SIEMENS

Data sheet

3RT1466-6LA06



power contactor AC-1 400 A / 690 V / 40 $^\circ$ C 3-pole, drive: without auxiliary contacts 2 NO + 2 NC main circuit: busbar control and auxiliary circuit: screw terminal

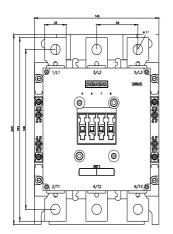
product brand name	SIRIUS
product designation	Contactor
product type designation	3RT14
General technical data	
size of contactor	S10
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	105.6 W
 at AC in hot operating state per pole 	35.2 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	1 000 V
 of auxiliary circuit with degree of pollution 3 rated value 	500 V
surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit rated value 	6 kV
shock resistance at rectangular impulse	
• at AC	8,5g / 5 ms, 4,2g / 10 ms
• at DC	8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	13,4g / 5 ms, 6,5g / 10 ms
at DC	13,4g / 5 ms, 6,5g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
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
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3

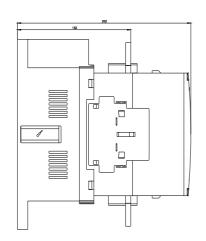
number of NC contacts for main contacts	0
type of voltage for main current circuit	AC
operational current	
• at AC-1	
 — up to 690 V at ambient temperature 40 °C rated value 	400 A
— up to 690 V at ambient temperature 55 °C rated value	380 A
— up to 690 V at ambient temperature 60 $^\circ C$ rated value	380 A
• at AC-3	
— at 400 V rated value	138 A
— at 690 V rated value	138 A
minimum cross-section in main circuit at maximum AC-1 rated value	240 mm²
no-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency at AC-1 maximum	600 1/h
Control circuit/ Control	
closing delay	
• at AC	30 95 ms
• at DC	30 95 ms
opening delay	
• at AC	40 80 ms
• at DC	40 80 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Without operating mechanism
Auxiliary circuit	Warout operating mechanism
number of NC contacts for auxiliary contacts	2
attachable	4
	2
instantaneous contact	2
number of NO contacts for auxiliary contacts	
attachable	4
instantaneous contact	2
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	6 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-13	
at 24 V rated value	10 A
at 48 V rated value	2 A
at 60 V rated value	2 A
• at 110 V rated value	1 A
at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required	gG: 10 A (230 V, 400 A)
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
Short-circuit protection	
product function short circuit protection	No
design of the fuse link	
 for short-circuit protection of the main circuit 	
— with type of coordination 1 required	gG: 500 A (690 V, 100 kA)
— with type of assignment 2 required	gR: 500 A (690 V, 100 kA)
 for short-circuit protection of the auxiliary switch required 	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface
mounting position	$+/-22.5^{\circ}$ tiltable to the front and back

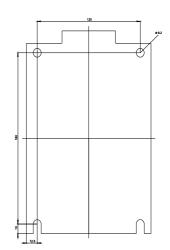
protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 Certificates/ approvals General Product Approval Image: Confirmation of Confirmatio Confirmatio Confirmation of Confirmation of Confirmati	IP00; IP20 with box terminal/cover finger-safe, for vertical contact from the front with box terminal/cover EMC UL EMC RCM				
touch protection on the front according to IEC 60529 Certificates/ approvals General Product Approval	finger-safe, for vertical contact from the front with box terminal/cover				
touch protection on the front according to IEC 60529 Certificates/ approvals	finger-safe, for vertical contact from the front with box terminal/cover				
touch protection on the front according to IEC 60529 Certificates/ approvals	finger-safe, for vertical contact from the front with box terminal/cover				
touch protection on the front according to IEC 60529					
•					
protection class IP on the front according to IEC 60529	IP00: IP20 with box terminal/cover				
 positively driven operation according to IEC 60947-5-1 	No				
mirror contact according to IEC 60947-4-1	Yes				
product function					
Safety related data					
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14), 1x 12				
 finely stranded with core end processing 	2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)				
— solid or stranded	2x (0.5 1.5 mm ⁻), 2x (0.75 2.5 mm ⁻), max. 2x (0.75 4 mm ⁻) 2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²), max. 2x (0,75 4 mm ²)				
- solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)				
for auxiliary contacts					
type of connectable conductor cross-sections					
 finely stranded with core end processing 	0.5 4 mm² 0.5 2.5 mm²				
solid or stranded	0.5 4 mm ²				
stranded connectable conductor cross-section for auxiliary contacts	70 240 mm²				
solid or stranded	70 240 mm ²				
connectable conductor cross-section for main contacts	$70 - 240 \text{ mm}^2$				
number of holes	1				
diameter of holes	11 mm				
thickness of connection bar	6 mm				
width of connection bar	25 mm				
of magnet coil	Screw-type terminals				
at contactor for auxiliary contacts	Screw-type terminals				
for auxiliary and control circuit	screw-type terminals				
for main current circuit	Connection bar				
type of electrical connection					
Connections/ Terminals					
— at the side	10 mm				
— downwards	10 mm				
— upwards	10 mm				
— forwards	20 mm				
• for live parts					
— downwards	10 mm				
— at the side	10 mm				
— upwards	10 mm				
— forwards	20 mm				
for grounded parts					
— at the side	0 mm				
— downwards	10 mm				
— upwards	10 mm				
— forwards	20 mm				
 with side-by-side mounting 					
required spacing					
depth	202 mm				
width	145 mm				
height	210 mm				
e olde by olde meaning	Yes				
fastening method • side-by-side mounting	screw fixing				

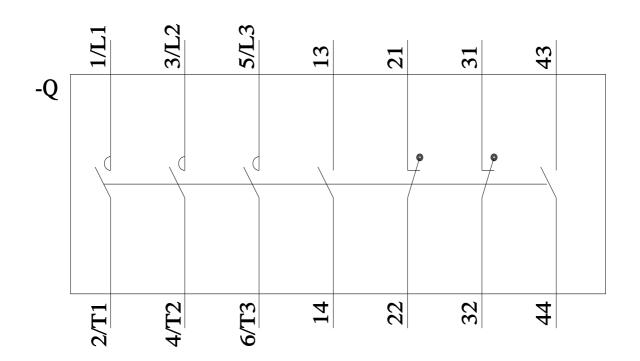
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