## **SIEMENS**

Data sheet US2:22CUC32AF



Reversing motor starter Size 0 Three phase full voltage Solid-state overload relay OLRelay amp range 3-12A 110VAC 50HZ / 120VAC 60HZ coil Non-combination type Enclosure type (open)

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]	6 lb
Height x Width x Depth [in]	7.69 × 10.5 × 3.92 in
touch protection against electrical shock	Not finger-safe
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	Mexico
Horsepower ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
<ul><li>at 200/208 V rated value</li></ul>	2 hp
• at 220/230 V rated value	2 hp
• at 460/480 V rated value	5 hp
• at 575/600 V rated value	5 hp
Contactor	
size of contactor	NEMA controller size 0
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	18 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	8
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	
<ul> <li>at AC at 50 Hz rated value</li> </ul>	110 V
at AC at 60 Hz rated value	120 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	5.55 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	
<ul> <li>overload protection</li> </ul>	Yes
phase failure detection	Yes
asymmetry detection	Yes
ground fault detection	Yes
• test function	Yes
external reset	No
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	3 12 A
make time with automatic start after power failure maximum	3 \$
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
<ul> <li>operational current of auxiliary contacts of overload relay</li> <li>at AC at 600 V</li> </ul>	5 A
• at AC at 600 V • at DC at 250 V	1 A
contact rating of auxiliary contacts of overload relay according to	5A@600VAC (B600), 1A@250VDC (R300)
UL	5.16600010 (D000), 17662000D0 (1000)
insulation voltage (Ui)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	600 V
	0001/
with multi-phase operation at AC rated value	300 V
with multi-phase operation at AC rated value     Enclosure	300 V
Enclosure degree of protection NEMA rating	Open device (no enclosure)
Enclosure  degree of protection NEMA rating  design of the housing	
Enclosure degree of protection NEMA rating design of the housing Mounting/wiring	Open device (no enclosure) NA
Enclosure  degree of protection NEMA rating design of the housing  Mounting/wiring mounting position	Open device (no enclosure) NA Vertical
Enclosure  degree of protection NEMA rating design of the housing  Mounting/wiring mounting position fastening method	Open device (no enclosure)  NA  Vertical  Surface mounting and installation
Enclosure  degree of protection NEMA rating design of the housing  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals
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	Open device (no enclosure)  NA  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 tightening torque [lbf-in] for supply type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)
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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x (14 2 AWG)  75 °C
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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU
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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals
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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 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 temperature of the conductor for supply maximum permissible material of the conductor for supply type of electrical connection for load-side outgoing feeder	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals
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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 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 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	Open device (no enclosure) NA  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf·in 1x (14 2 AWG)
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 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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)
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 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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)
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 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	Open device (no enclosure)  NA  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf in  1x (14 2 AWG)  Screw-type terminals  20 20 lbf in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals
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 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 type of connectable conductor cross-sections of magnet coil for	Open device (no enclosure) NA  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf·in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 5 21 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 temperature of the conductor for supply maximum permissible material of the conductor 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 type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum	Open device (no enclosure) NA  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf·in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf·in 2x (14 2 AWG)
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 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 type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible	Open device (no enclosure) NA  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 2x (16 12 bf-in 2x (16 12 AWG)
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 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 type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible	Open device (no enclosure) NA  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C  AL or CU Screw-type terminals 2x (14 2 AWG)  75 °C  AL or CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG)  75 °C  CU
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 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 type of connectable conductor cross-sections of magnet coil type of connectable conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible	Open device (no enclosure) NA  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 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

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	
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 fuse link for short-circuit protection of the main	10kA@600V (Class H or K); 100kA@600V (Class R or J)  Thermal magnetic circuit breaker
design of the fuse link for short-circuit protection of the main circuit required	-
design of the fuse link for short-circuit protection of the main circuit required design of the short-circuit trip	-
design of the fuse link for short-circuit protection of the main circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu)	Thermal magnetic circuit breaker
design of the fuse link for short-circuit protection of the main circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu)  • at 240 V	Thermal magnetic circuit breaker  14 kA
design of the fuse link for short-circuit protection of the main 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=US2:22CUC32AF

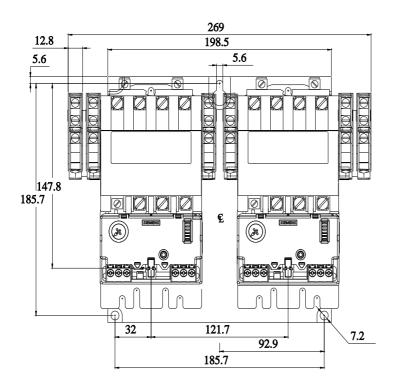
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

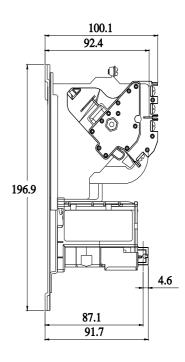
https://support.industry.siemens.com/cs/US/en/ps/US2:22CUC32AF

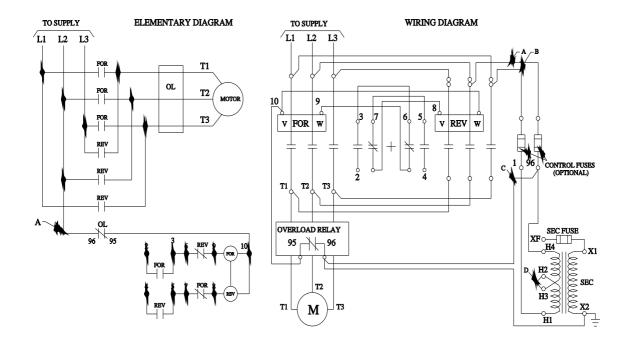
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22CUC32AF&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22CUC32AF/certificate







D46590003

last modified: 11/29/2021 🖸