## **SIEMENS**

Data sheet US2:22CUA32BG

Reversing motor starter, Size 0, Three phase full voltage, Solid-state overload relay, OLR amp range 0.25-1A, Non-combination type, Enclosure type 1, Indoor general purpose use, Standard width enclosure





Figure similar

product broad page	Class 22
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]	23 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	
<ul><li>at 200/208 V rated value</li></ul>	0.17 hp
<ul><li>at 220/230 V rated value</li></ul>	0.17 hp
<ul><li>at 460/480 V rated value</li></ul>	0.33 hp
• at 575/600 V rated value	0.5 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	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	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	
at AC at 50 Hz rated value	190 220 V
holding power at AC minimum	8.6 W
apparent pick-up power of magnet coil at AC	218 VA

apparent holding payor of account and at A.O.	25.1/4
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	
<ul> <li>overload protection</li> </ul>	Yes
phase failure detection	Yes
<ul> <li>asymmetry detection</li> </ul>	Yes
<ul> <li>ground fault detection</li> </ul>	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	0.25 1 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)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	600 V
<ul> <li>with multi-phase operation at AC rated value</li> </ul>	300 V
Enclosure	
degree of protection NEMA rating	1
design of the housing	indoors, usable on a general basis
Mounting/wiring	
mounting position	Vertical
mounting position fastening method	Vertical Surface mounting and installation
fastening method	Surface mounting and installation
fastening method type of electrical connection for supply voltage line-side	Surface mounting and installation Screw-type terminals
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 at	Surface mounting and installation Screw-type terminals 20 20 lbf·in
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 at AWG cables single or multi-stranded	Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG)
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 at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible	Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C
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 at AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply	Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU
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 at 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	Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals
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 at 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 at AWG cables for	Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 24 lbf·in
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 at 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 at AWG cables for load-side outgoing feeder single or multi-stranded  temperature of the conductor for load-side outgoing feeder	Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG)
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 at 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 at AWG cables for load-side outgoing feeder single or multi-stranded  temperature of the conductor for load-side outgoing feeder  maximum permissible	Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) 75 °C
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 at 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 at 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	Surface mounting and installation  Screw-type terminals  20 20 lbf·in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 24 lbf·in  2x (14 10 AWG)  75 °C  CU
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 at 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 at 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	Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2x (14 10 AWG) 75 °C CU Screw-type terminals
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 at 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 at 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 at	Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf·in
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 at 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 at 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 at AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum	Surface mounting and installation Screw-type terminals 20 20 lbf·in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf·in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf·in 2x (16 12 AWG)
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 at 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 at 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 at  AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum  permissible	Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x (14 2 AWG) 75 °C AL or CU Screw-type terminals 20 24 lbf-in 2x (14 10 AWG) 75 °C CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG)
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 at 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 at 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 at  AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum  permissible  material of the conductor at magnet coil	Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 24 lbf-in  2x (14 10 AWG)  75 °C  CU  Screw-type terminals  5 12 lbf-in  2x (16 12 AWG)  75 °C  CU
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 at 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 at 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 at AWG cables single or multi-stranded  temperature of the conductor at magnet coil maximum permissible  material of the conductor at magnet coil maximum permissible	Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 24 lbf-in  2x (14 10 AWG)  75 °C  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 at 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=US2:22CUA32BG

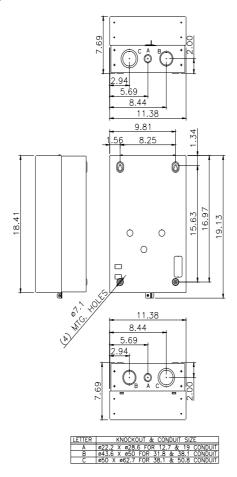
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

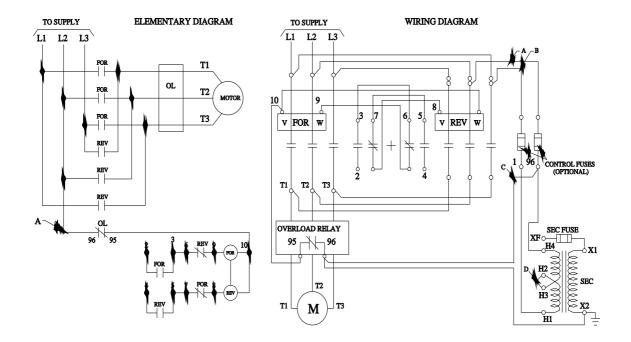
https://support.industry.siemens.com/cs/US/en/ps/US2:22CUA32BG

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22CUA32BG&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22CUA32BG&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22CUA32BG/certificate





D46590003

last modified: 1/25/2022 🖸