

Reversing motor starter Size 6 Three phase full voltage Solid-state overload relay OLRelay amp range 160-630A 440-480V 50-60HZ/DC coil Non-combination type Enclosure NEMA type 1 Indoor general purpose use

Product brand name	Class 22
Design of the product	Reversing motor starter

### General technical data

Weight [lb]	177 lb
Height x Width x Depth [in]	48 × 20 × 13 in
Protection against electrical shock	NA for enclosed products
Installation altitude [ft] at height above sea level maximum	6560 ft
Ambient temperature [°F]	
<ul style="list-style-type: none"> <li>during storage maximum</li> <li>during operation maximum</li> </ul>	149 °F 104 °F
Ambient temperature	
<ul style="list-style-type: none"> <li>during storage maximum</li> <li>during operation maximum</li> </ul>	65 °C 40 °C
Country of origin	USA

### Horsepower ratings

Yielded mechanical performance [hp] for three-phase AC motor	
<ul style="list-style-type: none"> <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> </ul>	150 hp 200 hp 400 hp 400 hp

### Contactors

Size of contactor	NEMA controller size 6
Number of NO contacts for main contacts	3
Operating voltage for main current circuit at AC at 60 Hz maximum	600 V
Operating current at AC at 600 V rated value	540 A
Mechanical service life (switching cycles) of the main contacts typical	10000000

### Auxiliary contact

Number of NC contacts at contactor for auxiliary contacts	2
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Number of NO contacts at contactor for auxiliary contacts	2
Number of total auxiliary contacts maximum	8
Contact rating of auxiliary contacts of contactor according to UL	10A@240VAC (A300), 2.5A@250VDC (Q300)

### Coil

Type of voltage of the control supply voltage	AC/DC
Control supply voltage	
• at DC rated value	440 ... 480 V
• at AC at 50 Hz rated value	440 ... 480 V
• at AC at 60 Hz rated value	440 ... 480 V
Holding power at AC minimum	10 W
Apparent pick-up power of magnet coil at AC	830 V·A
Apparent holding power of magnet coil at AC	9.2 V·A
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	60 %
Switch-on delay time	45 ... 100 ms
Off-delay time	60 ... 100 ms

### Overload relay

Product function	
• Overload protection	Yes
• Phase failure detection	Yes
• Phase unbalance	Yes
• Ground fault detection	No
• Test function	Yes
• External reset	Yes
Reset function	Manual and automatic
Trip class	Class 20
Adjustable pick-up value current of the current-dependent overload release	160 ... 630 A
Product feature Protective coating on printed-circuit board	No
Number of NC contacts of auxiliary contacts of overload relay	1
Number of NO contacts of auxiliary contacts of overload relay	1
Operating 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	
<ul style="list-style-type: none"> <li>• with single-phase operation at AC rated value</li> <li>• with multi-phase operation at AC rated value</li> </ul>	600 V
	300 V

### Enclosure

Degree of protection NEMA rating of the enclosure	NEMA Type 1
Design of the housing	Indoor general purpose use

### Mounting/wiring

Mounting position	Vertical
Mounting type	Surface mounting and installation
Type of electrical connection for supply voltage line-side	Box lug
Tightening torque [lbf·in] for supply	180 ... 195 lbf·in
Type of connectable conductor cross-sections at line-side at AWG conductors single or multi-stranded	3/0 AWG ... 600 MCM (front only) or 250 ... 500 MCM (back only) or 2x 2/0 AWG ... 2x 500 MCM (both front & back)
Temperature of the conductor for supply maximum permissible	75 °C
Type of electrical connection for load-side outgoing feeder	Box lug
Tightening torque [lbf·in] for load-side outgoing feeder	180 ... 220 lbf·in
Type of connectable conductor cross-sections at AWG conductors for load-side outgoing feeder single or multi-stranded	2x 2/0 AWG ... 500 MCM
Temperature of the conductor for load-side outgoing feeder maximum permissible	75 °C
Material of the conductor for load-side outgoing feeder	CU
Type of electrical connection of magnet coil	Screw-type terminals
Tightening torque [lbf·in] at magnet coil	7 ... 10 lbf·in
Type of connectable conductor cross-sections of magnet coil at AWG conductors single or multi-stranded	2x (18 ... 14 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	7 ... 10 lbf·in
Type of connectable conductor cross-sections at contactor at AWG conductors for auxiliary contacts single or multi-stranded	2x (20 ... 16 AWG), 2x (18 ... 14 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 conductors 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	18kA@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) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul>	18 kA 18 kA 18 kA
Certificate of suitability	NEMA ICS 2; UL 508

#### Further information

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

[www.usa.siemens.com/iccatalog](http://www.usa.siemens.com/iccatalog)

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:22MPX32BH>

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

<https://support.industry.siemens.com/cs/US/en/ps/US2:22MPX32BH>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:22MPX32BH&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:22MPX32BH&lang=en)

##### Certificates/approvals

<https://support.industry.siemens.com/cs/US/en/ps/US2:22MPX32BH/certificate>



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