SIEMENS

Data sheet

US2:22FUF32FA



Reversing motor starter, Size 2, Three phase full voltage, Solid-state overload relay, OLR amp range 13-52A, Non-combination type, Enclosure type 4X fiberglass, Water/dust tight noncorrosive, 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]	19 lb
Height x Width x Depth [in]	24 × 15 × 7 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	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	110 240 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 of	0.85 1.1
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
 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	4X, fiber glass
degree of protection NEMA rating design of the housing	4X, fiber glass dustproof, waterproof & resistant to corrosion
degree of protection NEMA rating design of the housing Mounting/wiring	dustproof, waterproof & resistant to corrosion
degree of protection NEMA rating design of the housing Mounting/wiring mounting position	dustproof, waterproof & resistant to corrosion Vertical
degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation
degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation Box lug
degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation Box lug 45 45 lbf-in
degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation Box lug 45 45 lbf in 1x (14 2 AWG)
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degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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 tightening torque [lbf-in] 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	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation 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)
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degree of protection NEMA rating design of the housing Mounting/wiring mounting position fastening method 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 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 type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil type of cable conductor at magnet coil maximum permissible material of the conductor at magnet coil type of electrical c	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation 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 Box lug 45 45 lbf in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 5 12 lbf in 2x (16 12 AWG) 75 °C CU Screw-type terminals 10 15 lbf in

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)
design of the short-circuit trip	Thermal magnetic circuit breaker
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	14 kA
• at 480 V	10 kA
• at 600 V	10 kA
and the set of a state bille s	
certificate of suitability	NEMA ICS 2; UL 508; CSA 22.2, No.14

Further 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=US2:22FUF32FA

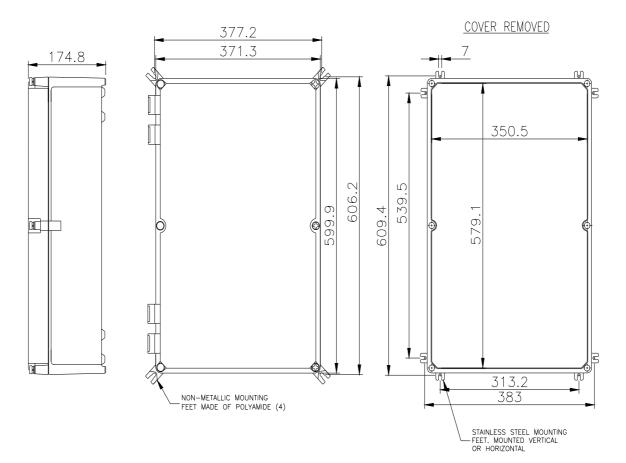
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:22FUF32FA

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22FUF32FA&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22FUF32FA/certificate





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