## **SIEMENS**

Data sheet 3RW4038-1BB04

SIRIUS soft starter S2 72 A, 37 kW/400 V, 40  $^{\circ}\text{C}$  200-480 V AC, 24 V AC/DC Screw terminals

product brand name  product feature  integrated bypass contact system  thyristors  product function  intrinsic device protection  motor overload protection		Yes Yes
integrated bypass contact system     thyristors  product function     intrinsic device protection		Yes
thyristors  product function     intrinsic device protection		Yes
product function • intrinsic device protection		
intrinsic device protection		Yes
· · · · · · · · · · · · · · · · · · ·		Yes
motor overload protection		
		Yes
evaluation of thermistor motor protection		No
external reset		Yes
adjustable current limitation		Yes
inside-delta circuit		No
product component motor brake output		No
insulation voltage rated value	V	600
degree of pollution		3, acc. to IEC 60947-4-2
reference code according to EN 61346-2		Q
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750		G
ower Electronics		
product designation		Soft starter
operational current		
at 40 °C rated value	А	72
• at 50 °C rated value	А	62
at 60 °C rated value	А	60
yielded mechanical performance for 3-phase motors		
• at 230 V		
— at standard circuit at 40 °C rated value	kW	22
• at 400 V		
— at standard circuit at 40 °C rated value	kW	37
yielded mechanical performance [hp] for 3-phase AC motor at 200/208 V at standard circuit at 50 °C rated value	hp	20
operating frequency rated value	Hz	50 60
relative negative tolerance of the operating frequency	%	-10
relative positive tolerance of the operating frequency	%	10
operating voltage at standard circuit rated value	V	200 480
relative negative tolerance of the operating voltage at standard circuit	%	-15
relative positive tolerance of the operating voltage at standard circuit	%	10
minimum load [%]	%	20
adjustable motor current for motor overload protection minimum rated value	А	35
continuous operating current [% of le] at 40 °C	%	115
power loss [W] at operational current at 40 °C during operation typical	W	15
Control circuit/ Control		
type of voltage of the control supply voltage		AC/DC
control supply voltage frequency 1 rated value	Hz	50
control supply voltage frequency 2 rated value	Hz	60
relative negative tolerance of the control supply voltage frequency	%	-10
relative positive tolerance of the control supply voltage frequency	%	10

control supply voltage 1 at AC		
at 50 Hz rated value	V	24
at 60 Hz rated value	V	24
relative negative tolerance of the control supply voltage at AC at 50 Hz	%	-15
relative positive tolerance of the control supply voltage at AC at 50 Hz	%	10
relative negative tolerance of the control supply voltage at AC at 60 Hz	%	-15
relative positive tolerance of the control supply voltage at AC at 60 Hz	%	10
control supply voltage 1 at DC rated value	V	24
relative negative tolerance of the control supply voltage at DC	%	-20
relative positive tolerance of the control supply voltage at DC	%	20
display version for fault signal		red
Mechanical data		
size of engine control device		S2
width	mm	55
height	mm	160
depth	mm	170
fastening method		screw and snap-on mounting
mounting position		With additional fan: With vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/-10° rotatable, with vertical mounting surface +/- 10° t
required spacing with side-by-side mounting		
• upwards	mm	60
at the side	mm	30
<ul><li>downwards</li></ul>	mm	40
wire length maximum	m	300
number of poles for main current circuit		3
Connections/ Terminals		
Connections/ Terminals type of electrical connection		
		screw-type terminals
type of electrical connection  • for main current circuit		screw-type terminals screw-type terminals
type of electrical connection		**
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts		screw-type terminals
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts		screw-type terminals
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts		screw-type terminals 0 2
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts type of connectable conductor cross-sections for main		screw-type terminals 0 2
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point		screw-type terminals 0 2 1
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point  • solid		screw-type terminals 0 2 1 2x (1.5 16 mm²)
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point  • solid  • finely stranded with core end processing		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm²
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point  • solid  • finely stranded with core end processing  • stranded  type of connectable conductor cross-sections for main		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm²
type of electrical connection		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point  • solid  • finely stranded with core end processing  • stranded  type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point  • solid		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm² 2x (1.5 16 mm²)
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts  type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point  • solid  • finely stranded with core end processing  • stranded  type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point  • solid  • finely stranded with core end processing		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm² 2x (1.5 16 mm²) 1.5 25 mm²
type of electrical connection  • for main current circuit • for auxiliary and control circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts  type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing • stranded  type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point • solid • finely stranded with core end processing • stranded  type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm² 2x (1.5 16 mm²) 1.5 25 mm²
type of electrical connection  • for main current circuit • for auxiliary and control circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts  type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point • solid • finely stranded with core end processing • stranded  type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point • solid • finely stranded with core end processing • stranded  type of connectable conductor cross-sections for main contacts for box terminal using both clamping points		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 1.5 35 mm²
type of electrical connection         • for main current circuit         • for auxiliary and control circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point         • solid         • finely stranded with core end processing         • stranded  type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point         • solid         • finely stranded with core end processing         • stranded  type of connectable conductor cross-sections for main contacts for box terminal using both clamping points         • solid		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 1.5 35 mm²
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type of electrical connection		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 2x (1.5 16 mm²) 2x (1.5 16 mm²)
type of electrical connection		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 1.5 35 mm²  2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 16 mm²)
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type of electrical connection		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 1.5 35 mm²  2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 25 mm²)
type of electrical connection		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 1.5 35 mm²  2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 25 mm²)
type of electrical connection		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 1.5 35 mm²  2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 25 mm²)  16 2 18 2 2x (16 2)
type of electrical connection		screw-type terminals 0 2 1 2x (1.5 16 mm²) 0.75 25 mm² 0.75 35 mm²  2x (1.5 16 mm²) 1.5 25 mm² 1.5 35 mm²  2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 16 mm²) 2x (1.5 25 mm²)  16 2 18 2 2x (16 2)

cables		
<ul> <li>for auxiliary contacts</li> </ul>		2x (20 14)
<ul> <li>for auxiliary contacts finely stranded with core end processing</li> </ul>		2x (20 16)
Ambient conditions		
installation altitude at height above sea level	m	5 000
environmental category		
<ul> <li>during transport according to IEC 60721</li> </ul>		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)
during storage according to IEC 60721		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
<ul> <li>during operation according to IEC 60721</li> </ul>		3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
ambient temperature		
during operation	°C	-25 +60
during storage	°C	-40 +80
derating temperature	°C	40
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
Certificates/ approvals		

Certificates/ approvals

**General Product Approval** 

ЕМС



Confirmation









For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping

other

Railway





Confirmation

Vibration and Shock

Confirmation

UL/CSA ratings		
yielded mechanical performance [hp] for 3-phase AC motor		
• at 220/230 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	20
• at 460/480 V		
<ul> <li>at standard circuit at 50 °C rated value</li> </ul>	hp	40
contact rating of auxiliary contacts according to UL		B300 / R300

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).

Simulation Tool for Soft Starters (STS)

https://support.industry.siemens.com/cs/ww/en/view/101494917

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

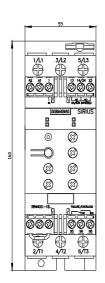
Industry Mall (Online ordering system)

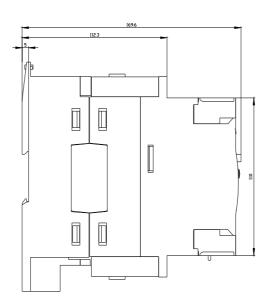
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RW4038-1BB04

Cax online generator

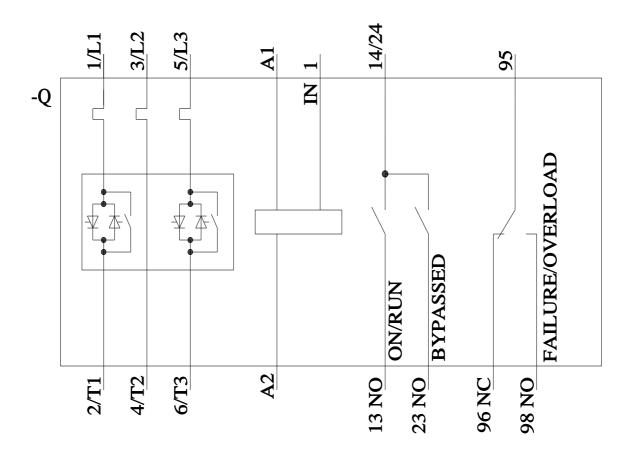
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW4038-1BB04}$ 

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









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