SIEMENS

Data sheet 3RT1266-6AV36



vacuum contactor AC-3e/AC-3 300 A, 160 kW / 400 V, 3-pole, Uc: 380-420 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	Vacuum contactor
product type designation	3RT12
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	42 W
• at AC in hot operating state per pole	14 W
 without load current share typical 	8.2 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
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
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	Blei - 7439-92-1
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	
ain circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	330 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	330 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	300 A
— up to 1000 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	330 A
 up to 1000 V at ambient temperature 60 °C rated value 	300 A
• at AC-3	
— at 400 V rated value	300 A
— at 500 V rated value	300 A
— at 690 V rated value	300 A
— at 1000 V rated value	300 A
• at AC-3e	
— at 400 V rated value	300 A
— at 500 V rated value	300 A
— at 690 V rated value	300 A
— at 1000 V rated value	300 A
• at AC-4 at 400 V rated value	280 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	300 A
— up to 400 V for current peak value n=20 rated value	300 A
— up to 500 V for current peak value n=20 rated value	300 A
up to 690 V for current peak value n=20 rated value	300 A
— up to 1000 V for current peak value n=20 rated value	300 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	209 A
— up to 400 V for current peak value n=30 rated value	209 A
— up to 500 V for current peak value n=30 rated value	209 A
— up to 690 V for current peak value n=30 rated value	209 A
up to 1000 V for current peak value n=30 rated	209 A
value ninimum cross-section in main circuit at maximum AC-1 rated	185 mm²
value operational current for approx. 200000 operating cycles at	
AC-4	
• at 400 V rated value	140 A
at 690 V rated value	140 A
operating power	
• at AC-3	
— at 230 V rated value	90 kW
— at 400 V rated value	160 kW
— at 500 V rated value	200 kW
— at 690 V rated value	250 kW
— at 1000 V rated value	400 kW
• at AC-3e	
— at 230 V rated value	90 kW
— at 400 V rated value	160 kW
— at 500 V rated value	200 kW
— at 690 V rated value	250 kW
— at 1000 V rated value	400 kW

operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	79 kW
at 400 V rated value at 690 V rated value	138 kW
	130 KVV
operating apparent power at AC-6a	400 000 IA/A
up to 230 V for current peak value n=20 rated value	120 000 kVA
up to 400 V for current peak value n=20 rated value	200 000 VA
up to 500 V for current peak value n=20 rated value	260 000 VA
up to 690 V for current peak value n=20 rated value	350 000 VA
up to 1000 V for current peak value n=20 rated value	520 000 VA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	80 000 VA
 up to 400 V for current peak value n=30 rated value 	140 000 VA
 up to 500 V for current peak value n=30 rated value 	180 000 VA
 up to 690 V for current peak value n=30 rated value 	250 000 VA
 up to 1000 V for current peak value n=30 rated value 	360 000 VA
no-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	
• at AC-1 maximum	750 1/h
at AC-2 maximum	250 1/h
• at AC-3 maximum	750 1/h
• at AC-3e maximum	750 1/h
at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
at 50 Hz rated value	380 420 V
at 60 Hz rated value	380 420 V
control supply voltage at DC	
• rated value	380 420 V
operating range factor control supply voltage rated value of	000 120 V
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	00.44
• 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	530 VA
— at 60 Hz	530 VA
 at maximum rated control supply voltage at AC 	
— at 60 Hz	630 VA
— at 50 Hz	630 VA
apparent pick-up power of magnet coil at AC	
● at 50 Hz	590 VA
● at 60 Hz	590 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.9
• at 60 Hz	0.9
apparent holding power	
 at minimum rated control supply voltage at DC 	6.8 VA
 at maximum rated control supply voltage at DC 	8.2 VA
apparent holding power	
at minimum rated control supply voltage at AC	
— at 50 Hz	6.1 VA
— at 60 Hz	6.1 VA
at maximum rated control supply voltage at AC	
1, ,	

— at 50 Hz	7.4 VA
— at 50 пz — at 60 Hz	7.4 VA
apparent holding power of magnet coil at AC	
• at 50 Hz	6.1 VA
• at 60 Hz	6.1 VA
inductive power factor with the holding power of the coil	0.1771
• at 50 Hz	0.9
• at 60 Hz	0.9
closing power of magnet coil at DC	700 W
holding power of magnet coil at DC	8.2 W
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	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	2
number of NO contacts for auxiliary contacts 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-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
at 60 V rated value	6 A
at 110 V rated value	3 A
• at 125 V rated value	2 A
at 220 V rated value	1 A
at 600 V rated value	0.15 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
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	000 A
at 480 V rated value	302 A
at 600 V rated value Violed manhanical newformance [hp]	289 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	100 ha
— at 200/208 V rated value	100 hp
— at 220/230 V rated value	125 hp
— at 460/480 V rated value	250 hp
— at 575/600 V rated value contact rating of auxiliary contacts according to UL	300 hp A600 / Q600
Short-circuit protection	A000 / Q000
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 coordination i required	90. 000 A (000 V, 100 KA)

— with type of assignment 2 required	gG: 500 A (690 V, 100 kA), aM: 400 A (690 V, 50 kA), BS88: 450 A (415 V, 50
a for about airquit protection of the qualitary quitab required	kA)
 for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions 	gG: 10 A (500 V, 1 kA)
mounting position	+/-22,5° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; standing, on horizontal mounting surface
fastening method	screw fixing
side-by-side mounting	Yes
height	210 mm
width	145 mm
depth	206 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	
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
AWG number as coded connectable conductor cross section	
for auxiliary contacts	18 14
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
suitability for use safety-related switching OFF	Yes
T1 value for proof test interval or service life according to IEC 61508	20 a
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	





Confirmation



<u>KC</u>



Functional
EMC Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping









Confirmation

other

other

Railway

Confirmation

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=3RT1266-6AV36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1266-6AV36

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1266-6AV36

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

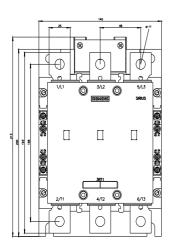
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1266-6AV36&lang=en

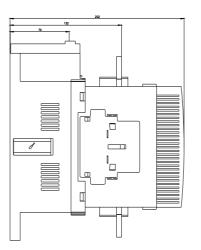
Characteristic: Tripping characteristics, I²t, Let-through current

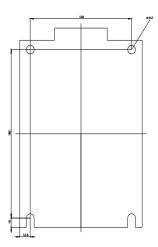
https://support.industry.siemens.com/cs/ww/en/ps/3RT1266-6AV36/char

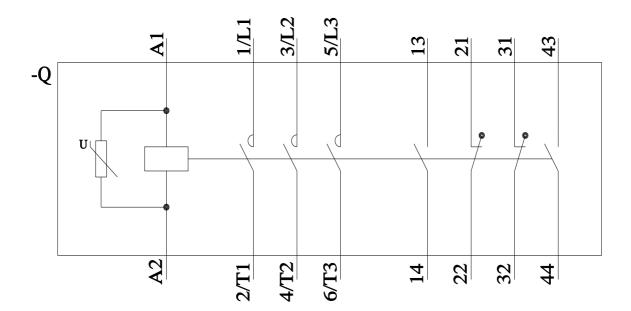
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1266-6AV36&objecttype=14&gridview=view1



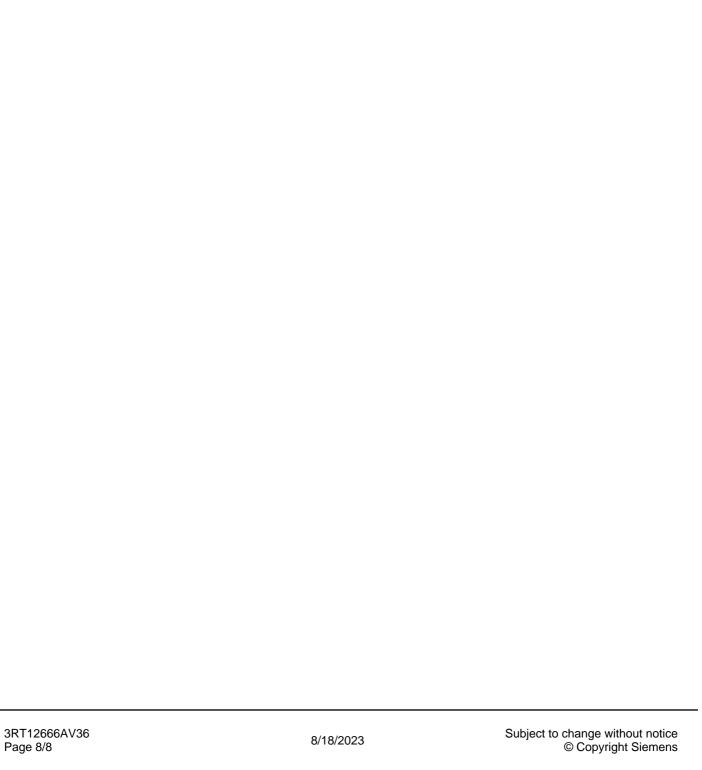






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