SIEMENS

Data sheet 3RT2536-1NB30



power contactor, AC-3, 51 A, 22 kW / 400 V, 4-pole, 20-33 V AC/DC, 50/60 Hz, with integrated varistor, main contacts: 2 NO + 2 NC, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2

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 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 	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 	-40 +70 °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	4
number of NO contacts for main contacts	2
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	25 mm²
value	
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	1 A
— 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	U.S. 71
	15 kW
at 230 V per NC contact rated value at 230 V per NC contact rated value	
at 230 V per NO contact rated value at 400 V per NC contact rated value	15 kW
at 400 V per NC contact rated value at 400 V per NC contact rated value	22 kW
at 400 V per NO contact rated value short-time withstand current in cold operating state up to	22 kW
short-time withstand current in cold operating state up to 40 °C	
limited 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
limited 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
limited 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	500 1/h
• at DC	500 1/h
operating frequency	
• at AC-1 maximum	350 1/h
ontrol circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
	20 33 V
 at 50 Hz rated value 	

control supply voltage at DC	
rated value	20 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
design of the surge suppressor	with varistor
inrush current peak	12 A
duration of inrush current peak	30 µs
locked-rotor current mean value	6.5 A
locked-rotor current peak	12 A
duration of locked-rotor current	230 ms
holding current mean value	105 mA
apparent pick-up power of magnet coil at AC	110 VA
• at 50 Hz	110 VA
• at 60 Hz	110 VA
inductive power factor with closing power of the coil	0.72
at 50 Hz	0.72
• at 60 Hz	0.95
	0.95 2.5 VA
apparent holding power of magnet coil at AC • at 50 Hz	2.5 VA
• at 50 Hz • at 60 Hz	2.5 VA 2.5 VA
inductive power factor with the holding power of the coil	0.95
• at 50 Hz	0.95
• at 60 Hz	0.95
closing power of magnet coil at DC	70 W
holding power of magnet coil at DC	1.5 W
closing delay	
• at AC	30 110 ms
• at DC	30 110 ms
opening delay	
• at AC	30 55 ms
• at DC	30 55 ms
arcing time	10 20 ms
control version of the switch operating mechanism	UC
residual current of the electronics for control with signal <0>	
at AC at 230 V maximum permissible	20 A
at DC at 24 V maximum permissible	20 A
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 24 V rated valueat 48 V rated value	10 A 6 A
• at 48 V rated value	6 A
at 48 V rated valueat 60 V rated value	6 A 6 A
 at 48 V rated value at 60 V rated value at 110 V rated value 	6 A 6 A 3 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 required	fuse gG: 10 A		
Installation/ mounting/ dimensions			
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and		
factoring method	backward by +/- 22.5° on vertical mounting surface		
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022		
• side-by-side mounting	Yes		
height	114 mm		
width	75 mm		
depth	130 mm		
required spacing			
with side-by-side mounting	0		
— forwards	0 mm		
— backwards	0 mm		
— upwards	0 mm		
— downwards	0 mm		
— at the side	0 mm		
• for grounded parts	0		
— forwards	0 mm		
— backwards	0 mm		
— upwards	50 mm		
— at the side	10 mm		
— downwards	50 mm		
• for live parts	0		
— 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	0: (4 05 :::::2) 4: (4 50 2)		
• 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)		
type of connectable conductor cross-sections			
for auxiliary contacts			
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 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)
AWG number as coded connectable conductor cross section for main contacts	18 1
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
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
Cartificates/ approvals	

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



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





Type Test Certificates/Test Report

Special Test Certific-

Marine / Shipping













Marine / Shipping	other	Railway	Dangerous Good
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Confirmation Vibration and Shock **Transport 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=3RT2536-1NB30

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2536-1NB30}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2536-1NB30

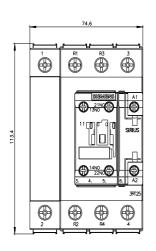
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

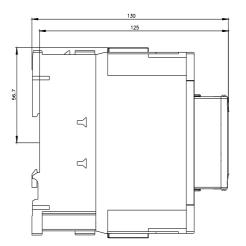
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2536-1NB30&lang=en

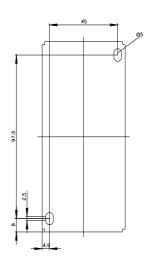
Characteristic: Tripping characteristics, I²t, Let-through current

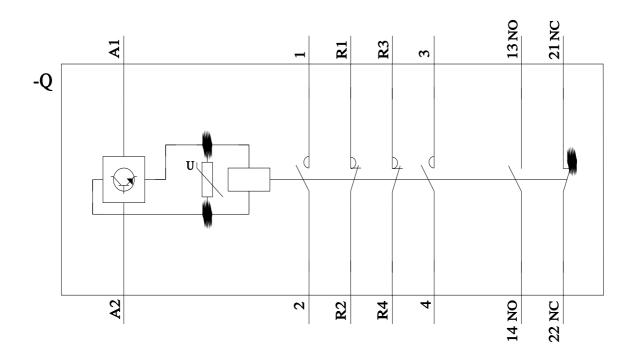
https://support.industry.siemens.com/cs/ww/en/ps/3RT2536-1NB30/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2536-1NB30&objecttype=14&gridview=view1









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3RT25361NB30 Page 7/7	