SIEMENS

Data sheet

3RT2015-2AP02-1AA0



power contactor, AC-3e/AC-3, 7 A, 3 kW / 400 V, 3-pole, 230 V AC, 50/60 Hz, auxiliary contacts: 1 NC, spring-loaded terminal, size: S00, upright mounting position

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
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	0.6 W
 at AC in hot operating state per pole 	0.2 W
 without load current share typical 	1.1 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
 of main circuit rated value 	6 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	30 000 000
 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)	10/01/2009
Weight	0.26 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	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	39.6 kg
global warming potential [CO2 eq] during manufacturing	1.18 kg
global warming potential [CO2 eq] during operation	38.5 kg
global warming potential [CO2 eq] after end of life	-0.155 kg
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 	690 V
 at AC-3e rated value maximum 	690 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 	18 A
— up to 690 V at ambient temperature 40 °C rated value	18 A
— up to 690 V at ambient temperature 60 °C rated value	16 A
• at AC-3	
— at 400 V rated value	7 A
— at 500 V rated value	6 A
- at 690 V rated value	4.9 A
• at AC-3e	7 A
— at 400 V rated value — at 500 V rated value	6 A
— at 690 V rated value	4.9 A
 at 650 v rated value at AC-4 at 400 V rated value 	6.5 A
 at AC-5a up to 690 V rated value 	15.8 A
• at AC-5b up to 400 V rated value	5.8 A
● at AC-6a	
— up to 230 V for current peak value n=20 rated value	4 A
— up to 400 V for current peak value n=20 rated value	4 A
— up to 500 V for current peak value n=20 rated value	3.8 A
— up to 690 V for current peak value n=20 rated value	3.6 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	2.7 A
— up to 400 V for current peak value n=30 rated value	2.7 A
— up to 500 V for current peak value n=30 rated value	2.5 A
up to 690 V for current peak value n=30 rated value minimum cross-section in main circuit at maximum AC-1 rated	2.4 A 2.5 mm ²
value	
operational current for approx. 200000 operating cycles at AC-4	264
 at 400 V rated value at 690 V rated value 	2.6 A 1.8 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 110 V rated value	1.5 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.42 A
— at 600 V rated value	0.42 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 110 V rated value	8.4 A
— at 220 V rated value	1.2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.5 A

a with 2 autrent notion in carico at DC 1	
with 3 current paths in series at DC-1 — at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 100 V rated value	15 A
— at 220 V rated value	15 A
— at 440 V rated value	0.9 A
— at 600 V rated value	0.7 A
• at 1 current path at DC-3 at DC-5	0.7 A
- at 24 V rated value	15 A
— at 60 V rated value	0.35 A
— at 100 V rated value	0.15 A
with 2 current paths in series at DC-3 at DC-5	0.1 A
- at 24 V rated value	15 A
— at 60 V rated value	3.5 A
— at 110 V rated value	0.25 A
• with 3 current paths in series at DC-3 at DC-5	0.23 A
— at 24 V rated value	15 A
— at 60 V rated value	15 A
— at 110 V rated value	15 A
— at 220 V rated value	1.2 A
— at 440 V rated value	0.14 A
— at 600 V rated value	0.14 A
operating power	0.177
• at AC-2 at 400 V rated value	3 kW
• at AC-3	
— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 kW
• at AC-3e	
— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	1.15 kW
at 690 V rated value	1.15 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	1.5 kVA
 up to 400 V for current peak value n=20 rated value 	2.7 kVA
• up to 500 V for current peak value n=20 rated value	3.3 kVA
• up to 690 V for current peak value n=20 rated value	4.3 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	1 kVA
• up to 400 V for current peak value n=30 rated value	1.8 kVA
• up to 500 V for current peak value n=30 rated value	2.2 kVA
up to 690 V for current peak value n=30 rated value	2.9 kVA
short-time withstand current in cold operating state up to 40 °C	
Imited to 1 s switching at zero current maximum	120 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 5 s switching at zero current maximum	86 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 10 s switching at zero current maximum	67 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 30 s switching at zero current maximum	52 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 60 s switching at zero current maximum	43 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	40.000.4/h
• at AC	10 000 1/h
operating frequency	1 000 1/b
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h 750 1/h
• at AC-3 maximum	750 1/h

- at AC 2a maximum	750.4%
• 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
control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	230 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	27 VA
• at 60 Hz	24.3 VA
inductive power factor with closing power of the coil	
at 50 Hz	0.8
• at 50 Hz	0.75
apparent holding power of magnet coil at AC	0.10
apparent holding power of magnet coll at AC • at 50 Hz	4.2 VA
• at 50 Hz • at 60 Hz	4.2 VA 3.3 VA
	0.0 VA
inductive power factor with the holding power of the coil	0.05
• at 50 Hz	0.25
• at 60 Hz	0.25
closing delay	
• at AC	9 35 ms
opening delay	
• at AC	4 15 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	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
	<u></u>
 at 500 V rated value 	2 A
at 500 V rated valueat 690 V rated value	2 A 1 A
• at 690 V rated value	
at 690 V rated value operational current at DC-12	1 A
at 690 V rated value operational current at DC-12 • at 24 V rated value	1 A 10 A
at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value	1 A 10 A 6 A
at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value	1 A 10 A 6 A 6 A
at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value	1 A 10 A 6 A 6 A 3 A
at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value	1 A 10 A 6 A 6 A 3 A 2 A 1 A
at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value	1 A 10 A 6 A 6 A 3 A 2 A
at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value	1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 220 V rated value	1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A
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at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 48 V rated value at 24 V rated value at 20 V rated value	1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 1 A 0.15 A
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 at 690 V rated value operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value operational current at DC-13 at 24 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 22 V rated value at 24 V rated value at 60 V rated value at 24 V rated value at 25 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 480 V rated value 	1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 1 A 0.15 A 10 A 2 A 1 A 0.15 A 10 A 2 A 1 A 0.15 A 14 0.15 A 15 14 0.15 A 14 0.15 A 14 0.15 A 14 0.15 A 14 0.15 A 14 0.15 A 14 0.15 A 15 14 15 15 15 15 15 15 15 15 15 15
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— at 110/120 V rated value	0.25 hp
— at 230 V rated value	0.75 hp
• for 3-phase AC motor	
— at 200/208 V rated value	1.5 hp
- at 220/230 V rated value	2 hp
— at 460/480 V rated value	3 hp
- at 575/600 V rated value	5 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the miniature circuit breaker for short-circuit protection	C characteristic: 10 A; 0.4 kA
of the auxiliary circuit up to 230 V design of the fuse link	
for short-circuit protection of the main circuit	
- with type of coordination 1 required	gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
 — with type of assignment 2 required a for abort aircuit protoction of the quiviliant quitteb required 	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	standing on berizontal mounting outface
mounting position	standing, on horizontal mounting surface
fastening method side-by-side mounting	Yes
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	70 mm
width	45 mm
depth	73 mm
required spacing	
with side-by-side mounting	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
 for grounded parts 	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
 for live parts 	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
 for main current circuit 	spring-loaded terminals
 for auxiliary and control circuit 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections	
 for main contacts 	
— solid	2x (0.5 4 mm ²)
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 for AWG cables for main contacts 	2x (20 12)
connectable conductor cross-section for main contacts	
• solid	0.5 4 mm²
stranded	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm²
 finely stranded without core end processing 	0.5 2.5 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
 finely stranded without core end processing 	0.5 2.5 mm²
· · · ·	

type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0,5 4 mm²)
 — finely stranded with core end processing 	2x (0.5 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 2.5 mm ²)
for AWG cables for auxiliary contacts	2x (20 12)
AWG number as coded connectable conductor cross section	
 for main contacts 	20 12
 for auxiliary contacts 	20 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
 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 %
 with high demand rate according to SN 31920 	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
ISO 13849	
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	Туре А
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Approvals Certificates	.
General Product Approval	
Confirmation UK	EG-Konf. UL
General Product Approval EMV Test Certificate	es Marine / Shipping
ERIC RCM Special Test Ce ate	ertific- <u>Type Test Certific-</u> ates/Test Report

Marine / Shipping







other

Miscellaneous



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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=3RT2015-2AP02-1AA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2015-2AP02-1AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-2AP02-1AA0

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

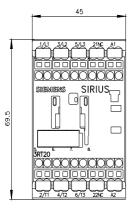
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-2AP02-1AA0&lang=en

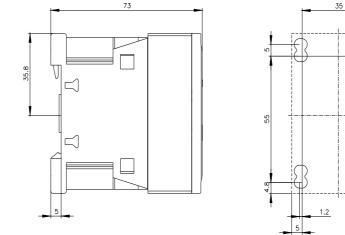
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-2AP02-1AA0/char

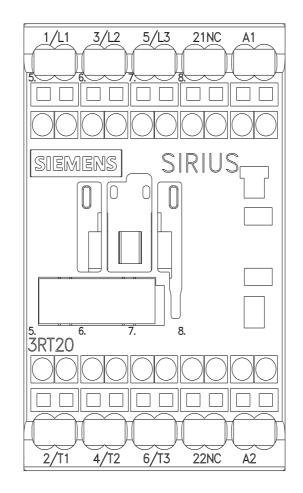
Further characteristics (e.g. electrical endurance, switching frequency)

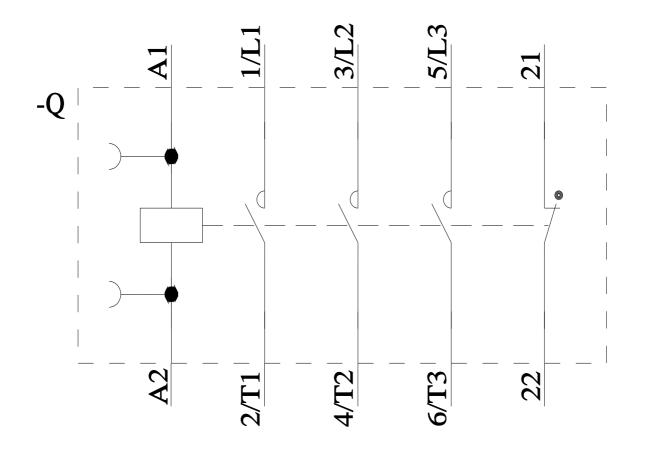
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