SIEMENS

Data sheet 3RT6016-1AN21



Contactor AC 220 V 50/60 HZ AC3 4 kW 400 V AUX contacts: 1 NO 3-pole, size S00 screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT6
General technical data	
size of contactor	S00
product extension auxiliary switch	Yes
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 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (switching cycles)	
of contactor typical	30 000 000
of the contactor with added auxiliary switch block typical	10 000 000
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 	-25 +60 °C
 during storage 	-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 voltage at AC-3 rated value maximum	690 V
operational current	
• at AC-1 up to 690 V	
 — at ambient temperature 40 °C rated value 	22 A
 at ambient temperature 60 °C rated value 	20 A
• at AC-3	
— at 400 V rated value	9 A
— at 690 V rated value	6.7 A
connectable conductor cross-section in main circuit at AC-1	
 at 60 °C minimum permissible 	2.5 mm²

at 40 °C minimum permissible	4 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	4.1 A
• at 690 V rated value	3.3 A
operating power	
• at AC-1	
— at 230 V rated value	7.5 kW
— at 230 V at 60 °C rated value	7.5 kW
— at 400 V at 60 °C rated value	13 kW
— at 400 V at 60 °C rated value	22 kW
• at AC-3	LL IVV
	2.2 PM
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles at AC-4	
 at 400 V rated value 	2 kW
at 690 V rated value	2.5 kW
no-load switching frequency	
• at AC	10 000 1/h
operating frequency	
at AC-1 maximum	1 000 1/h
• at AC-3 maximum	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
	AC
type of voltage of the control supply voltage	AC
control supply voltage at AC	000.1/
• at 50 Hz rated value	220 V
• at 60 Hz rated value	220 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	27 V·A
● at 60 Hz	31.7 V·A
inductive power factor with closing power of the coil	
● at 50 Hz	0.8
• at 60 Hz	0.81
apparent holding power of magnet coil at AC	
• at 50 Hz	4.2 V·A
• at 60 Hz	4.8 V·A
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.25
1111	0.20
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	0
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 A
at 400 V rated value	3 A
• at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	6 A
at 24 V rated value at 110 V rated value	
	3 A
• at 220 V rated value	1 A

operational current at DC-13	
at 24 V rated value	6 A
at 110 V rated value	1A
at 220 V rated value	0.3 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	rically officially per 100 million (17 V, 1 milly)
yielded mechanical performance [hp] for 3-phase AC motor at 460/480 V rated value	5 hp
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
with type of assignment 2 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
 side-by-side mounting 	Yes
height	57.5 mm
width	45 mm
depth	73 mm
required spacing with side-by-side mounting at the side	0 mm
Connections/ Terminals	
type of electrical connection	
 for main current circuit 	screw-type terminals
 for auxiliary and control circuit 	screw-type terminals
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for main contacts	2x (20 16), 2x (18 14), 2x 12
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 at AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14), 2x 12
Safety related data	
product function mirror contact acc. to IEC 60947-4-1	Yes
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
Certificates/ approvals	
General Product Approval	EMC





Confirmation







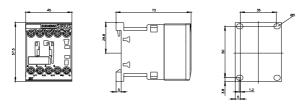
Declaration of Conformity

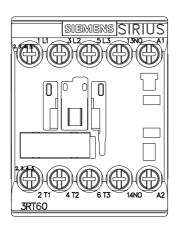
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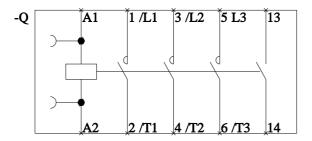


Confirmation

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