## SIEMENS

## Data sheet

## US2:84IUH95BMD



Duplex starter w/o alternator, Size 3 1/2, Three phase full voltage, Solid-state overload relay, OLR amp range 50-200A, 208VAC 60Hz coil, Combination type, Two 125A circuit breakers, Enclosure NEMA type 1, Indoor general purpose use

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]	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
<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	USA
Horsepower ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
• at 200/208 V rated value	30 hp
• at 220/230 V rated value	40 hp
• at 460/480 V rated value	75 hp
• at 575/600 V rated value	75 hp
Contactor	
size of contactor	Controller half size 3 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	115 A
mechanical service life (operating cycles) of the main contacts typical	500000
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
<ul> <li>at AC at 50 Hz rated value</li> </ul>	0 0 V
• at AC at 60 Hz rated value	208 208 V
holding power at AC minimum	14 W

	240.14
apparent pick-up power of magnet coil at AC	310 VA
apparent holding power of magnet coil at AC	26 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	26 41 ms
OFF-delay time	14 19 ms
Overload relay	
product function	
<ul> <li>overload protection</li> </ul>	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-	50 200 A
dependent overload release	3 s
tripping time at phase-loss maximum relative repeat accuracy	1 %
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
operational current of auxiliary contacts of overload relay	5 A
• at AC at 600 V	5 A
• at DC at 250 V	
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
with multi-phase operation at AC rated value	300 V
	300 V
with multi-phase operation at AC rated value	300 V NEMA Type 1
with multi-phase operation at AC rated value     Enclosure     degree of protection NEMA rating of the enclosure     design of the housing	
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure	NEMA Туре 1
with multi-phase operation at AC rated value     Enclosure     degree of protection NEMA rating of the enclosure     design of the housing	NEMA Туре 1
with multi-phase operation at AC rated value Enclosure degree of protection NEMA rating of the enclosure design of the housing Circuit Breaker	NEMA Type 1 indoors, usable on a general basis
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 Type 1 indoors, usable on a general basis 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 Type 1 indoors, usable on a general basis Motor circuit protector (magnetic trip only) 125 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 Type 1 indoors, usable on a general basis Motor circuit protector (magnetic trip only) 125 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 Type 1 indoors, usable on a general basis Motor circuit protector (magnetic trip only) 125 A 500 1250 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 Type 1 indoors, usable on a general basis Motor circuit protector (magnetic trip only) 125 A 500 1250 A Vertical
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 Type 1 indoors, usable on a general basis Motor circuit protector (magnetic trip only) 125 A 500 1250 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 Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 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 connectable conductor cross-sections at line-side for     AWG cables single or multi-stranded	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)
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	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C
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 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	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU
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 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	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         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 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	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in
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 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 for supply	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in         1x (14 2/0 AWG)         75 °C
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 cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable 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 for load-side outgoing feeder     type of the conductor for load-side outgoing feeder     maximum permissible     material of the conductor for load-side outgoing feeder     maximum permissible     material of the conductor for load-side outgoing feeder     maximum permissible	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         1x (14 2/0 AWG)         75 °C         AL or CU         Box lug         1x (14 2/0 AWG)
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 cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor for supply     type of electrical connection for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of connectable conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         1x (14 2/0 AWG)         75 °C         AL or CU         Screw-type terminals
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 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 for load-side outgoing feeder     type of connectable conductor cross-sections for AWG cables     for load-side outgoing feeder     type of connectable conductor for supply     type of electrical connection for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of load-side outgoing feeder     type of load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of electrical connection 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	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in         1x (14 2/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in         1x (14 2/0 AWG)
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     type of electrical connection for load-side outgoing feeder     tightening torque [lbf-in] for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     tightening torque [lbf-in] at magnet coil     type of electrical connection of magnet coil for     AWG cables single or multi-stranded	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         1x (14 2/0 AWG)         75 °C         AL or CU         Box lug         1x (14 2/0 AWG)         75 °C         AL or CU         Box lug         1x (14 2/0 AWG)         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in
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 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 for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of electrical connection for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of connectable conductor for load-side outgoing feeder     type of electrical connection of magnet coil     type of connectable conductor cross-sections of magnet coil for     AWG cables single or multi-stranded	NEMA Type 1         indoors, usable on a general basis         Motor circuit protector (magnetic trip only)         125 A         500 1250 A         Vertical         Surface mounting and installation         Box lug         1x (10 AWG 1/0 AWG)         75 °C         AL or CU         Box lug         120 120 lbf-in         1x (14 2/0 AWG)         75 °C         AL or 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,...)

www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:84IUH95BMD

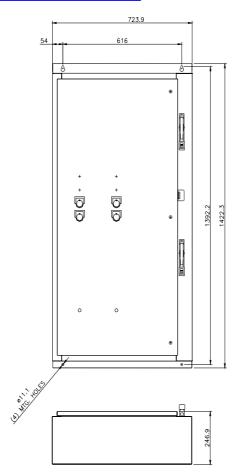
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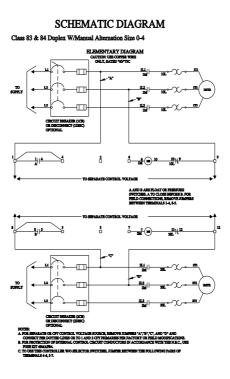
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:84IUH95BMD&lang=en

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