SIEMENS

Data sheet US2:84JUH920MF



Duplex starter w/ alternator, Size 4, Three phase full voltage, Solid-state overload relay, OLR amp range 50-200A, 110V 50Hz / 120V 60Hz coil, Combination type, Two 150A circuit breakers, Enclosure NEMA type 12, Dust/drip proof for indoors

product brand name	Class 84
design of the product	Duplex controller with two MCPs with alternator
special product feature	ESP200 overload relay
General technical data	
weight [lb]	106 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	40 hp
at 220/230 V rated value	50 hp
at 460/480 V rated value	100 hp
 at 575/600 V rated value 	100 hp
Contactor	
size of contactor	NEMA controller size 4
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	135 A
mechanical service life (operating cycles) of the main contacts typical	5000000
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 	110 110 V
at AC at 60 Hz rated value	120 120 V
holding power at AC minimum	22 W

	540.\\A
apparent pick-up power of magnet coil at AC	510 VA
apparent holding power of magnet coil at AC	51 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	18 34 ms
OFF-delay time	10 12 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	50 200 A
tripping time at phase-loss 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)	
with single-phase operation at AC rated value	600 V
with multi-phase operation at AC rated value	300 V
Enclosure	
degree of protection NEMA rating of the enclosure	NEMA Type 12
degree of protection NEMA rating of the enclosure design of the housing	NEMA Type 12 dustproof and drip-proof for indoor use
design of the housing	
design of the housing Circuit Breaker	dustproof and drip-proof for indoor use
design of the housing Circuit Breaker type of the motor protection	dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only)
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	Motor circuit protector (magnetic trip only) 150 A
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	Motor circuit protector (magnetic trip only) 150 A
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) 150 A 800 1500 A
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) 150 A 800 1500 A Vertical
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) 150 A 800 1500 A Vertical Surface mounting and installation
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) 150 A 800 1500 A Vertical Surface mounting and installation Box lug
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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil)
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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C
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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug
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	dustproof and drip-proof for indoor use Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug 200 200 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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug 200 200 lbf·in 1x (6 AWG 250 MCM)
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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug 200 200 lbf·in 1x (6 AWG 250 MCM)
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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug 200 200 lbf-in 1x (6 AWG 250 MCM) 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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug 200 200 lbf-in 1x (6 AWG 250 MCM) 75 °C 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 maximum permissible material of the conductor for load-side outgoing feeder temperature of the conductor for load-side outgoing feeder temperature 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	Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug 200 200 lbf-in 1x (6 AWG 250 MCM) 75 °C CU Screw-type terminals 5 12 lbf-in
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 and drip-proof for indoor use Motor circuit protector (magnetic trip only) 150 A 800 1500 A Vertical Surface mounting and installation Box lug 1x (6 AWG 350 Kcmil) or 1x (4 AWG 350 Kcmil) 75 °C AL or CU Box lug 200 200 lbf-in 1x (6 AWG 250 MCM) 75 °C CU Screw-type terminals 5 12 lbf-in 2x (16 12 AWG)

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,...)

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:84JUH920MF

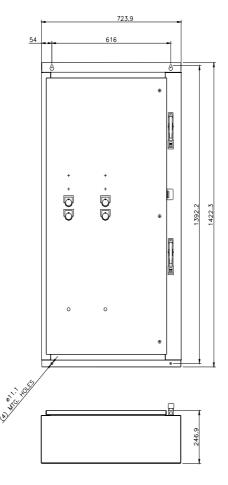
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:84JUH920MF

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:84JUH920MF&lang=en

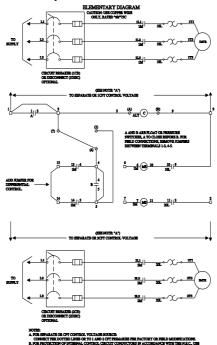
Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:84JUH920MF/certificate



SCHEMATIC DIAGRAM

Class 83 & 84 Duplex W/Auto Alternation Size 0-4



D68077001

last modified: 1/25/2022 🖸

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

84JUH920MF