

Power contactor, AC-3 50 A, 22 kW / 400 V 24 V DC, 3-pole, Size S2, screw terminal ! Phased-out product! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2036-1KB40<<



product brand name	SIRIUS
product designation	power contactor
General technical data	
Size of contactor	S2
• insulation voltage rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• between coil and main contacts acc. to EN 60947-1	400 V
protection class IP	
• on the front	IP20
• of the terminal	IP00
Shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 5g / 10 ms
Shock resistance with sine pulse	
• at DC	15g / 5 ms, 8g / 10 ms
Mechanical service life (switching cycles)	
• of contactor typical	10 000 000

<ul style="list-style-type: none"> • of the contactor with added electronics-compatible auxiliary switch block typical 	5 000 000
<ul style="list-style-type: none"> • of the contactor with added auxiliary switch block typical 	10 000 000
reference code acc. to DIN EN 81346-2	Q
Ambient conditions	
<ul style="list-style-type: none"> • installation altitude at height above sea level maximum 	2 000 m
<ul style="list-style-type: none"> • ambient temperature during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> • ambient temperature during storage 	-55 ... +80 °C
Main circuit	
number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
<ul style="list-style-type: none"> • Operating current at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value 	60 A
<ul style="list-style-type: none"> • Operating current at AC-1 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value 	60 A
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — up to 690 V at ambient temperature 60 °C rated value 	55 A
<ul style="list-style-type: none"> • <ul style="list-style-type: none"> — operating current at AC-3 at 400 V rated value 	50 A
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — Operating current at AC-3 at 690 V rated value 	24 A
<ul style="list-style-type: none"> • Operating current at AC-4 at 400 V rated value 	41 A
Connectable conductor cross-section in main circuit at AC-1	
<ul style="list-style-type: none"> • at 60 °C minimum permissible 	16 mm ²
<ul style="list-style-type: none"> • at 40 °C minimum permissible 	16 mm ²
Operating current for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V rated value 	24 A
<ul style="list-style-type: none"> • at 690 V rated value 	12.6 A
Operating current	
<ul style="list-style-type: none"> • at 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V rated value 	55 A
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at 110 V rated value 	4.5 A
<ul style="list-style-type: none"> • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value 	55 A
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at 110 V rated value 	25 A

<ul style="list-style-type: none"> • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value 	55 A 55 A
Operating current	
<ul style="list-style-type: none"> • at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value 	35 A 2.5 A 55 A 25 A 55 A 55 A
<ul style="list-style-type: none"> • Operating power at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C rated value — at 400 V rated value — at 690 V rated value — at 690 V at 60 °C rated value • Operating power at AC-2 at 400 V rated value • <ul style="list-style-type: none"> — Operating power at AC-3 at 230 V rated value — operating power at AC-3 at 400 V rated value — Operating power at AC-3 at 500 V rated value — Operating power at AC-3 at 690 V rated value 	22 kW 38 kW 66 kW 66 kW 22 kW 15 kW 22 kW 30 kW 22 kW
Operating power for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V rated value • at 690 V rated value 	12.6 kW 11.4 kW
Thermal short-time current limited to 10 s	400 A
No-load switching frequency	
<ul style="list-style-type: none"> • at DC 	1 500 1/h
<ul style="list-style-type: none"> • Operating frequency at AC-1 maximum • Operating frequency at AC-2 maximum • operating frequency at AC-3 maximum • Operating frequency at AC-4 maximum 	1 000 1/h 400 1/h 800 1/h 300 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	DC
control supply voltage at DC	

• rated value	24 V
Operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
• Full-scale value	1.1
Closing power of magnet coil at DC	13.3 W
Holding power of magnet coil at DC	13.3 W
Closing delay	
• at DC	60 ... 100 ms
Opening delay	
• at DC	20 ... 25 ms
Arcing time	10 ... 15 ms

Auxiliary circuit	
• Number of NC contacts for auxiliary contacts instantaneous contact	0
• Number of NO contacts for auxiliary contacts instantaneous contact	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
• Operating current at DC-12 at 60 V rated value	6 A
• operating current at DC-12 at 110 V rated value	3 A
• Operating current at DC-12 at 220 V rated value	1 A
• Operating current at DC-13 at 24 V rated value	10 A
• Operating current at DC-13 at 60 V rated value	2 A
• operating current at DC-13 at 110 V rated value	1 A
• Operating current at DC-13 at 220 V rated value	0.3 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings	
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	fuse gL/gG: 160 A
— with type of assignment 2 required	fuse gL/gG: 80 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

Installation/ mounting/ dimensions	
---	--

• mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• mounting type side-by-side mounting	Yes
height	112 mm
width	55 mm
depth	130 mm
• required spacing for grounded parts — at the side	6 mm

Connections/ Terminals

• type of electrical connection for main current circuit	screw-type terminals
• type of electrical connection for auxiliary and control current circuit	screw-type terminals
• — Type of connectable conductor cross-sections for main contacts solid	2x (0.75 ... 16 mm ²)
— Type of connectable conductor cross-sections for main contacts stranded	2x (0.75 ... 25 mm ²)
— type of connectable conductor cross-sections for main contacts single or multi-stranded	2x (0,75 ... 16 mm ²)
— type of connectable conductor cross-sections for main contacts finely stranded with core end processing	2x (0.75 ... 16 mm ²)
— Type of connectable conductor cross-sections for main contacts finely stranded without core end processing	2x (0.75 ... 16 mm ²)
• Type of connectable conductor cross-sections at AWG conductors for main contacts	2x (18 ... 2)
• — Type of connectable conductor cross-sections for auxiliary contacts solid	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²)
— type of connectable conductor cross-sections for auxiliary contacts finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• Type of connectable conductor cross-sections at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12

Certificates/ approvals

General Product Approval	EMC	Functional Safety/Safety of Machinery
--------------------------	-----	---------------------------------------



CCC



CSA



UL



RCM

[Type Examination Certificate](#)

Declaration of Conformity	Test Certificates	Marine / Shipping
---------------------------	-------------------	-------------------



EG-Konf.

[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)



ABS

Marine / Shipping	other
-------------------	-------



LRS



RINA



RMRS



DNVGL.COM/AF

[Miscellaneous](#)

[Confirmation](#)

Railway

[Special Test Certificate](#)

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=3RT1036-1BB40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1036-1BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1BB40>

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

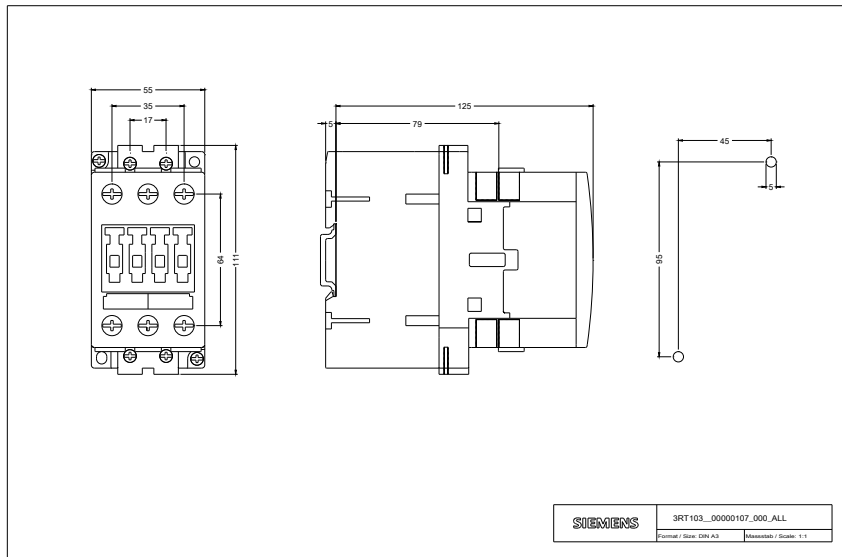
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1036-1BB40&lang=en

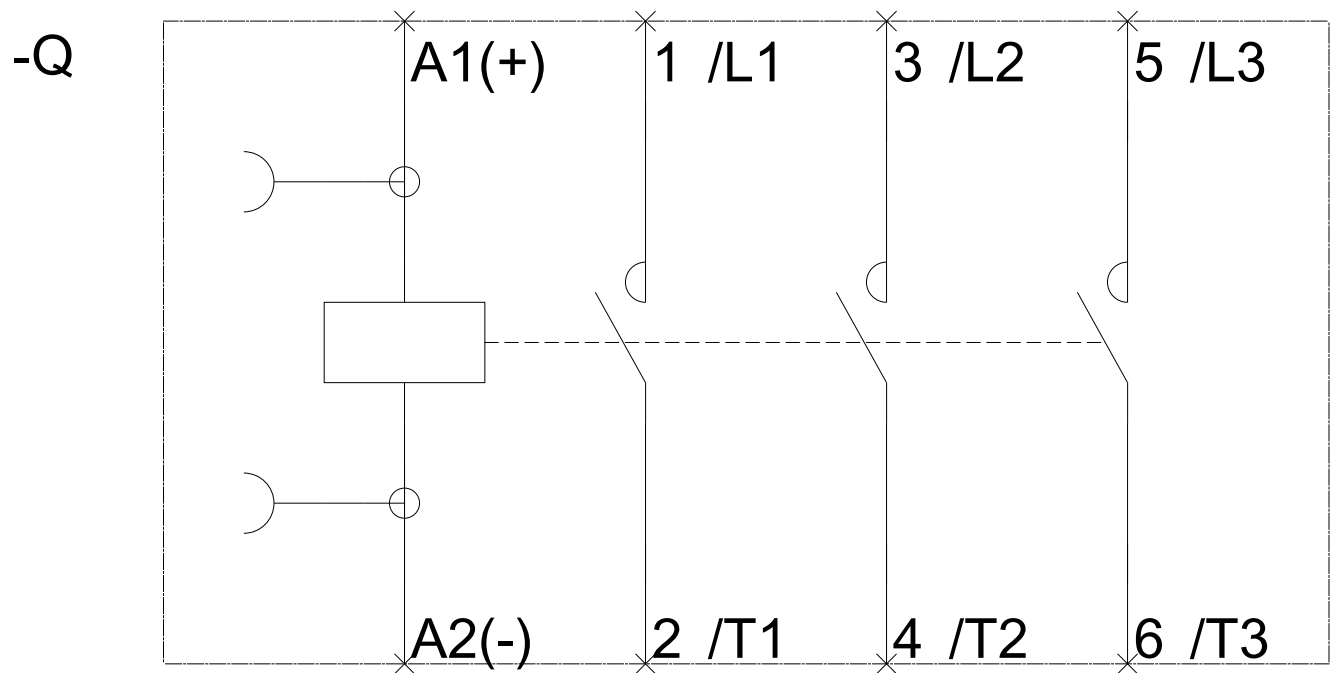
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1BB40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1036-1BB40&objecttype=14&gridview=view1>





last modified:

08/21/2020