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Data sheet 3RW4074-6BB45



SIRIUS soft starter S12 280 A, 200 kW/500 V, 40 °C 400-600 V AC, 230 V AC Screw terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5074-6AB15<<

General technical data	
product brand name	SIRIUS
product designation	Soft starter
product feature	
● integrated bypass contact system	Yes
● thyristors	Yes
product function	
● intrinsic device protection	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	600 V
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
Power Electronics	
operational current	
● at 40 °C rated value	280 A
● at 50 °C rated value	248 A
● at 60 °C rated value	215 A
yielded mechanical performance for 3-phase motors	
● at 400 V	
— at standard circuit at 40 °C rated value	160 kW
● at 500 V	
— at standard circuit at 40 °C rated value	200 kW
operating frequency rated value	50 ... 60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
operating voltage at standard circuit rated value	400 ... 600 V
relative negative tolerance of the operating voltage at standard circuit	-15 %
relative positive tolerance of the operating voltage at standard circuit	10 %

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minimum load [%]	20 %
adjustable motor current for motor overload protection minimum rated value	130 A
continuous operating current [% of Ie] at 40 °C	115 %
power loss [W] at operational current at 40 °C during operation typical	90 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage frequency 1 rated value	50 Hz
control supply voltage frequency 2 rated value	60 Hz
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	230 V
● at 60 Hz rated value	230 V
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 %
display version for fault signal	red
Mechanical data	
size of engine control device	S12
width	160 mm
height	230 mm
depth	278 mm
fastening method	screw fixing
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	100 mm
● at the side	5 mm
● downwards	75 mm
wire length maximum	300 m
number of poles for main current circuit	3
Connections/ Terminals	
type of electrical connection	
● for main current circuit	busbar connection
● for auxiliary and control circuit	screw-type 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-sections for main contacts for box terminal using the front clamping point	
● finely stranded with core end processing	70 ... 240 mm²
● finely stranded without core end processing	70 ... 240 mm²
● stranded	95 ... 300 mm²
type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point	
● finely stranded with core end processing	120 ... 185 mm²
● finely stranded without core end processing	120 ... 185 mm²
● stranded	120 ... 240 mm²
type of connectable conductor cross-sections for main contacts for box terminal using both clamping points	
● finely stranded with core end processing	min. 2x 50 mm², max. 2x 185 mm²
● finely stranded without core end processing	min. 2x 50 mm², max. 2x 185 mm²

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● stranded	max. 2x 70 mm², max. 2x 240 mm²
type of connectable conductor cross-sections for AWG cables for main contacts for box terminal	
● using the back clamping point	250 ... 500 kcmil
● using the front clamping point	3/0 ... 600 kcmil
● using both clamping points	min. 2x 2/0, max. 2x 500 kcmil
type of connectable conductor cross-sections for DIN cable lug for main contacts	
● finely stranded	50 ... 240 mm²
● stranded	70 ... 240 mm²
type of connectable conductor cross-sections for auxiliary contacts	
● solid	2x (0.5 ... 2.5 mm²)
● finely stranded with core end processing	2x (0.5 ... 1.5 mm²)
type of connectable conductor cross-sections for AWG cables	
● for main contacts	2/0 ... 500 kcmil
● for auxiliary contacts	2x (20 ... 14)
● for auxiliary contacts finely stranded with core end processing	2x (20 ... 16)
Ambient conditions	
installation altitude at height above sea level	5 000 m
environmental category	
● during transport according to IEC 60721	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
● during operation according to IEC 60721	3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
ambient temperature	
● during operation	-25 ... +60 °C
● during storage	-40 ... +80 °C
derating temperature	40 °C
protection class IP on the front according to IEC 60529	IP00; IP20 with cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with cover
UL/CSA ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
● at 460/480 V	
— at standard circuit at 50 °C rated value	200 hp
● at 575/600 V	
— at standard circuit at 50 °C rated value	250 hp
contact rating of auxiliary contacts according to UL	B300 / R300
Approvals Certificates	

Environment	General Product Approval				
Environmental Confirmations	Siemens EcoTech	CCC	cULus	EAC	CE EG-Konf.

EMV	For use in hazardous locations	Test Certificates	Maritime application	
	RCM	ATEX	Special Test Certificate	DNV	LRS

other

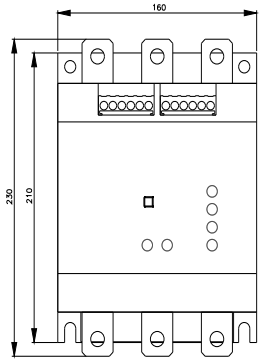
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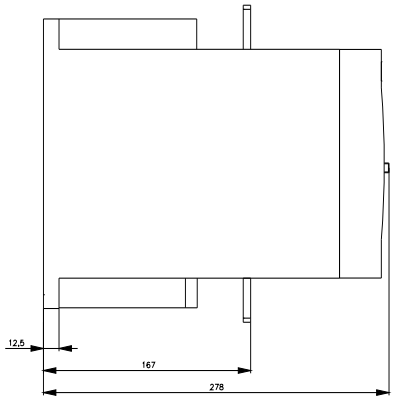
Confirmation

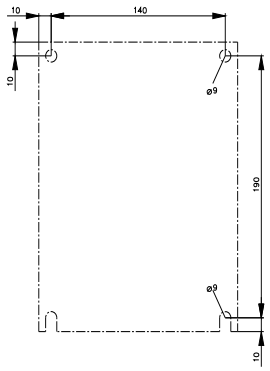
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Further information

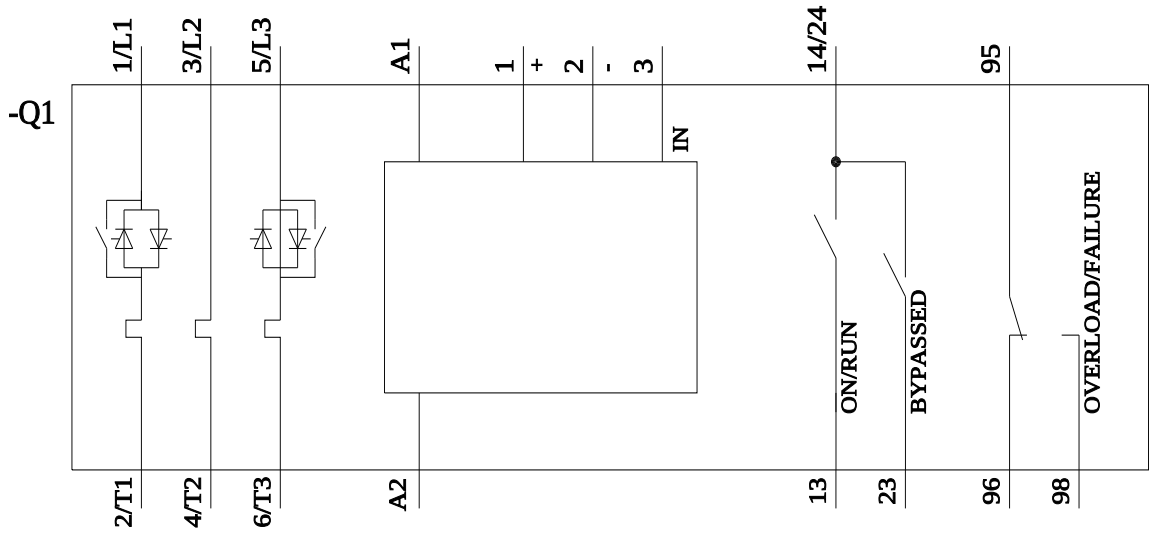
Simulation Tool for Soft Starters (STS)
https://support.industry.siemens.com/cs/ww/en/view/101494917
Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- 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=3RW4074-6BB45
Cax online generator
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4074-6BB45
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RW4074-6BB45
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
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