## **SIEMENS**

Data sheet US2:22GUG32AL



Figure similar

Reversing motor starter Size 2 1/2 Three phase full voltage Solid-state overload relay OLRelay amp range 25-100A 240VAC 50HZ / 277VAC 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; Half-size starter
General technical data	
weight [lb]	8 lb
Height x Width x Depth [in]	8.94 × 10.5 × 4.17 in
touch protection against electrical shock	Not finger-safe
installation altitude [ft] at height above sea level maximum	6560 ft
ambient temperature [°F]	
<ul> <li>during storage</li> </ul>	-22 +149 °F
<ul> <li>during operation</li> </ul>	-4 +104 °F
ambient temperature	
during storage	-30 +65 °C
<ul> <li>during operation</li> </ul>	-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>	15 hp
<ul><li>at 220/230 V rated value</li></ul>	20 hp
<ul><li>at 460/480 V rated value</li></ul>	30 hp
<ul><li>at 575/600 V rated value</li></ul>	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	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	

* an AC all 60 Ptz rated value Politing power at AC minimum AS 69 W Apparent noting power of magnet coll at AC AD Apparent noting power of magnet coll at AC AD	• at AC at 50 Hz rated value	240 V
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contact rating of auxiliary contacts of overload relay according to UL insulation voltage (Ui)  • with single-phase operation at AC rated value	• at AC at 600 V	5 A
according to UL  insulation voltage (Ui)  • with single-phase operation at AC rated value  • with multi-phase operation at AC rated value  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 at AWG cables single or multi-stranded temperature of the conductor for supply type of electrical connection for load-side outgoing feeder type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder type of connectable conductor for load-side outgoing feeder maximum permissible  type of connector for load-side outgoing feeder type of connector for load-side outgoing feeder type of connector for load-side outgoing feeder at 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 maximum permissible  type of electrical connection for load-side outgoing feeder material of the conductor for load-side outgoing feeder maximum permissible  for load-side outgoing feeder material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil  Screw-type terminals  tightening torque [lbf-in] at magnet coil	• at DC at 250 V	1 A
with single-phase operation at AC rated value     with multi-phase operation at AC rated value     300 V  Enclosure  degree of protection NEMA rating		5A@600VAC (B600), 1A@250VDC (R300)
evith multi-phase operation at AC rated value    Decision	insulation voltage (Ui)	
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design of the housing     NA       Mounting/wiring     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       type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded     1x (14 2 AWG)       temperature of the conductor for supply maximum permissible     75 °C       material of the conductor for load-side outgoing feeder     Box lug       tightening torque [lbf-in] for load-side outgoing feeder     45 45 lbf-in       type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded     1x (14 2 AWG)       temperature of the conductor for load-side outgoing feeder maximum permissible     75 °C       material of the conductor for load-side outgoing feeder     AL or CU       type of electrical connection of magnet coil     Screw-type terminals       tightening torque [lbf-in] at magnet coil     5 12 lbf-in	Enclosure	
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         type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded       1x (14 2 AWG)         temperature of the conductor for supply maximum permissible       75 °C         material of the conductor for load-side outgoing feeder       Box lug         tightening torque [lbf-in] for load-side outgoing feeder       45 45 lbf-in         type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded       1x (14 2 AWG)         temperature of the conductor for load-side outgoing feeder maximum permissible       75 °C         material of the conductor for load-side outgoing feeder       AL or CU         type of electrical connection of magnet coil       Screw-type terminals         tightening torque [lbf-in] at magnet coil       5 12 lbf-in	degree of protection NEMA rating	Open device (no enclosure)
mounting position  fastening method  type of electrical connection for supply voltage line-side  tightening torque [libf-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 type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder maximum permissible  material of the conductor for load-side outgoing feeder temperature of the conductor for supply  type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder maximum permissible  material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil  screw-type terminals tightening torque [lbf-in] at magnet coil  surface mounting and installation  Box lug  1x (14 2 AWG)  AL or CU  Type of electrical connection of magnet coil  screw-type terminals  surface mounting and installation  Box lug  1x (14 2 AWG)  AL or CU  Screw-type terminals  5 12 lbf-in	design of the housing	NA
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 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 electrical connection of magnet coil tightening torque [lbf-in] at magnet coil  5 12 lbf-in	Mounting/wiring	
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 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 electrical connection of magnet coil tightening torque [lbf-in] at magnet coil  5 12 lbf-in		Vertical
type of electrical connection for supply voltage line-side tightening torque [lbf-in] for supply 45 45 lbf-in  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  AL or CU  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 aximum permissible  material 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  screw-type terminals  tightening torque [lbf-in] at magnet coil  screw-type terminals  screw-type terminals		
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  tightening torque [lbf-in] for load-side outgoing feeder  type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder stranded  temperature of the conductor for load-side outgoing feeder  type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder 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  5 12 lbf-in		
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  screw-type terminals  tightening torque [lbf-in] at magnet coil  5 12 lbf-in		
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  temperature of the conductor for load-side outgoing feeder sometimes and the conductor feeder sometimes and the conductor feeder sometimes and t	type of connectable conductor cross-sections at line-side	1x (14 2 AWG)
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  AL or CU  Screw-type terminals  5 12 lbf·in	temperature of the conductor for supply maximum	75 °C
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  Box lug  1x (14 2 AWG)  75 °C  75 °C  Screw-type terminals  5 12 lbf-in	•	AL or CU
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  45 45 lbf-in  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in	,	
type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multistranded  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  1x (14 2 AWG)  75 °C  AL or CU  Screw-type terminals  5 12 lbf-in		
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  5 12 lbf-in	type of connectable conductor cross-sections at AWG	
maximum permissible material of the conductor for load-side outgoing feeder type of electrical connection of magnet coil screw-type terminals tightening torque [lbf-in] at magnet coil  5 12 lbf-in	stranded	75 °C
type of electrical connection of magnet coil  tightening torque [lbf·in] at magnet coil  5 12 lbf·in		
tightening torque [lbf·in] at magnet coil 5 12 lbf·in	material of the conductor for load-side outgoing feeder	AL or CU
	type of electrical connection of magnet coil	Screw-type terminals
type of connectable conductor cross-sections of magnet 2x (16 12 AWG)	tightening torque [lbf·in] at magnet coil	5 12 lbf·in
	type of connectable conductor cross-sections of magnet	2x (16 12 AWG)

coil at AWG cables single or multi-stranded	
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	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)
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	

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=US2:22GUG32AL

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) <a href="https://support.industry.siemens.com/cs/US/en/ps/US2:22GUG32AL">https://support.industry.siemens.com/cs/US/en/ps/US2:22GUG32AL</a>

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22GUG32AL&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22GUG32AL/certificate

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