## **SIEMENS**

Data sheet US2:14DUC12BG



Non-reversing motor starter Size 1 Single phase full voltage Solid-state overload relay OLRelay amp range 3-12A 190-220/220-240V 50/60HZ coil Combination type Indoor general purpose use

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]	8 lb
Height x Width x Depth [in]	11 × 7 × 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	
<ul> <li>during storage</li> </ul>	-30 +65 °C
during operation	-20 +40 °C
country of origin	USA
Horsepower ratings	
yielded mechanical performance [hp] for single-phase AC motor	
<ul> <li>at 115 V rated value</li> </ul>	0.25 hp
<ul><li>at 200/208 V rated value</li></ul>	0.5 hp
• at 220/230 V rated value	0.5 hp
Contactor	
size of contactor	NEMA controller size 1
number of NO contacts for main contacts	2
operating voltage for main current circuit at AC at 60 Hz maximum	240 V
operational current at AC at 600 V rated value	27 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	345VA@115VAC / 768VA@240VAC
Coil	
type of voltage of the control supply voltage	AC
control supply voltage	
<ul> <li>at AC at 50 Hz rated value</li> </ul>	190 220 V
at AC at 60 Hz rated value	220 240 V
holding power at AC minimum	8.6 W
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	0.85 1.1
magnet coil	
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- 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	1 A
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
Enclosure	
degree of protection NEMA rating of the enclosure	NEMA Type 1
design of the housing	NEMA Type 1 Indoor general purpose use
design of the housing Mounting/wiring	Indoor general purpose use
design of the housing  Mounting/wiring  mounting position	Indoor general purpose use  Vertical
design of the housing  Mounting/wiring  mounting position  fastening method	Vertical Surface mounting and installation
design of the housing  Mounting/wiring  mounting position fastening method type of electrical connection for supply voltage line-side	Vertical Surface mounting and installation 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	Vertical Surface mounting and installation Screw-type terminals 35 35 lbf·in
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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 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 maximum permissible	Vertical Surface mounting and installation Screw-type terminals 35 35 lbf·in 1x(14 - 2 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 maximum permissible material of the conductor for supply	Vertical Surface mounting and installation Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG) 75 °C AL or 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	Vertical Surface mounting and installation Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG) 75 °C AL or 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	Vertical Surface mounting and installation Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG) 75 °C AL or CU Screw-type terminals 35 35 lbf·in
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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG) 75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 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 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 Screw-type terminals 35 35 lbf-in 1x(14 - 2 AWG) 75 °C AL or CU Screw-type terminals 35 35 lbf-in
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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG) 75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 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 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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG) 75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 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 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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 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 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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 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 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	Vertical Surface mounting and installation Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU screw-type terminals 5 12 lbf·in
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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 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  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 Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf·in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 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  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	Vertical Surface mounting and installation Screw-type terminals 35 35 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU Screw-type terminals 35 35 lbf-in 1x(14 - 2 AWG)  75 °C AL or CU screw-type terminals 5 12 lbf-in 2 x (16 - 12 AWG)  75 °C  CU
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	Indoor general purpose use  Vertical  Surface mounting and installation  Screw-type terminals  35 35 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  35 35 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  screw-type terminals  5 12 lbf-in  2 x (16 - 12 AWG)  75 °C  CU  screw-type terminals
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 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	Indoor general purpose use  Vertical  Surface mounting and installation  Screw-type terminals  35 35 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  35 35 lbf-in  1x(14 - 2 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
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 or multi-stranded temperature 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	Indoor general purpose use  Vertical  Surface mounting and installation  Screw-type terminals  35 35 lbf-in  1x(14 - 2 AWG)  75 °C  AL or CU  Screw-type terminals  35 35 lbf-in  1x(14 - 2 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,...)

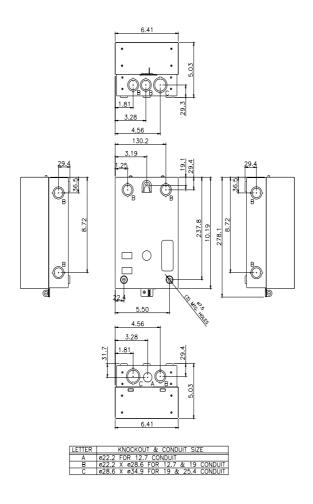
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:14DUC12BG

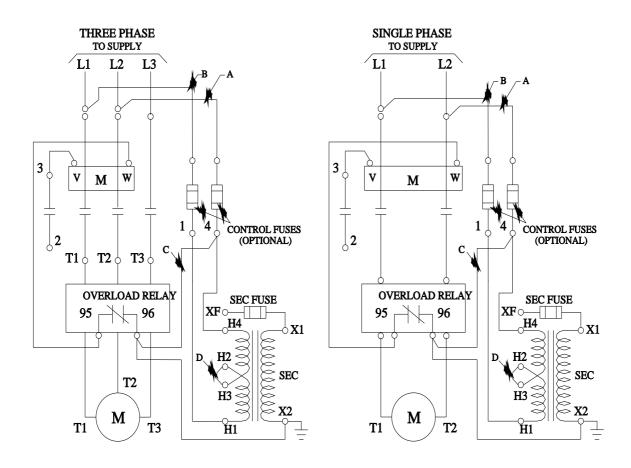
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:14DUC12BG

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=US2:14DUC12BG&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14DUC12BG&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14DUC12BG/certificate





last modified: 12/7/2023 🖸

US2:14Dl Page 5/5	JC12BG