SIEMENS

Data sheet

3RT1476-6AP36-0AE0



power contactor AC-1 690 A / 690 V / 40 $^{\circ}$ C 3-pole, Uc: 220-240 V AC(50-60 Hz) / DC drive: conventional auxiliary contacts 2 NO + 2 NC main circuit: busbar control and auxiliary circuit: screw terminal

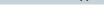
Figure similar

product brand name	SIRIUS	
product designation	Contactor	
product type designation	3RT14	
General technical data		
size of contactor	S12	
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 	185.7 W	
 at AC in hot operating state per pole 	61.9 W	
without load current share typical	10 W	
type of calculation of power loss depending on pole	quadratic	
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	
SVHC substance name	Lead - 7439-92-1	
Weight	10.34 kg	
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	95 %
maximum	00 70
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	690 A
value	
 up to 690 V at ambient temperature 55 °C rated value 	650 A
— up to 690 V at ambient temperature 60 °C rated	650 A
value	050 A
• at AC-3	
— at 400 V rated value	170 A
— at 690 V rated value	170 A
minimum cross-section in main circuit at maximum AC-1 rated	480 mm²
value	
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	
type of voltage	AC/DC
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
at 50 Hz rated value	220 240 V
at 60 Hz rated value	220 240 V
control supply voltage at DC rated value	220 240 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
full-scale value	1.1
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
design of the surge suppressor	with varistor
apparent pick-up power	
 at minimum rated control supply voltage at AC 	
— at 50 Hz	700 VA
— at 60 Hz	700 VA
at maximum rated control supply voltage at AC	
— at 60 Hz	830 VA
— at 50 Hz	830 VA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	830 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.9
apparent holding power	0.5.\/A
at minimum rated control supply voltage at DC at maximum rated control supply voltage at DC	8.5 VA
at maximum rated control supply voltage at DC	10 VA
apparent holding power	
• at minimum rated control supply voltage at AC	7.6.1/4
— at 50 Hz	7.6 VA
— at 60 Hz	7.6 VA
at maximum rated control supply voltage at AC t = 0.47	0.2 \/A
— at 50 Hz — at 60 Hz	9.2 VA 9.2 VA
	J.Z VM
apparent holding power of magnet coil at AC	

● at 50 Hz	9.2 VA
inductive power factor with the holding power of the coil	
at 50 Hz	0.9
	920 W
closing power of magnet coil at DC holding power of magnet coil at DC	10 W
	10 W
closing delay • at AC	4F 400 mg
	45 100 ms
• at DC	45 100 ms
opening delay	00 400
• at AC	60 100 ms
• at DC	60 100 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
attachable	4
instantaneous contact	2
number of NO contacts for auxiliary contacts	2
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: 800 A (690 V, 50 kA)
— with type of assignment 2 required	gR: 710 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 +/- 22.5° tiltable to the front and back
fastening method side-by-side mounting	Yes
fastening method	screw fixing
height	214 mm
width	160 mm
depth	225 mm
required spacing	
 with side-by-side mounting 	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	
— forwards	20 mm
— upwards	10 mm
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	40
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	Connection bar
for auxiliary and control circuit	screw-type terminals
 at contactor for auxiliary contacts 	Screw-type terminals
of magnet coil	Screw-type terminals
width of connection bar	25 mm
thickness of connection bar	6 mm
diameter of holes	11 mm
number of holes	1
connectable conductor cross-section for main contacts	
 solid or stranded 	70 240 mm²
• stranded	70 240 mm²
connectable conductor cross-section for auxiliary contacts	
 solid or stranded 	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 1x 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
with high demand rate according to SN 31920	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
protection class IP on the front according to IEC 60529	IP00; IP20 with box terminal/cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover
Approvals Certificates	
General Product Approval	







Confirmation







EMV Functional Saftey Test Certificates Marine / Shipping



Type Examination Certificate

Special Test Certificate

Type Test Certificates/Test Report

Miscellaneous

other



Marine / Shipping









<u>Confirmation</u> <u>Miscellaneous</u>

other Railway Environment

Confirmation Special Test Certific- Environmental Conate firmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1476-6AP36-0AE0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1476-6AP36-0AE0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-6AP36-0AE0

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

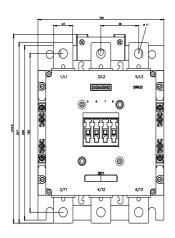
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1476-6AP36-0AE0\&lang=en}$

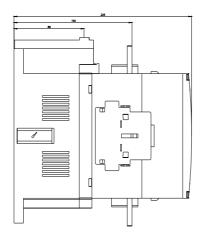
Characteristic: Tripping characteristics, I2t, Let-through current

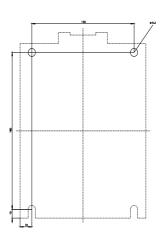
https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-6AP36-0AE0/char

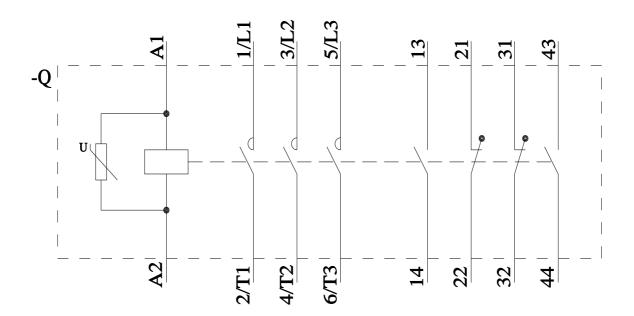
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1476-6AP36-0AE0&objecttype=14&gridview=view1









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