SIEMENS

Data sheet US2:84GUG95WMG



Duplex starter w/o alternator, Size 2 1/2, Three phase full voltage, Solid-state overload relay, OLR amp range 25-100A, 190-220/220-240V 50/60Hz coil, Combination type, Two 100A circuit breakers, Encl NEMA type 4X 304 S-Steel, Water/dust tight noncorrosive

product brand name	Class 84
design of the product	Duplex controller with two MCPs without alternator
special product feature	ESP200 overload relay; Half-size controller
General technical data	
weight [lb]	70 lb
Height x Width x Depth [in]	56 × 29 × 10 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	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	
at DC rated value	0 0 V
 at AC at 50 Hz rated value 	190 220 V
at AC at 60 Hz rated value	220 240 V
holding power at AC minimum	8.6 W

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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 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	
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-	25 100 A
dependent overload release	
tripping time at phase-loss 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
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 phasetime -t AO	600 \/
 with single-phase operation at AC rated value 	600 V
with single-phase operation at AC rated value with multi-phase operation at AC rated value	300 V
with multi-phase operation at AC rated value	
with multi-phase operation at AC rated value Enclosure	300 V
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure	NEMA 4x 304 stainless steel enclosure
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing	NEMA 4x 304 stainless steel enclosure
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker type of the motor protection	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only)
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only) 100 A
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only) 100 A
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only) 100 A 315 1000 A
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only) 100 A 315 1000 A
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only) 100 A 315 1000 A Vertical Surface mounting and installation
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only) 100 A 315 1000 A Vertical Surface mounting and installation Box lug
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion Motor circuit protector (magnetic trip only) 100 A 315 1000 A Vertical Surface mounting and installation Box lug 1x (10 AWG 1/0 AWG)
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with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion 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
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with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure 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	NEMA 4x 304 stainless steel enclosure dustproof, waterproof & resistant to corrosion 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
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type of electrical connection at contactor 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 for 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 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,...)

www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:84GUG95WMG

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:84GUG95WMG

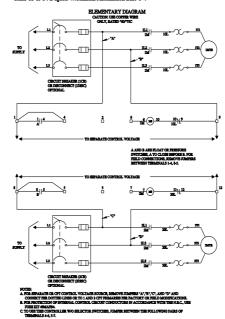
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:84GUG95WMG&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:84GUG95WMG/certificate

SCHEMATIC DIAGRAM

ual Alternation Size 0-4



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