SIEMENS

Data sheet 3RT2037-3SB30



power contactor, AC-3e/AC-3, 65 A, 30 kW / 400 V, 3-pole, 21-33 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NC, main circuit: screw terminal, control and auxiliary circuit: spring-loaded terminal, size: S2, F-PLC-IN

product brand name	SIRIUS	
product designation	Power contactor	
product type designation	3RT2	
eneral technical data		
size of contactor	S2	
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 	11.4 W	
 at AC in hot operating state per pole 	3.8 W	
 without load current share typical 	1.6 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	7.7g / 5 ms, 4.5g / 10 ms	
• at DC	7.7g / 5 ms, 4.5g / 10 ms	
shock resistance with sine pulse		
• at AC	12g / 5 ms, 7g / 10 ms	
• at DC	12g / 5 ms, 7g / 10 ms	
mechanical service life (operating cycles)		
of contactor typical	5 000 000	
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000	
of the contactor with added auxiliary switch block typical	5 000 000	
reference code according to IEC 81346-2	Q	
Substance Prohibitance (Date)	01/29/2021	
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	
Weight	1.2 kg	
mbient 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 at AC-1 	80 A
— up to 690 V at ambient temperature 40 °C rated value	80 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	70 A
• 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	1A
— 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 A		
— at 440 V rated value	0.1 A		
— at 600 V rated value	0.06 A		
 with 2 current paths in series at DC-3 at DC-5 			
— at 24 V rated value	55 A		
— at 60 V rated value	45 A		
— at 110 V rated value	25 A		
— at 220 V rated value	5 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			
— 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		
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 400 V for current peak value n=20 rated value	39 400 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	49 200 VA		
up to 690 V for current peak value n=20 rated value	56 100 VA		
operating apparent power at AC-6a			
up to 230 V for current peak value n=30 rated value	15 100 VA		
up to 400 V for current peak value n=30 rated value	26 200 VA		
up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value	32 800 VA		
up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value	45 300 VA		
short-time withstand current in cold operating state up to			
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			
• 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	400 1/h
• at AC-3 maximum	700 1/h
• at AC-3e maximum	700 1/h
at AC-4 maximum	200 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	21 33 V
at 60 Hz rated value	21 33 V
control supply voltage at DC rated value	21 33 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	11 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
inrush current peak	2.2 A
duration of inrush current peak	100 μs
locked-rotor current mean value	1.6 A
locked-rotor current peak	2.6 A
duration of locked-rotor current	230 ms
holding current mean value	0.075 A
apparent pick-up power of magnet coil at AC	40.1/4
• at 50 Hz	40 VA
at 60 Hz apparent holding newer	40 VA
apparent holding power	2 VA
 at minimum rated control supply voltage at DC at maximum rated control supply voltage at DC 	2 VA
at maximum rated control supply voltage at DC apparent holding power	2 VA
at minimum rated control supply voltage at AC	
— at 50 Hz	2 VA
— at 50 Hz — at 60 Hz	2 VA
at maximum rated control supply voltage at AC	
— at 50 Hz	2 VA
— at 60 Hz	2 VA
apparent holding power of magnet coil at AC	
• at 50 Hz	2 VA
• at 60 Hz	2 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.95
• at 60 Hz	0.95
closing power of magnet coil at DC	40 W
holding power of magnet coil at DC	1.6 W
closing delay	
• at AC	35 110 ms
• at DC	35 110 ms
opening delay	
• at AC	30 55 ms
• at DC	30 55 ms
recovery time after power failure typical	2.1 s
arcing time	10 20 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	1	
contact		
number of NO contacts for auxiliary contacts instantaneous contact	0	
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	1A	
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 at 600 V rated value	52 A	
yielded mechanical performance [hp]	32 A	
• 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	10 110	
— 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 miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V	C characteristic: 10 A; 0.4 kA	
design of the fuse link		
• 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)	
— with type of assignment 2 required	gG: 125A (690V,100kA), aM: 63A (690V,100kA), BS88: 100A (415V,80kA)	
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)	
Installation/ mounting/ dimensions		
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical 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	114 mm	
width	55 mm	
depth	130 mm	
us accional amagina		
required spacing		
with side-by-side mounting forwards	10 mm	

- clubrants 10 mm	ada	40	
- at the side	— upwards	10 mm	
• for grounded parts			
forwards		0 mm	
- upwards 6 6 mm 6 10 mm 7 10 mm 1			
at the side downwards 10 mm 10	— forwards	10 mm	
- downwards - for live parts - for wards - upwards - upwards - upwards - downwards - downwards - downwards - of mm - at the side - form - at the side - forman contract circuit - spring-joaded terminals - spring-joaded terminals - spring-joaded terminals - spring-joaded terminals - forman contacts - forman contacts - solid or stranded - finely stranded with core end processing - forman contacts - finely stranded with core end processing - finely stranded with core	— upwards	10 mm	
for live parts — Lorwards — Lorwards — Lorwards — Lowmwards — at the side — at the side — at the side — and the si	— at the side	6 mm	
flowards upwards 10 mm 10 m	— downwards	10 mm	
- upwards - downwards - at the side - downwards - at the side - downwards - at the side - final - downwards - at the side - final - downwards - final connection - (or main current circuit - (or main contacts - (or ward contactor cross-section for main contacts - (or ward contactor cross-sections - (or ward contactor cross-sections - (or on contactable conductor cross-sections - (or on contactable conductor cross-sections - (or on contactable conductor cross-sections - (or main contacts - (or ma	 for live parts 		
- downwards — at the side — 6 mm Connectional Fornimals type of electrical connection • for auxiliary and control circuit spring-loaded terminals • for auxiliary and control circuit spring-loaded terminals • for doubt contacts or auxiliary contacts • of magnet coil Spring-type terminals • for main contacts — solid or stranded — finely stranded with core end processing • for Marco Connectable conductor cross-sections or in the strander of the strander	— forwards	10 mm	
	— upwards	10 mm	
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PFHD with high demand rate according to IEC 62061 7.7E-8 1/h		011.0	
ISO 13849		7.7E-8 1/h	
	ISO 13849		

performance level (PL) according to ISO 13849-1	PL c
category according to ISO 13849-1	2
device type according to ISO 13849-1	1
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
Safety Integrity Level (SIL) according to IEC 61508	2
safety device type according to IEC 61508-2	Type B
PFHD with high demand rate according to IEC 61508	7.7E-8 1/h
PFDavg with low demand rate according to IEC 61508	0.0067
Safe failure fraction (SFF)	96 %
hardware fault tolerance according to IEC 61508	0
T1 value of service life according to IEC 61508	20 a
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



<u>KC</u>

General Product Approval

EMV

Functional Saftey

Test Certificates

Marine / Shipping





Type Examination Certificate

Type Test Certificates/Test Report





Marine / Shipping

Railway

Environment







Confirmation

other

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

Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens

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=3RT2037-3SB30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2037-3SB30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2037-3SB30

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

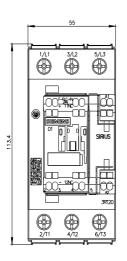
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2037-3SB30&lang=en

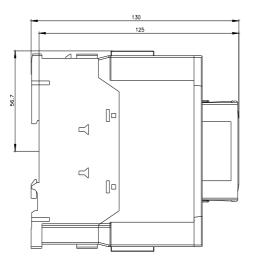
Characteristic: Tripping characteristics, I2t, Let-through current

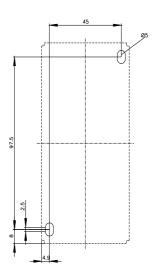
https://support.industry.siemens.com/cs/ww/en/ps/3RT2037

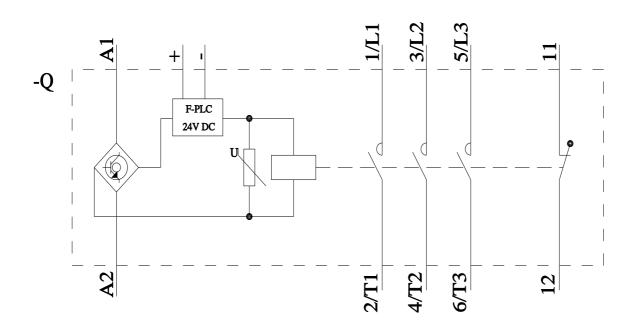
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2037-3SB30&objecttype=14&gridview=view1









last modified:

1/24/2025

3RT2	0373	SB3	
Page		.000	_