## **SIEMENS**

## Data sheet

## 3RT1033-3AP60

Power contactor, AC-3 25 A, 11 kW / 400 V 220 V AC, 50 Hz / 240 V, 60 Hz 3-pole, Size S2 Spring-type terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2



Figure similar

Product brand name	SIRIUS
Product designation	power contactor
General technical data	
Size of contactor	S2
Insulation voltage	
• rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• between coil and main contacts acc. to EN	400 V
60947-1	
Protection class IP	
• on the front	IP20
• of the terminal	IP00
Shock resistance at rectangular impulse	
• at AC	10g / 5 ms, 5g / 10 ms
Shock resistance with sine pulse	

• at AC	15g / 5 ms, 8g / 10 ms
Mechanical service life (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<ul> <li>of the contactor with added electronics- compatible auxiliary switch block typical</li> </ul>	5 000 000
• of the contactor with added auxiliary switch	10 000 000
block typical Reference code 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
<ul> <li>during operation</li> <li>during storage</li> </ul>	-55 +80 °C
Main circuit	
Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	40 A
● at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
● at AC-3	
— at 400 V rated value	25 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	10 mm <sup>2</sup>
• at 40 °C minimum permissible	16 mm <sup>2</sup>
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	12 A
at 690 V rated value	12 A
Operating current	
at 1 current path at DC-1	
- at 24 V rated value	35 A
— at 110 V rated value	4.5 A

<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	35 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
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
- at 24 V rated value	35 A
— at 110 V rated value	25 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
- at 24 V rated value	35 A
— at 24 V rated value	35 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	15 kW
— at 400 V rated value	23 kW
— at 690 V rated value	40 kW
— at 690 V at 60 °C rated value	40 kW
• at AC-2 at 400 V rated value	15 kW
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
Operating power for approx. 200000 operating cycles	
at AC-4	
• at 400 V rated value	7 kW
• at 690 V rated value	9.5 kW
Thermal short-time current limited to 10 s	200 A
Power loss [W] at AC-3 at 400 V for rated value of	1.8 W
the operating current per conductor	
No-load switching frequency	4 500 4/b
at DC	1 500 1/h
Operating frequency	1 200 1/h
• at AC-1 maximum	750 1/h
• at AC-2 maximum	
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	250 1/h

Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	220 V
• at 60 Hz rated value	240 V
Control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
Operating range factor control supply voltage rated	
value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
Apparent pick-up power of magnet coil at AC	120 V·A
Inductive power factor with closing power of the coil	0.7
Apparent holding power of magnet coil at AC	10.1 V·A
Inductive power factor with the holding power of the coil	0.42
Closing delay	
• at DC	50 95 ms
Opening delay	
• at DC	20 30 ms
Arcing time	10 15 ms
Auxiliary circuit	
Number of NC contacts for auxiliary contacts	
<ul> <li>instantaneous contact</li> </ul>	0
Number of NO contacts for auxiliary contacts	
<ul> <li>instantaneous contact</li> </ul>	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	
Operating current at DC-13 <ul> <li>at 24 V rated value</li> </ul>	10 A
	10 A 2 A
• at 24 V rated value	
<ul><li> at 24 V rated value</li><li> at 60 V rated value</li></ul>	2 A
<ul> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> </ul>	2 A 1 A

Contact rating of auxiliary contacts according to UL	A600 / Q600		
Short-circuit protection			
Design of the fuse link			
<ul> <li>for short-circuit protection of the main circuit</li> </ul>			
<ul> <li>— with type of coordination 1 required</li> </ul>	fuse gL/gG: 125 A		
<ul> <li>— with type of assignment 2 required</li> </ul>	fuse gL/gG: 63 A		
<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>	fuse gL/gG: 10 A		
required			
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	112 mm		
Width	55 mm		
Depth	115 mm		
Required spacing			
<ul> <li>for grounded parts</li> </ul>			
— at the side	6 mm		
Connections/Terminals			
Type of electrical connection			
<ul> <li>for main current circuit</li> </ul>	screw-type terminals		
<ul> <li>for auxiliary and control current circuit</li> </ul>	spring-loaded terminals		
Type of connectable conductor cross-sections			
• for main contacts			
— solid	2x (0.75 16 mm²)		
— stranded	2x (0.75 25 mm²)		
— single or multi-stranded	2x (0,75 16 mm²)		
— finely stranded with core end processing	2x (0.75 16 mm²)		
— finely stranded without core end	2x (0.75 16 mm²)		
processing			
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (18 2)		
Type of connectable conductor cross-sections			
<ul> <li>for auxiliary contacts</li> </ul>			
— solid	2x (0.25 2.5 mm²)		
— finely stranded with core end processing	2x (0.25 1.5 mm²)		
— finely stranded without core end	2x (0.25 2.5 mm²)		
processing			
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (24 14)		
··· ··· ··· ··· ··· ··· ··· ··· ··· ··			

General Product	Approval			Functional Safety/Safety of Machinery	Declaration of Conformity
CCC	CSA		EHC	<u>Type Examination</u> <u>Certificate</u>	EG-Konf.
Test Certificates	i		Marine / Shippir	ng	
Type Test Certific- ates/Test Report	Special Test Certi- ficate	Miscellaneous	ABS	Llovd's Register LRS	RMRS
other					
Confirmation	Miscellaneous				

## urther information

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

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1033-3AP60

Cax online generator

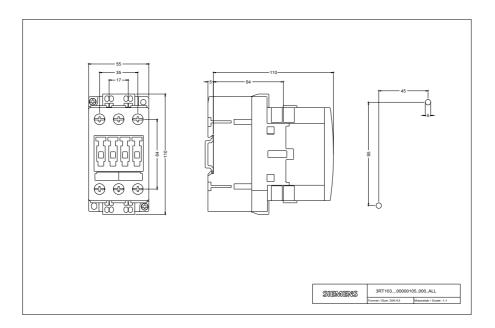
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1033-3AP60

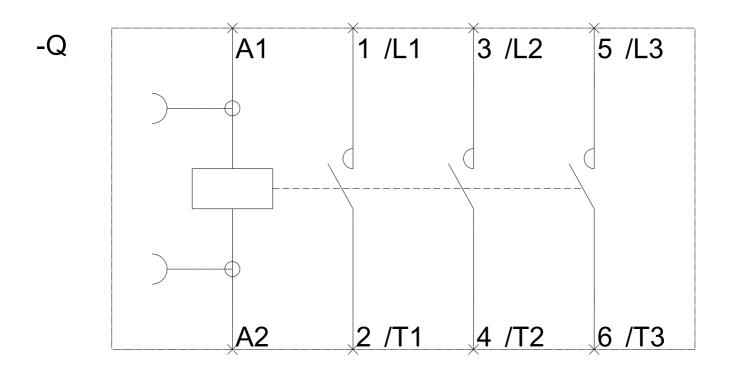
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT1033-3AP60

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1033-3AP60&lang=en

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT1033-3AP60/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1033-3AP60&objecttype=14&gridview=view1





last modified:

12/13/2018