## SIEMENS

## Data sheet

## US2:22DUA32FA



Reversing motor starter, Size 1, Three phase full voltage, Solid-state overload relay, OLR amp range 0.25-1A, Non-combination type, Enclosure type 4X fiberglass, Water/dust tight noncorrosive, Standard width enclosure

product brand name	Class 22
design of the product	Full-voltage reversing motor starter
special product feature	ESP200 overload relay
General technical data	
weight [lb]	17 lb
Height x Width x Depth [in]	24 × 15 × 7 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	0.17 hp
• at 220/230 V rated value	0.17 hp
• at 460/480 V rated value	0.33 hp
• at 575/600 V rated value	0.5 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	600 V
operational current at AC at 600 V rated value	27 A
mechanical service life (operating cycles) of the main contacts typical	1000000
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 60 Hz rated value</li> </ul>	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	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	
<ul> <li>overload protection</li> </ul>	Yes
<ul> <li>phase failure detection</li> </ul>	Yes
<ul> <li>asymmetry detection</li> </ul>	Yes
<ul> <li>ground fault detection</li> </ul>	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	0.25 1 A
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
<ul> <li>with multi-phase operation at AC rated value</li> </ul>	300 V
Enclosure	
Enclosure degree of protection NEMA rating	4X, fiber glass
	4X, fiber glass dustproof, waterproof & resistant to corrosion
degree of protection NEMA rating	
degree of protection NEMA rating design of the housing	
degree of protection NEMA rating design of the housing Mounting/wiring	dustproof, waterproof & resistant to corrosion
degree of protection NEMA rating design of the housing Mounting/wiring mounting position	dustproof, waterproof & resistant to corrosion Vertical
degree of protection NEMA rating         design of the housing         Mounting/wiring         mounting position         fastening method	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation
degree of protection NEMA rating         design of the housing         Mounting/wiring         mounting position         fastening method         type of electrical connection for supply voltage line-side	dustproof, waterproof & resistant to corrosion Vertical Surface mounting and installation Screw-type terminals
degree of protection NEMA rating         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	dustproof, waterproof & resistant to corrosion         Vertical         Surface mounting and installation         Screw-type terminals         35 35 lbf-in
degree of protection NEMA rating         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	dustproof, waterproof & resistant to corrosion         Vertical         Surface mounting and installation         Screw-type terminals         35 35 lbf in         1x (14 2 AWG)
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degree of protection NEMA rating         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         type of connectable conductor for load-side outgoing feeder         tightening torque [lbf-in] for load-side outgoing feeder         tightening torque of the conductor for load-side outgoing feeder         temperature of the conductor for load-side outgoing feeder         maximum per	dustproof, waterproof & resistant to corrosion         Vertical         Surface mounting and installation         Screw-type terminals         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         20 24 lbf-in         2x (14 10 AWG)         75 °C
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degree of protection NEMA rating         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         tightening torque [lbf-in] for load-side outgoing feeder         type of connectable conductor for supply         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 clectrical connection 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	dustproof, waterproof & resistant to corrosion         Vertical         Surface mounting and installation         Screw-type terminals         35 35 lbf in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         20 24 lbf in         2x (14 10 AWG)         75 °C         CU         Screw-type terminals         5 12 lbf in
degree of protection NEMA rating         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         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 cross-sections of magnet coil for         AWG cables single or multi-stranded         temperature of the conductor cross-sections of magnet coil for	dustproof, waterproof & resistant to corrosion         Vertical         Surface mounting and installation         Screw-type terminals         35 35 lbf-in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         20 24 lbf-in         2x (14 10 AWG)         75 °C         CU         Screw-type terminals         5 12 lbf-in         2x (16 12 AWG)
degree of protection NEMA rating         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         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 cross-sections of magnet coil for         AWG cables single or multi-stranded         temperature of the conductor cross-sections of magnet coil for         AWG cables single or multi-stranded	dustproof, waterproof & resistant to corrosion         Vertical         Surface mounting and installation         Screw-type terminals         35 35 lbf in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         20 24 lbf in         2x (14 10 AWG)         75 °C         CU         Screw-type terminals         5 12 lbf in         2x (16 12 AWG)         75 °C
degree of protection NEMA rating         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         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 cross-sections of magnet coil for         AWG cables single or multi-stranded         temperature of the conductor at magnet coil maximum	dustproof, waterproof & resistant to corrosion         Vertical         Surface mounting and installation         Screw-type terminals         35 35 lbf·in         1x (14 2 AWG)         75 °C         AL or CU         Screw-type terminals         20 24 lbf·in         2x (14 10 AWG)         75 °C         CU         Screw-type terminals         5 12 lbf·in         2x (16 12 AWG)         75 °C         CU         Screw-type terminals         5 12 lbf·in         2x (16 12 AWG)         75 °C         CU
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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	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
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

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=US2:22DUA32FA

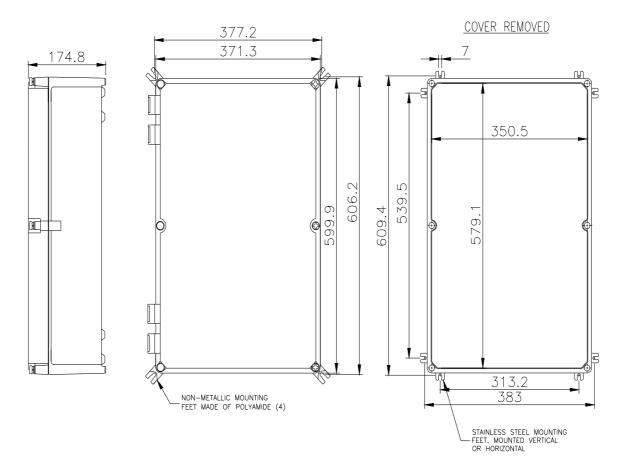
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/US/en/ps/US2:22DUA32FA

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:22DUA32FA&lang=en

Certificates/approvals

https://support.industry.siemens.com/cs/US/en/ps/US2:22DUA32FA/certificate





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