## **SIEMENS**

Data sheet US2:18GUG92NE



Non-reversing motor starter, Size 2 1/2, Three phase full voltage, Solid-state overload relay, OLR amp range 25-100A, Combination type, 100A circuit breaker, Enclosure NEMA type 4/12, Water/dust tight for outdoors, Standard width enclosure

product brand name	Class 18 & 26
design of the product	Full-voltage non-reversing motor starter with motor circuit protector
special product feature	ESP200 overload relay; Half-size controller
General technical data	
Height x Width x Depth [in]	24 × 20 × 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
<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
Horsepower ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
• at 200/208 V rated value	15 hp
• at 220/230 V rated value	20 hp
• at 460/480 V rated value	30 hp
• at 575/600 V rated value	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 (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	
<ul> <li>at AC at 50 Hz rated value</li> </ul>	550 V
<ul> <li>at AC at 60 Hz rated value</li> </ul>	575 600 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	
magnet coil percental drop-out voltage of magnet coil related to the input	50 %
voltage	00 /0
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	25 100 A
· ·	3 s
make time with automatic start after power failure maximum	1%
relative repeat accuracy	Yes
product feature protective coating on printed-circuit board	Yes 1
number of NC contacts of auxiliary contacts of overload relay  number of NO contacts of auxiliary contacts of overload relay	1
	1
operational current of auxiliary contacts of overload relay  • at AC at 600 V	5 A
• at DC at 250 V	1A
contact rating of auxiliary contacts of overload relay according to	5A@600VAC (B600), 1A@250VDC (R300)
UL	3A@000VAC (B000), IA@230VDC (K300)
insulation voltage (Ui)	
<ul> <li>with single-phase operation at AC rated value</li> </ul>	600 V
with multi-phase operation at AC rated value	300 V
Enclosure	
degree of protection NEMA rating	4, 12
degree of protection NEMA rating design of the housing	4, 12 dustproof, waterproof & weatherproof
degree of protection NEMA rating	dustproof, waterproof & weatherproof
degree of protection NEMA rating design of the housing  Circuit Breaker type of the motor protection	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)
degree of protection NEMA rating design of the housing Circuit Breaker	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A
degree of protection NEMA rating design of the housing  Circuit Breaker type of the motor protection	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring	Motor circuit protector (magnetic trip only) 100 A 315 1000 A
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position	Motor circuit protector (magnetic trip only) 100 A 315 1000 A
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method	Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation
degree of protection NEMA rating design of the housing  Circuit Breaker type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side type of connectable conductor cross-sections at line-side for	Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG)
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side type of connectable conductor cross-sections at line-side for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A  315 1000 A  Vertical  Surface mounting and installation  Box lug  1x (10 AWG 1/0 AWG)  75 °C
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A  315 1000 A  Vertical Surface mounting and installation Box lug  1x (10 AWG 1/0 AWG)  75 °C AL or CU
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG)  75 °C AL or CU Box lug
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A  315 1000 A  Vertical  Surface mounting and installation  Box lug  1x (10 AWG 1/0 AWG)  75 °C  AL or CU  Box lug  45 45 lbf-in
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A  315 1000 A  Vertical  Surface mounting and installation  Box lug  1x (10 AWG 1/0 AWG)  75 °C  AL or CU  Box lug  45 45 lbf in  1x (14 2 AWG)
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A  315 1000 A  Vertical  Surface mounting and installation  Box lug  1x (10 AWG 1/0 AWG)  75 °C  AL or CU  Box lug  45 45 lbf·in  1x (14 2 AWG)  75 °C  AL or CU
design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG)  75 °C AL or CU Box lug 45 45 lbf·in 1x (14 2 AWG)  75 °C  AL or CU Screw-type terminals
design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A  315 1000 A  Vertical  Surface mounting and installation  Box lug  1x (10 AWG 1/0 AWG)  75 °C  AL or CU  Box lug  45 45 lbf·in  1x (14 2 AWG)  75 °C  AL or CU
design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 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
design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 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)
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring  mounting position fastening method type of electrical connection for supply voltage line-side 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 tightening torque [lbf-in] at magnet coil maximum permissible or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 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
design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side 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	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only)  100 A  315 1000 A  Vertical  Surface mounting and installation  Box lug  1x (10 AWG 1/0 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
degree of protection NEMA rating design of the housing  Circuit Breaker  type of the motor protection operational current of motor circuit breaker rated value adjustable current response value current of instantaneous short-circuit trip unit  Mounting/wiring  mounting position fastening method type of electrical connection for supply voltage line-side 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 tightening torque [lbf-in] at magnet coil maximum permissible or multi-stranded temperature of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil	dustproof, waterproof & weatherproof  Motor circuit protector (magnetic trip only) 100 A 315 1000 A  Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 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

AWG cables for auxiliary contacts single or multi-stranded	
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 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 short-circuit trip	Instantaneous trip circuit breaker
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	100 kA
• at 480 V	100 kA
• at 600 V	25 kA
certificate of suitability	NEMA ICS 2; UL 508; CSA 22.2, No.14
Further information	

Industrial Controls - Product Overview (Catalogs, Brochures,...)

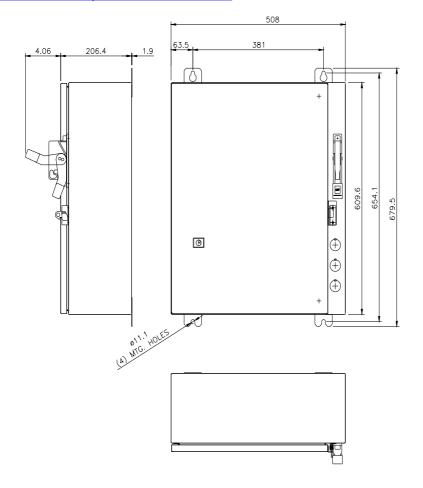
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:18GUG92NE

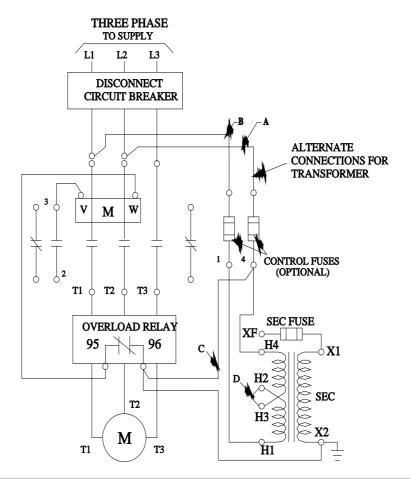
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:18GUG92NE

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:18GUG92NE&lang=en

Certificates/approvals
https://support.industry.siemens.com/cs/US/en/ps/US2:18GUG92NE/certificate





last modified: 1/25/2022 🖸