Data sheet 3RT1075-6SF36-3PA0



power contactor, AC-3e/AC-3 400 A, 200 kW / 400 V AC (50-60 Hz) / DC 96-127 V x (0.8-1.1) F-PLC input 24 V DC 3-pole, auxiliary contacts 2 NO + 2 NC permanently mounted drive: electronic main circuit: busbar control and auxiliary circuit: screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
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 	105 W
 at AC in hot operating state per pole 	35 W
 without load current share typical 	3.6 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)	03/01/2017
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 %

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 	430 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	430 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	400 A
— up to 1000 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	200 A
— up to 1000 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	200 A
• at AC-3	
— at 400 V rated value	400 A
— at 500 V rated value	400 A
— at 690 V rated value	400 A
— at 1000 V rated value	180 A
• at AC-3e	
— at 400 V rated value	400 A
— at 500 V rated value	400 A
— at 690 V rated value	400 A
— at 1000 V rated value	180 A
• at AC-4 at 400 V rated value	350 A
• at AC-5a up to 690 V rated value	378 A
at AC-5b up to 400 V rated value	332 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	395 A
— up to 400 V for current peak value n=20 rated value	395 A
— up to 500 V for current peak value n=20 rated value	395 A
— up to 690 V for current peak value n=20 rated value	395 A
— up to 1000 V for current peak value n=20 rated	180 A
value	
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	264 A
— up to 400 V for current peak value n=30 rated value	264 A
— up to 500 V for current peak value n=30 rated value	264 A
— up to 690 V for current peak value n=30 rated value	264 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	300 mm ²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	150 A
• at 690 V rated value	135 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	400 A
— at 60 V rated value	330 A
— at 110 V rated value	33 A
— 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	
= cancert passe in contoc at Do-1	
— at 24 V rated value	400 A
— at 24 V rated value — at 60 V rated value	400 A 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 	
— 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 110 V rated value	3 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-2 at 400 V rated value 	200 kW
• at AC-3	
— at 230 V rated value	132 kW
— at 400 V rated value	200 kW
— at 500 V rated value	250 kW
— at 690 V rated value	400 kW
— at 1000 V rated value	250 kW
• at AC-3e	
— at 230 V rated value	132 kW
— at 400 V rated value	200 kW
— at 500 V rated value	250 kW
— at 690 V rated value	400 kW
— at 1000 V rated value	250 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	85 kW
at 690 V rated value	133 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	150 000 kVA
• up to 400 V for current peak value n=20 rated value	270 000 VA
• up to 500 V for current peak value n=20 rated value	340 000 VA
• up to 690 V for current peak value n=20 rated value	470 000 VA
• up to 1000 V for current peak value n=20 rated value	310 000 VA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	100 000 VA
• up to 400 V for current peak value n=30 rated value	180 000 VA
• up to 500 V for current peak value n=30 rated value	220 000 VA
• up to 690 V for current peak value n=30 rated value	310 000 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	
Ilmited to 1 s switching at zero current maximum	6 600 A; Use minimum cross-section acc. to AC-1 rated value
-	5 761 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum 	4 143 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 10's switching at zero current maximum Ilmited to 30's switching at zero current maximum	2 635 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 50's switching at zero current maximum Ilmited to 60's switching at zero current maximum	2 088 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	2 000 A, OSE MINIMUM CIOSS-SECTION ACC. TO AC-1 rated value
• at AC	500 1/h
• at DC	500 1/h
operating frequency	300 1/11
• at AC-1 maximum	200 1/h
• at AC-1 maximum	200 1/h
at AC-2 maximum at AC-3 maximum	200 1/h
at AC-3 maximum at AC-3e maximum	200 1/h
at AC-3e maximum at AC-4 maximum	130 1/h
Control circuit/ Control	130 1/11
	AO/DO
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	06 107.1/
• at 50 Hz rated value	96 127 V
at 60 Hz rated value control supply voltage at DC	96 127 V
control supply voltage at DC • rated value	96 127 V
	90 127 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 1
consumed current at PLC-control input according to IEC 60947-1 maximum	14 mA
voltage at PLC-control input rated value	24 V
operating range factor of the voltage at PLC-control input	0.8 1.1
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
● at 50 Hz	750 VA
• at 60 Hz	750 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.8
● at 60 Hz	0.8
apparent holding power of magnet coil at AC	
● at 50 Hz	9 VA
● at 60 Hz	9 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.4
● at 60 Hz	0.4
closing power of magnet coil at DC	800 W
holding power of magnet coil at DC	3.6 W
closing delay	
• at AC	60 75 ms
• at DC	60 75 ms
opening delay	
• at AC	115 130 ms
• at DC	115 130 ms
recovery time after power failure typical	2 s
arcing time	10 15 ms
control version of the switch operating mechanism	Fail-safe PLC input (F-PLC-IN)
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	2

contact	
number of NO contacts for auxiliary contacts instantaneous	2
contact	
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	361 A
at 600 V rated value	382 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 200/208 V rated value	125 hp
— at 220/230 V rated value	150 hp
— at 460/480 V rated value	300 hp
— at 575/600 V rated value	400 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit with the professional description of the main circuit.	~O. 000 A (000 \ A00 \ A0
— 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: 400 A (690 V, 50 kA), BS88: 450 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	screw fixing
• side-by-side mounting	Yes
height	214 mm
width	160 mm
depth	225 mm
required spacing	
with side-by-side mounting	20
— forwards	20 mm
— forwards — upwards	10 mm
forwardsupwardsdownwards	10 mm 10 mm
forwardsupwardsdownwardsat the side	10 mm
 forwards upwards downwards at the side for grounded parts 	10 mm 10 mm 0 mm
forwardsupwardsdownwardsat the side	10 mm 10 mm

at the cide	10
— 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	ZA (20 10), ZA (10 14), 1A 1Z
section	
for auxiliary contacts	18 14
for auxiliary contacts Safety related data	18 14
·	18 14
Safety related data	18 14 Yes
Safety related data product function	
Safety related data product function • mirror contact according to IEC 60947-4-1	Yes
Product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1	Yes No
Product function mirror contact according to IEC 60947-4-1 positively driven operation according to IEC 60947-5-1 safety device type according to IEC 61508-2	Yes No Type B
product function	Yes No Type B 1 000 000
product function	Yes No Type B 1 000 000
product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 safety device type according to IEC 61508-2 B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508 SIL Claim Limit (subsystem) according to EN 62061	Yes No Type B 1 000 000 2
product function	Yes No Type B 1 000 000 2 2
product function	Yes No Type B 1 000 000 2 2 C 2
product function	Yes No Type B 1 000 000 2 2 c c
product function	Yes No Type B 1 000 000 2 2 2 0 0 93 % 100 FIT
product function	Yes No Type B 1 000 000 2 2 2 0 0 93 % 100 FIT 4.5E-7 1/h
product function	Yes No Type B 1 000 000 2 2 C C 0 93 % 100 FIT 4.5E-7 1/h 0.007
product function	Yes No Type B 1 000 000 2 2 C C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a
product function	Yes No Type B 1 000 000 2 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0
product function	Yes No Type B 1 000 000 2 2 C C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a
product function	Yes No Type B 1 000 000 2 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0
product function	Yes No Type B 1 000 000 2 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0 20 a
product function	Yes No Type B 1 000 000 2 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0 20 a IP00; IP20 with box terminal/cover
product function	Yes No Type B 1 000 000 2 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0 20 a IP00; IP20 with box terminal/cover
product function	Yes No Type B 1 000 000 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0 20 a IP00; IP20 with box terminal/cover finger-safe, for vertical contact from the front with box terminal/cover
product function	Yes No Type B 1 000 000 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0 20 a IP00; IP20 with box terminal/cover finger-safe, for vertical contact from the front with box terminal/cover
product function	Yes No Type B 1 000 000 2 2 C 2 0 93 % 100 FIT 4.5E-7 1/h 0.007 75 a 0 20 a IP00; IP20 with box terminal/cover finger-safe, for vertical contact from the front with box terminal/cover



Confirmation









Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates

other

Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

Confirmation

other

Railway

Miscellaneous

Miscellaneous

Special Test Certific-

<u>ate</u>

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=3RT1075-6SF36-3PA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1075-6SF36-3PA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1075-6SF36-3PA0

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

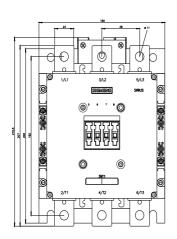
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1075-6SF36-3PA0&lang=en

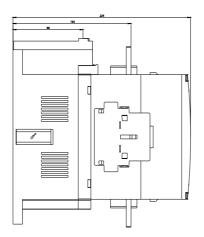
Characteristic: Tripping characteristics, I2t, Let-through current

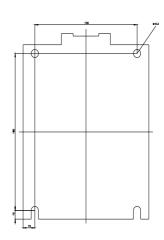
https://support.industry.siemens.com/cs/ww/en/ps/3RT1075-6SF36-3PA0/char

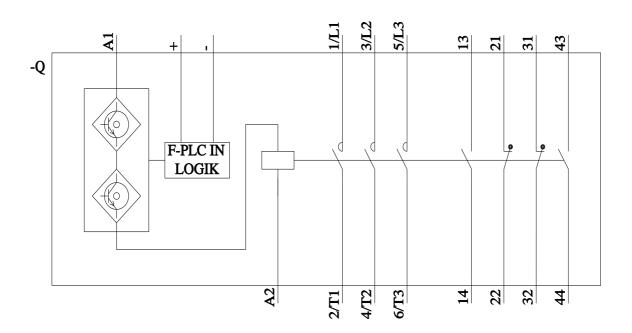
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1075-6SF36-3PA0&objecttype=14&gridview=view1









last modified:

2/10/2023

