SIEMENS

Data sheet US2:14IUH320E



Non-reversing motor starter, Size 3 1/2, Three phase full voltage, Solid-state overload relay, OLRelay amp range 50-200A, 550/575 600 50/60HZ coil, Non-combination type, Enclosure type 12, Dust/drip proof for indoors, Standard width enclosure

product brand name	Class 14
design of the product	Full-voltage non-reversing motor starter
special product feature	ESP200 overload relay; Half-size starter
General technical data	·
weight [lb]	33 lb
Height x Width x Depth [in]	26 × 13 × 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
 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	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	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), 2.5A@300VDC (Q300)
Coil	
type of voltage of the control supply voltage	AC
control supply voltage	
at AC at 50 Hz rated value	550 V
holding power at AC minimum	14 W
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	0.85 1.1
magnet coil percental drop-out voltage of magnet coil related to the input	50 %
voltage	00 44
ON-delay time	26 41 ms 14 19 ms
OFF-delay time Overload relay	14 18 1115
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-	50 200 A
dependent overload release	30 III 200 I
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 Dust tight and drip proof for indoors
degree of protection NEMA rating of the enclosure design of the housing Mounting/wiring	Dust tight and drip proof for indoors
degree of protection NEMA rating of the enclosure design of the housing Mounting/wiring mounting position	Dust tight and drip proof for indoors Vertical
degree of protection NEMA rating of the enclosure design of the housing Mounting/wiring mounting position fastening method	Dust tight and drip proof for indoors Vertical Surface mounting and installation
degree of protection NEMA rating of the enclosure design of the housing Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side	Vertical Surface mounting and installation Box lug
degree of protection NEMA rating of the enclosure 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	Vertical Surface mounting and installation Box lug 120 120 lbf·in
degree of protection NEMA rating of the enclosure 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 for AWG cables single or multi-stranded	Vertical Surface mounting and installation Box lug 120 120 lbf·in 1x(14 - 2/0 AWG)
degree of protection NEMA rating of the enclosure 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 for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible	Vertical Surface mounting and installation Box lug 120 120 lbf-in 1x(14 - 2/0 AWG) 75 °C
degree of protection NEMA rating of the enclosure 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 for AWG cables single or multi-stranded temperature of the conductor for supply maximum permissible material of the conductor for supply	Vertical Surface mounting and installation Box lug 120 120 lbf-in 1x(14 - 2/0 AWG) 75 °C AL or CU
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation Box lug 120 120 lbf-in 1x(14 - 2/0 AWG) 75 °C AL or CU Box lug
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation Box lug 120 120 lbf·in 1x(14 - 2/0 AWG) 75 °C AL or CU Box lug 120 120 lbf·in
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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)
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation Box lug 120 120 lbf·in 1x(14 - 2/0 AWG) 75 °C AL or CU Box lug 120 120 lbf·in
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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)
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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)
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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)
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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) 75 °C AL or CU Box lug 120 120 lbf-in 1x(14 - 2/0 AWG)
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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) 75 °C AL or CU Box lug 120 120 lbf-in 1x(14 - 2/0 AWG) 75 °C AL or Lyo lbf-in 1x(14 - 12/0 AWG)
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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) 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 - 12/0 AWG)
degree of protection NEMA rating of the enclosure 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 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	Vertical Surface mounting and installation 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) 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 2 x (16 - 12 AWG)
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 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 cross-sections for AWG cables for load-side outgoing feeder single or multi-stranded temperature of the conductor 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	Vertical Surface mounting and installation 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) 75 °C AL or CU Screw-type terminals 5 12 lbf-in 2 x (16 - 12 AWG) 75 °C CU
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 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 type of connectable conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil	Vertical Surface mounting and installation 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) 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 2 x (16 - 12 AWG) 75 °C CU screw-type terminals
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 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 material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts	Vertical Surface mounting and installation 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) 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 2 x (16 - 12 AWG) 75 °C CU screw-type terminals 10 15 lbf-in
degree of protection NEMA rating of the enclosure 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 for 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 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 type of connectable conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil maximum permissible material of the conductor at magnet coil type of electrical connection for auxiliary contacts tightening torque [lbf-in] at contactor for auxiliary contacts type of connectable conductor cross-sections at contactor for AWG cables for auxiliary contacts single or multi-stranded temperature of the conductor at contactor for auxiliary contacts	Vertical Surface mounting and installation 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) 75 °C AL or CU Screw-type terminals 5 12 lbf-in 2 x (16 - 12 AWG) 75 °C CU screw-type terminals 10 15 lbf-in 1 x (12 AWG), 2 x (16 - 14 AWG), 2 x (18 - 16 AWG)

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	2 x (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
maximum short-circuit current breaking capacity (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
Approvals Certificates	

Test Certificates



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

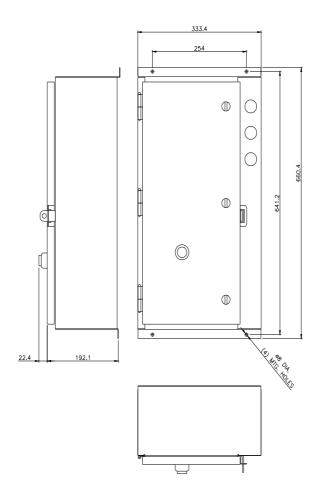
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:14IUH320E

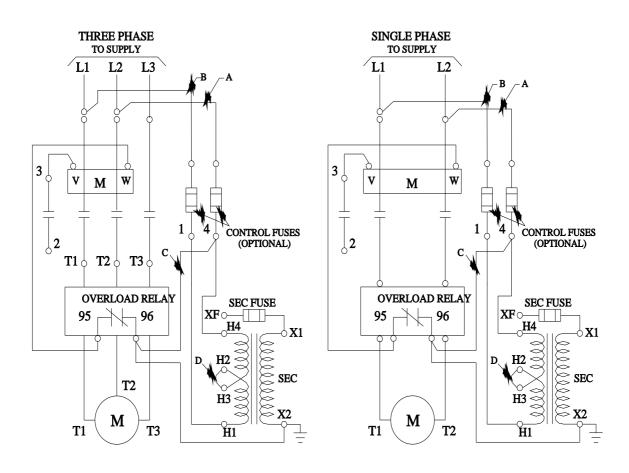
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:14IUH320E

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:14IUH320E&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14IUH320E/certificate





last modified: 12/7/2023 🖸

