SIEMENS

Data sheet 3RT1076-6AP36

SIRIUS





power contactor, AC-3e/AC-3 500 A, 250 kW / 400 V AC (50-60 Hz) / DC Uc: 220-240 V 3-pole, auxiliary contacts 2 NO + 2 NC drive: conventional main circuit: busbar control and auxiliary circuit: screw terminal



product type designation product type designation General technical data size of contactor product extension • function module for communication • auxiliary switch Power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical 10 W type of calculation of power loss depending on pole insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance • of main circuit rated value • of auxiliary circuit rated value surge voltage resistance • of main circuit rated value • of auxiliary circuit rated value surge voltage resistance • of main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC 13,4g / 5 ms, 6,5g / 10 ms rechanical service life (operating cycles)
Size of contactor
size of contactor product extension • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC at AG • at DC mechanical service life (operating cycles)
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shock resistance with sine pulse • at AC • at DC 13,4g / 5 ms, 6,5g / 10 ms 13,4g / 5 ms, 6,5g / 10 ms mechanical service life (operating cycles)
● at DC 13,4g / 5 ms, 6,5g / 10 ms mechanical service life (operating cycles)
mechanical service life (operating cycles)
40,000,000
● 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 10.4 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 maximum	95 %
Environmental footprint	
Siemens Eco Profile (SEP)	Siemens EcoTech
Main 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 	610 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	610 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	550 A
— up to 1000 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	200 A
— up to 1000 V at ambient temperature 60 °C rated value	200 A
• at AC-3	
— at 400 V rated value	500 A
— at 500 V rated value	500 A
— at 690 V rated value	450 A
— at 1000 V rated value	180 A
• at AC-3e	
— at 400 V rated value	500 A
— at 500 V rated value	500 A
— at 690 V rated value	450 A
— at 1000 V rated value	180 A
at AC-4 at 400 V rated value	430 A
at AC-5a up to 690 V rated valueat AC-5b up to 400 V rated value	536 A 415 A
·	415 A
• at AC-6a	444.0
— up to 230 V for current peak value n=20 rated value	414 A
— up to 400 V for current peak value n=20 rated value	414 A
— up to 500 V for current peak value n=20 rated value	414 A
— up to 690 V for current peak value n=20 rated value	414 A
 up to 1000 V for current peak value n=20 rated value 	180 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	276 A
— up to 400 V for current peak value n=30 rated value	276 A
— up to 500 V for current peak value n=30 rated value	276 A
— up to 690 V for current peak value n=30 rated value	276 A
— up to 1000 V for current peak value n=30 rated value	180 A
minimum cross-section in main circuit at maximum AC-1 rated value	370 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	175 A
at 690 V rated value	150 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	
— at 24 V fated value	400 A
— at 60 V rated value	400 A 330 A

-1 000 V11	0.0.4
— at 220 V rated value	3.8 A
— at 440 V rated value	0.9 A
— at 600 V rated value	0.6 A
with 2 current paths in series at DC-1	400 A
— at 24 V rated value	400 A
— at 60 V rated value	400 A
— at 110 V rated value	400 A
— at 220 V rated value	400 A
— at 440 V rated value	4 A
— at 600 V rated value	2 A
with 3 current paths in series at DC-1	100 A
— at 24 V rated value	400 A
— at 60 V rated value	400 A
— at 110 V rated value	400 A
— at 220 V rated value	400 A
— at 440 V rated value	11 A
— at 600 V rated value	5.2 A
at 1 current path at DC-3 at DC-5	
— at 24 V rated value	400 A
— at 60 V rated value	11 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.18 A
— at 600 V rated value	0.125 A
with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	400 A
— at 60 V rated value	400 A
— at 110 V rated value	400 A
— at 220 V rated value	2.5 A
— at 440 V rated value	0.65 A
— at 600 V rated value	0.37 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	400 A
— at 60 V rated value	400 A
— at 110 V rated value	400 A
— at 220 V rated value	400 A
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
operating power	
• at AC-3	
— at 230 V rated value	160 kW
— at 400 V rated value	250 kW
— at 500 V rated value	315 kW
— at 690 V rated value	400 kW
— at 1000 V rated value	250 kW
• at AC-3e	
— at 230 V rated value	160 kW
— at 400 V rated value	250 kW
— at 500 V rated value	315 kW
— at 690 V rated value	400 kW
— at 1000 V rated value	250 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	98 kW
at 690 V rated value	148 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	160 000 kVA
up to 400 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value	280 000 VA
up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value	350 000 VA
up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value	490 000 VA
up to 1000 V for current peak value n=20 rated value	310 000 VA
operating apparent power at AC-6a	
aparamig apparame pattor at na-va	

• up to 230 V for current peak value n=30 rated value	110 000 VA
• up to 400 V for current peak value n=30 rated value	190 000 VA
• up to 500 V for current peak value n=30 rated value	230 000 VA
 up to 690 V for current peak value n=30 rated value 	330 000 VA
• up to 1000 V for current peak value n=30 rated value	310 000 VA
short-time withstand current in cold operating state up to	
40 °C	
 limited to 1 s switching at zero current maximum 	7 484 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	7 484 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	5 978 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	3 765 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	2 887 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	
• at AC-1 maximum	500 1/h
• at AC-2 maximum	170 1/h
• at AC-3 maximum	420 1/h
• at AC-3e maximum	420 1/h
• at AC-4 maximum	130 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	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
• at 60 Hz	830 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	8.5 VA
at maximum rated control supply voltage at DC	10 VA
apparent holding power	
at minimum rated control supply voltage at AC	
— at 50 Hz	7.6 VA
— at 60 Hz	7.6 VA
at maximum rated control supply voltage at AC	
— at 50 Hz	9.2 VA
— at 60 Hz	9.2 VA
inductive power factor with the holding power of the coil	
at 50 Hz	0.9
• at 60 Hz	0.9
₹ at ov tiz	U.U

aloning mayor of magast sail at DC	020 W
closing power of magnet coil at DC	920 W 10 W
holding power of magnet coil at DC	10 W
closing delay	4F 400 mg
	45 100 ms 45 100 ms
opening delay	45 100 IIIS
• 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	Standard A1 - A2
number of NC contacts for auxiliary contacts instantaneous	2
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	
• at 480 V rated value	477 A
at 600 V rated value	472 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	470.1
— at 200/208 V rated value	150 hp
— at 220/230 V rated value	200 hp
— at 460/480 V rated value	400 hp
— at 575/600 V rated value	500 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	-0. 000 A (000 V 400 I.A)
— with type of coordination 1 required	gG: 630 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 500 A (690 V, 100 kA), aM: 500 A (690 V, 50 kA), BS88: 500 A (415 V, 50 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
	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
— 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	
at contactor for auxiliary contacts	screw-type terminals Screw-type terminals
of magnet coil	Screw-type terminals Screw-type terminals
	25 mm
width of connection bar	6 mm
thickness of connection bar	11 mm
diameter of holes	
number of holes	1
type of connectable conductor cross-sections	0/0 500
for AWG cables for main contacts	2/0 500 kcmil
connectable conductor cross-section for main contacts	70 040 3
• stranded	70 240 mm²
connectable conductor cross-section for auxiliary contacts	0.5 4 2
solid or stranded	0.5 4 mm ²
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
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
with low demand rate according to SN 31920	40 %
-	73 %
with high demand rate according to SN 31920 R10 value with high demand rate according to SN 31920	
B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN	1 000 000 100 FIT
31920	
ISO 13849	2
device type according to ISO 13849-1	3 Von
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



Marine / Shipping









Miscellaneous

Confirmation

other

Railway

Environment

Confirmation

Miscellaneous

Special Test Certific-<u>ate</u>





other

Environmental Confirmations

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=3RT1076-6AP36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lanq=en&mlfb=3RT1076-6AP36

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1076-6AP36

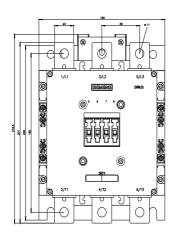
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

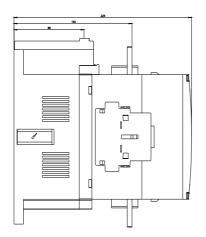
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1076-6AP36&lang=en

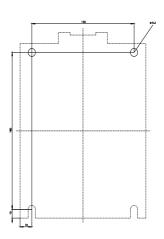
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT1076-6AP36/char

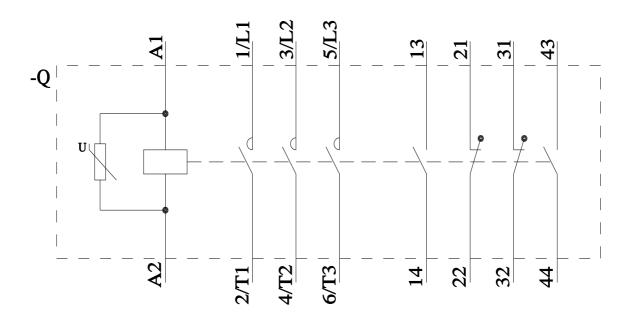
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1076-6AP36&objecttype=14&gridview=view1









last modified:

7/19/2024

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