

Enclosed soft starter, Controller 3RW40281BB14, Std. duty rating 10HP @230V, Std. duty current rating 34A Control voltage 110-230 AC/DC  
Enclosure NEMA type 1, Indoor general purpose use



Figure similar

|                                                                      |                                                                             |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 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]                                                          | 53 lb                                                                       |
| Height x Width x Depth [in]                                          | 25 × 18 × 13 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                        | 3RW40281BB14                                                                |
| number of poles for main current circuit                             | 3                                                                           |
| design of power semiconductors (thyristors) for soft starter control | 2 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                                  | NA                                                                          |
| <b>Features and functions</b>                                        |                                                                             |
| ramp-up (soft starting)/ramp-down (soft stop)                        | Yes                                                                         |
| starting voltage [%]                                                 | 40 ... 100 %                                                                |
| stopping voltage [%]                                                 | 40 ... 100 %                                                                |
| voltage ramp                                                         | Yes                                                                         |
| ramp-up time                                                         | 0 ... 20 s                                                                  |
| ramp-down time                                                       | 0 ... 20 s                                                                  |
| torque control                                                       | No                                                                          |
| adjustable current limitation                                        | Yes                                                                         |
| creep speed in both directions of rotation                           | No                                                                          |
| pump ramp down                                                       | No                                                                          |
| integrated bypass contact system                                     | Yes                                                                         |

|                                                                                                                   |                                   |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| external isolation contactor                                                                                      | Yes                               |
| intrinsic device protection                                                                                       | Yes                               |
| overload protection                                                                                               | Yes                               |
| trip class                                                                                                        | Class 5 / 15 / 20                 |
| reset function                                                                                                    | Manual, automatic and remote      |
| thermistor motor protection                                                                                       | No                                |
| inside-delta circuit                                                                                              | No                                |
| breakaway pulse                                                                                                   | No                                |
| DC braking                                                                                                        | No                                |
| combined braking                                                                                                  | No                                |
| motor heating                                                                                                     | No                                |
| configuration of control input 1                                                                                  | ON / OFF                          |
| configuration of control input 2                                                                                  | NA                                |
| configuration of control input 3                                                                                  | NA                                |
| configuration of control input 4                                                                                  | NA                                |
| configuration of relay output 1                                                                                   | ON / RUN                          |
| configuration of relay output 2                                                                                   | BYPASSED                          |
| configuration of relay output 3                                                                                   | OVERLOAD / FAILURE                |
| configuration of relay output 4                                                                                   | NA                                |
| display version                                                                                                   | 4 LEDs                            |
| operating measured value display                                                                                  | No                                |
| product extension optional human machine interface module                                                         | No                                |
| type of communication optional                                                                                    | None                              |
| error logbook                                                                                                     | No                                |
| event list                                                                                                        | No                                |
| slave pointer function                                                                                            | No                                |
| trace function                                                                                                    | No                                |
| number of parameter sets                                                                                          | 1                                 |
| engineering software (Soft Starter ES)                                                                            | No                                |
| disconnecter functionality                                                                                        | No                                |
| <b>Contactor</b>                                                                                                  |                                   |
| size of contactor                                                                                                 | NA                                |
| <b>Coil</b>                                                                                                       |                                   |
| type of voltage of the control supply voltage                                                                     | AC/DC                             |
| control supply voltage                                                                                            |                                   |
| • at DC rated value                                                                                               | 110 ... 230 V                     |
| • at AC at 50 Hz rated value                                                                                      | 110 ... 230 V                     |
| • at AC at 60 Hz rated value                                                                                      | 110 ... 230 V                     |
| <b>Enclosure</b>                                                                                                  |                                   |
| degree of protection NEMA rating                                                                                  | 1                                 |
| degree of protection NEMA rating of the enclosure                                                                 | NEMA Type 1                       |
| design of the housing                                                                                             | Indoor general purpose use        |
| 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                                                               | 300 m                             |
| 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                  | 2/0 ... 14 AWG                    |
| temperature of the conductor for supply maximum permissible                                                       | 75 °C                             |
| material of the conductor for supply                                                                              | CU                                |
| type of electrical connection for load-side outgoing feeder                                                       | Box lug                           |
| tightening torque [lbf·in] for load-side outgoing feeder                                                          | 18 ... 22 lbf·in                  |
| type of connectable conductor cross-sections at AWG cables for load-side outgoing feeder single or multi-stranded | 2x (14 ... 10 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 or J) |
| design of the short-circuit trip                                                        | Thermal magnetic circuit breaker                    |
| breaking capacity maximum short-circuit current (Icu)                                   |                                                     |
| • at 240 V                                                                              | 42 kA                                               |
| • at 480 V                                                                              | 42 kA                                               |
| • at 600 V                                                                              | 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=US2:73DR32BFA>

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

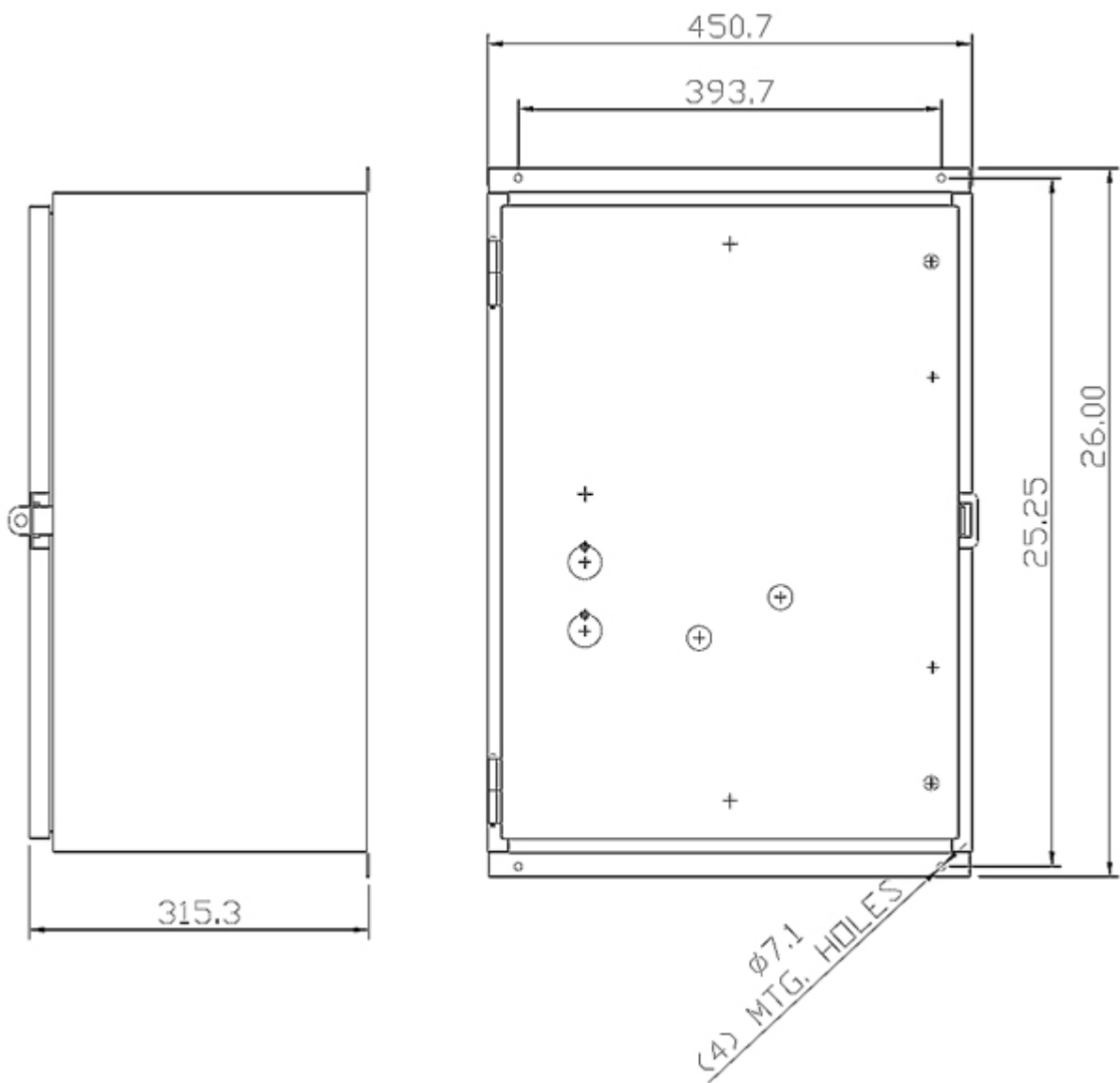
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**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

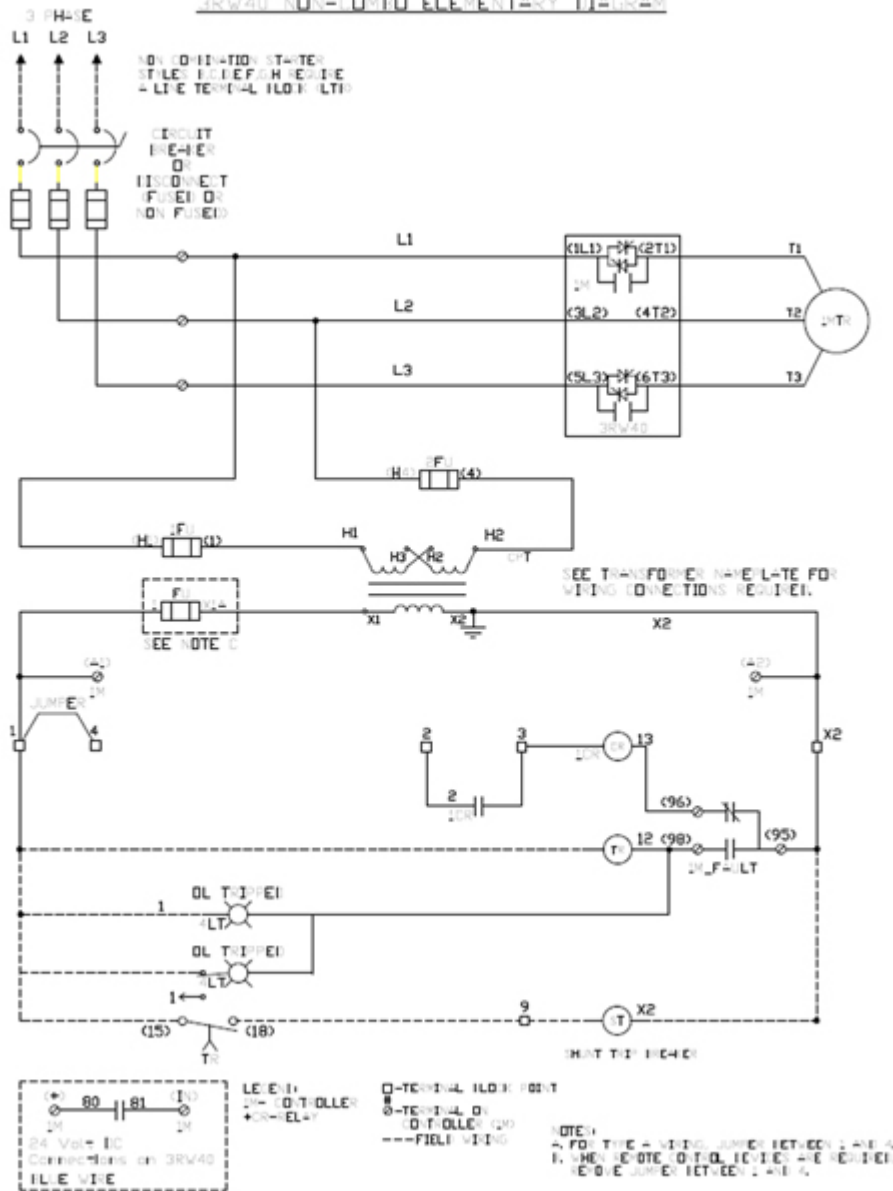
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**Certificates/approvals**

<https://support.industry.siemens.com/cs/US/en/ps/US2:73DR32BFA/certificate>



## 3RW40 NON-COMPO ELEMENTARY DIAGRAM



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