## **SIEMENS**

Data sheet US2:22DUD32WA



Figure similar

Reversing motor starter, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 5.5-22A, Non-combination type, Encl. type 4X 304 S. Steel, Water/dust tight noncorrosive, Standard width enclosure

design of the product seature ESP200 overload relay     Seperal broduct feature   ESP200 overload relay	product brand name	Class 22
weight [b] 17 lb 18 leght x Width x Depth [in] 13 x 13 x 5 in 18 louch protection against electrical shock 18 leght x Width x Depth [in] 13 x 13 x 5 in 18 louch protection against electrical shock 18 leght x Width x Depth [in] 18 x 13 x 5 in 18 leght x Width x Depth [in] 18 x 13 x 5 in 18 leght x Width x Depth [in] 18 x 13 x 5 in 18 leght x Width x Depth [in] 18 x 13 x 5 in 18 leght x Width x Depth [in] 18 x 13 x 5 in 18 leght x 13 x 13 x 13 x 13 x 15 in 18 leght x 13 x 13 x 13 x 13 x 15 in 18 leght x 14 x 1	design of the product	Full-voltage reversing motor starter
Height x Width x Depth [in]   13 x 13 x 5 in	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 ambient temperature [°F]  • during storage • during operation	General technical data	
touch protection against electrical shock installation altitude [ft] at height above sea level maximum ambient temperature ["F]  • during storage	weight [lb]	17 lb
installation altitude [ft] at height above sea level maximum ambient temperature [*F]  • during storage • during operation ambient temperature • during operation -22 +149 °F  ambient temperature • during operation -20 +65 °C -20 +40 °C  country of origin USA  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value 3 hp • at 220/230 V rated value 10 hp • at 4575/600 V rated value 10 hp  Contactor  size of contactor number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value 27 A mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxi	Height x Width x Depth [in]	13 × 13 × 5 in
ambient temperature [*F]  • during storage • during operation  ambient temperature  • during storage • during operation  • during storage • during operation  • during storage • during operation  • usA  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 575/600 V rated value • at 575/600 V rated value • at 575/600 V rated value  • operating voltage for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  rechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  number of NC contacts at contactor for auxiliary contacts  10A@600VAC (A600), 5A@600VDC (P600)	touch protection against electrical shock	NA for enclosed products
<ul> <li>during storage</li> <li>during operation</li> <li>during operation</li> <li>during storage</li> <li>during operation</li> <li>20 +65 °C</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 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> <li>in hp</li> <li>at 575/600 V rated value</li> <li>by perating voltage for main current circuit at AC at 60 Hz maximum</li> <li>operating voltage for main current circuit at AC at 60 Hz maximum</li> <li>operating voltage for main current circuit at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>operational current at AC at 600 V rated value</li> <li>o</li></ul>	installation altitude [ft] at height above sea level maximum	6560 ft
during operation     ambient temperature     during operation     during operation     during operation     during operation     country of origin     USA  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor     at 200/208 V rated value     at 200/208 V rated value     at 460/480 V rated value     at 460/480 V rated value     at 575/600 V rated value     isize of contactor  size of contactor  number of NO contacts for main current circuit at AC at 60 Hz maximum  operating voltage for main current circuit at AC at 60 Hz mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  AC	ambient temperature [°F]	
ambient temperature  • during storage  • during operation  country of origin  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value  • at 220/230 V rated value  • at 460/480 V rated value  • at 575/600 V rated value  10 hp  • at 575/600 V rated value  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of voltage of the control supply voltage  AC	<ul> <li>during storage</li> </ul>	-22 +149 °F
• during storage     • during operation     country of origin  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor      • at 200/208 V rated value     • at 220/230 V rated value     • at 4575/600 V rated value     • at 575/600 V rated value     10 hp  Contactor  size of contactor  number of NO contacts for main contacts     operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  are contacts typical  Auxiliary contact  number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor of the main contacts spical  Auxiliary contact  number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  AC	during operation	-4 +104 °F
outring operation     country of origin  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor     outring a table of the control of the contro	ambient temperature	
country of origin  Horsepower ratings  yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 575/600 V rated value  isize of contactor  size of contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  pertainal service life (switching cycles) of the main contacts typical  Auxillary contact  number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  AC	<ul> <li>during storage</li> </ul>	-30 +65 °C
yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 575/600 V rated value  10 hp  • at 575/600 V rated value  10 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  27 A  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  AC	during operation	-20 +40 °C
yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value • at 575/600 V rated value • 10 hp  Contactor  size of contactor  number of NO contacts for main contacts operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value  perational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of NC contacts at contactor for auxiliary contacts number of total auxiliary contacts at contactor for auxiliary contacts number of total auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  AC	country of origin	USA
e at 200/208 V rated value 3 hp e at 220/230 V rated value 10 hp e at 460/480 V rated value 10 hp e at 575/600 V rated value 10 hp  Contactor  size of contactor NEMA controller size 1 number of NO contacts for main contacts 3 operating voltage for main current circuit at AC at 60 Hz maximum operational current at AC at 600 V rated value 27 A mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NO contacts at contactor for auxiliary contacts 1 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 contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage AC	Horsepower ratings	
<ul> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>10 hp</li> <li>at 575/600 V rated value</li> <li>5ize of contactor</li> <li>number of NO contacts for main contacts</li> <li>operating voltage for main current circuit at AC at 60 Hz maximum</li> <li>operational current at AC at 600 V rated value</li> <li>operational current elife (switching cycles) of the main contacts typical</li> <li>Auxiliary contact</li> <li>number of NC contacts at contactor for auxiliary contacts</li> <li>number of NC contacts at contactor for auxiliary contacts</li> <li>number of total auxiliary contacts maximum</li> <li>contact rating of auxiliary contacts of contactor according to UL</li> <li>Coil</li> <li>type of voltage of the control supply voltage</li> <li>AC</li> </ul>		
at 460/480 V rated value  at 575/600 V rated value  10 hp  Contactor  size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  operational service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  10 hp  10 NEMA controller size 1  3  600 V  1000000  1000000  10000000  10000000  1000000	• at 200/208 V rated value	3 hp
other interval and the state of the control supply voltage      other interval and the state of the control supply voltage      other interval and the state of the control supply voltage      other interval and the state of the control supply voltage      other interval and the state of the state of the control supply voltage      other interval and the state of	<ul> <li>at 220/230 V rated value</li> </ul>	3 hp
Size of contactor  Size of contactor  NEMA controller size 1  Size of contacts for main contacts  Size of contacts for main contacts  Size of contacts for main contacts  Size of contacts at Contact at AC at 600 V rated value  Size of contact service life (switching cycles) of the main contacts typical  Auxiliary contact  NEMA controller size 1  Size of cont V  MEMA controller size 1  Size of contacts at Contacts at Contact value  27 A  100000000  100000000  10000000000000	• at 460/480 V rated value	10 hp
size of contactor  number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  NEMA controller size 1  3  00  00  10000000  27 A  100000000  10000000  100000000  1000000	<ul><li>at 575/600 V rated value</li></ul>	10 hp
number of NO contacts for main contacts  operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  operational service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  3  600 V  600 V  600 V  100000000  100000000  100000000  1000000	Contactor	
operating voltage for main current circuit at AC at 60 Hz maximum  operational current at AC at 600 V rated value  mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts number of NO contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  600 V	size of contactor	NEMA controller size 1
maximum operational current at AC at 600 V rated value mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact number of NC contacts at contactor for auxiliary contacts number of total auxiliary contacts at contactor for auxiliary contacts number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil type of voltage of the control supply voltage  27 A  100000000  100000000  100000000  1000000	number of NO contacts for main contacts	3
mechanical service life (switching cycles) of the main contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  10000000  10000000  100000000  1000000		600 V
contacts typical  Auxiliary contact  number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  AC	operational current at AC at 600 V rated value	27 A
number of NC contacts at contactor for auxiliary contacts  number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  O  10A@600VAC (A600), 5A@600VDC (P600)	· · · · · · · · · · · · · · · · · · ·	10000000
number of NO contacts at contactor for auxiliary contacts  number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  1  1  1  1  1  1  1  1  1  1  1  1  1	Auxiliary contact	
number of total auxiliary contacts maximum  contact rating of auxiliary contacts of contactor according to UL  Coil  type of voltage of the control supply voltage  8  10A@600VAC (A600), 5A@600VDC (P600)  10A@600VAC (A600), 5A@600VDC (P600)	number of NC contacts at contactor for auxiliary contacts	0
contact rating of auxiliary contacts of contactor according to UL  10A@600VAC (A600), 5A@600VDC (P600)  to UL  Coil  type of voltage of the control supply voltage  AC	number of NO contacts at contactor for auxiliary contacts	1
to UL  Coil type of voltage of the control supply voltage  AC	number of total auxiliary contacts maximum	8
type of voltage of the control supply voltage AC		10A@600VAC (A600), 5A@600VDC (P600)
37	Coil	
control supply voltage	type of voltage of the control supply voltage	AC
	control supply voltage	

at AC at 60 Hz rated value	110 240 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 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-	5.5 22 A
dependent overload release	
make time with automatic start after power failure 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	4X, 304 stainless steel
design of the housing	dustproof, waterproof & resistant to corrosion
Mounting/wiring	dasiproof, waterproof a resistant to corresion
	Vertical
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	2x (16 12 AWG)

temperature of the conductor at magnet coil maximum permissible	75 °C
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	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 at 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 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)

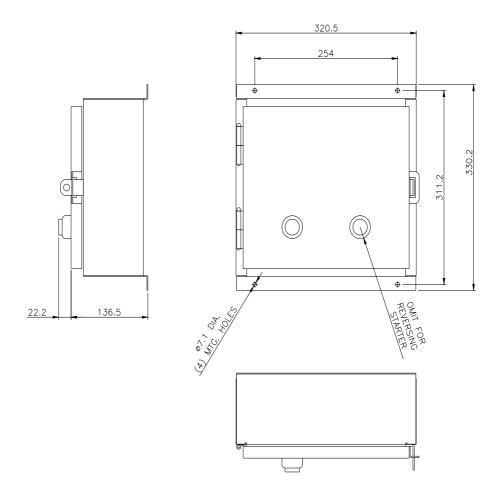
https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:22DUD32WA

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/US/en/ps/US2:22DUD32WA

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=US2:22DUD32WA&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22DUD32WA&lang=en</a>

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22DUD32WA/certificate



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