SIEMENS

Data sheet

US2:22GP32BC81



Reversing motor starter, Size 2 1/2, Three phase full voltage, Amb. compensate bimetal OLR, Contactor amp rating 60A, Non-combination type, Enclosure type 1, Indoor general purpose use

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product brand name	Class 14 & 22		
design of the product	Full-voltage reversing motor starter		
special product feature	Half-size starter; Dual voltage coil		
General technical data			
weight [lb]	24.8 lb		
Height x Width x Depth [in]	20 × 12 × 8 in		
touch protection against electrical shock	NA for enclosed products		
installation altitude [ft] at height above sea level maximum	6560 ft		
ambient temperature [°F]			
 during storage 	-22 +149 °F		
during operation	-4 +104 °F		
ambient temperature			
during storage	-30 +65 °C		
during operation	-20 +40 °C		
country of origin	USA		
Horsepower ratings			
yielded mechanical performance [hp] for 3-phase AC motor			
 at 200/208 V rated value 	15 hp		
 at 220/230 V rated value 	20 hp		
 at 460/480 V rated value 	30 hp		
• at 575/600 V rated value	30 hp		
Contactor			
size of contactor	Controller half size 2 1/2		
number of NO contacts for main contacts	3		
operating voltage for main current circuit at AC at 60 Hz maximum	600 V		
operational current at AC at 600 V rated value	60 A		
mechanical service life (switching cycles) of the main contacts typical	1000000		
Auxiliary contact			
number of NC contacts at contactor for auxiliary contacts	0		
number of NO contacts at contactor for auxiliary contacts	1		
number of total auxiliary contacts maximum	7		
contact rating of auxiliary contacts of contactor according to UL	10A@600VAC (A600), 5A@600VDC (P600)		
Coil			
type of voltage of the control supply voltage	AC		
control supply voltage			

 at AC at 60 Hz rated value 	220 480 V		
holding power at AC minimum	8.6 W		
apparent pick-up power of magnet coil at AC	218 VA		
apparent holding power of magnet coil at AC	25 VA		
operating range factor control supply voltage rated value	0.85		
of magnet coil			
percental drop-out voltage of magnet coil related to the input voltage	50 %		
ON-delay time	19 29 ms		
OFF-delay time	10 24 ms		
Overload relay			
product function			
 overload protection 	Yes		
test function	Yes		
external reset	Yes		
reset function	Manual and automatic		
adjustment range of thermal overload trip unit	0.85 1.15		
number of NC contacts of auxiliary contacts of overload relay	1		
number of NO contacts of auxiliary contacts of overload relay	0		
operational current of auxiliary contacts of overload relay			
• at AC at 600 V	10 A		
● at DC at 250 V	5 A		
contact rating of auxiliary contacts of overload relay according to UL	10A@600VAC (A600), 5A@250VDC (P300)		
Enclosure			
degree of protection NEMA rating	1		
design of the housing	indoors, usable on a general basis		
Mounting/wiring			
mounting position	Vertical		
fastening method	Surface mounting and installation		
type of electrical connection for supply voltage line-side	Box lug		
tightening torque [lbf-in] for supply	45 45 lbf·in		
temperature of the conductor for supply maximum permissible	75 °C		
material of the conductor for supply	AL or CU		
type of electrical connection for load-side outgoing feeder	Screw-type terminals		
tightening torque [lbf·in] for load-side outgoing feeder	35 50 lbf·in		
type of electrical connection of magnet coil	Screw-type terminals		
tightening torque [lbf·in] at magnet coil	5 12 lbf·in		
type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded	2x (16 12 AWG)		
temperature of the conductor at magnet coil maximum permissible	75 °C		
material of the conductor at magnet coil	CU		
type of electrical connection for auxiliary contacts	Screw-type terminals		
tightening torque [lbf·in] at contactor for auxiliary contacts	10 15 lbf·in		
type of connectable conductor cross-sections at contactor at AWG cables for auxiliary contacts single or multi- stranded	1x (12 AWG), 2x (16 14 AWG), 2x (18 16 AWG)		
temperature of the conductor at contactor for auxiliary contacts maximum permissible	75 °C		
material of the conductor at contactor for auxiliary contacts	CU		
type of electrical connection at overload relay for auxiliary contacts	Screw-type terminals		
tightening torque [lbf·in] at overload relay for auxiliary contacts	5 12 lbf·in		
type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi- stranded	2x (16 12 AWG)		
temperature of the conductor at overload relay for auxiliary contacts maximum permissible	75 °C		

material of the conductor at overload relay for auxiliary contacts	CU
Short-circuit current rating	
design of the fuse link for short-circuit protection of the main circuit required	10kA@600V (Class H or K); 100kA@600V (Class R or J)
design of the short-circuit trip	Thermal magnetic circuit breaker
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	14 kA
• at 480 V	10 kA
• at 600 V	10 kA
certificate of suitability	NEMA ICS 2; UL 508; CSA 22.2, No.14
Further information	

urther information

Industrial Controls - Product Overview (Catalogs, Brochures,...)

www.usa.siemens.com/iccatalog Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:22GP32BC81

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

https://support.industry.siemens.com/cs/US/en/ps/US2:22GP32BC81

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22GP32BC81&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22GP32BC81/certificate

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