SIEMENS

Data sheet 3RT1466-6AT36



power contactor AC-1 400 A / 690 V / 40 $^{\circ}$ C 3-pole, Uc: 575-600 V AC(50-60 Hz) / DC drive: conventional 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 	7.4 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 $^{\circ}\text{C}$ according to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles for main current circuit	3

type of voltage for main current circuit type of voltage for main current circuit operational current o at AC-1 — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 55 °C rated value — up to 690 V at ambient temperature 60 °C rated value o at AC-3 — at 400 V rated value o at AC-3 — at 400 V rated value innimum cross-section in main circuit at maximum AC-1 rated value no-load switching frequency o at AC at AC operating frequency at AC-1 maximum onumber of NC contacts for main current AC AC AC AC AC AU AU AU AU AU	number of NO contacts for main contacts	3
Spee of voltage for main current circuit operational current		
operational current • at AC-1 — or to 650 V at ambient temperature 40 °C rated — up to 650 V at ambient temperature 65 °C rated value • up to 650 V at ambient temperature 60 °C rated value • up to 650 V at ambient temperature 60 °C rated value • at AC-3 — at 600 V rated value — at 650 V rated value — at 6		
* at AC-1		AC
- up to 890 V at ambient temperature 40 °C rated value		
walue walu		400 A
value val	value	
value valu	value	
— at 400 V rated value	value	360 A
Marchand writching frequency		
value condend witching frequency • at AC 2 000 1/h • at DC 2 000 1/h operating frequency at AC-1 maximum 60 01 /h control stream (Frequency at AC-1 maximum) AC/DC control supply voltage of the control supply voltage AC/DC control supply voltage at AC 575 680 V • at 60 Hz rated value 575 680 V control supply voltage at DC *** • rated value 755 680 V operating range factor control supply voltage rated value of magnet coll at DC ** • intilal value 0.8 • full-scale value 0.8 1.1 operating range factor control supply voltage rated value of magnet coll at AC 0.8 1.1 • at 50 Hz 0.9 1.1 • at 50 Hz		
* all AC		240 mm²
• at DC operating frequency at AC-1 maximum Control foreital Control type of voltage type of voltage of the control supply voltage type of voltage of the control supply voltage at 60 Hz rated value	no-load switching frequency	
Operating frequency at AC-1 maximum 600 1/h	• at AC	2 000 1/h
Control circuit/ Control Correct voltage AC/DC type of voltage of the control supply voltage AC/DC control supply voltage at AC * at 50 Hz rated value 575 600 V * at 50 Hz rated value 575 600 V control supply voltage at DC * facted value * rated value 575 600 V operating range factor control supply voltage rated value of magnet coil at DC 0.8 * initial value 0.8 * of 150 Hz 0.8 1.1 * at 50 Hz 0.8 1.1 * at 50 Hz 0.8 1.1 * design of the surge suppressor with varistor * apparent plex-up power of magnet coil at AC * at 50 Hz * at 50 Hz 0.9 inductive power factor with closing power of the coil 0.9 * at 50 Hz 0.9 apparent holding power of magnet coil at DC 650 W * at 50 Hz 0.9 closing power of magnet coil at DC 650 W * at DC 30 95 ms * at DC 40 80 ms * at DC 40 80 ms * at DC	• at DC	2 000 1/h
type of voltage type of voltage type of voltage to the control supply voltage at AC	operating frequency at AC-1 maximum	600 1/h
Type of voltage of the control supply voltage at AC	Control circuit/ Control	
type of voltage of the control supply voltage at AC	type of voltage	AC/DC
Control supply voltage at AC		AC/DC
• at 50 Hz rated value 575 600 V • at 60 Hz rated value 575 600 V cortrol supply voltage at DC • rated value 575 600 V operating range factor control supply voltage rated value of magnet coil at DC • initial value 0.8 • full-scale value 0.8 • at 50 Hz 0.8 1.1 • at 60 Hz 0.8 1.1 • at 60 Hz 0.8 1.1 design of the surge suppressor with varistor apparent pick-up power of magnet coil at AC • at 50 Hz 0.9 • at 50 Hz 0.9 apparent holding power of magnet coil at AC • at 50 Hz 0.9 apparent holding power of magnet coil at AC • at 50 Hz 0.9 closing power of magnet coil at DC holding power of magnet coil at DC • at AC 0.9 • at A		
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control supply voltage at DC		
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magnet coil at DC • initial value 0.8 • full-scale value 1.1		010 000 V
• full-scale value		
operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz design of the surge suppressor apparent pick-up power of magnet coil at AC • at 50 Hz • at 50 Hz inductive power factor with closing power of the coil • at 50 Hz apparent holding power of magnet coil at AC • at 50 Hz apparent holding power of magnet coil at AC • at 50 Hz apparent holding power of magnet coil at AC • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz closing power of magnet coil at DC closing power of magnet coil at DC closing power of magnet coil at DC at AC • at DC at DC opening delay • at AC • at DC arcing time control version of the switch operating mechanism Standard A1 - A2 Auxiliary official number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable	• initial value	0.8
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inductive power factor with closing power of the coil • at 50 Hz apparent holding power of magnet coil at AC • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz closing power of magnet coil at DC 650 W holding power of magnet coil at DC 7.4 W closing delay • at AC • at DC 30 95 ms opening delay • at AC • at DC 40 80 ms arcing time 10 15 ms control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts • attachable • instantaneous contact • attachable	apparent pick-up power of magnet coil at AC	
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apparent holding power of magnet coil at AC • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz 0.9 closing power of magnet coil at DC holding power of magnet coil at DC 7.4 W closing delay • at AC • at DC opening delay • at AC • at DC at DC at DC arcing time control version of the switch operating mechanism number of NC contacts for auxiliary contacts • attachable • instantaneous contact number of NO contacts for auxiliary contacts • attachable	inductive power factor with closing power of the coil	
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inductive power factor with the holding power of the coil at 50 Hz closing power of magnet coil at DC holding power of magnet coil at DC 7.4 W closing delay at AC at DC opening delay at AC at AC 40 80 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 instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact attachable 4	apparent holding power of magnet coil at AC	
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● at 50 Hz 0.9 closing power of magnet coil at DC 650 W holding power of magnet coil at DC 7.4 W closing delay 0 at AC 30 95 ms 0 at DC 30 95 ms opening delay 0 at AC 40 80 ms 0 at DC 40 80 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 2 number of NC contacts for auxiliary contacts 2 attachable 4 instantaneous contact 2 number of NO contacts for auxiliary contacts 2 attachable 4	inductive power factor with the holding power of the coil	
holding power of magnet coil at DC closing delay		0.9
holding power of magnet coil at DC closing delay	closing power of magnet coil at DC	650 W
closing delay ■ at AC ■ at DC 30 95 ms opening delay ■ at AC ■ at DC 40 80 ms ■ at DC 40 80 ms arcing time 10 15 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit ■ attachable ■ instantaneous contact		7.4 W
■ at AC ■ at DC 30 95 ms opening delay ■ at AC ■ at DC 40 80 ms arcing time 10 15 ms control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts ■ attachable ■ instantaneous contact number of NO contacts for auxiliary contacts ■ attachable		
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 instantaneous contact number of NO contacts for auxiliary contacts attachable 2 4 		
number of NO contacts for auxiliary contacts • attachable 2 4		
• attachable 4		
• instantaneous contact 2		
	• 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 +/- 22.5° tiltable to the front and back
fastening method	screw fixing
side-by-side mounting	Yes
height	210 mm
width	145 mm
depth	202 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
— 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
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	

Certificates/ approvals

General Product Approval







Confirmation







Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping

Type Examination Certificate





Special Test Certificate Type Test Certificates/Test Report



Marine / Shipping











Confirmation

Confirmation

other

Railway

Miscellaneous

Vibration and Shock

Special Test Certificate

Further information

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

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=3RT1466-6AT36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1466-6AT36

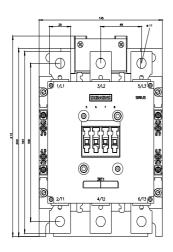
 $Service \& Support \ (Manuals, \ Certificates, \ Characteristics, \ FAQs, ...)$

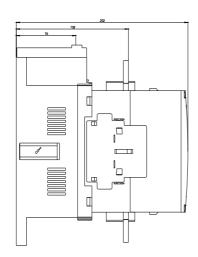
https://support.industry.siemens.com/cs/ww/en/ps/3RT1466-6AT36

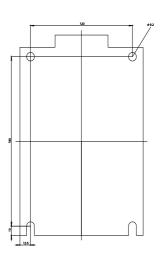
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

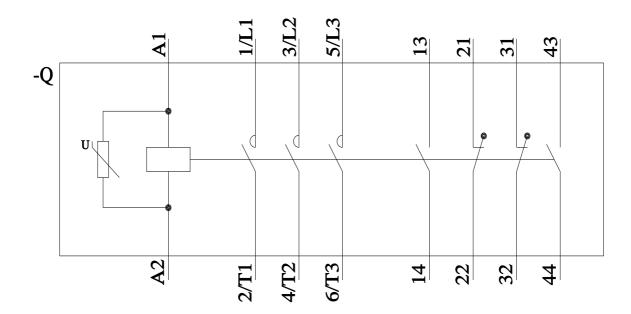
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1466-6AT36\&lang=en}$

Characteristic: Tripping characteristics, I²t, Let-through current









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