SIEMENS

Data sheet 3RW40 27-2TB04



SIRIUS SOFT STARTER, S0, 32A, 15KW/400V, 40 DEGR., AC 200-480V, AC/DC 24V, SPRING-LOADED TERMINALS, THERMISTOR MOTOR PROTECTION

General technical data:		
product brand name		SIRIUS
Product feature		
 integrated bypass contact system 		Yes
Thyristors		Yes
Product function		
 Intrinsic device protection 		Yes
 motor overload protection 		Yes
 Evaluation of thermistor motor protection 		Yes
External reset		Yes
 Adjustable current limitation 		Yes
• inside-delta circuit		No
Product component Motor brake output		No
Equipment marking acc. to DIN EN 61346-2		Q
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		G

Power Electronics:		
Product designation		soft starters for standard applications
Operating current		
• at 40 °C Rated value	Α	32
● at 50 °C Rated value	Α	29
• at 60 °C Rated value	Α	26
Mechanical power output for three-phase motors		
● at 230 V		

— at standard circuit at 40 °C Rated value • at 400 V — at standard circuit at 40 °C Rated value yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value Operating frequency Rated value Hz 50 60 Relative negative tolerance of the operating frequency Relative positive tolerance of the operating frequency Relative negative tolerance of the operating frequency Noperating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during operation typical 15 000 7.5 hp 7.5 hp 7.5 hp 7.5 hp 7.5 hp 10 10 20 480 10 20 A 17 17 17 17 17 15 Active power loss at operating current at 40 °C during operation typical			
— at standard circuit at 40 °C Rated value yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value Operating frequency Rated value Relative negative tolerance of the operating frequency Relative positive tolerance of the operating frequency Relative negative tolerance of the operating voltage at standard circuit Rated value V 200 480 Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of Le at 40 °C Active power loss at operating current at 40 °C during W 15 000 T.5 Active power loss at operating current at 40 °C during W 13	 — at standard circuit at 40 °C Rated value 	W	7 500
yielded mechanical performance [hp] for three-phase AC motor at 200/208 V at standard circuit at 50 °C Rated value Operating frequency Rated value Relative negative tolerance of the operating frequency Relative positive tolerance of the operating frequency Operating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of LM Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of Le at 40 °C Active power loss at operating current at 40 °C during W 7.5 hp 7.6 Np 7.5 10 7.5	● at 400 V		
AC motor at 200/208 V at standard circuit at 50 °C Rated value Operating frequency Rated value Hz 50 60 Relative negative tolerance of the operating frequency Relative positive tolerance of the operating frequency Relative negative tolerance of the operating frequency Operating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during W 13	 — at standard circuit at 40 °C Rated value 	W	15 000
Rated value Operating frequency Rated value Relative negative tolerance of the operating frequency Relative positive tolerance of the operating frequency Operating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of LM Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of Le at 40 °C Active power loss at operating current at 40 °C during W 10 10 10 10 11 10 11 11 11	yielded mechanical performance [hp] for three-phase	metric	7.5
Operating frequency Rated value Relative negative tolerance of the operating frequency Relative positive tolerance of the operating frequency Operating voltage at standard circuit Rated value V 200 480 Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during W 10 10 10 20 11 17 15 16 17 17 15 15 16 17 17 18 19 19 10 11 11 11 11 11 11 11	AC motor at 200/208 V at standard circuit at 50 °C	hp	
Relative negative tolerance of the operating frequency Relative positive tolerance of the operating frequency Operating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during W 10 10 200 115 115	Rated value		
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 Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M % 20 Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C % 115 Active power loss at operating current at 40 °C during W 13	Operating frequency Rated value	Hz	50 60
Relative positive tolerance of the operating frequency Operating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C	Relative negative tolerance of the operating	%	-10
Operating voltage at standard circuit Rated value Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during V 200 480 -15 -15 -15 -10 -17 -17 -17 -17 -17 -17 -17	frequency		
Relative negative tolerance of the operating voltage at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during W -15 10 10 17 17 17 18 19 19 10 11 17 17 18 19 10 10 11 10 11 10 11 11 11	Relative positive tolerance of the operating frequency	%	10
at standard circuit Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C % 115 Active power loss at operating current at 40 °C during W 13	Operating voltage at standard circuit Rated value	V	200 480
Relative positive tolerance of the operating voltage at standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during W 10 10 11 11 12 13	Relative negative tolerance of the operating voltage	%	-15
standard circuit Minimum load in % of I_M Adjustable motor current for motor overload protection minimum rated value Continuous operating current in % of I_e at 40 °C Active power loss at operating current at 40 °C during W 13	at standard circuit		
Minimum load in % of I_M Adjustable motor current for motor overload A 17 protection minimum rated value Continuous operating current in % of I_e at 40 °C % 115 Active power loss at operating current at 40 °C during W 13	Relative positive tolerance of the operating voltage at	%	10
Adjustable motor current for motor overload A 17 protection minimum rated value Continuous operating current in % of I_e at 40 °C % 115 Active power loss at operating current at 40 °C during W 13	standard circuit		
protection minimum rated value Continuous operating current in % of I_e at 40 °C % 115 Active power loss at operating current at 40 °C during W 13	Minimum load in % of I_M	%	20
Continuous operating current in % of I_e at 40 °C	Adjustable motor current for motor overload	Α	17
Active power loss at operating current at 40 °C during W 13	protection minimum rated value		
	Continuous operating current in % of I_e at 40 °C	%	115
operation typical	Active power loss at operating current at 40 °C during	W	13
	operation typical		
Control electronics:	Control electronics:		

Control electronics:		
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 with AC		
● at 50 Hz Rated value	V	24
• at 60 Hz Rated value	V	24
Relative negative tolerance of the control supply voltage with AC at 60 Hz	%	-20
Relative positive tolerance of the control supply voltage with AC at 60 Hz	%	20
Control supply voltage 1 for DC Rated value	V	24
Relative negative tolerance of the control supply voltage for DC	%	-20
Relative positive tolerance of the control supply voltage for DC	%	20
Display version for fault signal		red

Mechanical data:		
Size of engine control device	S0	

Width	mm	45
Height	mm	150
Depth	mm	155
Mounting type		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	15
• downwards	mm	40
Installation altitude at height above sea level	m	5 000
Cable length maximum	m	300
Number of poles for main current circuit		3
Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		spring-loaded terminals
 for auxiliary and control current circuit 		spring-loaded terminals
Number of NC contacts for auxiliary contacts		0
Number of NO contacts for auxiliary contacts		2
Number of CO contacts for auxiliary contacts		1
Type of connectable conductor cross-section for main contacts for box terminal using the front clamping point		
• solid		2x (1.5 2.5 mm²), 2x (2.5 6 mm²), max. 1x 10 mm²
 finely stranded with core end processing 		2x (1.5 2.5 mm²), 2x (2.5 6 mm²)
Type of connectable conductor cross-section for AWG conductors for main contacts for box terminal		
 using the front clamping point 		1x 8, 2x (16 10)
Type of connectable conductor cross-section for main contacts		
• solid		1 10 mm²
• finely stranded with core end processing		1 6 mm²
Type of connectable conductor cross-section for auxiliary contacts		

• solid

AWG conductors

• for main contacts

• for auxiliary contacts

• finely stranded with core end processing

Type of connectable conductor cross-section for

2x (0.25 ... 2.5 mm²)

2x (0.25 ... 1.5 mm²)

16 ... 10, 1x 8

2x (24 ... 14)

Ambient conditions:		
Ambient temperature		
 during operation 	°C	-25 +60
during storage	°C	-40 +80
Derating temperature	°C	40
Protection class IP		IP20

Certificates/ approvals:

General Product Approval EMC For use in hazardous locations













Test Certificates

Shipping Approval

Type Test
Certificates/Test
Report

Special Test Certificate





GL





other

Environmental Declaration of Confirmations Conformity

UL/CSA ratings:		
yielded mechanical performance [hp] for three-phase		
AC motor		
● at 220/230 V		
— at standard circuit at 50 °C Rated value	metric hp	7.5
● at 460/480 V		
— at standard circuit at 50 °C Rated value	metric hp	20
Contact rating of the auxiliary contacts acc. to UL		B300 / R300

Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

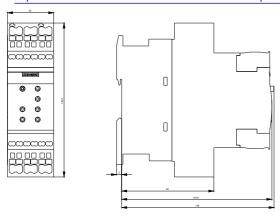
http://www.siemens.com/industrymall

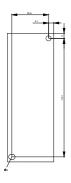
Cax online generator

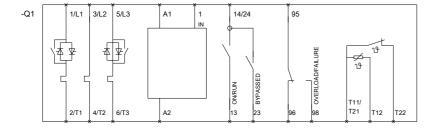
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW40272TB04

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RW40272TB04/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW40272TB04&lang=en







last modified: 15.01.2015