



Power contactor, AC-3 95 A, 45 kW / 400 V 24 V DC, 3-pole, Size S3
Spring-type terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2
Preferred successor type is >>3RT2046-3KB40<<

product brand name	SIRIUS
product designation	power contactor
General technical data	
size of contactor	S3
insulation voltage rated value	1 000 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 60947-1	690 V
protection class IP • on the front • of the terminal	IP20; IP20 on the front with cover / box terminal IP00
shock resistance at rectangular impulse • at DC	6,8g / 5 ms, 4g / 10 ms
shock resistance with sine pulse • at DC	10,6g / 5 ms, 6,2g / 10 ms
mechanical service life (switching cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical	10 000 000 5 000 000 10 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.05.2012 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature • during operation • during storage	-25 ... +60 °C -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
operational current • at AC-1 at 400 V at ambient temperature 40 °C rated value • at AC-1 — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value	120 A 120 A 100 A

— up to 1000 V at ambient temperature 40 °C rated value	70 A
— up to 1000 V at ambient temperature 60 °C rated value	60 A
• at AC-3	
— at 400 V rated value	95 A
— at 690 V rated value	58 A
— at 1000 V rated value	30 A
• at AC-4 at 400 V rated value	80 A
connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	35 mm ²
• at 40 °C minimum permissible	50 mm ²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	42 A
• at 690 V rated value	27 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	100 A
— at 110 V rated value	9 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	100 A
— at 110 V rated value	100 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	100 A
— at 110 V rated value	100 A
operational current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	40 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	100 A
— at 110 V rated value	100 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	100 A
— at 110 V rated value	100 A
operating power	
• at AC-1	
— at 230 V at 60 °C rated value	38 kW
— at 400 V rated value	66 kW
— at 690 V rated value	114 kW
— at 690 V at 60 °C rated value	114 kW
— at 1000 V at 60 °C rated value	98 W
• at AC-2 at 400 V rated value	45 kW
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	55 kW
— at 1000 V rated value	37 W
operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	22 kW
• at 690 V rated value	25.4 kW
thermal short-time current limited to 10 s	760 A
no-load switching frequency	
• at DC	1 000 1/h
operating frequency	
• at AC-1 maximum	900 1/h
• at AC-2 maximum	350 1/h

• at AC-3 maximum • at AC-4 maximum	850 1/h 250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
• rated value	24 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value • full-scale value	0.8 1.1
closing power of magnet coil at DC	15 W
holding power of magnet coil at DC	15 W
closing delay	
• at DC	90 ... 230 ms
opening delay	
• at DC	14 ... 20 ms
arcing time	10 ... 15 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	0
number of NO contacts for auxiliary contacts instantaneous contact	0
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value • at 400 V rated value	6 A 3 A
operational current at DC-12	
• at 60 V rated value • at 110 V rated value • at 220 V rated value	6 A 3 A 1 A
operational current at DC-13	
• 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 auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
• for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	fuse gL/gG: 250 A fuse gL/gG: 160 A fuse gL/gG: 10 A
Installation/ mounting/ dimensions	
fastening method	screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail
• side-by-side mounting	Yes
height	146 mm
width	70 mm
depth	152 mm
required spacing for grounded parts at the side	6 mm
Connections/ Terminals	
type of electrical connection	
• for main current circuit • for auxiliary and control circuit	screw-type terminals spring-loaded terminals
type of connectable conductor cross-sections	
• for main contacts — solid	2x (2.5 ... 16 mm²)

— stranded	2x (10 ... 50 mm ²)
— solid or stranded	2x (2,5 ... 16 mm ²)
— finely stranded with core end processing	2x (2.5 ... 35 mm ²)
— finely stranded without core end processing	2x (10 ... 35 mm ²)
• at AWG cables for main contacts	2x (10 ... 1/0)
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.25 ... 2.5 mm ²)
— finely stranded with core end processing	2x (0.25 ... 1.5 mm ²)
— finely stranded without core end processing	2x (0.25 ... 2.5 mm ²)
• at AWG cables for auxiliary contacts	2x (24 ... 14)

Certificates/ approvals

General Product Approval	EMC
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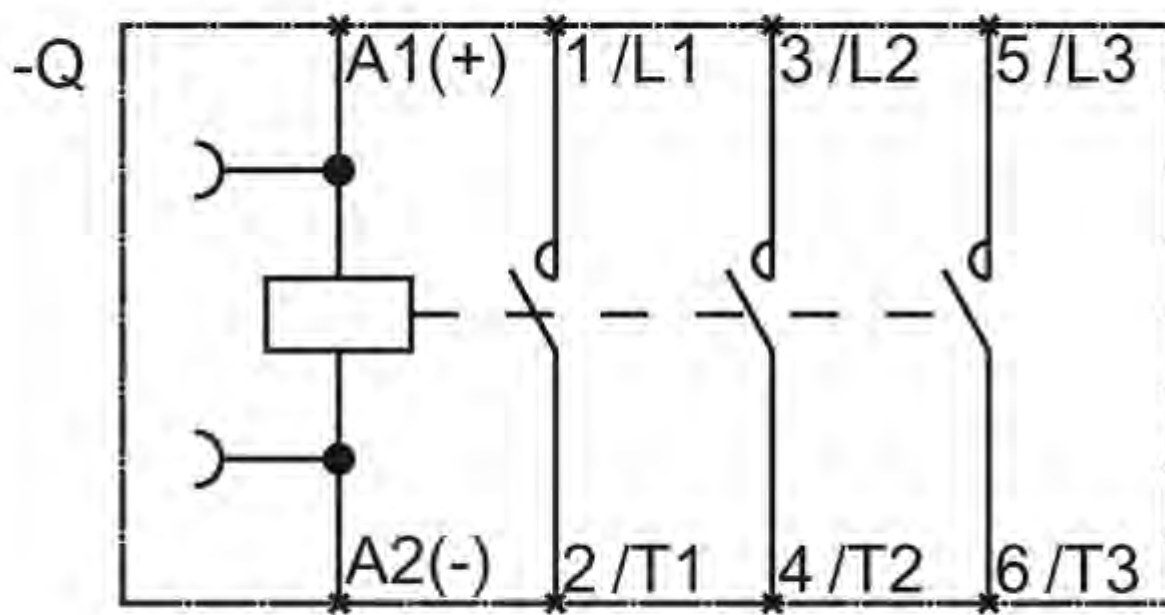
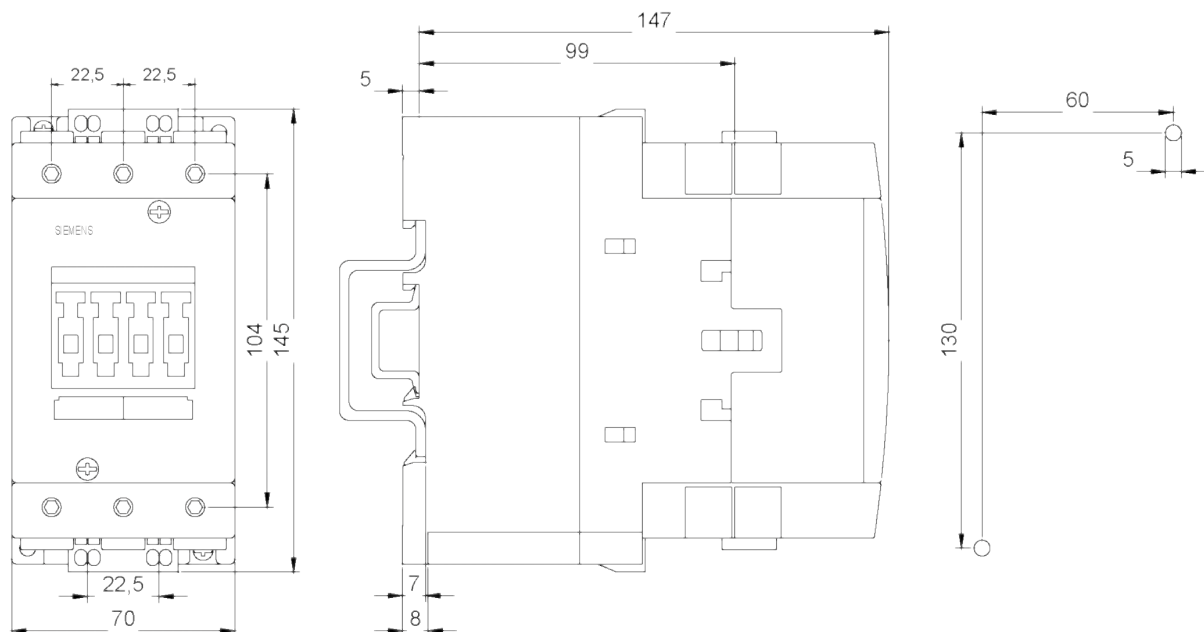
Test Certificates	Marine / Shipping
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Marine / Shipping	other	Railway
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Further information



last modified:

2/5/2021