## SIEMENS

## Data sheet

## US2:30HUGF32A1VA



2-speed 3-phase motor starter Size 3 Two separate windings Constant or variable torque Solid-state overload relays Low SPD OLR range 13-52a High SPD OLR range 25-100A 110-120/220-240VAC 60HZ coil Enclosure NEMA type (open) No enclosure

product brand name	Class 30
design of the product	Full-voltage two speed motor starter
special product feature	ESP200 overload relay; Dual voltage coil
General technical data	
weight [lb]	16 lb
Height x Width x Depth [in]	11 × 12 × 5 in
touch protection against electrical shock	Not finger-safe
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	Mexico
Horsepower ratings	
yielded mechanical performance [hp] for 3-phase AC motor	
• at 200/208 V rated value	25 hp
• at 220/230 V rated value	30 hp
• at 460/480 V rated value	50 hp
• at 575/600 V rated value	50 hp
Contactor	
size of contactor	NEMA controller size 3
number of NO contacts for main contacts	6
operating voltage for main current circuit at AC at 60 Hz maximum	600 V
operational current at AC at 600 V rated value	90 A
mechanical service life (operating cycles) of the main contacts typical	500000
Auxiliary contact	
number of NC contacts at contactor for auxiliary contacts	2
number of NO contacts at contactor for auxiliary contacts	2
number of total auxiliary contacts maximum	7
contact rating of auxiliary contacts of contactor according to UL	10A@600VAC (A600), 2.5A@300VDC (Q300)
Coil	
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	14 W
apparent pick-up power of magnet coil at AC	310 VA
apparent holding power of magnet coil at AC	26 VA

operating range factor control supply voltage rated value of	01
magnet coil	
percental drop-out voltage of magnet coil related to the input voltage	50 %
ON-delay time	26 41 ms
OFF-delay time	14 19 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
ground fault detection	Yes
test function	Yes
external reset	No
reset function	Manual, automatic and remote
trip class	CLASS 5 / 10 / 20 (factory set) / 30
adjustable current response value current of overload relay	
for low rotational speed	13 52 A
<ul> <li>for high rotational speed</li> </ul>	25 100 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	5
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
	300 V
Mounting/wiring	300 V vertical
Mounting/wiring mounting position	vertical
Mounting/wiring mounting position fastening method	vertical Surface mounting and installation
Mounting/wiring mounting position fastening method type of electrical connection for supply voltage line-side	vertical
Mounting/wiring mounting position fastening method	vertical Surface mounting and installation Box lug
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	vertical Surface mounting and installation Box lug 120 120 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	vertical Surface mounting and installation Box lug 120 120 lbf-in 1
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 Box lug 120 120 lbf-in 1 75 °C
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 Box lug 120 120 lbf-in 1 75 °C AL or 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	vertical Surface mounting and installation Box lug 120 120 lbf·in 1 75 °C AL or CU Box lug
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 Box lug 120 120 lbf·in 1 75 °C AL or CU Box lug 120 120 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	vertical Surface mounting and installation Box lug 120 120 lbf·in 1 75 °C AL or CU Box lug 120 120 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	vertical Surface mounting and installation Box lug 120 120 lbf-in 1 75 °C AL or CU Box lug 120 120 lbf-in 1
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 Box lug 120 120 lbf-in 1 75 °C AL or CU Box lug 120 120 lbf-in 1 75 °C
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 Box lug 120 120 lbf-in 1 75 °C AL or CU Box lug 120 120 lbf-in 1 75 °C AL or 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           type of connectable conductor for load-side outgoing feeder           type of connectable conductor for load-side outgoing feeder           type of connectable conductor for load-side outgoing feeder           temperature of the conductor for load-side outgoing feeder           temperature of the conductor for load-side outgoing feeder           material of the conductor for load-side outgoing feeder           material of the conductor for load-side outgoing feeder           type of electrical connection of magnet coil	vertical         Surface mounting and installation         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or 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 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         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 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           type of connectable conductor for load-side outgoing feeder           type of connectable conductor for load-side outgoing feeder           type of connectable conductor for load-side outgoing feeder           material of the conductor for load-side outgoing feeder           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         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2
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 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 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         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2         75 °C
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 multi-stranded           temperature of the conductor for load-side outgoing feeder           type of connectable 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         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2         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           type of connectable conductor for load-side outgoing feeder           type of connectable conductor for load-side outgoing feeder           material 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           type of electrical connection for auxiliary contacts	vertical         Surface mounting and installation         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2         75 °C         CU         Screw-type terminals         5 12 lbf-in         2         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           type of connectable 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           type of electrical connection for auxiliary contacts           type of electrical connection for auxiliary contacts           tightening torque [lbf·in] at contactor for auxiliary contacts	vertical         Surface mounting and installation         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2         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           material 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           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           material of the conductor at magnet coil           type of electrical connection for auxiliary co	vertical         Surface mounting and installation         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Box lug         120 120 lbf-in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf-in         2         75 °C         CU         Screw-type terminals         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1
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           type of connectable conductor for load-side outgoing feeder           type of electrical connection of magnet coil           temperature 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           type of electrical connection for auxiliary contacts           tightening torque [lbf-in] at contactor for auxiliary contacts           type of electrical connection for auxiliary contacts	vertical         Surface mounting and installation         Box lug         120 120 lbf in         1         75 °C         AL or CU         Box lug         120 120 lbf in         1         75 °C         AL or CU         Screw-type terminals         5 12 lbf in         2         75 °C         CU         Screw-type terminals         10 15 lbf in         1         1         75 °C         CU         Screw-type terminals         10 15 lbf in         1         75 °C

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
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	10
design of the short-circuit trip	Thermal magnetic circuit breaker
maximum short-circuit current breaking capacity (lcu)	
• 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=US2:30HUGF32A1VA

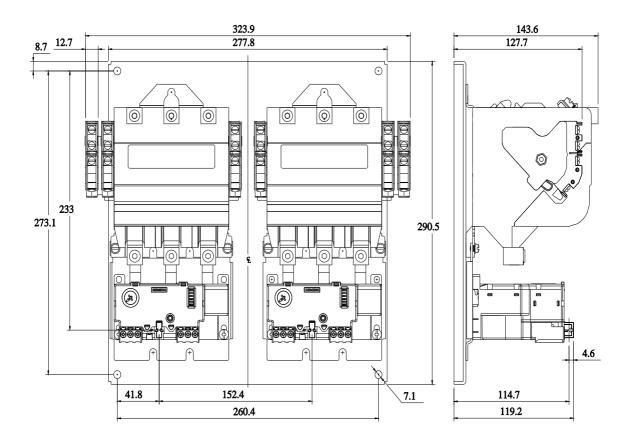
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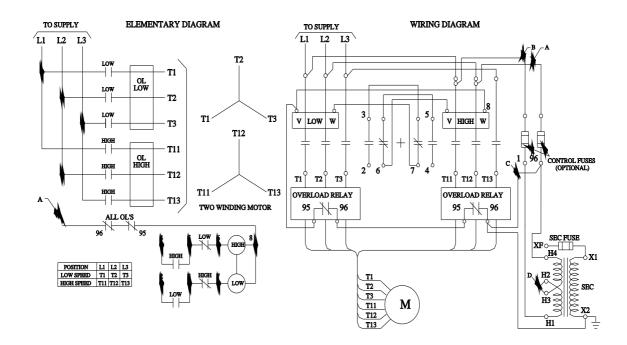
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=US2:30HUGF32A1VA&lang=en

Certificates/approvals

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