# **SIEMENS**

### Data sheet

## US2:40EP220J

Non-reversing contactor, Size 1 3/4, 4 power poles, Contactor amp rating 40A, 3 wire (NO aux included), 24VAC 50-60Hz coil, Noncombination type, Enclosure NEMA type 12, Dust/drip proof for indoors, Standard width enclosure



Figure similar

General technical data	
Weight [lb]	11 lb
Height x Width x Depth [in]	13 × 8 × 5 in
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
Ambient temperature [°F] during operation	-4 +104 °F
Ambient temperature during storage	-30 +65 °C
Ambient temperature during operation	-20 +40 °C
Country of origin	USA
Horsepower ratings	
Yielded mechanical performance [hp] for three-phase	
AC motor	
• at 200/208 V rated value	5 hp
• at 220/230 V rated value	10 hp
• at 460/480 V rated value	15 hp

• at 575/600 V	rated value
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15 hp

Contactor         Number of NO contacts for main contacts       4         Operating voltage for main current circuit at AC at 60       600 V         Hz maximum       40 A         Operating current at AC at 600 V rated value       40 A         Mechanical service life (switching cycles) of the main contacts typical       10000000         Auxiliary contact       1         Number of NC contacts at contactor for auxiliary contacts       1         Number of NC contacts at contactor for auxiliary contacts       1         Number of NC contacts at contactor for auxiliary contacts       1         Number of NC contacts at contactor for auxiliary contacts       1         Number of NC contacts at contactor for auxiliary contacts       1         Number of NC contacts at contactor for auxiliary contacts       1         Number of NC contacts at contactor for auxiliary contacts       1         Number of NC contacts at contactor for auxiliary contacts       1         Contact raing of auxiliary contacts       10A@600VAC (A600), 5A@600VDC (P600)         according to UL       Control supply voltage       0         Control supply voltage       0       0       0         • at DC rated value       0       0       0       0         • at AC at 60 Hz rated value       24       24 V       <	• at 575/600 V rated value	io np
Number of NO contacts for main current circuit at AC at 60       600 V         Parating voltage for main current circuit at AC at 60       600 V         Operating current at AC at 600 V rated value       40 A         Mechanical service life (switching cycles) of the main contacts typical       10000000         Auxiliary contact       0         Number of NO 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 NO contacts at contactor for auxiliary contacts       1         Number of NO contacts at contactor for auxiliary contacts of contactor according to UL       1         Contact rating of auxiliary contacts of contactor according to UL       0         Control supply voltage       AC         Control supply voltage	Contactor	
Hz maximum       40 A         Operating current at AC at 600 V rated value       40 A         Mechanical service life (switching cycles) of the main contacts typical       10000000         Auxiliary contact       0         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))         Control supply voltage       AC         Control supply voltage       0         • at DC rated value       0         • at DC rated value       0         • at AC at 60 Hz rated value       0         • at AC at 50 Hz rated value       24         • at AC at 50 Hz rated value       24         • at AC at 50 Hz rated value       24         • at AC at 50 Hz rated value       25 VA         Operating range factor control supply voltage rated value       50 %         • be input voltage       50 %         Switch-on delay time       19 29 ms         Off-delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       NEMA Type 12		4
Mechanical service life (switching cycles) of the main contacts typical       10000000         Auxiliary contact       0         Number of NC contacts at contactor for auxiliary contacts       0         Number of NC 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) according to UL         Coll       Type of voltage of the control supply voltage       AC         Control supply voltage       0 0 V       4         • at AC at 60 Hz rated value       24 24 V       4         • at AC at 50 Hz rated value       24 24 V       4         Holding power at AC minimum       8.6 W       Apparent holding power of magnet coil at AC       218 V-A         Apparent holding power of magnet coil related to the input voltage       50 %       50 %         Switch-on delay time       19 29 ms       0/ft-delay time         Off-delay time       10 24 ms       50 %         Enclosure       NEMA Type 12       Dust tight and drip proof for indoors         Mounting vosition)       Vertical       (mounting type)         Type of electrical connection for supply voltage line-       Surface mounting and installation		600 V
contacts typical         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       0 0 V       4         • at AC at 60 Hz rated value       24 24 V       4         • at AC at 50 Hz rated value       24 24 V       4         Holding power at AC minimum       8.6 W       Apparent pick-up power of magnet coil at AC       218 V-A         Apparent pick-up power of magnet coil at AC       25 V-A       0       0 0 W         Percental drop-out voltage of magnet coil related to the input voltage of magnet coil related to the input voltage of magnet coil related to the input voltage       50 %       11         Switch-on delay time       19 29 ms       0ff-delay time       10 24 ms         Enclosure       Design of the housing       Dust tight and drip proof for indoors         Mounting position)       Vertical       (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Surface mounting and installati	Operating current at AC at 600 V rated value	40 A
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)         Contact rating of auxiliary contacts of contactor according to UL       0         Coll       10A(@600VAC (A600), 5A@600VDC (P600)         Control supply voltage       AC         Control supply voltage       AC         • at DC rated value       0 0 V         • at AC at 60 Hz rated value       24 24 V         • at AC at 50 Hz rated value       24 24 V         Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       218 V/A         Apparent pick-up power of magnet coil related to the input voltage of magnet coil related to the input voltage       50 %         Percental drop-out voltage of magnet coil related to the input voltage       19 29 ms         Off-delay time       19 29 ms         Off-delay time       10 24 ms         Degree of protection NEMA rating of the enclosure       Dust tight and drip proof for indoors         Mounting/wring       Vertical       Surface mounting and installation         (mounting type)       Surface		1000000
contacts       1         Number of NO contacts at contactor for auxiliary       1         Number of total auxiliary contacts maximum       8         Contact traing of auxiliary contacts of contactor       10A@600VAC (A600), 5A@600VDC (P600)         according to UL       10A@600VAC (A600), 5A@600VDC (P600)         Coll       10A@600VAC (A600), 5A@600VDC (P600)         Type of voltage of the control supply voltage       AC         Control supply voltage       0 0 V         • at DC rated value       24 24 V         • at AC at 60 Hz rated value       24 24 V         • at AC at 50 Hz rated value       24 24 V         • at AC at 50 Hz rated value       24 24 V         Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       218 V-A         Operating range factor control supply voltage rated       0.85 1.1         value of magnet coil       50 %         Percential drop-out voltage of magnet coil related to       50 %         the input voltage       19 29 ms         Off-delay time       10 24 ms         Enclosure       Degree of protection NEMA rating of the enclosure         Design of the housing       Dust tight and drip proof for indoors         Mounting position)       Vertical	Auxiliary contact	
contacts8Number of total auxiliary contacts maximum8Contact rating of auxiliary contacts of contactor according to UL10A@600VAC (A600), 5A@600VDC (P600)CoilType of voltage of the control supply voltageACControl supply voltage0 0 V• at DC rated value0 0 V• at AC at 60 Hz rated value24 24 V• at AC at 50 Hz rated value24 24 VHolding power at AC minimum8.6 WApparent pick-up power of magnet coil at AC218 V-AApparent pick-up ower of magnet coil related to the input voltage of protection NEMA rating of the enclosure Degree of protection NEMA rating of the enclosureNEMA Type 12 Dust tight and drip proof for indoorsMounting position)Vertical (mounting type)Surface mounting and installation Screw-type terminals	-	0
Contact rating of auxiliary contacts of contactor according to UL       10A@600VAC (A600), 5A@600VDC (P600)         Type of voltage of the control supply voltage       AC         Control supply voltage       0 0 V         • at DC rated value       0 0 V         • at AC at 60 Hz rated value       24 24 V         • at AC at 50 Hz rated value       24 24 V         Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       218 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       50 %         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       Dust tight and drip proof for indoors         Mounting position)       Vertical         (mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	-	1
according to UL       Coll         Type of voltage of the control supply voltage       AC         Control supply voltage       00 V         • at DC rated value       00 V         • at AC at 60 Hz rated value       2424 V         • at AC at 50 Hz rated value       2424 V         Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       218 V/A         Apparent pick-up power of magnet coil at AC       25 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       50 %         The input voltage       9 29 ms         Off-delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       Dust tight and drip proof for indoors         Design of the housing       Dust tight and drip proof for indoors         Mounting /wiring       (mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Number of total auxiliary contacts maximum	8
Type of voltage of the control supply voltage       AC         Control supply voltage       0 0 V         • at DC rated value       24 24 V         • at AC at 50 Hz rated value       24 24 V         • at AC at 50 Hz rated value       24 24 V         • at AC at 50 Hz rated value       24 24 V         Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       25 V-A         Operating range factor control supply voltage rated       0.85 1.1         value of magnet coil       0 29 ms         Percental drop-out voltage of magnet coil related to the input voltage       19 29 ms         Off-delay time       10 24 ms         Enclosure       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (rmounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals		10A@600VAC (A600), 5A@600VDC (P600)
Control supply voltage       00 V         • at DC rated value       2424 V         • at AC at 50 Hz rated value       2424 V         • at AC at 50 Hz rated value       2424 V         • at AC at 50 Hz rated value       2424 V         Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       218 V/A         Operating range factor control supply voltage rated       0.85 1.1         value of magnet coil       0.85 1.1         Percental drop-out voltage of magnet coil related to the input voltage       50 %         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       NEMA Type 12         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (rmounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Coil	
• at DC rated value       00V         • at AC at 60 Hz rated value       2424 V         • at AC at 50 Hz rated value       2424 V         Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       218 V-A         Apparent holding power of magnet coil at AC       25 V-A         Operating range factor control supply voltage rated value of magnet coil       0.85 1.1         value of magnet coil       90%         Percental drop-out voltage of magnet coil related to the input voltage       50 %         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (rmounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Type of voltage of the control supply voltage	AC
<ul> <li>at AC at 60 Hz rated value</li> <li>at AC at 50 Hz rated value</li> <li>at AC at 50 Hz rated value</li> <li>24 24 V</li> <li>Holding power at AC minimum</li> <li>8.6 W</li> <li>Apparent pick-up power of magnet coil at AC</li> <li>218 V·A</li> <li>Apparent holding power of magnet coil at AC</li> <li>25 V·A</li> <li>Operating range factor control supply voltage rated</li> <li>value of magnet coil</li> <li>Percental drop-out voltage of magnet coil related to the input voltage</li> <li>Switch-on delay time</li> <li>Off-delay time</li> <li>Degree of protection NEMA rating of the enclosure</li> <li>Design of the housing</li> <li>Dust tight and drip proof for indoors</li> <li>Mounting/wiring</li> <li>(mounting position)</li> <li>Vertical</li> <li>(mounting type)</li> <li>Surface mounting and installation</li> <li>Screw-type terminals</li> </ul>	Control supply voltage	
• at AC at 50 Hz rated value         24 24 V           Holding power at AC minimum         8.6 W           Apparent pick-up power of magnet coil at AC         218 V·A           Apparent holding power of magnet coil at AC         25 V·A           Operating range factor control supply voltage rated value of magnet coil         0.85 1.1           Value of magnet coil         90.85 1.1           Percental drop-out voltage of magnet coil related to the input voltage         50 %           Switch-on delay time         19 29 ms           Off-delay time         10 24 ms           Enclosure         Design of the housing           Dust tight and drip proof for indoors           Mounting/wiring         (mounting position)           (mounting type)         Surface mounting and installation           Type of electrical connection for supply voltage line-         Screw-type terminals	• at DC rated value	0 0 V
Holding power at AC minimum       8.6 W         Apparent pick-up power of magnet coil at AC       218 V·A         Apparent holding power of magnet coil at AC       25 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       50 %         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       Design of the housing         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	• at AC at 60 Hz rated value	24 24 V
Apparent pick-up power of magnet coil at AC       218 V-A         Apparent holding power of magnet coil at AC       25 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       50 %         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	<ul> <li>at AC at 50 Hz rated value</li> </ul>	24 24 V
Apparent holding power of magnet coil at AC       25 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       50 %         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       Degree of protection NEMA rating of the enclosure       NEMA Type 12         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Holding power at AC minimum	8.6 W
Operating range factor control supply voltage rated       0.85 1.1         Value of magnet coil       0.85 1.1         Percental drop-out voltage of magnet coil related to       50 %         the input voltage       19 29 ms         Off-delay time       10 24 ms         Enclosure       Degree of protection NEMA rating of the enclosure       NEMA Type 12         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Apparent pick-up power of magnet coil at AC	218 V·A
value of magnet coil       50 %         Percental drop-out voltage of magnet coil related to the input voltage       50 %         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       Degree of protection NEMA rating of the enclosure         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Apparent holding power of magnet coil at AC	25 V·A
the input voltage       19 29 ms         Switch-on delay time       19 29 ms         Off-delay time       10 24 ms         Enclosure       NEMA Type 12         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       Vertical         (mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals		0.85 1.1
Off-delay time       10 24 ms         Enclosure       Image: Second se		50 %
Enclosure         Degree of protection NEMA rating of the enclosure       NEMA Type 12         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Switch-on delay time	19 29 ms
Degree of protection NEMA rating of the enclosure       NEMA Type 12         Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Off-delay time	10 24 ms
Design of the housing       Dust tight and drip proof for indoors         Mounting/wiring       (mounting position)         (mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Enclosure	
Mounting/wiring       (mounting position)     Vertical       (mounting type)     Surface mounting and installation       Type of electrical connection for supply voltage line-     Screw-type terminals	Degree of protection NEMA rating of the enclosure	NEMA Type 12
(mounting position)       Vertical         (mounting type)       Surface mounting and installation         Type of electrical connection for supply voltage line-       Screw-type terminals	Design of the housing	Dust tight and drip proof for indoors
(mounting type)     Surface mounting and installation       Type of electrical connection for supply voltage line-     Screw-type terminals		
Type of electrical connection for supply voltage line- Screw-type terminals		
		-
	side	
Tightening torque [lbf·in] for supply     45 45 lbf·in		
Type of connectable conductor cross-sections at line-1x (14 2 AWG)side at AWG conductors single or multi-stranded		1x (14 2 AWG)

Temperature of the conductor for supply maximum	75 °C
permissible	
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	45 45 lbf·in
Type of connectable conductor cross-sections at AWG conductors 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 conductors 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 at contactor 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 conductors 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
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 A
● at 480 V	10 A
• at 600 V	10 A
-urther information	

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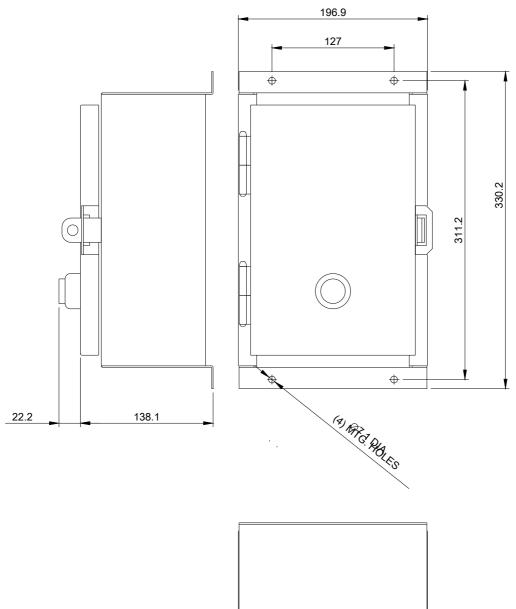
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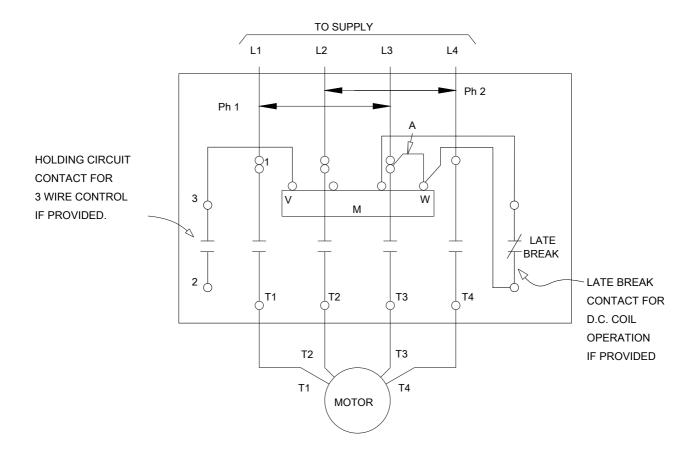
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#### Certificates/approvals

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