## **SIEMENS**

Data sheet US2:14DUD12BJ



Non-reversing motor starter, Size 1, Single phase full voltage, Solid-state overload relay, OLR amp range 5.5-22A, 24VAC 50-60Hz coil, Non-combination type, Enclosure type 1, Indoor general purpose use, Standard width enclosure

Figure similar

design of the product special product feature  General technical data  weight [lb] Height x Width x Depth [in] touch protection against electrical shock installation altitude [ft] at height above sea level maximum ambient temperature [°F] • during storage • during operation ambient temperature • during storage • during operation  ambient temperature • during operation  during operation  country of origin  Horsepower ratings yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value • at 200/208 V rated value • at 220/230 V rated value • at 220/230 V rated value • at 220/230 V rated value  size of contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz parigname  Full-voltage for ratery  8 lb  11 x 7 x 5 in  (NA for enclosed products)  6560 ft  -22 +149 °F  -22 +149 °F  -22 +149 °F  -22 +140 °F  -22 +40 °C  -20 .	product brand name	Class 14
Weight [lb]  Height x Width x Depth [in]  touch protection against electrical shock installation altitude [ft] at height above sea level maximum ambient temperature [°F]  • during storage • during operation ambient temperature  • during storage • during operation  ambient temperature  • during storage • during operation  ambient temperature  • during storage • during operation  country of origin  USA  Horsepower ratings  yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value • at 220/208 V rated value • at 220/230 V rated value • at 220/230 V rated value  • at 220/230 V rated value  size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz  8 lb  11 x 7 x 5 in  (NA for enclosed products)  (NEWA for enclosed products)  11 x 7 x 5 in  12	design of the product	Full-voltage non-reversing motor starter
weight [lb] 8 lb  Height x Width x Depth [in] 11 x 7 x 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 single-phase AC motor  • at 115 V rated value 1 hp eat 220/230 V rated value 2 hp  • at 220/230 V rated value 2 hp  Contactor  size of contactor NEMA controller size 1  number of NO contacts for main current circuit at AC at 60 Hz 240 V	special product feature	ESP200 overload relay
Height x Width x Depth [in] touch protection against electrical shock installation altitude [ft] at height above sea level maximum 6560 ft  ambient temperature [°F] e during storage during operation e during storage during operation  ambient temperature e during storage during operation e during operation  arbient temperature e during operation country of origin  Horsepower ratings yielded mechanical performance [hp] for single-phase AC motor e at 115 V rated value e at 200/208 V rated value e at 220/230 V rated value 2 hp e at 220/230 V rated value 2 hp  Contactor size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz  11 × 7 × 5 in (NA for enclosed products) (NA for enclosed products) (NA for enclosed products) (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  1 × 7 × 5 in  (NA for enclosed products)  1 × 149 °F  - 4 +104 °F  - 20 +40 °C  - 20 +40 °C  USA  Horsepower ratings  yielded mechanical performance [hp] for single-phase AC  motor  • at 115 V rated value  • the products of the products o	General technical data	
touch protection against electrical shock installation altitude [ft] at height above sea level maximum 6560 ft  ambient temperature [°F] • during storage • during operation -4 +104 °F  ambient temperature • during storage • during storage • during operation -20 +65 °C • during operation -20 +40 °C  country of origin  Horsepower ratings  yielded mechanical performance [hp] for single-phase AC motor • at 115 V rated value • at 200/208 V rated value • at 220/230 V rated value • at 220/230 V rated value  • The  Contactor  size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)  (NA for enclosed products)	weight [lb]	8 lb
installation altitude [ft] at height above sea level maximum  ambient temperature [°F]  • during storage • during operation  ambient temperature • during storage • during storage • during operation  -20 +45 °C  -20 +40 °C  country of origin  USA  Horsepower ratings  yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value • at 200/208 V rated value • at 220/230 V rated value • at 220/230 V rated value  Tontactor  size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz  22 +149 °F  -22 +149 °F  -4 +104 °F	Height x Width x Depth [in]	11 × 7 × 5 in
ambient temperature [°F]  • during storage • during operation  ambient temperature  • during storage • during storage • during operation  • during operation  country of origin  Horsepower ratings  yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value • at 200/208 V rated value • at 220/230 V rated value • at 220/230 V rated value • at 200/208 V roted value • at 200/208 V roted value • at 220/230 V roted value • at 220/230 V roted value • at 220/230 V roted value  2 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz  22 +149 °F  -4 +104 °C  -50 +100 °C  -50	touch protection against electrical shock	(NA for enclosed products)
<ul> <li>during storage</li> <li>during operation</li> <li>during storage</li> <li>during storage</li> <li>during operation</li> <li>during operation</li> <li>during operation</li> <li>country of origin</li> <li>Horsepower ratings</li> <li>yielded mechanical performance [hp] for single-phase AC motor</li> <li>at 115 V rated value</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 220/230 V rated value</li> <li>by p</li> </ul> Contactor Size of contactor <ul> <li>NEMA controller size 1</li> <li>number of NO contacts for main contacts</li> <li>operating voltage for main current circuit at AC at 60 Hz</li> <li>240 V</li> </ul>	installation altitude [ft] at height above sea level maximum	6560 ft
<ul> <li>during operation</li> <li>during storage</li> <li>during operation</li> <li>during operation</li> <li>during operation</li> <li>20 +65 °C</li> <li>during operation</li> <li>USA</li> </ul> Horsepower ratings yielded mechanical performance [hp] for single-phase AC motor <ul> <li>at 115 V rated value</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 220/230 V rated value</li> <li>at 220/230 V rated value</li> <li>by p</li> </ul> Contactor <ul> <li>Size of contactor</li> <li>number of NO contacts for main contacts</li> <li>operating voltage for main current circuit at AC at 60 Hz</li> <li>240 V</li> </ul>	ambient temperature [°F]	
ambient temperature  • during storage • during operation -20 +65 °C  country of origin  USA  Horsepower ratings  yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value • at 200/208 V rated value • at 220/230 V rated value 2 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz  -30 +65 °C -20 +40 °C  USA  1 hp  1 hp  2 hp  2 hp  Contactor  NEMA controller size 1	<ul> <li>during storage</li> </ul>	-22 +149 °F
<ul> <li>◆ during storage</li> <li>→ during operation</li> <li>-20 +40 °C</li> <li>country of origin</li> <li>USA</li> <li>Horsepower ratings</li> <li>yielded mechanical performance [hp] for single-phase AC motor</li> <li>◆ at 115 V rated value</li> <li>◆ at 200/208 V rated value</li> <li>◆ at 220/230 V rated value</li> <li>2 hp</li> <li>Contactor</li> <li>size of contactor</li> <li>number of NO contacts for main contacts</li> <li>operating voltage for main current circuit at AC at 60 Hz</li> <li>20 +65 °C</li> <li>-20 +40 °C</li> <li>USA</li> <li>1 hp</li> <li>2 hp</li> <li>2 where the controller size 1</li> <li>3 where the controller size 1</li> <li>4 where</li></ul>	during operation	-4 +104 °F
<ul> <li>during operation</li> <li>country of origin</li> <li>Horsepower ratings</li> <li>yielded mechanical performance [hp] for single-phase AC motor</li> <li>at 115 V rated value</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>2 hp</li> <li>at 220/230 V rated value</li> <li>2 hp</li> </ul> Contactor <ul> <li>size of contactor</li> <li>number of NO contacts for main contacts</li> <li>operating voltage for main current circuit at AC at 60 Hz</li> <li>2 +40 °C</li> <li>USA</li> </ul>	ambient temperature	
country of origin  Horsepower ratings  yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value • at 200/208 V rated value • at 220/230 V rated value 2 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz  USA  USA  1 hp 2 hp 2 hp 2 hp 2 at 200/208 V rated value 2 hp 2 hp 2 dp 2 d	<ul> <li>during storage</li> </ul>	-30 +65 °C
Horsepower ratings  yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value • at 200/208 V rated value • at 220/230 V rated value 2 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz  NEMA controller size 1  240 V	during operation	-20 +40 °C
yielded mechanical performance [hp] for single-phase AC motor  • at 115 V rated value  • at 200/208 V rated value  • at 220/230 V rated value  2 hp  Contactor  size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz  NEMA controller size 1  240 V	country of origin	USA
motor  • at 115 V rated value  • at 200/208 V rated value  • at 220/230 V rated value  2 hp  • at 220/230 V rated value  2 hp  Contactor  size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz  1 hp  2 hp  NEMA controller size 1  2 40 V	Horsepower ratings	
<ul> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>2 hp</li> <li>Contactor</li> <li>size of contactor</li> <li>number of NO contacts for main contacts</li> <li>operating voltage for main current circuit at AC at 60 Hz</li> <li>2 hp</li> <li>NEMA controller size 1</li> <li>2 240 V</li> </ul>		
<ul> <li>at 220/230 V rated value</li> <li>2 hp</li> <li>Contactor</li> <li>size of contactor</li> <li>number of NO contacts for main contacts</li> <li>operating voltage for main current circuit at AC at 60 Hz</li> <li>2 hp</li> <li>NEMA controller size 1</li> <li>2 240 V</li> </ul>	• at 115 V rated value	1 hp
Size of contactor  NEMA controller size 1  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz  240 V	• at 200/208 V rated value	2 hp
size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz  NEMA controller size 1  2  240 V	• at 220/230 V rated value	2 hp
number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz  240 V	Contactor	
operating voltage for main current circuit at AC at 60 Hz 240 V	size of contactor	NEMA controller size 1
	number of NO contacts for main contacts	2
maximum	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	operational current at AC at 600 V rated value	27 A
mechanical service life (switching cycles) of the main contacts typical 10000000		10000000
Auxiliary contact	Auxiliary contact	
number of NC contacts at contactor for auxiliary contacts 0	number of NC contacts at contactor for auxiliary contacts	0
number of NO contacts at contactor for auxiliary contacts 1	number of NO contacts at contactor for auxiliary contacts	1
number of total auxiliary contacts maximum 8	number of total auxiliary contacts maximum	8
contact rating of auxiliary contacts of contactor according to UL 10A@600VAC (A600), 5A@600VDC (P600)		10A@600VAC (A600), 5A@600VDC (P600)
Coil	Coil	
type of voltage of the control supply voltage AC	type of voltage of the control supply voltage	AC
control supply voltage	control supply voltage	
• at AC at 50 Hz rated value 24 V	<ul> <li>at AC at 50 Hz rated value</li> </ul>	24 V

• at AC at 60 Hz rated value	24 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 magnet coil	0.85 1.1
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	5.5 22 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	1
design of the housing	Indoor general purpose use
Mounting/wiring	
mounting position	Vertical
fastening method	Surface mounting and installation
type of electrical connection for supply voltage line-side	Screw-type terminals
tightening torque [lbf·in] for supply	35 35 lbf·in
type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded	1x(14 - 2 AWG)
temperature of the conductor for supply maximum permissible	75 °C
material of the conductor for supply	AL or CU
type of electrical connection for load-side outgoing feeder	Screw-type terminals
tightening torque [lbf·in] for load-side outgoing feeder	35 35 lbf·in
type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded	1x(14 - 2 AWG)
temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
material of the conductor for load-side outgoing feeder	AL or CU
type of electrical connection of magnet coil	screw-type terminals
tightening torque [lbf·in] at magnet coil	5 12 lbf·in
type of connectable conductor cross-sections of magnet coil at AWG cables single or multi-stranded	2 x (16 - 12 AWG)
temperature of the conductor at magnet coil maximum	75 °C

permissible	
material of the conductor at magnet coil	CU
type of electrical connection 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 at AWG cables for auxiliary contacts single or multi-stranded	1 x (12 AWG), 2 x (16 - 14 AWG), 2 x (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 at 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
breaking capacity maximum short-circuit current (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
Further information	

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

www.usa.siemens.com/iccatalog

Industry Mall (Online ordering system)

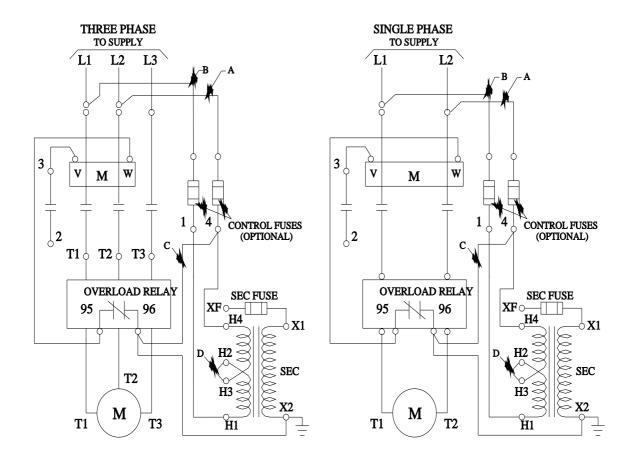
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:14DUD12BJ

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=US2:14DUD12BJ&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:14DUD12BJ&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:14DUD12BJ/certificate



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