SIEMENS

Data sheet 3RT1064-2AV36



power contactor, AC-3e/AC-3 225 A, 110 kW / 400 V AC (50-60 Hz) / DC Uc: 380-420 V 3-pole, auxiliary contacts 2 NO + 2 NC drive: conventional main circuit: busbar control and auxiliary circuit: spring-loaded terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S10
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	51 W
• at AC in hot operating state per pole	17 W
 without load current share typical 	7.4 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	1 000 V
 of auxiliary circuit with degree of pollution 3 rated value 	500 V
surge voltage resistance	
 of main circuit rated value 	8 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	8,5g / 5 ms, 4,2g / 10 ms
• at DC	8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	13,4g / 5 ms, 6,5g / 10 ms
• at DC	13,4g / 5 ms, 6,5g / 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)	05/01/2012
SVHC substance name	Blei - 7439-92-1
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	95 %

maximum	
ain 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	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	
at AC-1 at 400 V at ambient temperature 40 °C rated	275 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	275 A
value	
— up to 690 V at ambient temperature 60 °C rated	250 A
value	400 A
 up to 1000 V at ambient temperature 40 °C rated value 	100 A
— up to 1000 V at ambient temperature 60 °C rated	100 A
value	
• at AC-3	
— at 400 V rated value	225 A
— at 500 V rated value	225 A
— at 690 V rated value	225 A
— at 1000 V rated value	68 A
• at AC-3e	
— at 400 V rated value	225 A
— at 500 V rated value	225 A
— at 690 V rated value	225 A
— at 1000 V rated value	68 A
	195 A
at AC-4 at 400 V rated value at AC-5 sup to 600 V rated value	242 A
at AC-5a up to 690 V rated value at AC-5b up to 400 V rated value	
at AC-5b up to 400 V rated value	186 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	225 A
— up to 400 V for current peak value n=20 rated value	225 A
— up to 500 V for current peak value n=20 rated value	225 A
— up to 690 V for current peak value n=20 rated value	225 A
 up to 1000 V for current peak value n=20 rated value 	68 A
• at AC-6a	
	172 A
— up to 230 V for current peak value n=30 rated value	
— up to 400 V for current peak value n=30 rated value	172 A
— up to 500 V for current peak value n=30 rated value	172 A
— up to 690 V for current peak value n=30 rated value	172 A
 up to 1000 V for current peak value n=30 rated value 	68 A
minimum cross-section in main circuit at maximum AC-1 rated value	150 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	96 A
at 690 V rated value	85 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
	200 A 18 A
— at 110 V rated value	
— at 220 V rated value	3.4 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.5 A
with 2 current paths in series at DC-1	000 A
— at 24 V rated value	200 A
— at 60 V rated value	200 A

— at 110 V rated value	200 A
— at 220 V rated value	20 A
— at 440 V rated value	3.2 A
— at 600 V rated value	1.6 A
 with 3 current paths in series at DC-1 	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
— at 220 V rated value	200 A
— at 440 V rated value	11 A
— at 600 V rated value	4 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	200 A
— at 60 V rated value	7.5 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.17 A
— at 600 V rated value	0.12 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
— at 220 V rated value	2.5 A
— at 440 V rated value	0.65 A
— at 600 V rated value	0.37 A
with 3 current paths in series at DC-3 at DC-5	0.07 A
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
	200 A
— at 220 V rated value	
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
operating power	
• at AC-3	EE IAM
— at 230 V rated value	55 kW
— at 400 V rated value	110 kW
— at 500 V rated value	160 kW
— at 690 V rated value	200 kW
— at 1000 V rated value	90 kW
• at AC-3e	
— at 230 V rated value	55 kW
— at 400 V rated value	110 kW
— at 500 V rated value	160 kW
— at 690 V rated value	200 kW
— at 1000 V rated value	90 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	54 kW
at 400 V rated value at 690 V rated value	82 kW
operating apparent power at AC-6a	VL IVI
	00 000 kV/A
 up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value 	90 000 kVA 150 000 VA
up to 500 V for current peak value n=20 rated value up to 600 V for current peak value n=20 rated value	190 000 VA
up to 690 V for current peak value n=20 rated value up to 1000 V for current peak value n=20 rated value	260 000 VA
up to 1000 V for current peak value n=20 rated value	110 000 VA
operating apparent power at AC-6a	00 000 \/A
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=20 rated value.	60 000 VA
up to 400 V for current peak value n=30 rated value	110 000 VA
up to 500 V for current peak value n=30 rated value	140 000 VA
up to 690 V for current peak value n=30 rated value	200 000 VA
up to 1000 V for current peak value n=30 rated value	110 000 VA
short-time withstand current in cold operating state up to	

40 °C	4000 A. Har minimum array (1)
Iimited to 1 s switching at zero current maximum	4 000 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 5 s switching at zero current maximum	2 807 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	2 082 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	1 397 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	1 144 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	
• at AC-1 maximum	750 1/h
at AC-2 maximum	250 1/h
• at AC-3 maximum	500 1/h
at AC-3e maximum	500 1/h
at AC-4 maximum	130 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	380 420 V
at 60 Hz rated value	380 420 V
control supply voltage at DC	
rated value	380 420 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
apparent pick-up power	With Valistoi
at minimum rated control supply voltage at AC	
— at 50 Hz	490 VA
— at 60 Hz	490 VA
at maximum rated control supply voltage at AC	400 VA
— at 60 Hz	590 VA
— at 50 Hz	590 VA
apparent pick-up power of magnet coil at AC	000 V/
• at 50 Hz	590 VA
• at 60 Hz	590 VA
inductive power factor with closing power of the coil	
at 50 Hz	0.9
• at 60 Hz	0.9
apparent holding power	
at minimum rated control supply voltage at DC	6.1 VA
at maximum rated control supply voltage at DC at maximum rated control supply voltage at DC	7.4 VA
apparent holding power	
at minimum rated control supply voltage at AC	
— at 50 Hz	5.6 VA
— at 60 Hz	5.6 VA
at maximum rated control supply voltage at AC	V.V.
— at 50 Hz	6.7 VA
— at 60 Hz	6.7 VA
apparent holding power of magnet coil at AC	J., .,.
• at 50 Hz	6.7 VA
• at 60 Hz	6.7 VA
inductive power factor with the holding power of the coil	5.7 T.T.
at 50 Hz	0.9
• at 60 Hz	0.9
closing power of magnet coil at DC	650 W
Stoomy power or magnet con at Do	000 11

halding a superference of the Control of the Contro	7.4W
holding power of magnet coil at DC	7.4 W
closing delay	
• at AC	30 95 ms
• at DC	30 95 ms
opening delay	
• at AC	40 80 ms
• at DC	40 80 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	2
number of NO contacts for auxiliary contacts instantaneous contact	2
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	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	Triadity Switching per 100 million (17 V, 1 m/v)
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	180 A
	192 A
at 600 V rated value Violded machanical performance [hp]	132 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	60 hp
— at 200/208 V rated value	60 hp
— at 220/230 V rated value	75 hp
— at 460/480 V rated value	150 hp
— at 575/600 V rated value	200 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 500 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method	screw fixing
side-by-side mounting	Yes
height	210 mm
width	145 mm

depth	202 mm
required spacing	
 with side-by-side mounting 	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
 for grounded parts 	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	Connection bar
 for auxiliary and control circuit 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
of magnet coil	Spring-type terminals
width of connection bar	25 mm
thickness of connection bar	6 mm
diameter of holes	11 mm
number of holes	1
connectable conductor cross-section for main contacts	
• stranded	70 240 mm²
connectable conductor cross-section for auxiliary contacts	
 solid or stranded 	0.25 2.5 mm²
 finely stranded with core end processing 	0.25 1.5 mm²
 finely stranded without core end processing 	0.25 2.5 mm²
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid	2x (0.25 2.5 mm²)
— solid or stranded	2x (0,25 2,5 mm²)
 finely stranded with core end processing 	2x (0.25 1.5 mm²)
 finely stranded without core end processing 	2x (0.25 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (24 14)
AWG number as coded connectable conductor cross section	
for auxiliary contacts	24 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
suitability for use safety-related switching OFF	Yes
B10 value with high demand rate according to SN 31920	1 000 000
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	IP00; IP20 with box terminal/cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover
Certificates/ approvals	
General Product Approval	



Confirmation





<u>KC</u>



EMC

Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













Confirmation

other			Railway		Environment
Miscellaneous	Confirmation	Miscellaneous	Vibration and Shock	Special Test Certific- ate	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=3RT1064-2AV36

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT1064-2AV36}}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-2AV36

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

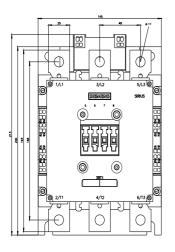
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1064-2AV36&lang=en

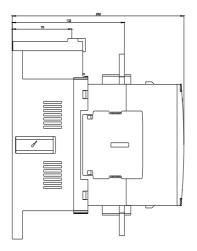
Characteristic: Tripping characteristics, I2t, Let-through current

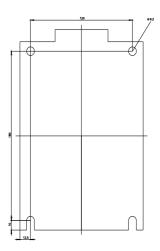
https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-2AV36/char

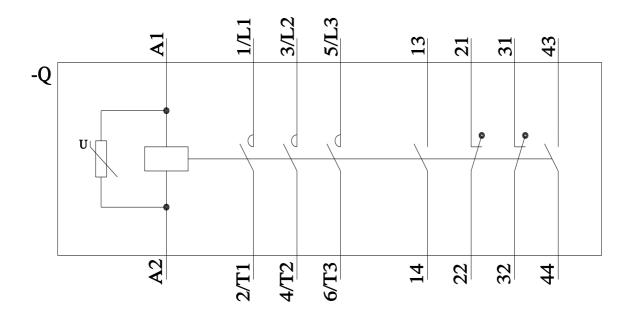
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1064-2AV36&objecttype=14&gridview=view1









last modified:

8/15/2023



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