SIEMENS

Data sheet 3RT2037-3AB00

power contactor, AC-3e/AC-3, 65 A, 30 kW / 400 V, 3-pole, 24 V AC, 50 Hz,

	auxiliary contacts: 1 NO + 1 NC, main circuit: screw terminal, control and auxiliary circuit: spring-loaded terminal, size: S2
product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	JINIZ
size of contactor	S2
	52
product extension • function module for communication	Na
	No Voc
auxiliary switch	Yes
power loss [W] for rated value of the current	44.434
at AC in hot operating state	11.4 W
at AC in hot operating state per pole	3.8 W
without load current share typical	16 W
insulation voltage	000.4
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	11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 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)	10/01/2014
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	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 	80 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	80 A
— up to 690 V at ambient temperature 60 °C rated	70 A

value	
• at AC-3	
— at 400 V rated value	65 A
— at 500 V rated value	65 A
— at 690 V rated value	47 A
• at AC-3e	
— at 400 V rated value	65 A
— at 500 V rated value	65 A
— at 690 V rated value	47 A
 at AC-4 at 400 V rated value 	55 A
 at AC-5a up to 690 V rated value 	70.4 A
 at AC-5b up to 400 V rated value 	53.9 A
• at AC-6a	
 up to 230 V for current peak value n=20 rated value 	56.9 A
 up to 400 V for current peak value n=20 rated value 	56.9 A
 up to 500 V for current peak value n=20 rated value 	56.9 A
— up to 690 V for current peak value n=20 rated value	47 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	38 A
— up to 400 V for current peak value n=30 rated value	38 A
— up to 500 V for current peak value n=30 rated value	38 A
— up to 690 V for current peak value n=30 rated value	38 A
minimum cross-section in main circuit at maximum AC-1 rated value	25 mm²
operational current for approx. 200000 operating cycles at	
AC-4	
• at 400 V rated value	28 A
at 690 V rated value	22 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	23 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	45 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1.4
— at 440 V rated value	0.1 A
	0.06 A
— at 600 V rated value	0.00 A
• with 2 current paths in series at DC-3 at DC-5	
• with 2 current paths in series at DC-3 at DC-5 — at 24 V rated value	55 A
 with 2 current paths in series at DC-3 at DC-5 — at 24 V rated value — at 60 V rated value 	55 A 45 A
• with 2 current paths in series at DC-3 at DC-5 — at 24 V rated value	55 A

— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
at AC-2 at 400 V rated value	30 kW
• at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	37 kW
• at AC-3e	OF RW
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 500 V rated value — at 690 V rated value	37 kW
	O! NVV
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	14.7 kW
at 690 V rated value	20 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	22.6 kVA
• up to 400 V for current peak value n=20 rated value	39.4 kVA
up to 500 V for current peak value n=20 rated value	49.2 kVA
• up to 690 V for current peak value n=20 rated value	56.1 kVA
operating apparent power at AC-6a	00.1 (07)
up to 230 V for current peak value n=30 rated value	15.1 kVA
• up to 400 V for current peak value n=30 rated value	26.2 kVA
	32.8 kVA
up to 500 V for current peak value n=30 rated value	
up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to	45.3 kVA
40 °C	
 limited to 1 s switching at zero current maximum 	1 055 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	730 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	520 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	336 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	272 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	, Job himmen 5.555 5500011 door to 110 11 rated value
• at AC	5 000 1/h
operating frequency	V 000 1111
at AC-1 maximum	800 1/h
at AC-1 maximum at AC-2 maximum	
	400 1/h
at AC 3a maximum	700 1/h
at AC-3e maximum at AC-4 maximum	700 1/h
at AC-4 maximum Control circuit/ Control	200 1/h
Control circuit/ Control	10
type of voltage of the control supply voltage	AC
control supply voltage at AC	OLV.
at 50 Hz rated value	24 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	190 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.72
apparent holding power of magnet coil at AC	

- of E0 I I=	16 VA
• at 50 Hz	10 VA
inductive power factor with the holding power of the coil	0.07
• at 50 Hz	0.37
closing delay	40 00
• at AC	10 80 ms
opening delay	40 40
• at AC	10 18 ms
arcing time	10 20 ms Standard A1 - A2
control version of the switch operating mechanism Auxiliary circuit	Standard AT - AZ
	1
number of NC contacts for auxiliary contacts instantaneous contact	!
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	10 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	65 A
at 600 V rated value	52 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	5 hp
— at 230 V rated value	10 hp
• for 3-phase AC motor	
— at 200/208 V rated value	20 hp
— at 220/230 V rated value	20 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	50 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
design of the fuse link	
design of the fuse link • for short-circuit protection of the main circuit	
 for short-circuit protection of the main circuit — with type of coordination 1 required 	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)
for short-circuit protection of the main circuit	
 for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required for short-circuit protection of the auxiliary switch required 	kA)
 for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required 	kA) gG: 125A (690V,100kA), aM: 63A (690V,100kA), BS88: 100A (415V,80kA)
 for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required for short-circuit protection of the auxiliary switch required 	kA) gG: 125A (690V,100kA), aM: 63A (690V,100kA), BS88: 100A (415V,80kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and
for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	kA) gG: 125A (690V,100kA), aM: 63A (690V,100kA), BS88: 100A (415V,80kA) gG: 10 A (500 V, 1 kA)

side-by-side mounting	Yes
height	114 mm
width	55 mm
depth	130 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	screw-type 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 or stranded 	2x (1 35 mm²), 1x (1 50 mm²)
finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
connectable conductor cross-section for main contacts	
finely stranded with core end processing	1 35 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 2.5 mm²
 finely stranded with core end processing 	0.5 1.5 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 2.5 mm²)
— finely stranded with core end processing	2x (0.5 1.5 mm²)
— finely stranded without core end processing	2x (0.5 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 14)
AWG number as coded connectable conductor cross section	
• for main contacts	18 1
for auxiliary contacts	20 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
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
with low demand rate according to SN 31920	40 %
with high demand rate according to SN 31920	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
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	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
 safety-related switching OFF 	Yes
Certificates/ approvals	



Confirmation





<u>KC</u>



Functional
Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping





Confirmation









Marine / Shipping

other

Railway

Dangerous Good

Environment



Confirmation

Vibration and Shock

Transport Information

Environmental Confirmations

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=3RT2037-3AB00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2037-3AB00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2037-3AB00

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

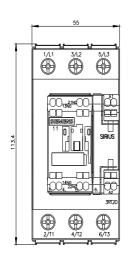
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2037-3AB00&lang=en

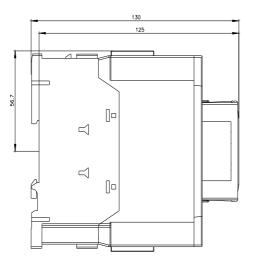
Characteristic: Tripping characteristics, I²t, Let-through current

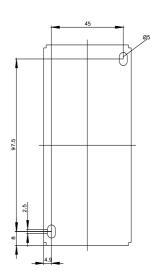
https://support.industry.siemens.com/cs/ww/en/ps/3RT2037-3AB00/char

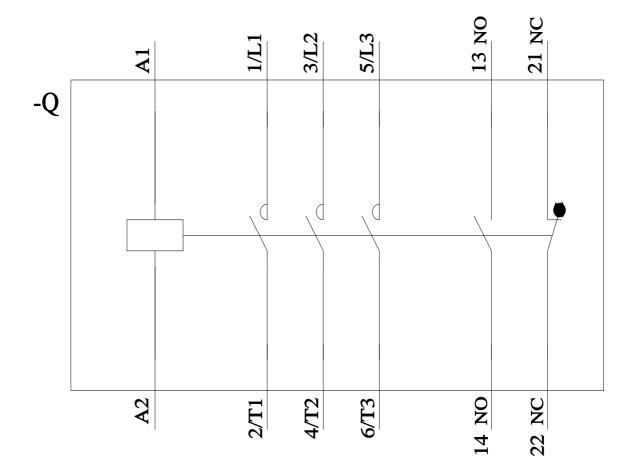
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2037-3AB00&objecttype=14&gridview=view1









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