SIEMENS

Data sheet 3RT1466-6NF36



power contactor AC-1 400 A / 690 V / 40 $^{\circ}$ C 3-pole, Uc: 96-127 V AC(50-60 Hz) / DC PLC input 24 V DC drive: electronic 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
 without load current share typical 	3.4 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	400 A
— 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 °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	1 000 1/h
• at DC	1 000 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	96 127 V
at 60 Hz rated value	96 127 V
control supply voltage at DC	
• rated value	96 127 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
type of PLC-control input according to IEC 60947-1	Type 2
consumed current at PLC-control input according to IEC 60947-1 maximum	20 mA
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
● at 50 Hz	530 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.8
apparent holding power of magnet coil at AC	
at 50 Hz	5 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.5
closing power of magnet coil at DC	580 W
holding power of magnet coil at DC	3.4 W
closing delay	
• at AC	45 80 ms
• at DC	45 80 ms
opening delay	
• at AC	80 100 ms
• at DC	80 100 ms
arcing time	10 15 ms
control version of the switch operating mechanism	PLC-IN or Standard A1 - A2 (adjustable)
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
• attachable	4
• instantaneous contact	2
number of NO contacts for auxiliary contacts	2

product function short circuit protection design of the fuse link		
Speartsonal current at AC-12 maintain 10 A 1		
# at 200 V rated value	operational current at AC-12 maximum	10 A
a at 400 V rated value	•	
a 18 60 V rated value 2 A operational current at CC-13 12 A a 12 V rated value 10 A a 12 V rated value 2 A a 18 OV rated value 1 A a 18 10 V rated value 1 A a 18 50 V rated value 0.9 A a 18 50 V rated value 0.9 A a 18 50 V rated value 0.1 A a 18 50 V		
• al 1890 V roted value 10 A 10		
a 24 V rated value		
a 12 4V rated value		1 A
a ril 48 V rated value	•	
* al 125 V rated value		
* at 220 V rated value		
a till 600 V rated value design of the ministure circuit breaker for short-circuit protection of the auxiliary switch required contact reliability of auxiliary contacts Forecast function short circuit protection design of the fuse link - with type of coordination 1 required - with type of coordination 1 required - with type of coordination of the auxiliary switch required - with type of assignment 2 required - with side-by-side mounting dimensions with wertical mounting surface +/-90" rotatable, with vertical mounting surface - y-22.5" tillable to the front and back state of the forecast of the forecas		
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product function 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 §G: 500 A (690 V, 100 kA) §R: 500 A (690 V, 100 kA) §G: 500 A (600 V, 100 kA) §G: 5	contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
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mounting position with vertical mounting surface +/-90" rotatable, with vertical mounting surface +/-22.5" tiliable to the front and back fastening method	for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
## - 22.5° titable to the front and back a side-by-side mounting	-	
side-by-side mounting side-by-side mounting height 210 mm width 445 mm depth 202 mm required spacing with side-by-side mounting forwards upwards upwards the side for grounded parts for grounded parts upwards upwards to mm to mm to for live parts upwards upwards to lin mm for live parts for live parts upwards upwards to mm for live parts for live parts upwards upwards upwards to mm for live parts for live parts upwards upwards to mm for live parts upwards upwards to mm for live parts upwards upwards to mm for live parts upwards to mm for live parts upwards upwards to mm for live parts upwards upwards to mm Connections' Terminals type of electrical connection for main current circuit of ro auxiliary and control circuit at ea contactor for auxiliary contacts of magnet coil Screw-type terminals width of connection bar thickness of connection bar thickness of connection bar diameter of holes 11 mm number of holes	mounting position	
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width of connection bar25 mmthickness of connection bar6 mmdiameter of holes11 mmnumber of holes1	at contactor for auxiliary contacts	Screw-type terminals
thickness of connection bar 6 mm diameter of holes 11 mm number of holes 1	of magnet coil	Screw-type terminals
diameter of holes 11 mm 11 mm 12 mm 13 mm 14 mm 15 mm 15 mm 15 mm 16 mm 17 mm 17 mm 17 mm 18 mm	width of connection bar	25 mm
number of holes 1	thickness of connection bar	6 mm
	diameter of holes	11 mm
connectable conductor cross-section for main contacts	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
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
Certificates/ approvals	



General Product Approval



Confirmation







EMC

Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping

Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping



LR:S







Confirmation

Confirmation

other Railway

<u>Miscellaneous</u> <u>Vibration and Shock</u> <u>Special Test Certificate</u>

Further information

Siemens has decided to exit the Russian market (see here).

 $\underline{\text{https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business}}$

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT1466-6NF36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1466-6NF36

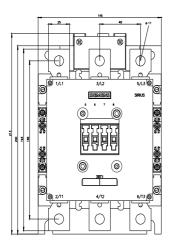
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT1466-6NF36

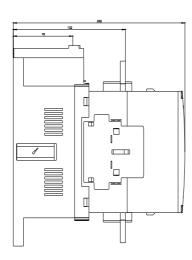
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RT1466-6NF36&lang=en

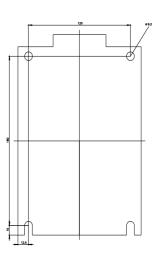
Characteristic: Tripping characteristics, I2t, Let-through current

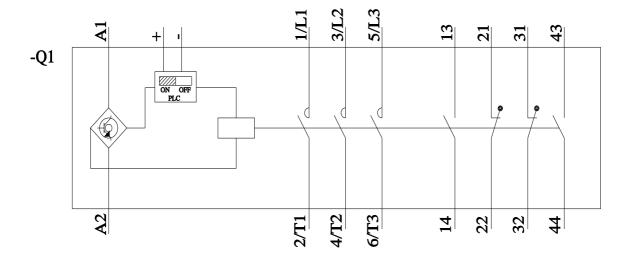
https://support.industry.siemens.com/cs/ww/en/ps/3RT1466-6NF36/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1466-6NF36&objecttype=14&gridview=view1









last modified: 3/15/2022 🖸