high demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 •			
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— finely stranded without core end processing • for AWG conductors for auxiliary contacts 2x (20 14) Interpretation of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 Failure rate [FIT] with low demand rate acc. to SN 31920 Product function Mirror contact acc. to IEC 60947-4-1 T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock finger-safe fechanical data: Size of contactor S0 mblent conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during operation Note	 single or multi-stranded 		2x (0,5 2,5 mm²)
• for AWG conductors for auxiliary contacts • for AWG conductors for auxiliary contacts ### State of the content of	— finely stranded with core end processing		2x (0.5 1.5 mm²)
B10 value with high demand rate acc. to SN 31920 Proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 Failure rate [FIT] with low demand rate acc. to SN 31920 Frailure rate [FIT] with low demand rate acc. to SN 31920 Product function Mirror contact acc. to IEC 60947-4-1 T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock finger-safe ### Cachanical data: Size of contactor Size of contactor Size of contactor Mabient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during operation Note	•		2x (0.5 2.5 mm²)
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Product function Mirror contact acc. to IEC 60947-4-1 T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock finger-safe fechanical data: Size of contactor S0 mbient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during operation Note during operation Note Protection against electrical shock finger-safe ### 2000 ###	 with high demand rate acc. to SN 31920 	%	73
T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock finger-safe finger-safe Size of contactor S0 mbient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during operation Note finger-safe y 20 Route 1 Finger-safe S0 Route 1 Finger-safe	Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	100
Protection against electrical shock finger-safe flechanical data: Size of contactor S0 mbient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during operation Note Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions	Product function Mirror contact acc. to IEC 60947-4-1		Yes
Mechanical data: Size of contactor S0 Installation altitude at height above sea level maximum Ambient temperature • during operation • during operation Note According to the sea level of	T1 value for proof test interval or service life acc. to IEC 61508	У	20
Size of contactor S0	Protection against electrical shock		finger-safe
Installation altitude at height above sea level m 2 000 maximum Ambient temperature • during operation • during operation Note C -25 +60 Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions	Mechanical data:		
Installation altitude at height above sea level maximum Ambient temperature • during operation • during operation Note Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions	Size of contactor		S0
maximum Ambient temperature ● during operation °C -25 +60 ● during operation Note Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions	Ambient conditions:		
Ambient temperature ● during operation °C -25 +60 ● during operation Note Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions	Installation altitude at height above sea level	m	2 000
 ◆ during operation ◆ during operation Note C -25 +60 Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions 			
• during operation Note Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions	•		
clearance. See catalog for other rated conditions	• during operation	°C	
• during storage °C -55 +80	during operation Note		clearance. See catalog for other rated conditions
	during storage	°C	-55 + 80

Certificates/ approvals:

General Product Approval

EMC

Functional Safety/Safety of Machinery

Type Examination











Declaration	C
Conformity	

Test Certificates

Shipping Approval



Special Test Certificate Type Test
Certificates/Test
Report







Shipping Approval

other



GL



LRS







Environmental Confirmations

other

Confirmation



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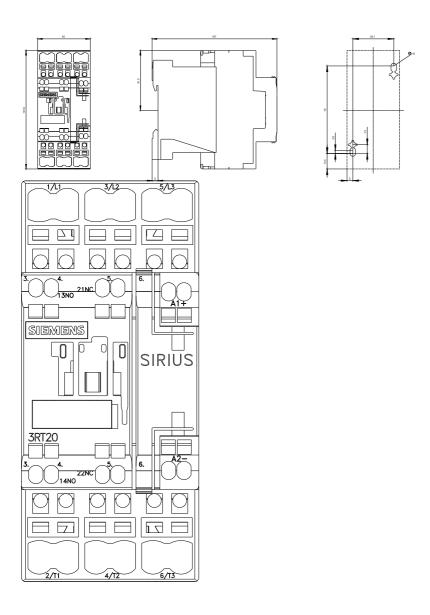
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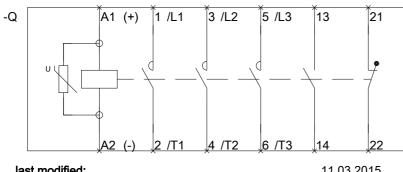
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