



Figure similar

Enclosed soft starter, Controller 3RW44466BC34, Std. duty rating 125HP @230V, Std. duty current rating 315A Control voltage 115Vac Enclosure NEMA type 12, Dust/drip proof for indoors

|                                                                      |                                                                             |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------|
| product brand name                                                   | Class 73                                                                    |
| design of the product                                                | Enclosed soft starter                                                       |
| special product feature                                              | Control transformer, built-in overload relay and bypass contactor included. |
| <b>General technical data</b>                                        |                                                                             |
| weight [lb]                                                          | 202 lb                                                                      |
| Height x Width x Depth [in]                                          | 54 × 36 × 20 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>Power and control electronics</b>                                 |                                                                             |
| manufacturer's article number of soft starter                        | 3RW44466BC34                                                                |
| number of poles for main current circuit                             | 3                                                                           |
| design of power semiconductors (thyristors) for soft starter control | 3 controlled phases                                                         |
| operating range factor supply voltage rated value                    | 0.85 ... 1.1                                                                |
| operating range factor of control voltage rated value                | 0.85 ... 1.1                                                                |
| operating condition for standard duty                                | Class 10 standard duty (350% of motor FLA for 10 seconds)                   |
| operating condition for severe duty                                  | Class 20 severe duty (350% of motor FLA for 20 seconds)                     |
| <b>Features and functions</b>                                        |                                                                             |
| ramp-up (soft starting)/ramp-down (soft stop)                        | Yes                                                                         |
| starting voltage [%]                                                 | 20 ... 100 %                                                                |
| stopping voltage [%]                                                 | 20 ... 100 %                                                                |
| voltage ramp                                                         | Yes                                                                         |
| ramp-up time                                                         | 1 ... 360 s                                                                 |
| ramp-down time                                                       | 1 ... 360 s                                                                 |
| torque control                                                       | Yes                                                                         |
| starting torque [%]                                                  | 20 ... 100 %                                                                |
| stopping torque [%]                                                  | 20 ... 100 %                                                                |
| torque limitation [%]                                                | 20 ... 200 %                                                                |
| ramp time of torque                                                  | 1 ... 360 s                                                                 |

|                                                                                                  |                                                                                                                  |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| adjustable current limitation                                                                    | Yes                                                                                                              |
| creep speed in both directions of rotation                                                       | Yes                                                                                                              |
| pump ramp down                                                                                   | Yes                                                                                                              |
| integrated bypass contact system                                                                 | Yes                                                                                                              |
| external isolation contactor                                                                     | No                                                                                                               |
| intrinsic device protection                                                                      | Yes                                                                                                              |
| overload protection                                                                              | Yes                                                                                                              |
| trip class                                                                                       | Class 5 / 10 / 15 / 20 / 30                                                                                      |
| reset function                                                                                   | Manual and automatic                                                                                             |
| thermistor motor protection                                                                      | Yes                                                                                                              |
| inside-delta circuit                                                                             | Yes                                                                                                              |
| breakaway pulse                                                                                  | Yes                                                                                                              |
| DC braking                                                                                       | Yes                                                                                                              |
| combined braking                                                                                 | Yes                                                                                                              |
| motor heating                                                                                    | Yes                                                                                                              |
| configuration of control input 1                                                                 | Factory set as START MOTOR                                                                                       |
| configuration of control input 2                                                                 | programmable                                                                                                     |
| configuration of control input 3                                                                 | programmable                                                                                                     |
| configuration of control input 4                                                                 | Factory set as TRIP RESET                                                                                        |
| configuration of relay output 1                                                                  | Factory set as ON-TIME MOTOR                                                                                     |
| configuration of relay output 2                                                                  | programmable                                                                                                     |
| configuration of relay output 3                                                                  | programmable                                                                                                     |
| configuration of relay output 4                                                                  | Factory set as GROUP ERROR                                                                                       |
| display version                                                                                  | Graphic display                                                                                                  |
| operating measured value display                                                                 | Yes                                                                                                              |
| product extension optional human machine interface module                                        | Yes                                                                                                              |
| type of communication optional                                                                   | With optional Profibus or Profinet                                                                               |
| error logbook                                                                                    | Yes                                                                                                              |
| event list                                                                                       | Yes                                                                                                              |
| slave pointer function                                                                           | Yes                                                                                                              |
| trace function                                                                                   | Yes                                                                                                              |
| number of parameter sets                                                                         | 3                                                                                                                |
| engineering software (Soft Starter ES)                                                           | Yes                                                                                                              |
| disconnecter functionality                                                                       | No                                                                                                               |
| <b>Contactor</b>                                                                                 |                                                                                                                  |
| size of contactor                                                                                | NA                                                                                                               |
| <b>Coil</b>                                                                                      |                                                                                                                  |
| type of voltage of the control supply voltage                                                    | AC                                                                                                               |
| control supply voltage                                                                           |                                                                                                                  |
| • at AC at 50 Hz rated value                                                                     | 115 V                                                                                                            |
| • at AC at 60 Hz rated value                                                                     | 115 V                                                                                                            |
| <b>Enclosure</b>                                                                                 |                                                                                                                  |
| degree of protection NEMA rating                                                                 | 12                                                                                                               |
| degree of protection NEMA rating of the enclosure                                                | NEMA Type 12                                                                                                     |
| design of the housing                                                                            | Dust tight and drip proof for indoors                                                                            |
| type of cooling                                                                                  | None                                                                                                             |
| <b>Mounting/wiring</b>                                                                           |                                                                                                                  |
| mounting position                                                                                | Vertical                                                                                                         |
| fastening method                                                                                 | Surface mounting and installation                                                                                |
| wire length between motor starter and motor maximum                                              | 500 m                                                                                                            |
| 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 cables 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                                                                                                            |
| material of the conductor for supply                                                             | AL or CU                                                                                                         |

|                                                                                                                                                            |                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| type of electrical connection for load-side outgoing feeder                                                                                                | Box lug                                                                                                 |
| tightening torque [lbf·in] for load-side outgoing feeder                                                                                                   | 180 ... 195 lbf·in                                                                                      |
| type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded                                          | 3/0 ... 600 kcmil (front only) or 250 ... 500 kcmil (back only) or 2x 500 kcmil (both front & back) AWG |
| 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 for auxiliary and control circuit                                                                                            | screw-type terminals                                                                                    |
| tightening torque [lbf·in] for auxiliary and control contacts with screw-type terminals                                                                    | 7 ... 10 lbf·in                                                                                         |
| temperature of the conductor for auxiliary and control contacts maximum permissible                                                                        | 75 °C                                                                                                   |
| material of the conductor for auxiliary and control contacts                                                                                               | CU                                                                                                      |
| <b>Short-circuit current rating</b>                                                                                                                        |                                                                                                         |
| design of the fuse link for short-circuit protection of the main circuit required                                                                          | 10kA@600V (Class H or K); 100kA@600V (Class R, J or L)                                                  |
| design of the short-circuit trip                                                                                                                           | Thermal magnetic circuit breaker                                                                        |
| breaking capacity maximum short-circuit current (Icu) <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>0 kA                                                                                |
| certificate of suitability                                                                                                                                 | NEMA ICS 2; UL 508A                                                                                     |
| <b>Further information</b>                                                                                                                                 |                                                                                                         |

**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=US2:73NT320FA>

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

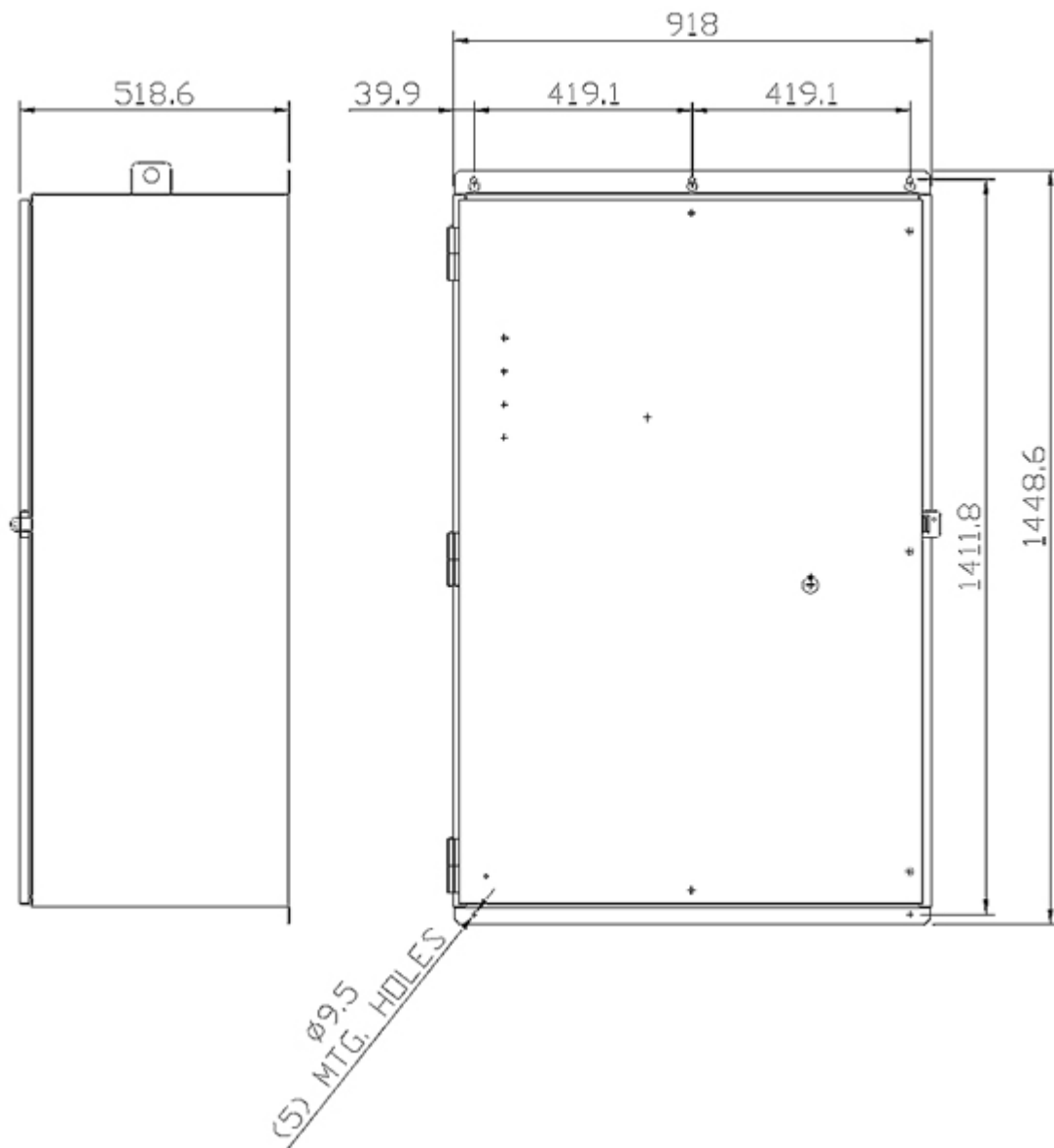
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**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

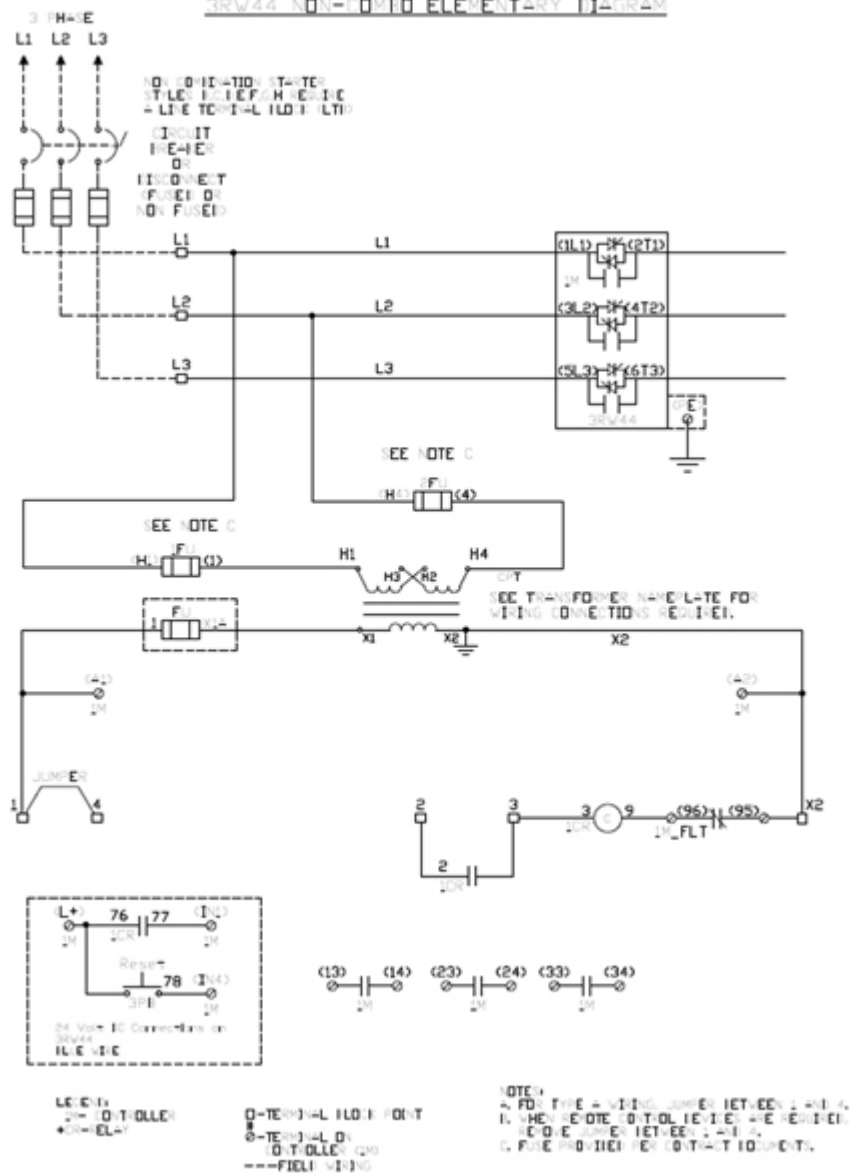
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**Certificates/approvals**

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## 3RW44 NON-COMBO ELEMENTARY DIAGRAM



**last modified:**

3/10/2020 