SIEMENS

Data sheet 3RT1065-6PF35



power contactor, AC-3e/AC-3 265 A, 132 kW / 400 V AC (50-60 Hz) / DC Uc: 96-127 V PLC input 24 V DC 3-pole, auxiliary contacts 1 NO + 1 NC drive: electronic main circuit: busbar control and auxiliary circuit: screw terminal with remaining lifetime indicator

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
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 	54 W
 at AC in hot operating state per pole 	18 W
 without load current share typical 	3.4 W
type of calculation of power loss depending on pole	quadratic
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	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 Perfluorobutane sulfonic acid (PFBS) and its salts
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
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 °C rated value 	330 A
— up to 690 V at ambient temperature 60 °C rated value	300 A
— up to 1000 V at ambient temperature 40 °C rated value	150 A
— up to 1000 V at ambient temperature 60 °C rated value	150 A
• at AC-3	265 A
— at 400 V rated value	265 A
— at 500 V rated value — at 690 V rated value	265 A 265 A
— at 1000 V rated value • at AC-3e	95 A
— at 400 V rated value	265 A
— at 500 V rated value	265 A
— at 690 V rated value	265 A
— at 1000 V rated value	95 A
at AC-4 at 400 V rated value	230 A
at AC-5a up to 690 V rated value	290 A
at AC-5b up to 400 V rated value	219 A
• at AC-6a	2107
— up to 230 V for current peak value n=20 rated value	265 A
— up to 400 V for current peak value n=20 rated value	265 A
— up to 500 V for current peak value n=20 rated value	265 A
— up to 690 V for current peak value n=20 rated value	265 A
— up to 1000 V for current peak value n=20 rated	95 A
value	
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	184 A
— up to 400 V for current peak value n=30 rated value	184 A
— up to 500 V for current peak value n=30 rated value	184 A
— up to 690 V for current peak value n=30 rated value	184 A
— up to 1000 V for current peak value n=30 rated value	95 A
minimum cross-section in main circuit at maximum AC-1 rated value	185 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	117 A
at 690 V rated value	105 A
operational current	
• at 1 current path at DC-1	000 A
— at 24 V rated value	300 A
— at 60 V rated value	300 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	

— at 24 V rated value	300 A
— at 60 V rated value	300 A
— at 110 V rated value	300 A
— at 220 V rated value	300 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	300 A
— at 60 V rated value	300 A
— at 110 V rated value	300 A
— at 220 V rated value	300 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	300 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	300 A
— at 60 V rated value	300 A
— at 110 V rated value	300 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	300 A
— at 60 V rated value	300 A
— at 110 V rated value	300 A
— at 220 V rated value	300 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	75 kW
— at 400 V rated value	132 kW
— at 500 V rated value	160 kW
— at 690 V rated value	250 kW
— at 1000 V rated value	132 kW
• at AC-3e	
— at 230 V rated value	75 kW
— at 400 V rated value	132 kW
— at 500 V rated value	160 kW
— at 690 V rated value	250 kW
— at 1000 V rated value	132 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	66 kW
at 690 V rated value	102 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	100 000 kVA
 up to 400 V for current peak value n=20 rated value 	180 000 VA
• up to 500 V for current peak value n=20 rated value	220 000 VA
• up to 690 V for current peak value n=20 rated value	310 000 VA
• up to 1000 V for current peak value n=20 rated value	160 000 VA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	70 000 VA
• up to 400 V for current peak value n=30 rated value	120 000 VA
• up to 500 V for current peak value n=30 rated value	150 000 VA

• up to 690 V for current peak value n=30 rated value	220 000 VA
• up to 1000 V for current peak value n=30 rated value	160 000 VA
short-time withstand current in cold operating state up to	
40 °C	
 limited to 1 s switching at zero current maximum 	4 880 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	4 045 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	2 785 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	1 664 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	1 276 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	1 000 1/h
• at DC	1 000 1/h
operating frequency	
at AC-1 maximum	800 1/h
at AC-2 maximum	250 1/h
• at AC-3 maximum	500 1/h
at AC-3e maximum	500 1/h
at AC-3e maximum at AC-4 maximum	130 1/h
	130 1/11
Control circuit/ Control	AOIDO
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	20 mA
60947-1 maximum	
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	
 at minimum rated control supply voltage at AC 	
— at 50 Hz	400 VA
— at 60 Hz	400 VA
• at maximum rated control supply voltage at AC	
— at 60 Hz	530 VA
— at 50 Hz	530 VA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	530 VA
• at 60 Hz	530 VA
inductive power factor with closing power of the coil	
at 50 Hz	0.8
• at 50 Hz	0.8
	0.0
apparent holding power	201/4
at minimum rated control supply voltage at DC	2.8 VA
at maximum rated control supply voltage at DC	3.4 VA
apparent holding power	
 at minimum rated control supply voltage at AC 	
— at 50 Hz	5.5 VA
— at 60 Hz	5.5 VA
 at maximum rated control supply voltage at AC 	
— at 50 Hz	8.5 VA
— at 60 Hz	8.5 VA

inductive never factor with the holding never of the coil	
inductive power factor with the holding power of the coil	0.5
• at 50 Hz	0.5
• at 60 Hz	0.4
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 instantaneous contact	1
number of NO contacts for auxiliary contacts instantaneous contact	1
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	240 A
at 600 V rated value	242 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 200/208 V rated value	75 hp
— at 220/230 V rated value	100 hp
— at 460/480 V rated value	200 hp
— at 575/600 V rated value	250 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 1. (200.) (
— with type of coordination 1 required	gG: 500 A (690 V, 100 kA)
 — with type of assignment 2 required 	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
for short-circuit protection of the auxiliary switch required for short-circuit protection of the RLT relay output	miniature fuse: 4 A FF (230 V, Ik= 400 A)
required	11111111111111111111111111111111111111
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
	210 mm
height width	165 mm
depth	202 mm
required spacing	202 (1)
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with side-by-side mounting — forwards	20 mm
— upwards	10 mm
— dpwards	10 mm
— at the side	0 mm
• for grounded parts	O THILL
— 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
type of connectable conductor cross-sections	
for AWG cables for main contacts	2/0 500 kcmil
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	4044
for auxiliary contacts	18 14
Safety related data	
product function	V
mirror contact according to IEC 60947-4-1 machine to deliver a proportion according to IEC 60047-5-4. The second contact according to IEC 60047-5-4. The second contact according to IEC 60047-4-1. The second contact according to IEC 60047-4-1.	Yes
positively driven operation according to IEC 60947-5-1	No V
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	40.0/
with low demand rate according to SN 31920 with high demand rate according to SN 24030	40 %
with high demand rate according to SN 31920 P40 value with high demand rate according to SN 34930	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN	100 FIT

31920	
ISO 13849	
	2
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
T1 value	
 for proof test interval or service life according to IEC 61508 	20 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





<u>KC</u>

General Product Approval

EMV

Functional Saftey

Test Certificates

Marine / Shipping





Type Examination Certificate

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

Type Test Certificates/Test Report



Marine / Shipping









Miscellaneous

other

Confirmation

Railway other **Environment**

Miscellaneous Confirmation **Special Test Certific-Environmental Con-**<u>ate</u> **firmations**

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=3RT1065-6PF35

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT1065-6PF35}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1065-6PF35

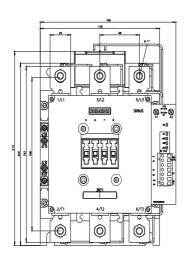
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

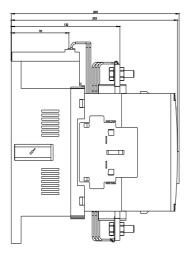
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1065-6PF35&lang=en

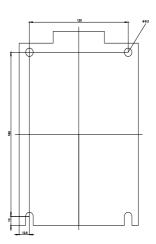
Characteristic: Tripping characteristics, I2t, Let-through current

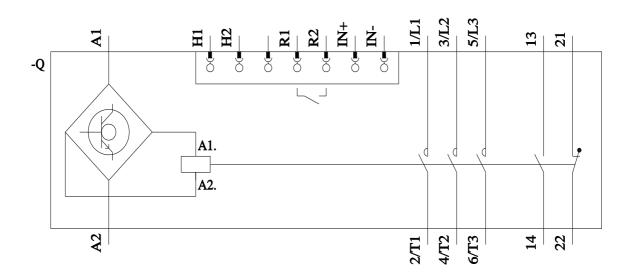
https://support.industry.siemens.com/cs/ww/en/ps/3RT1065-6PF35/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1065-6PF35&objecttype=14&gridview=view1









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