## **SIEMENS**

Data sheet US2:14CUC820E



Non-reversing motor starter, Size 0, Three phase full voltage, Solid-state overload relay, OLRelay amp range 3-12a, 550/575 600 50/60HZ coil, Non-combination type, Enclosure type 12, Dust/drip proof for indoors, Extra-wide enclosure

product brand name	Class 14
design of the product	Full-voltage non-reversing motor starter
special product feature	ESP200 overload relay
General technical data	
weight [lb]	15 lb
Height x Width x Depth [in]	13 × 13 × 5 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	1.5 hp
• at 220/230 V rated value	1.5 hp
• at 460/480 V rated value	2 hp
Contactor	
size of contactor	NEMA controller size 0
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	18 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	8
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
at AC at 60 Hz rated value	575 600 V
holding power at AC minimum	8.6 W
apparent pick-up power of magnet coil at AC	218 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	50 %
voltage ON-delay time	19 29 ms
OFF-delay time	10 24 ms
Overload relay	10 2+ III0
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	3 12 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	1A
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
Englasure	
Enclosure	
design of the housing	Extra-wide
design of the housing degree of protection NEMA rating of the enclosure	Extra-wide NEMA Type 12
design of the housing degree of protection NEMA rating of the enclosure design of the housing	
design of the housing degree of protection NEMA rating of the enclosure design of the housing Mounting/wiring	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors
design of the housing degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical
design of the housing degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals
design of the housing degree of protection NEMA rating of the enclosure design of the housing  Mounting/wiring mounting position fastening method	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in
design of the housing 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)
design of the housing  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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals
design of the housing  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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  screw-type terminals  5 12 lbf-in
design of the housing  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 type of connectable conductor cross-sections of magnet coil for AWG cables single or multi-stranded	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  screw-type terminals  5 12 lbf-in  2 x (16 - 12 AWG)
design of the housing  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 [libf-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 [libf-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 [libf-in] at magnet coil type of connectable conductor cross-sections of magnet coil for	Extra-wide NEMA Type 12 Dust tight and drip proof for indoors  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU screw-type terminals 5 12 lbf-in 2 x (16 - 12 AWG)
design of the housing  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 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	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  screw-type terminals  5 12 lbf-in  2 x (16 - 12 AWG)
design of the housing  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 material of the conductor at magnet coil maximum permissible	Extra-wide NEMA Type 12 Dust tight and drip proof for indoors  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 2 x (16 - 12 AWG)  75 °C  CU Screw-type terminals
design of the housing  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 material of the conductor at magnet coil maximum permissible	Extra-wide NEMA Type 12  Dust tight and drip proof for indoors  Vertical  Surface mounting and installation  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  20 20 lbf-in  2 x (16 - 12 AWG)  75 °C  CU  screw-type terminals  5 12 lbf-in  2 x (16 - 12 AWG)
design of the housing  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 material of the conductor at magnet coil maximum permissible	Extra-wide NEMA Type 12 Dust tight and drip proof for indoors  Vertical Surface mounting and installation Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 20 20 lbf-in 1x(14 - 2 AWG)  75 °C  AL or CU Screw-type terminals 20 20 lbf-in 2 x (16 - 12 AWG)  75 °C  CU Screw-type terminals

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	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
Oh and a firm of the comment and firm	
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 fuse link for short-circuit protection of the main	10kA@600V (Class H or K); 100kA@600V (Class R or J)  Thermal magnetic circuit breaker
design of the fuse link for short-circuit protection of the main circuit required	
design of the fuse link for short-circuit protection of the main circuit required design of the short-circuit trip	-
design of the fuse link for short-circuit protection of the main circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu)	Thermal magnetic circuit breaker
design of the fuse link for short-circuit protection of the main circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu)  • at 240 V	Thermal magnetic circuit breaker  14 kA
design of the fuse link for short-circuit protection of the main circuit required design of the short-circuit trip maximum short-circuit current breaking capacity (Icu)  • at 240 V • at 480 V	Thermal magnetic circuit breaker  14 kA 10 kA

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=US2:14CUC820E

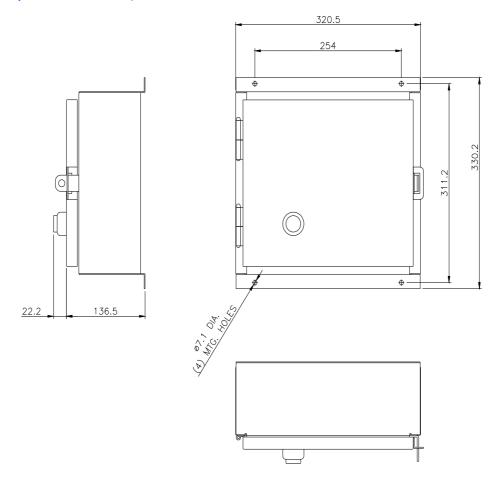
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

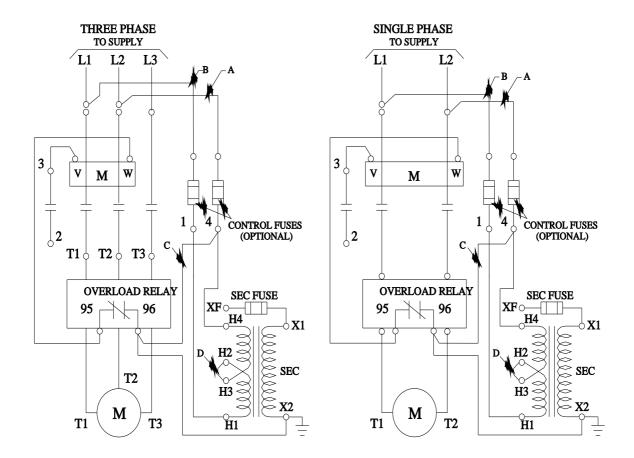
https://support.industry.siemens.com/cs/US/en/ps/US2:14CUC820E

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14CUC820E&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14CUC820E&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14CUC820E/certificate





last modified: 11/29/2021 🖸