SIEMENS

product brand name

Data sheet 3RT1064-6AB36

SIRIUS



power contactor, AC-3 225 A, 110 kW / 400 V AC (50-60 Hz) / DC operation 23-26 V AC/DC auxiliary contacts 2 NO + 2 NC 3-pole, frame size S10 busbar connections drive: conventional screw terminal

product brand name	SIKIUS	
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 safe isolation 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 (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 according to IEC 81346-2	Q	
Substance Prohibitance (Date)	05/01/2012	
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 %
lain circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	3
at AC-3 rated value maximum	1 000 V
at AC-3 rated value maximum at AC-3e rated value maximum	1 000 V
operational current	1 000 V
at AC-1 at 400 V at ambient temperature 40 °C	275 A
rated value	2107
• at AC-1	
— up to 690 V at ambient temperature 40 °C	275 A
rated value	
— up to 690 V at ambient temperature 60 °C	250 A
rated value	
— up to 1000 V at ambient temperature 40 °C	100 A
rated value — up to 1000 V at ambient temperature 60 °C	100 A
rated value	100 A
• 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 1000 V rated value	68 A
at AC-4 at 400 V rated value	195 A
at AC-5a up to 690 V rated value	242 A
at AC-5b up to 400 V rated value	186 A
• at AC-6a	100 A
— up to 230 V for current peak value n=20 rated	225 A
value	
— up to 400 V for current peak value n=20 rated	225 A
value	
— up to 500 V for current peak value n=20 rated	225 A
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	68 A
value	
• at AC-6a	
— up to 230 V for current peak value n=30 rated	172 A
value	
— up to 400 V for current peak value n=30 rated	172 A
value	470 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	172 A
value	
— up to 1000 V for current peak value n=30 rated	68 A
value	
minimum cross-section in main circuit at maximum AC-1	150 mm ²
rated value	
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 110 V rated value	18 A
— 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	
— at 24 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 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 110 V rated value	2.5 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 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	
— at 24 V rated value	200 A
— at 110 V rated value	200 A
— at 220 V rated value	200 A
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
operating power	0.1071
• at AC-3	
— 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 — at 500 V rated value	160 kW
— at 1000 V rated value — at 1000 V rated value	90 kW
operating power for approx. 200000 operating cycles	30 KVV
at AC-4	
at 400 V rated value	54 kW
• at 690 V rated value	82 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	90 000 kVA
 up to 400 V for current peak value n=20 rated value 	150 000 VA
 up to 500 V for current peak value n=20 rated value 	190 000 VA
• up to 690 V for current peak value n=20 rated value	260 000 VA
• up to 1000 V for current peak value n=20 rated	110 000 VA
value	
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 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

	000 000 1/4		
• 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			
 limited to 1 s switching at zero current maximum 	4 000 A; Use minimum cross-section acc. to AC-1 rated value		
 limited 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		
 limited 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 2 000 1/h		
operating frequency	2 000 1/11		
• at AC-1 maximum	750 1/h		
• at AC-2 maximum			
• at AC-3 maximum	250 1/h 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	23 26 V		
 at 60 Hz rated value 	23 26 V		
control supply voltage at DC			
rated value	23 26 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 of magnet coil at AC			
• 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 of magnet coil at AC			
• at 50 Hz	6.7 VA		
• at 60 Hz	6.7 VA 6.7 VA		
inductive power factor with the holding power of the coil			
• at 50 Hz	0.9		
• at 60 Hz	0.9		
closing power of magnet coil at DC	650 W		
holding power of magnet coil at DC	7.4 W		
	7.7 11		
closing delay	20 05 mg		
• at AC	30 95 ms		
• at DC	30 95 ms		
opening delay	4000		
• 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	2		
instantaneous contact			

number of NO contacts for auxiliary contacts	2		
instantaneous contact	40.4		
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	40.4		
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 at 600 V rated value	1 A		
at 600 V rated value	0.15 A		
operational current at DC-13	10.4		
at 24 V rated value at 48 V rated value	10 A		
 at 48 V rated value at 60 V rated value 	2 A		
	2 A		
at 110 V rated value at 125 V rated value	1 A		
at 125 V rated value at 220 V rated value	0.9 A		
at 220 V rated valueat 600 V rated value	0.3 A		
contact reliability of auxiliary contacts	0.1 A 1 faulty switching per 100 million (17 V, 1 mA)		
JL/CSA ratings	1 faulty switching per 100 million (17 V, 1 mA)		
full-load current (FLA) for 3-phase AC motor			
at 480 V rated value	180 A		
at 600 V rated value at 600 V rated value	192 A		
yielded mechanical performance [hp]	194 A		
• for 3-phase AC motor			
— 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)		
	90.000 A (000 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		
	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	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415		
for short-circuit protection of the auxiliary switch 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 nstallation/ mounting/ dimensions	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA)		
for short-circuit protection of the auxiliary switch 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 nstallation/ mounting/ dimensions	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting		
for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back		
for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position fastening method	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing		
for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position fastening method side-by-side mounting	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes		
• for short-circuit protection of the auxiliary switch required nstallation/ mounting/ dimensions mounting position fastening method • side-by-side mounting height	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm		
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions Mounting position fastening method • side-by-side mounting height width	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm		
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method • side-by-side mounting height width depth	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm		
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions Mounting position fastening method • side-by-side mounting height width depth required spacing	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm		
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm		
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions Mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm		
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm		
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm 10 mm 10 mm		
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA) with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back screw fixing Yes 210 mm 145 mm 202 mm 10 mm 10 mm		

— at the side	10 mm		
— downwards			
for live parts	10 mm		
— forwards	20 mm		
	20 mm 10 mm		
— upwards — downwards			
— at the side	10 mm		
Connections/ Terminals	10 mm		
type of electrical connection	Connection has		
for main current circuit for qualifier and control circuit	Connection bar		
for auxiliary and control circuit	screw-type terminals		
at contactor for auxiliary contacts	Screw-type terminals		
of magnet coil	Screw-type terminals		
width of connection bar	25 mm		
thickness of connection bar	6 mm		
diameter of holes	11 mm		
number of holes	1		
type of connectable conductor cross-sections			
at AWG cables for main contacts	2/0 500 kcmil		
connectable conductor cross-section for main contacts			
• stranded	70 240 mm²		
connectable conductor cross-section for auxiliary contacts			
 solid or stranded 	0.5 4 mm²		
finely stranded with core end processing	0.5 2.5 mm²		
type of connectable conductor cross-sections			
 for auxiliary contacts 			
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)		
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²)		
 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), 1x 12		
AWG number as coded connectable conductor cross section			
 for auxiliary contacts 	18 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		
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		
suitability for use			
 safety-related switching OFF 	Yes		
Certificates/ approvals			

General Product Approval





Confirmation



<u>KC</u>



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



Type Test Certificates/Test Report

Special Test Certificate

Test Certificates

Marine / Shipping

Miscellaneous











other Railway

<u>Confirmation</u> <u>Miscellaneous</u> <u>Confirmation</u> <u>Miscellaneous</u> <u>Special Test Certificate</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=3RT1064-6AB36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1064-6AB36

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-6AB36

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

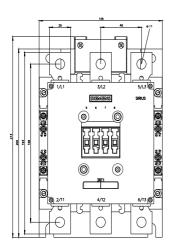
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1064-6AB36&lang=en

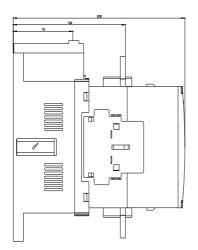
Characteristic: Tripping characteristics, I2t, Let-through current

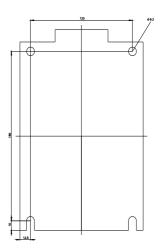
https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-6AB36/char

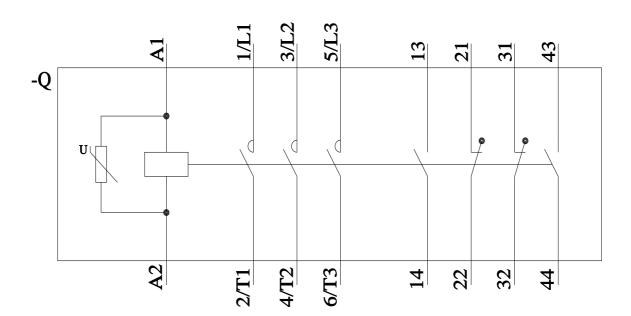
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1064-6AB36&objecttype=14&gridview=view1









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