SIEMENS

Data sheet US2:22FUF320G



Reversing motor starter, Size 2, Three phase full voltage, Solid-state overload relay, OLR amp range 13-52A, Non-combination type, Enclosure type 12, Dust/drip proof for indoors, Standard width enclosure

product brand name	Class 22
design of the product	Full-voltage reversing motor starter
special product feature	ESP200 overload relay
General technical data	
weight [lb]	21 lb
Height x Width x Depth [in]	16 × 13 × 6 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	10 hp
• at 220/230 V rated value	15 hp
• at 460/480 V rated value	25 hp
• at 575/600 V rated value	25 hp
Contactor	
size of contactor	NEMA controller size 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	45 A
mechanical service life (operating cycles) of the main contacts typical	10000000
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 50 Hz rated value 	190 220 V
at AC at 60 Hz rated value	220 240 V
holding power at AC minimum	8.6 W
apparent pick-up power of magnet coil at AC	218 VA

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apparent holding power of magnet coil at AC	25 VA
operating range factor control supply voltage rated value of magnet coil	0.85 1.1
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
phase failure detection	Yes
 asymmetry detection 	Yes
ground fault detection	Yes
• test function	Yes
external reset	Yes
reset function	Manual, automatic and remote
trip class	CLASS 5 / 10 / 20 (factory set) / 30
adjustable current response value current of the current- dependent overload release	13 52 A
make time with automatic start after power failure maximum	3 s
relative repeat accuracy	1 %
product feature protective coating on printed-circuit board	Yes
number of NC contacts of auxiliary contacts of overload relay	1
number of NO contacts of auxiliary contacts of overload relay	1
operational current of auxiliary contacts of overload relay	
• at AC at 600 V	5 A
• at DC at 250 V	1 A
contact rating of auxiliary contacts of overload relay according to UL	5A@600VAC (B600), 1A@250VDC (R300)
insulation voltage (Ui)	
with single-phase operation at AC rated value	600 V
with multi-phase operation at AC rated value	300 V
Enclosure	
degree of protection NEMA rating	12
design of the housing	dustproof and drip-proof for indoor use
Mounting/wiring	
mounting position	Vertical
fastening method	Surface mounting and installation
J	Carrage meanting and metallation
type of electrical connection for supply voltage line-side	Box lug
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type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for	Box lug 45 45 lbf·in
type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded	Box lug 45 45 lbf-in 1x (14 2 AWG)
type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible	Box lug 45 45 lbf·in 1x (14 2 AWG) 75 °C
type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply	Box lug 45 45 lbf-in 1x (14 2 AWG) 75 °C AL or CU
type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder	Box lug 45 45 lbf·in 1x (14 2 AWG) 75 °C AL or CU Box lug
type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables	Box lug 45 45 lbf-in 1x (14 2 AWG) 75 °C AL or CU Box lug 45 45 lbf-in
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type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder tightening torque [lbf-in] for load-side outgoing feeder type of connectable conductor cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor for load-side outgoing feeder maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil tightening torque [lbf-in] at magnet coil	Box lug 45 45 lbf-in 1x (14 2 AWG) 75 °C AL or CU Box lug 45 45 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 5 12 lbf-in
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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	7 10 lbf·in
type of connectable conductor cross-sections at overload relay for AWG cables for auxiliary contacts single or multi-stranded	2x (20 14 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)
	10kA@600V (Class H or K); 100kA@600V (Class R or J) Thermal magnetic circuit breaker
circuit required	
circuit required design of the short-circuit trip	
circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu)	Thermal magnetic circuit breaker
circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu) • at 240 V	Thermal magnetic circuit breaker 14 kA
circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu) • at 240 V • at 480 V	Thermal magnetic circuit breaker 14 kA 10 kA

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=US2:22FUF320G

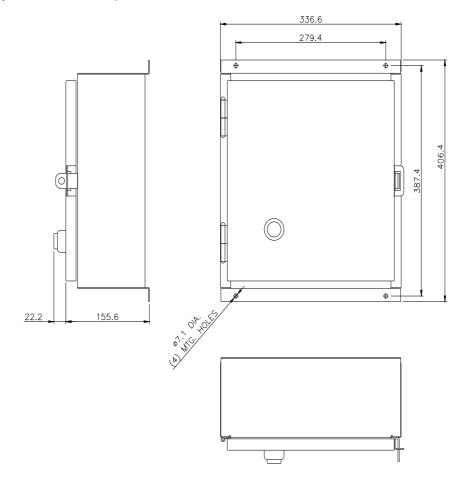
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

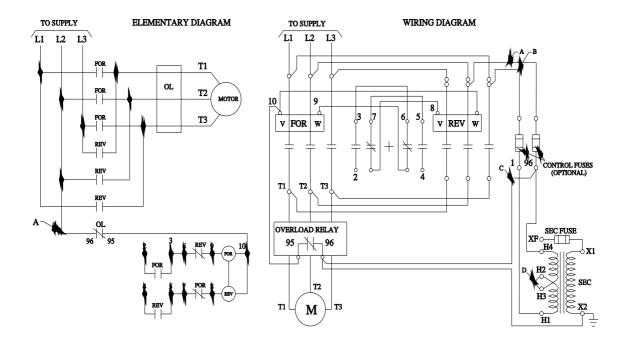
https://support.industry.siemens.com/cs/US/en/ps/US2:22FUF320G

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22FUF320G&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22FUF320G/certificate





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