SIEMENS

Data sheet 3RT2536-1AP00



Power contactor, AC-3 50 A, 22 kW / 400 V 2 NO + 2 NC 230 V AC, 50 Hz 4-pole size S2 screw terminals 1 NO + 1 NC integrated

product brand name	SIRIUS	
product designation	contactor	
product type designation	3RT25	
General technical data		
size of contactor	S2	
product extension		
 function module for communication 	No	
auxiliary switch	Yes	
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 safe isolation between coil and main contacts acc. 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 (switching 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 acc. to IEC 81346-2	Q	
Substance Prohibitance (Date)	01.10.2014	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
 during operation 	-40 +70 °C	
during storage	-55 +80 °C	
relative humidity minimum	10 %	
relative humidity at 55 °C acc. to IEC 60068-2-30 maximum	95 %	
Main circuit		
number of poles for main current circuit	4	
number of NO contacts for main contacts	2	

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number of NC contacts for main contacts	2	
operational current		
• at AC-1 up to 690 V		
— at ambient temperature 40 °C rated value	70 A	
— at ambient temperature 60 °C rated value	60 A	
• at AC-2 at AC-3 at 400 V		
— per NO contact rated value	41 A	
per NC contact rated value	41 A	
minimum cross-section in main circuit at maximum AC-1 rated value	25 mm ²	
operational current		
at 1 current path at DC-1		
— at 24 V rated value	60 A	
— at 110 V rated value	4.5 A	
— at 220 V rated value	1 A	
— at 440 V rated value	0.4 A	
 with 2 current paths in series at DC-1 		
— at 24 V rated value	55 A	
— at 110 V rated value	45 A	
— at 220 V rated value	5 A	
— at 440 V rated value	1 A	
• at 1 current path at DC-3 at DC-5		
at 24 V per NC contact rated value	35 A	
 — at 24 V per NO contact rated value 	35 A	
at 110 V per NC contact rated value	1.25 A	
— at 110 V per NO contact rated value	2.5 A	
— at 220 V per NC contact rated value	0.5 A	
— at 220 V per NO contact rated value	1A	
 at 440 V per NC contact rated value 	0.045 A	
— at 440 V per NO contact rated value	0.1 A	
with 2 current paths in series at DC-3 at DC-5		
— at 24 V per NC contact rated value	55 A	
— at 24 V per NO contact rated value	55 A	
— at 110 V per NC contact rated value	12.5 A	
— at 110 V per NO contact rated value	25 A	
at 220 V per NC contact rated value	2.5 A	
at 220 V per NO contact rated value	5 A	
— at 440 V per NC contact rated value	0.135 A	
— at 440 V per NO contact rated value	0.27 A	
operating power at AC-2 at AC-3		
at 230 V per NC contact rated value	15 kW	
at 230 V per NO contact rated value	15 kW	
at 400 V per NC contact rated value	22 kW	
at 400 V per NO contact rated value	22 kW	
short-time withstand current in cold operating state up to 40 °C		
Iimited to 1 s switching at zero current maximum	546 A; Use minimum cross-section acc. to AC-1 rated value	
limited to 5 s switching at zero current maximum	443 A; Use minimum cross-section acc. to AC-1 rated value	
Iimited to 10 s switching at zero current maximum	334 A; Use minimum cross-section acc. to AC-1 rated value	
Iimited to 30 s switching at zero current maximum	241 A; Use minimum cross-section acc. to AC-1 rated value	
Iimited to 60 s switching at zero current maximum	196 A; Use minimum cross-section acc. to AC-1 rated value	
power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor	4 W	
no-load switching frequency		
• at AC	5 000 1/h	
operating frequency at AC-1 maximum	1 000 1/h	
Control circuit/ Control		
	AC	
type of voltage of the control supply voltage control supply voltage at AC	AC	
at 50 Hz rated value	230 V	
operating range factor control supply voltage rated	200 1	
operating range ractor 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	190 V·A
● at 50 Hz	190 V·A
inductive power factor with closing power of the coil	0.72
● at 50 Hz	0.72
apparent holding power of magnet coil at AC	16 V·A
● at 50 Hz	16 V·A
inductive power factor with the holding power of the	0.37
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
control version of the switch operating mechanism	AC
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
number of NO contacts for auxiliary contacts	1
instantaneous 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	
yielded mechanical performance [hp]	
• for 3-phase AC motor at 460/480 V rated value	25 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 type of coordination 1 required	gG: 160 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 80 A (690 V, 100 kA)
for short-circuit protection of the auxiliary switch	fuse gG: 10 A
required	
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	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
	according to Dily Ely 30022

side-by-side mounting	Yes	
height	114 mm	
width	75 mm	
depth	130 mm	
required spacing		
with side-by-side mounting		
— forwards	0 mm	
— backwards	0 mm	
— upwards	0 mm	
— downwards	0 mm	
— at the side	0 mm	
 for grounded parts 		
— forwards	0 mm	
— backwards	0 mm	
— upwards	50 mm	
— at the side	10 mm	
— downwards	50 mm	
for live parts		
— forwards	0 mm	
— backwards	0 mm	
— upwards	50 mm	
— downwards	50 mm	
— at the side	10 mm	
Connections/ Terminals		
type of electrical connection		
for main current circuit	screw-type terminals	
for auxiliary and control circuit	screw-type terminals	
at contactor for auxiliary contacts	Screw-type terminals	
of magnet coil	Screw-type terminals	
type of connectable conductor cross-sections		
• for main contacts		
— solid	2x (1 35 mm²), 1x (1 50 mm²)	
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)	
at AWG cables for main contacts	2x (18 2), 1x (18 1)	
type of connectable conductor cross-sections		
• for auxiliary contacts		
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
— solid — solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
Solid of stranded finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)	
AWG number as coded connectable conductor cross	2x (20 10), 2x (10 14) 18 1	
section for main contacts	10 1	
Safety related data		
product function		
 mirror contact acc. to IEC 60947-4-1 	Yes	
 positively driven operation acc. to IEC 60947-5-1 	No	
protection class IP on the front acc. to IEC 60529	IP20	
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front	
Certificates/ approvals		
General Product Approval		

General Product Approval



Confirmation





<u>KC</u>



EMC Functional Safety/Safety of	Declaration of Conformity	Test Certificates
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Type Examination Certificate



UK Declaration of Conformity

Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good



Confirmation

Vibration and Shock

<u>Transport Information</u>

Further information

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=3RT2536-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2536-1AP00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2536-1AP00

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

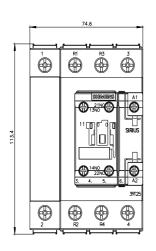
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2536-1AP00&lang=en

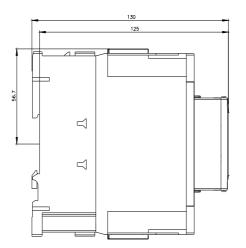
Characteristic: Tripping characteristics, I2t, Let-through current

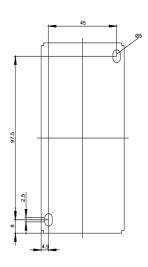
https://support.industry.siemens.com/cs/ww/en/ps/3RT2536-1AP00/char

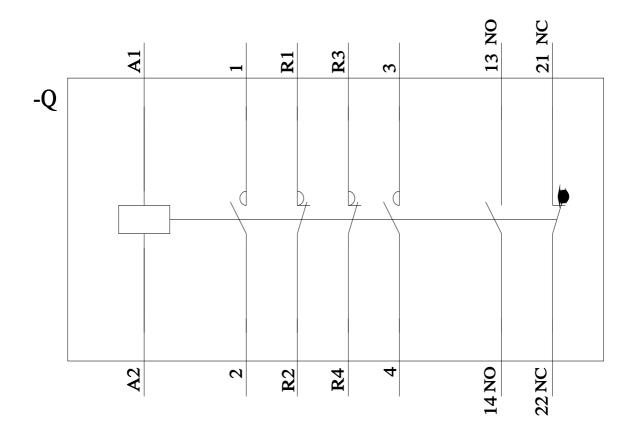
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2536-1AP00&objecttype=14&gridview=view1









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