SIEMENS

Data sheet

3RT1025-1AB00



CONTACTOR, AC-3 7.5 KW/400 V, AC 24 V, 50 HZ, 3-POLE, SIZE S0, SCREW CONNECTION

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	SO
Degree of pollution	3
Mechanical service life (switching cycles)	
 of the contactor typical 	10 000 000
 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
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
Ambient conditions:	
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
 during operation 	-25 +60 °C
Main circuit:	
Number of poles for main current circuit	3
Number of NC contacts for main contacts	0

Operating current at AC-1 at 400 V at anchient temperature 40 °C Rated value at AC-1 up to 690 V at anchient temperature 60 °C Rated value at AC-3 at AO-V Rated value at AC-3 at AO-V Rated value at AC-4 at 400 V Rated value at AC-4 Rated value at AV Rated value AC 	Number of NO contacts for main contacts	3
	Operating current	
Late of the control supply voltage with AC- at ambient temperature 60 °C Rated value40 A- at ambient temperature 60 °C Rated value35 A- at AC-3 at 400 V Rated value17 A- at 400 V Rated value15.5 AOperating current• with 1 current path at DC-1- at 24 V Rated value35 A- at 100 V Rated value45 A• with 2 current paths in series at DC-1 at 24 V Rated value35 A- at 110 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value35 A- at 110 V Rated value35 A- at 110 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value35 A- at 110 V Rated value35 A- at 24 V Rated value35 A- at 110 V Rated value35 A- at 24 V Rated value35 A- at 110 V Rated value35 A<	• at AC-1 at 400 V	
	— at ambient temperature 40 °C Rated value	40 A
Interface35 A- at ambient temperature 60 °C Rated value35 A• at AC-317 A- at 400 V Rated value15.5 AOperating current15.5 A• with 1 current path at DC-1 at 24 V Rated value35 A- at 110 V Rated value35 A• with 2 current paths in series at DC-1 at 24 V Rated value35 A- at 110 V Rated value35 A- at 110 V Rated value35 A- at 24 V Rated value35 A- at 110 V Rated value35 A- at 110 V Rated value35 A- at 110 V Rated value35 A- at 24 V Rated value25 A- at 24 V Rated value25 A- at 110 V Rated value25 A- at 24 V Rated value35 A- at 24 V Rated value25 A- at 24 V Rated value25 A- at 110 V Rated value25 A- at 110 V Rated value35 A- at 24 V Rated value35 A- at 32 V Rated va	• at AC-1 up to 690 V	
• at AC:3I- at 400 V Rated value17 A• at AC-4 at 400 V Rated value155 AOperating current155 A- at 24 V Rated value35 A- at 24 V Rated value35 A- at 10 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value35 A- at 10 V Rated value35 A- at 10 V Rated value35 A- at 24 V Rated value35 A- at 10 V Rated value35 A- at 24 V Rated value35 A- at 10 V Rated value35 A- at 10 V Rated value35 A- at 10 V Rated value35 A- at 24 V Rated value35 A- at 10 V Rated value20 A- at 24 V Rated value25 A- at 24 V Rated value15 A- at 24 V Rated value35 A- at 10 V Rated value35 A- at 24 V Rated value35 A <trr>- at 24</trr>	— at ambient temperature 40 °C Rated value	40 A
- at 400 V Rated value17 Å• at AC-4 at 400 V Rated value155 ÅOperating current155 Å• with 1 current path at DC-135 Å- at 24 V Rated value35 Å- at 10 V Rated value45 Å• with 2 current paths in series at DC-1 at 24 V Rated value35 Å- at 110 V Rated value35 Å- at 110 V Rated value35 Å- at 24 V Rated value35 Å- at 110 V Rated value35 Å- at 24 V Rated value35 Å- at 24 V Rated value35 Å- at 24 V Rated value20 Å- at 110 V Rated value20 Å- at 110 V Rated value25 Å- at 24 V Rated value35 Å- at 110 V Rated value35 Å- at 110 V Rated value36 Å- at 24 V Rated value36 Å- at 110 V Rated value36 Å- at 110 V Rated value36 Å- at 24 V Rated value36 Å- at 24 V Rated value36 Å- at 110 V Rated value36 Å- at 110 V Rated value36 Å- at 24 V R	— at ambient temperature 60 °C Rated value	35 A
• at AC-4 at 400 V Rated value15.5 ÅOperating current15.5 Å• with 1 current path at DC-135.6- at 24 V Rated value4.5 Å• with 2 current paths in series at DC-135.6- at 110 V Rated value35.6- at 110 V Rated value25.6- at 24 V Rated value25.6- at 110 V Rated value20.6- at 110 V Rated value25.6- at 110 V Rated value35.6- at 110 V Rated value25.6- at 110 V Rated value35.6- at 24 V Rated value35.6- at 24 V Rated value35.6- at 24 V Rated value35.6- at 110 V Rated value35.6- at 24 V Rated value35.6- at 10 V Rated value35.6- at 24 V Rated value35.6- at 24 V Rated value35.6-	• at AC-3	
Operating current 35 A - at 24 V Rated value 35 A - at 110 V Rated value 4.5 A • with 2 current paths in series at DC-1 - - at 24 V Rated value 35 A - at 10 V Rated value 35 A - at 10 V Rated value 35 A - at 24 V Rated value 35 A - at 24 V Rated value 35 A - at 10 V Rated value 35 A - at 110 V Rated value 35 A - at 110 V Rated value 25 A - at 110 V Rated value 25 A - at 110 V Rated value 20 A - at 110 V Rated value 20 A - at 110 V Rated value 25 A - at 110 V Rated value 25 A - at 110 V Rated value 35 A - at 110 V Rated value 35 A - at 24 V Rated value 35 A - at 24 V Rated value 35 A - at 110 V Rated value 35 A - at 24 V Rated value 35 A - at 24 V Rated value 35 A - at 24 V Rated value 35 A - at 10 V Rated value 35 A - at 24 V Rated	— at 400 V Rated value	17 A
 with 1 current path at DC-1 at 24 V Rated value 35 A at 110 V Rated value 4.5 A with 2 current paths in series at DC-1 at 24 V Rated value 35 A at 110 V Rated value 20 A at 110 V Rated value 25 A at 110 V Rated value 25 A at 110 V Rated value 35 A at 24 V Rated value 35 A at 50 Hz Rated value at 50 Hz Rated value at 50 Hz at 50 Hz<!--</th--><td>• at AC-4 at 400 V Rated value</td><td>15.5 A</td>	• at AC-4 at 400 V Rated value	15.5 A
- at 24 V Rated value35 Å- at 110 V Rated value4.5 Å• with 2 current paths in series at DC-1 at 24 V Rated value35 Å- at 110 V Rated value35 Å- at 110 V Rated value35 Å- at 24 V Rated value35 Å- at 24 V Rated value35 Å- at 110 V Rated value25 Å- at 24 V Rated value20 Å- at 110 V Rated value20 Å- at 110 V Rated value20 Å- at 110 V Rated value25 Å- at 24 V Rated value25 Å- at 110 V Rated value15 Å- at 24 V Rated value35 Å- at 110 V Rated value35 Å- at 110 V Rated value35 Å- at 110 V Rated value35 Å- at 24 V Rated value36 Å- at 24 V Rated value	Operating current	
	 with 1 current path at DC-1 	
 with 2 current paths in series at DC-1 at 24 V Rated value at 110 V Rated value at 110 V Rated value at 24 V Rated value at 110 V Rated value at 24 V Rated value at 24 V Rated value at 110 V Rated value at 24 V Rated value at 110 V Rated value at 110 V Rated value at 110 V Rated value at 24 V Rated value at 110 V Rated value at 24 V Rated value at 35 A at 35 Hz	— at 24 V Rated value	35 A
- at 24 V Rated value35 Å- at 110 V Rated value35 Å• with 3 current paths in series at DC-135 Å- at 24 V Rated value35 Å- at 110 V Rated value35 ÅOperating current20 Å- at 24 V Rated value20 Å- at 110 V Rated value20 Å- at 110 V Rated value25 Å- at 24 V Rated value25 Å- at 110 V Rated value25 Å- at 110 V Rated value15 Å- at 24 V Rated value35 Å- at 110 V Rated value35 Å- at 24 V Rated value36 Å- at 24 V Rated value36 Å- at 24 V Rated value36 Å- at 25 Ø Rated value36 Å- at 30 Hz Rated value3	— at 110 V Rated value	4.5 A
 at 10 V Rated value at 24 V Rated value at 24 V Rated value at 24 V Rated value at 10 V Rated value at 24 V Rated value at 24 V Rated value at 10 V Rated value at 11 V Rated value at 10 V Rated value at 24 V Rated value at 10 V Rated value at 10 V Rated value at 10 V Rated value at 24 V Rated value at 10 V Rated value at 24 V Rated value at 24 V Rated value at 24 V Rated value at 40 V for rated value of the operating current per conductor at 50 Hz Rated value bi Hz Acc Control supply voltage with AC at 50 Hz Acc Acc	 with 2 current paths in series at DC-1 	
 with 3 current paths in series at DC-1 at 24 V Rated value at 110 V Rated value 35 A Operating current with 1 current path at DC-3 at DC-5 at 24 V Rated value 20 A at 110 V Rated value 20 A at 110 V Rated value 2.5 A with 2 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 10 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 10 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 10 V Rated value 35 A Active power loss at AC-3 at 400 V for rated value of the operating current per conductor Control supply voltage with AC at 50 Hz Acted value 50 Hz Operating range factor control supply voltage rated value of the magnet coil with AC at 50 Hz 0.8 1.1 	— at 24 V Rated value	35 A
	— at 110 V Rated value	35 A
Interformer35 AOperating current• with 1 current path at DC-3 at DC-520 A- at 24 V Rated value20 A- at 110 V Rated value2.5 A• with 2 current paths in series at DC-3 at DC-5 at 110 V Rated value15 A- at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5 at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5 at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value0.9 W- at 24 V Rated value0.9 W- at 50 HzACOperating current per conductor50 HzOperating range factor control supply voltage rated value of the magnet coil with AC • at 50 Hz0.8 1.1	 with 3 current paths in series at DC-1 	
Operating current• with 1 current path at DC-3 at DC-5- at 24 V Rated value- at 110 V Rated value2.5 A• with 2 current paths in series at DC-3 at DC-5- at 110 V Rated value- at 110 V Rated value15 A- at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5- at 110 V Rated value- at 24 V Rated value35 A- at 110 V Rated value- at 24 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value0.9 WControl supply voltage of the control supply voltageControl supply voltage with AC• at 50 Hz Rated value24 V• at 50 HzOperating range factor control supply voltage rated value of the magnet coil with AC• at 50 Hz0.8 1.1	— at 24 V Rated value	35 A
 with 1 current path at DC-3 at DC-5 at 24 V Rated value at 10 V Rated value 2.5 A with 2 current paths in series at DC-3 at DC-5 at 110 V Rated value 15 A at 24 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 10 V Rated value 35 A with 3 current paths in series at DC-3 at DC-5 at 10 V Rated value 35 A Active power loss at AC-3 at 400 V for rated value of the operating current per conductor Control supply voltage with AC at 50 Hz Rated value 04 V So Hz 0.8 1.1 	— at 110 V Rated value	35 A
- at 24 V Rated value20 A- at 110 V Rated value2.5 A• with 2 current paths in series at DC-3 at DC-5 at 10 V Rated value15 A- at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value35 A• at 110 V Rated value35 A- at 110 V Rated value0.9 W- at 24 V Rated value0.9 W• at 24 V Rated value24 V- at 24 V Rated value0.9 W• at 50 Hz Rated value24 V• at 50 Hz Rated value24 V• at 50 Hz0.8 1.1	Operating current	
at 110 V Rated value2.5 A- with 2 current paths in series at DC-3 at DC-515 A at 110 V Rated value15 A at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value at 110 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5 at 24 V Rated value at 24 V Rated value35 A at 24 V Rated value0.9 W at 24 V Rated value0.9 WControl circuit/ Control:	 with 1 current path at DC-3 at DC-5 	
 with 2 current paths in series at DC-3 at DC-5 at 110 V Rated value at 24 V Rated value at 24 V Rated value at 110 V Rated value at 24 V Rated value at 50 Hz Rated value at 50 Hz AC Operating range factor control supply voltage rated value of the magnet coil with AC at 50 Hz A8 - 1.1 	— at 24 V Rated value	20 A
- at 110 V Rated value15 A- at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value35 A- at 24 V Rated value35 A- at 24 V Rated value0.9 WActive power loss at AC-3 at 400 V for rated value of the operating current per conductor0.9 WControl circuit/ Control:-Type of voltage of the control supply voltageACControl supply voltage with AC-• at 50 Hz Rated value24 V• Rated value50 HzOperating range factor control supply voltage rated value of the magnet coil with AC • at 50 Hz0.8 1.1	— at 110 V Rated value	2.5 A
at 24 V Rated value35 A• with 3 current paths in series at DC-3 at DC-535 A at 110 V Rated value35 A at 24 V Rated value35 A at 24 V Rated value0.9 WActive power loss at AC-3 at 400 V for rated value of the operating current per conductor0.9 WControl circuit/ Control:ACControl circuit/ ControlACControl supply voltage with AC24 V• at 50 Hz Rated value50 HzOperating range factor control supply voltage rated value of the magnet coil with AC0.8 1.1	 with 2 current paths in series at DC-3 at DC-5 	
 with 3 current paths in series at DC-3 at DC-5 at 110 V Rated value 35 A at 24 V Rated value 35 A Active power loss at AC-3 at 400 V for rated value of the operating current per conductor Control circuit/ Control: Control circuit/ Control: AC Control supply voltage with AC at 50 Hz Rated value 50 Hz OPerating range factor control supply voltage rated value of the magnet coil with AC at 50 Hz 0.8 1.1 	— at 110 V Rated value	15 A
- at 110 V Rated value35 A- at 24 V Rated value35 AActive power loss at AC-3 at 400 V for rated value of the operating current per conductor0.9 WControl circuit/ Control:ACControl circuit/ Control:ACControl supply voltage with AC4• at 50 Hz Rated value24 V• Rated value50 HzOperating range factor control supply voltage rated value of the magnet coil with AC0.8 1.1	— at 24 V Rated value	35 A
	 with 3 current paths in series at DC-3 at DC-5 	
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor 0.9 W Control circuit/ Control: AC Type of voltage of the control supply voltage AC Control supply voltage with AC 24 V • at 50 Hz Rated value 50 Hz Operating range factor control supply voltage rated value of the magnet coil with AC 0.8 1.1	— at 110 V Rated value	35 A
the operating current per conductor Control circuit/ Control: Type of voltage of the control supply voltage AC Control supply voltage with AC e at 50 Hz Rated value Operating range factor control supply voltage rated value of the magnet coil with AC e at 50 Hz	— at 24 V Rated value	35 A
Control circuit/ Control: AC Type of voltage of the control supply voltage AC Control supply voltage with AC 24 V • at 50 Hz Rated value 24 V • Rated value 50 Hz Operating range factor control supply voltage rated value of the magnet coil with AC 50 Hz • at 50 Hz 0.8 1.1	-	0.9 W
Type of voltage of the control supply voltageACControl supply voltage with AC24 V• at 50 Hz Rated value50 Hz• Rated value50 HzOperating range factor control supply voltage rated value of the magnet coil with AC0.8 1.1	the operating current per conductor	
Control supply voltage with AC 24 V • at 50 Hz Rated value 50 Hz • Rated value 50 Hz • operating range factor control supply voltage rated value of the magnet coil with AC 0.8 1.1	Control circuit/ Control:	
• at 50 Hz Rated value24 V• Rated value50 Hz• Rated value50 HzOperating range factor control supply voltage rated value of the magnet coil with AC • at 50 Hz0.8 1.1	Type of voltage of the control supply voltage	AC
• Rated value • Rated value 50 Hz Operating range factor control supply voltage rated value of the magnet coil with AC • at 50 Hz 0.8 1.1	Control supply voltage with AC	
Operating range factor control supply voltage rated value of the magnet coil with AC • at 50 Hz 0.8 1.1	● at 50 Hz Rated value	24 V
value of the magnet coil with AC • at 50 Hz 0.8 1.1		50 Hz
• at 50 Hz 0.8 1.1		
Apparent pick-up power of the magnet coil with AC 61 V·A	● at 50 Hz	0.8 1.1
	Apparent pick-up power of the magnet coil with AC	61 V·A
Inductive power factor with closing power of the coil 0.82	Inductive power factor with closing power of the coil	0.82

Apparent holding power of the magnet coil with AC	7.8 V·A		
Inductive power factor with the holding power of the	0.24		
coil	0.24		
Auxiliary circuit:			
Number of NC contacts			
 for auxiliary contacts 			
— instantaneous contact	0		
Number of NO contacts			
 for auxiliary contacts 			
— instantaneous contact	0		
Operating current at AC-12 maximum	10 A		
Operating current at AC-15			
• at 230 V Rated value	6 A		
• at 400 V Rated value	3 A		
Operating current at DC-12			
• at 60 V Rated value	6 A		
• at 110 V Rated value	3 A		
• at 220 V Rated value	1 A		
Operating current at DC-13			
• at 24 V Rated value	10 A		
• at 60 V Rated value	2 A		
• at 110 V Rated value	1 A		
at 220 V Rated value	0.3 A		
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)		
Short-circuit:			
Design of the fuse link			
 for short-circuit protection of the main circuit 			
- with type of assignment 1 required	fuse gL/gG: 63 A		
— with type of assignment 2 required	fuse gL/gG: 25 A		
 for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 10 A		
nstallation/ mounting/ dimensions:			
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022		
Side-by-side mounting	Yes		
Height	85 mm		
Width	45 mm		
Depth	91 mm		
Required spacing			
 for grounded parts 			
— at the side	6 mm		

Connections/ Terminals:					
Type of electrical connection					
 for main current circuit 		screw-type terminals			
 for auxiliary and control c 	urrent circuit	screw-type terminals	ew-type terminals		
Type of connectable conductor	cross-section				
 for main contacts 					
— solid		2x (1 2.5 mm²), 2x (2.	2.5 mm²), 2x (2.5 6 mm²), max. 2x 10 mm²		
— single or multi-strand	led	2x (1 2,5 mm²), 2x (2,5 6 mm²), max. 2x 10 mm²			
— finely stranded with	core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²)			
 for AWG conductors for r 	nain contacts	2x (16 12), 2x (14 10), 1x 8			
Type of connectable conductor	cross-section				
 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	core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
• for AWG conductors for a	auxiliary contacts	2x (20 16), 2x (18 7	14), 1x 12		
Certificates/ approvals:					
General Product Approva	I		Functional Safety/Safety of Machinery	Declaration of Conformity	
	EHC		Type Examination	EG-Konf.	
Test Certificates	Shipping A	Shipping Approval			
Certificate Certifica	e Test ttes/Test port	<u>ĴÅ</u> DNV	GL	Lloyd's Register	
	ABS	DNV	GL	LRS	
Shipping Approval	other				
RINA RMRS	Confirmation	on Environmental Confirmations	other		

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https://support.industry.siemens.com/cs/ww/en/ps/3RT10251AB00

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