SIEMENS

Data sheet

3RW44 22-1BC46



SIRIUS SOFT STARTER, VALUES WITH 690 V, 40 DEG., STANDARD: 29A, 30KW, INSIDE-DELTA CIRCUIT 3: ONLY UP TO 600V, 400-690 V AC, 230 V AC, SCREW TERMINALS

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		Yes
Product component Motor brake output	_	Yes
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 high feature applications		
Operating current				
• at 40 °C Rated value	А	29		
• at 50 °C Rated value	А	26		
• at 60 °C Rated value	А	23		
Operating current for three-phase motors at 3-phase root switching				
• at 40 °C Rated value	А	50		

● at 50 °C Rated value	А	45
• at 60 °C Rated value	A	40
Mechanical power output for three-phase motors		
• at 400 V		
— at standard circuit at 40 °C Rated value	W	15 000
— at 3-phase root switching at 40 °C Rated value	W	22 000
● at 500 V		
— at standard circuit at 40 °C Rated value	W	18 500
— at 3-phase root switching at 40 °C Rated	W	30 000
value		
• at 690 V at standard circuit at 40 °C Rated	W	30 000
value		
Operating frequency Rated value	Hz	50 60
Relative negative tolerance of the operating	%	-10
frequency		
Relative positive tolerance of the operating frequency	%	10
Operating voltage at standard circuit Rated value	V	400 690
Relative negative tolerance of the operating voltage at standard circuit	%	-15
Relative positive tolerance of the operating voltage at standard circuit	%	10
Operating voltage at 3-phase root switching Rated	V	400 600
value		
Relative negative tolerance of the operating voltage at 3-phase root switching	%	-15
Relative positive tolerance of the operating voltage at 3-phase root switching	%	10
Minimum load in % of I_M	%	8
Adjustable motor current for motor overload	А	5
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 operation typical	W	8
Control electronics:		
Type of voltage of the control supply voltage		AC
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	%	-10
voltage frequency		
Relative positive tolerance of the control supply	%	10
voltage frequency		
Control supply voltage 1 with AC		
• at 50 Hz Rated value	V	230

• at 60 Hz Rated value	V	230
Relative negative tolerance of the control supply voltage with AC at 60 Hz	%	-15
Relative positive tolerance of the control supply voltage with AC at 60 Hz	%	10
Display version for fault signal		Display

Mechanical data:		
Width	mm	170
Height	mm	192
Depth	mm	270
Mounting type		screw fixing
mounting position		bei senkrechter Montageebene +/-90° drehbar, bei senkrechter Montageebene +/- 22,5° nach vorne und hinten kippbar
Required spacing with side-by-side mounting		
• upwards	mm	100
• at the side	mm	5
• downwards	mm	75
Installation altitude at height above sea level	m	5 000
Cable length maximum	m	500
Number of poles for main current circuit		3

Connections/ Terminals:				
Type of electrical connection				
• for main current circuit	box terminals			
 for auxiliary and control current circuit 	screw-type terminals			
Number of NC contacts for auxiliary contacts	0			
Number of NO contacts for auxiliary contacts	3			
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	2.5 16 mm²			
 finely stranded with core end processing 	2.5 35 mm²			
 finely stranded without core end processing 	4 50 mm²			
• stranded	4 70 mm²			
Type of connectable conductor cross-section for main contacts for box terminal using the back clamping point				
• solid	2,5 16 mm²			
 finely stranded with core end processing 	2.5 50 mm²			
 finely stranded without core end processing 	10 50 mm²			
• stranded	10 70 mm²			

Type of connectable conductor cross-section for		
main contacts for box terminal using both clamping		
points		
• solid		2x (2.5 16 mm²)
 finely stranded with core end processing 		2x (2.5 35 mm²)
 finely stranded without core end processing 		2x (4 35 mm²)
• stranded		2x (4 50 mm²)
Type of connectable conductor cross-section for		
AWG conductors for main contacts for box terminal		
 using the back clamping point 		10 2/0
 using the front clamping point 		10 2/0
 using both clamping points 		2x (10 1/0)
Type of connectable conductor cross-section 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-section for		
AWG conductors		
 for auxiliary contacts 		2x (20 14)
 for auxiliary contacts finely stranded with core 		2x (20 16)
end processing		
Municipal Ambient conditions:		
Ambient temperature		
• during operation	°C	60
• during storage	°C	-25 +80
Derating temperature	°C	40
Protection class IP		IP00

Certificates/ approvals

General Produc	t Approval		EMC	Declaration of Conformity	Test Certificates
(SA)		EHC	C-TICK	EG-Konf.	<u>Type Test</u> <u>Certificates/Test</u> <u>Report</u>
Test Certificates	Shipping App	roval			
Special Test Certificate	ABS	BUREAU VERITAS		GL	Lloyd's Register LRS
Shipping	other				
Approval					
PRS	Environmental Confirmations				

UL/CSA ratings:		
yielded mechanical performance [hp] for three-phase		
AC motor		
● at 460/480 V		
— at standard circuit at 50 °C Rated value	metric	15
	hp	
— at 3-phase root switching at 50 °C Rated	metric	30
value	hp	
● at 575/600 V		
— at standard circuit at 50 °C Rated value	metric	20
	hp	
— at 3-phase root switching at 50 °C Rated	metric	40
value	hp	
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=3RW44221BC46

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RW44221BC46/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RW44221BC46&lang=en





