



Figure similar

Duplex starter w/o alternator, Size 1, Three phase full voltage, Amb. compensate bimetal OLR, contactor A rating 27A, 110V 50Hz / 120V 60Hz coil, Combination type, Two 3A circuit breakers, Encl NEMA type 4X 304 S-Steel, Water/dust tight noncorrosive

|   |  |
|---|--|
| product brand name  | Class 84   |
| design of the product   | Duplex controller with two MCPs without alternator   |
| special product feature   | Gravity dropout contacts; 45 degree, wedge action contacts; Self-rising pressure type control terminals; Encapsulated coil |
| <b>General technical data</b>   |  |
| weight [lb]   | 70 lb  |
| Height x Width x Depth [in]   | 34 × 25 × 8 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  |
| <b>Horsepower ratings</b>   |  |
| yielded mechanical performance [hp] for 3-phase AC motor                |  |
| • at 200/208 V rated value  | 0.5 hp   |
| • at 220/230 V rated value  | 0.75 hp  |
| • at 460/480 V rated value  | 1.5 hp   |
| • at 575/600 V rated value  | 2 hp   |
| <b>Contactor</b>  |  |
| 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 (switching cycles) of the main contacts typical | 10000000   |
| <b>Auxiliary contact</b>  |  |
| 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 style="list-style-type: none"> <li>• at DC rated value</li> <li>• at AC at 50 Hz rated value</li> <li>• at AC at 60 Hz rated value</li> </ul> | 0 ... 0 V<br>110 ... 110 V<br>120 ... 120 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                                     |
| Overload relay  |  |
| product function  |  |
| <ul style="list-style-type: none"> <li>• overload protection</li> <li>• test function</li> <li>• external reset</li> </ul>                        | Yes<br>Yes<br>Yes                                |
| reset function  | Manual and automatic                             |
| adjustment range of thermal overload trip unit  | 0.85 ... 1.15                                    |
| number of NC contacts of auxiliary contacts of overload relay   | 1  |
| number of NO contacts of auxiliary contacts of overload relay   | 0  |
| operational current of auxiliary contacts of overload relay   |  |
| <ul style="list-style-type: none"> <li>• at AC at 600 V</li> <li>• at DC at 250 V</li> </ul>  | 10 A<br>5 A                                      |
| contact rating of auxiliary contacts of overload relay according to UL  | 10A@600VAC (A600), 5A@250VDC (P300)              |
| Enclosure   |  |
| degree of protection NEMA rating of the enclosure   | NEMA 4X 304 stainless steel enclosure            |
| design of the housing   | Dust-tight, watertight & corrosion resistant     |
| Circuit Breaker   |  |
| type of the motor protection  | Motor circuit protector (magnetic trip only)     |
| operational current of motor circuit breaker rated value  | 3 A  |
| adjustable current response value current of instantaneous short-circuit trip unit  | 10 ... 35 A                                      |
| Mounting/wiring   |  |
| mounting position   | Vertical   |
| fastening method  | Surface mounting and installation                |
| type of electrical connection for supply voltage line-side  | Box lug  |
| type of connectable conductor cross-sections at line-side at AWG cables single or multi-stranded  | 1x (14 AWG ... 10 AWG) or 1x (12 AWG ... 10 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 ... 50 lbf·in                                 |
| 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 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 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  | 5 ... 12 lbf·in                                     |
| type of connectable conductor cross-sections at overload relay at AWG cables for auxiliary contacts single or multi-stranded | 2x (16 ... 12 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 short-circuit trip   | Instantaneous trip circuit breaker   |
| breaking capacity maximum short-circuit current (I <sub>cu</sub> )                                   |                                      |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul> | 100 kA<br>100 kA<br>25 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](http://www.usa.siemens.com/iccatalog)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/us/Catalog/product?mlfb=US2:84DPB95WMF81>

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

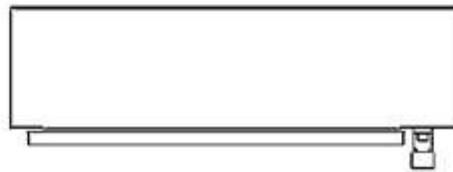
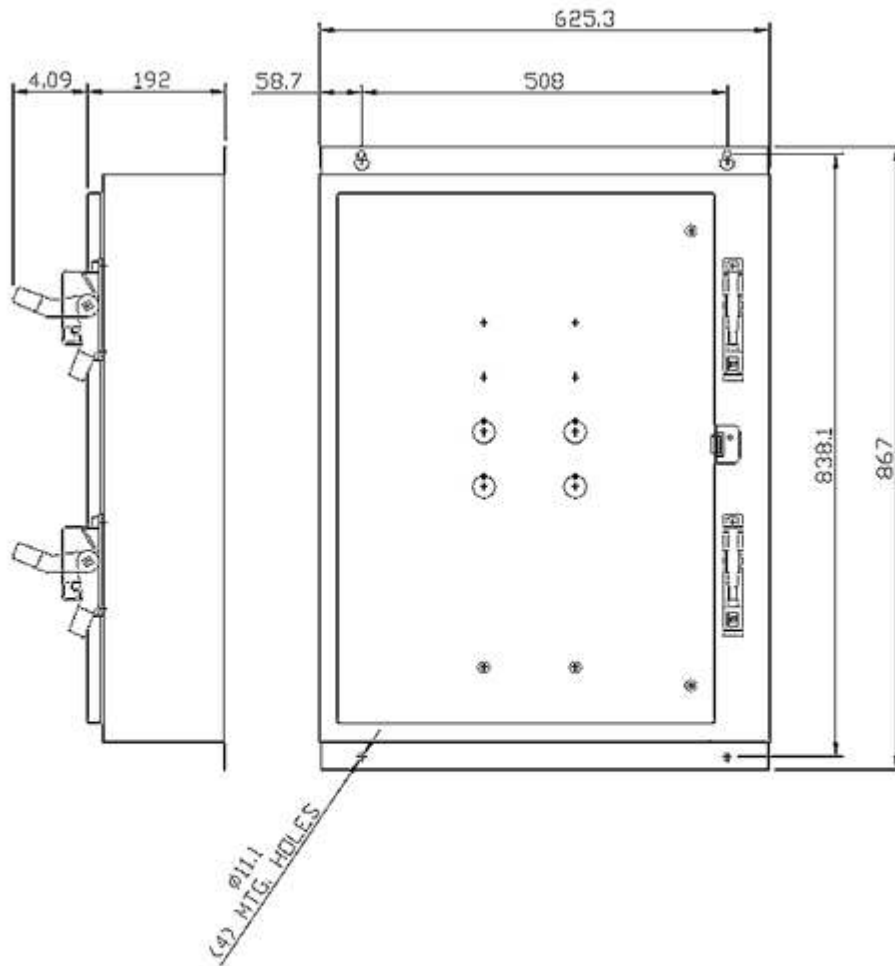
<https://support.industry.siemens.com/cs/US/en/ps/US2:84DPB95WMF81>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=US2:84DPB95WMF81&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=US2:84DPB95WMF81&lang=en)

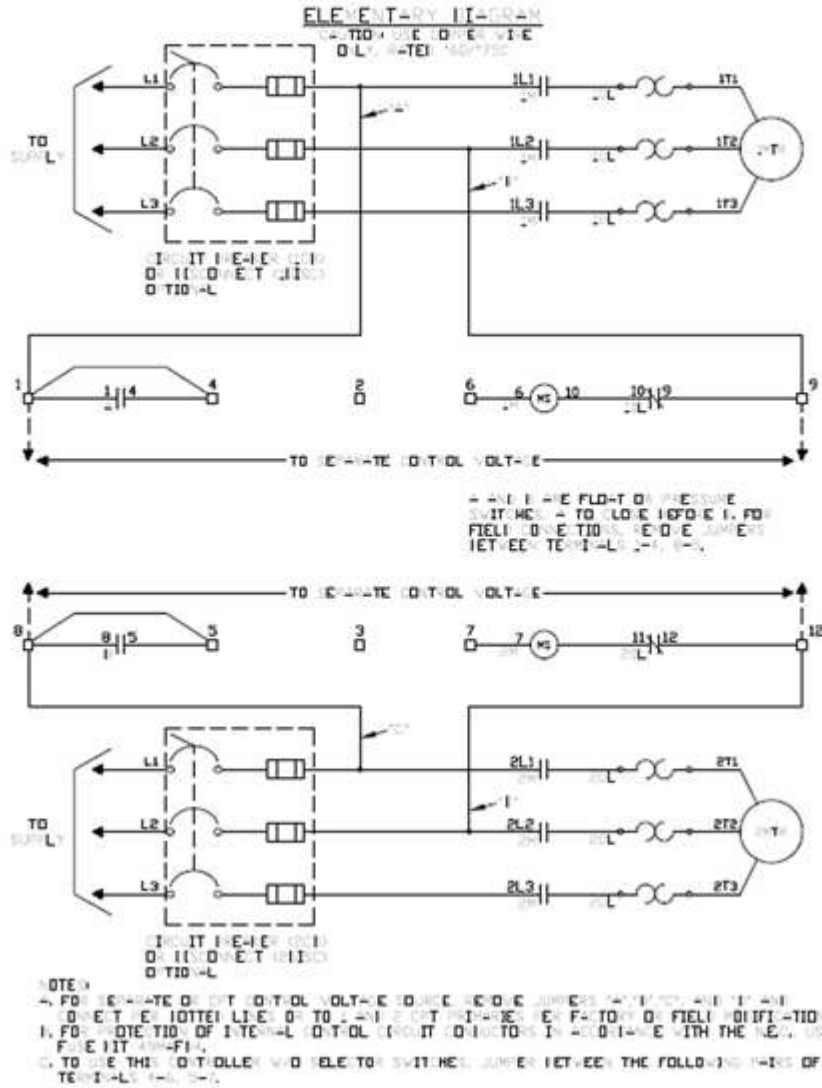
**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:84DPB95WMF81/certificate>



# SCHEMATIC DIAGRAM

Class 83 & 84 Duplex W/Manual Alternation Size 0-4



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