



MOTOR STARTER SIRIUS 3RM1 REVERSE STARTER SAFETY
500 V; 0,4 - 2,0 A; 24 V DC PUSH-IN CONNECTION SYSTEM

Figure similar

General technical data:	
product brand name	SIRIUS
Product designation	Motor starter
Design of the product	with reversing functionality and electronic overload protection and safety-related shutdown
Trip class	CLASS 10A
Protection class IP	IP20
Suitability for operation Device connector 3ZY12	Yes
Product function Intrinsic device protection	Yes
Type of the motor protection	solid-state
Product function Adjustable current limitation	Yes
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• during transport	-40 ... +70 °C
• during storage	-40 ... +70 °C
Shock resistance	6g / 11 ms
Vibration resistance	1 ... 6 Hz, 15 mm; 20 m/s ² , 500 Hz
Surge voltage resistance Rated value	6 kV
Insulation voltage Rated value	500 V
Mechanical service life (switching cycles) typical	30 000 000
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5	2 kV
Conducted interference due to burst acc. to IEC 61000-4-4	3 kV / 5 kHz

Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6	10 V
Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Field-bound HF-interference emission acc. to CISPR11	Class B for the domestic, business and commercial environments
Conducted HF-interference emissions acc. to CISPR11	Class B for the domestic, business and commercial environments
maximum permissible voltage for safe isolation	
• between main and auxiliary circuit	500 V
• between control and auxiliary circuit	250 V
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	Q
Equipment marking acc. to DIN EN 61346-2	Q

Safety related data:

Safety Integrity Level (SIL) acc. to IEC 61508	SIL3
Performance level (PL) acc. to EN ISO 13849-1	e
Category acc. to EN ISO 13849-1	4
T1 value for proof test interval or service life acc. to IEC 61508	20 y
PFHD with high demand rate acc. to EN 62061	0.00000002 1/h
Protection against electrical shock	finger-safe
Safety device type acc. to IEC 61508-2	Type B
OFF-delay time with safety-related request when switched off via control inputs maximum	65 ms
OFF-delay time with safety-related request when switched off via supply voltage maximum	120 ms

Main circuit:

Number of poles for main current circuit	3
Operating voltage Rated value maximum	500 V
Operating frequency	
• 1 Rated value	50 Hz
• 2 Rated value	60 Hz
Minimum load [% of IM]	20 %
Active power loss typical	0.3 W
Adjustable response value current of the current-dependent overload release	0.4 ... 2 A
Operating power for three-phase motors at 400 V at 50 Hz	0.09 ... 0.75 kW
Operating frequency maximum	1 1/s

Control circuit/ Control:

Type of voltage of the control supply voltage	DC
Control supply voltage 1	
• for DC Rated value	24 V

Operating range factor control supply voltage rated value	
<ul style="list-style-type: none"> • for DC 	0.8 ... 1.25
Control current	
<ul style="list-style-type: none"> • for DC <ul style="list-style-type: none"> — in standby mode — during operation — when switching on 	13 mA 57 mA 150 mA
Input voltage at digital input	
<ul style="list-style-type: none"> • for signal <1> <ul style="list-style-type: none"> — for DC • with signal <0> <ul style="list-style-type: none"> — for DC 	15 ... 30 V 0 ... 5 V
Input current at digital input	
<ul style="list-style-type: none"> • for signal <1> <ul style="list-style-type: none"> — for DC • with signal <0> <ul style="list-style-type: none"> — for DC 	8 mA 1 mA
Switch-on delay time	90 ... 120 ms
OFF-delay time	40 ... 55 ms

Auxiliary circuit:

Number of CO contacts for auxiliary contacts	1
Design of the switching contact as NO contact for signaling function	Electronic
Operating current of the auxiliary contacts	
<ul style="list-style-type: none"> • at AC-15 maximum • at DC-13 maximum 	3 A 1 A

Installation/ mounting/ dimensions:

mounting position	vertical, horizontal, standing
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Width	22.5 mm
Height	100 mm
Depth	141.6 mm

Connections/ Terminals:






Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	PUSH-IN connection (spring-loaded connection) PUSH-IN connection (spring-loaded connection)
Type of connectable conductor cross-section for main contacts	
<ul style="list-style-type: none"> • solid • finely stranded 	1x (0.5 ... 4 mm ²)

— with core end processing	1x (0.5 ... 2.5 mm ²)
— without core end processing	1x (0.5 ... 4 mm ²)
Type of connectable conductor cross-section for AWG conductors for main contacts	1x (20 ... 12)
Type of connectable conductor cross-section for auxiliary contacts	
• solid	1x (0.5 ... 1.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• finely stranded	
— with core end processing	1x (0,5 ... 1,0 mm ²), 2x (0,5 ... 1,0 mm ²)
— without core end processing	1x (0.5 ... 1.5 mm ²), 2x (0.5 ... 1.5 mm ²)
Type of connectable conductor cross-section for AWG conductors for auxiliary contacts	1x (20 ... 16), 2x (20 ... 16)

UL ratings:

Full-load current (FLA) for three-phase AC motor at 480 V Rated value	2 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 230 V Rated value	0.125 hp
• for three-phase AC motor	
— at 200/208 V Rated value	0.333 hp
— at 220/230 V Rated value	0.333 hp
— at 460/480 V Rated value	0.75 hp

Certificates/ approvals:

General Product Approval		For use in hazardous locations	Functional Safety/Safety of Machinery	Declaration of Conformity
				
CCC	UL		ATEX	EG-Konf.

Test Certificates	other
Type Test Certificates/Test Report	Confirmation
Special Test Certificate	Environmental Confirmations

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

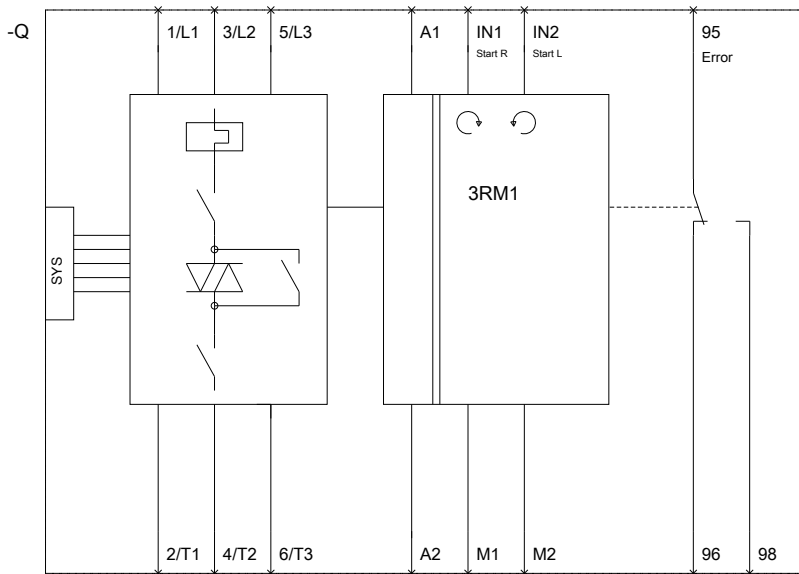
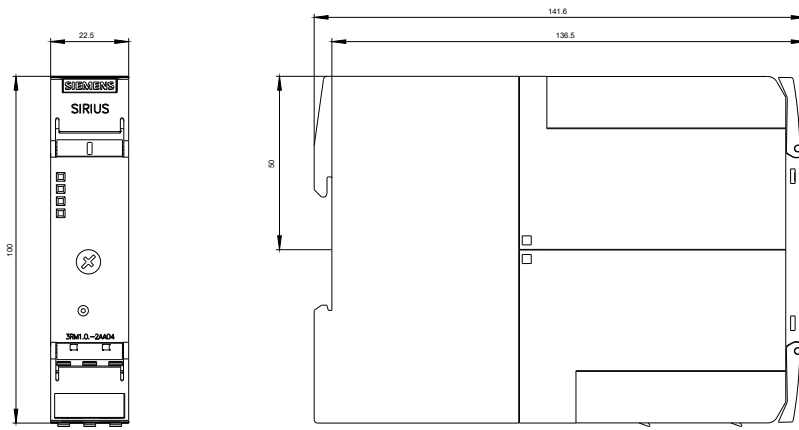
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RM13022AA04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RM13022AA04>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RM13022AA04&lang=en



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08.06.2015