



CONTACTOR, AC-3 18.5 KW/400 V, AC 110V 50/60HZ, 3-POLE,
SIZE S2, SCREW CONNECTION

Figure similar

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S2
Insulation voltage	
• Rated value	690 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP00
• of the terminal	IP00
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
Ambient conditions:	
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
Main circuit:	
Number of NO contacts for main contacts	3

Number of NC contacts for main contacts	0
Operating current <ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value • at AC-1 up to 690 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value — at ambient temperature 60 °C Rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 690 V Rated value 	60 A 60 A 55 A 40 A 24 A
Connectable conductor cross-section in main circuit at AC-1 <ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible 	16 mm ² 16 mm ²
Operating current for ≥ 200000 operating cycles at AC-4 <ul style="list-style-type: none"> • at 400 V Rated value • at 690 V Rated value 	18.5 A 12.6 A
Operating current <ul style="list-style-type: none"> • with 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	55 A 4.5 A 55 A 25 A 55 A 55 A
Operating current <ul style="list-style-type: none"> • with 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value 	35 A 2.5 A 25 A 55 A 55 A 55 A
Operating power <ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C Rated value — at 400 V Rated value 	22 kW 38 kW

— at 690 V Rated value	66 kW
— at 690 V at 60 °C Rated value	66 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	9.5 kW
• at 690 V Rated value	11.4 kW
Thermal short-time current restricted to 10 s	400 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	2.6 W
No-load switching frequency	
• at AC	5 000 1/h
Operating frequency	
• at AC-1 maximum	1 200 1/h
• at AC-2 maximum	600 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
Control supply voltage at AC	
• at 50 Hz Rated value	110 V
• at 60 Hz Rated value	110 V
• Rated value	50 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
Apparent pick-up power of the magnet coil at AC	170 V·A
Inductive power factor with closing power of the coil	0.76
Apparent holding power of the magnet coil at AC	15 V·A
Inductive power factor with the holding power of the coil	0.35
Closing delay	
• at AC	10 ... 24 ms
Opening delay	
• at AC	7 ... 20 ms



Arcing time	10 ... 15 ms
Auxiliary circuit:	
Number of NC contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — instantaneous contact 	0
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — instantaneous contact 	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
<ul style="list-style-type: none"> • at 230 V Rated value • at 400 V Rated value 	6 A 3 A
Operating current at DC-12	
<ul style="list-style-type: none"> • at 60 V Rated value • at 110 V Rated value • at 220 V Rated value 	6 A 3 A 1 A
Operating current at DC-13	
<ul style="list-style-type: none"> • at 24 V Rated value • at 60 V Rated value • at 110 V Rated value • at 220 V Rated value 	10 A 2 A 1 A 0.3 A
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:	
Contact rating of the auxiliary contacts acc. to UL	A600 / Q600
Short-circuit:	
Design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the main circuit — with type of assignment 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 125 A fuse gL/gG: 63 A fuse gL/gG: 10 A
Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<ul style="list-style-type: none"> • Side-by-side mounting 	Yes
Height	112 mm
Width	55 mm
Depth	115 mm
Required spacing	
<ul style="list-style-type: none"> • 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 current circuit	screw-type terminals
Type of connectable conductor cross-section	
• for main contacts	
— solid	2x (0.75 ... 16 mm ²)
— stranded	2x (0.75 ... 25 mm ²)
— single or multi-stranded	2x (0,75 ... 16 mm ²)
— finely stranded with core end processing	2x (0.75 ... 16 mm ²)
— finely stranded without core end processing	2x (0.75 ... 16 mm ²)
• for AWG conductors for main contacts	2x (18 ... 2)
Type of connectable conductor cross-section	
• for auxiliary contacts	
— solid	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12

Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
 CSA	 UL	 EAC	Baumusterbescheinigung  EG-Konf.
			Typprüfbescheinigung/Werkszeugnis

Test Certificates	Shipping Approval				
spezielle Prüfbescheinigungen	 ABS	 DNV	 GL	 Lloyd's Register	 RINA

Shipping Approval	other		
 RMRS	Umweltbestätigung	Bestätigungen	sonstig

Further information

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

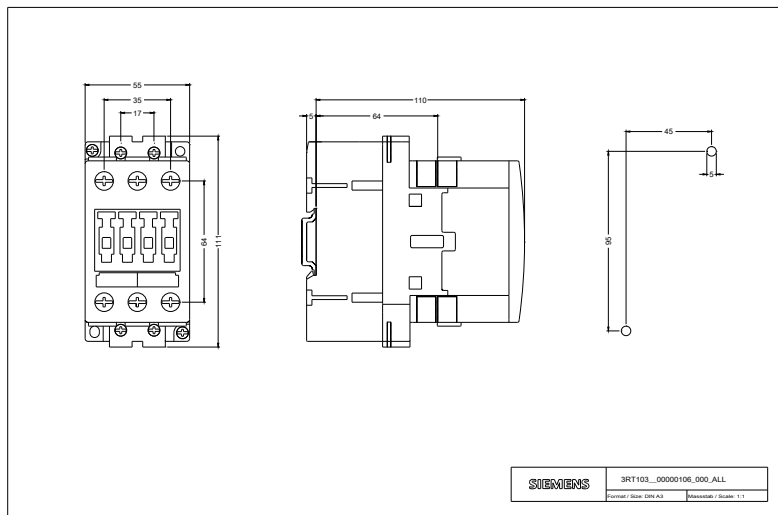
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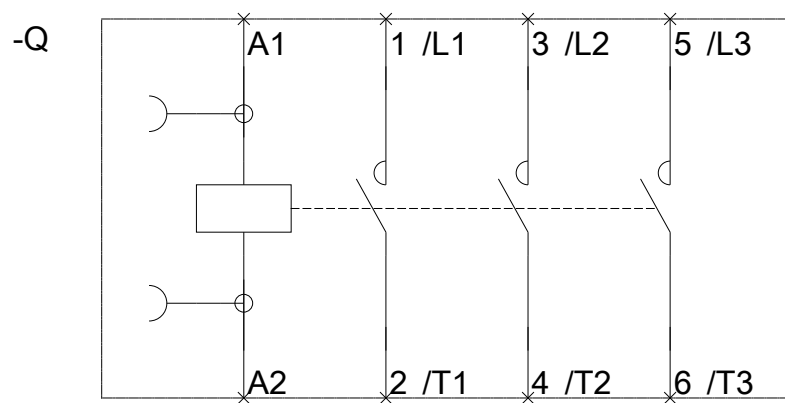
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10351AG20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10351AG20&lang=en





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