



Figure similar

SIMATIC S7-300, Digital output SM 322, Isolated 16 DO, 120/230 V AC, 1 A, 1x 20-pole

| Supply voltage                                            |                                     |
|-----------------------------------------------------------|-------------------------------------|
| Load voltage L1                                           |                                     |
| • Rated value (AC)                                        | 230 V; 120/230 V AC                 |
| • permissible range, lower limit (AC)                     | 79 V                                |
| • permissible range, upper limit (AC)                     | 264 V                               |
| Input current                                             |                                     |
| from load voltage L1 (without load), max.                 | 2 mA                                |
| from backplane bus 5 V DC, max.                           | 200 mA                              |
| Power loss                                                |                                     |
| Power loss, typ.                                          | 8.6 W                               |
| Digital outputs                                           |                                     |
| Number of digital outputs                                 | 16                                  |
| Short-circuit protection                                  | Yes; Fuse 8 A, 250 V; per group     |
| • required current for fuse shutdown, min.                | 40 A                                |
| • Response time, max.                                     | 300 ms                              |
| Controlling a digital input                               | Yes                                 |
| Size of motor starters according to NEMA, max.            | 4 NEMA compliant                    |
| Spare fuses                                               | 8 A / quick response                |
| Switching capacity of the outputs                         |                                     |
| • on lamp load, max.                                      | 50 W                                |
| Output voltage                                            |                                     |
| • for signal "1" (at max. current), min.                  | L1 (-1.5 V)                         |
| • for signal "1" (at min. current), min.                  | L1 (-8.5 V)                         |
| Output current                                            |                                     |
| • for signal "1" rated value                              | 1 A                                 |
| • for signal "1" permissible range for 0 to 40 °C, min.   | 10 mA                               |
| • for signal "1" permissible range for 0 to 40 °C, max.   | 1 A                                 |
| • for signal "1" permissible range for 40 to 60 °C, min.  | 10 mA                               |
| • for signal "1" permissible range for 40 to 60 °C, max.  | 0.5 A                               |
| • for signal "1" minimum load current                     | 10 mA                               |
| • for signal "1" permissible surge current, max.          | 20 A; with 2 half waves             |
| • for signal "0" residual current, max.                   | 2 mA                                |
| Parallel switching of two outputs                         |                                     |
| • for uprating                                            | No                                  |
| • for redundant control of a load                         | Yes; only outputs of the same group |
| Switching frequency                                       |                                     |
| • with resistive load, max.                               | 10 Hz                               |
| • with inductive load, max.                               | 0.5 Hz                              |
| • with inductive load (acc. to IEC 60947-5-1, AC15), max. | 0.5 Hz                              |

|                                           |                                         |                      |                |
|-------------------------------------------|-----------------------------------------|----------------------|----------------|
| • on lamp load, max.                      | 1 Hz                                    |                      |                |
| Total current of the outputs (per group)  |                                         |                      |                |
| horizontal installation                   |                                         |                      |                |
| — up to 40 °C, max.                       | 4 A                                     |                      |                |
| — up to 60 °C, max.                       | 2 A                                     |                      |                |
| vertical installation                     |                                         |                      |                |
| — up to 40 °C, max.                       | 2 A                                     |                      |                |
| Cable length                              |                                         |                      |                |
| • shielded, max.                          | 1 000 m                                 |                      |                |
| • unshielded, max.                        | 600 m                                   |                      |                |
| Interrupts/diagnostics/status information |                                         |                      |                |
| Diagnostics function                      | Yes; Fuse blown or load voltage missing |                      |                |
| Alarms                                    |                                         |                      |                |
| • Diagnostic alarm                        | No                                      |                      |                |
| Diagnoses                                 |                                         |                      |                |
| • Wire-break                              | No                                      |                      |                |
| • Short-circuit                           | No                                      |                      |                |
| • Fuse blown                              | Yes                                     |                      |                |
| • missing load voltage                    | No                                      |                      |                |
| Diagnostics indication LED                |                                         |                      |                |
| • Rated load voltage PWR (green)          | No                                      |                      |                |
| • Fuse OK FSG (green)                     | Yes; Red LED for fuse                   |                      |                |
| • Group error SF (red)                    | Yes                                     |                      |                |
| • Status indicator digital output (green) | Yes                                     |                      |                |
| Potential separation                      |                                         |                      |                |
| Potential separation digital outputs      |                                         |                      |                |
| • between the channels, in groups of      | 8                                       |                      |                |
| • between the channels and backplane bus  | Yes; Optocoupler                        |                      |                |
| Isolation                                 |                                         |                      |                |
| Isolation tested with                     | 4 000 V DC                              |                      |                |
| connection method                         |                                         |                      |                |
| required front connector                  | 20-pin                                  |                      |                |
| Dimensions                                |                                         |                      |                |
| Width                                     | 40 mm                                   |                      |                |
| Height                                    | 125 mm                                  |                      |                |
| Depth                                     | 120 mm                                  |                      |                |
| Weights                                   |                                         |                      |                |
| Weight, approx.                           | 275 g                                   |                      |                |
| Classifications                           |                                         |                      |                |
|                                           |                                         | Version              | Classification |
|                                           | eClass                                  | 14                   | 27-24-22-04    |
|                                           | eClass                                  | 12                   | 27-24-22-04    |
|                                           | eClass                                  | 9.1                  | 27-24-22-04    |
|                                           | eClass                                  | 9                    | 27-24-22-04    |
|                                           | eClass                                  | 8                    | 27-24-22-04    |
|                                           | eClass                                  | 7.1                  | 27-24-22-04    |
|                                           | eClass                                  | 6                    | 27-24-22-04    |
|                                           | ETIM                                    | 9                    | EC001419       |
|                                           | ETIM                                    | 8                    | EC001419       |
|                                           | ETIM                                    | 7                    | EC001419       |
|                                           | IDEA                                    | 4                    | 3566           |
|                                           | UNSPSC                                  | 15                   | 32-15-17-05    |
| Approvals / Certificates                  |                                         |                      |                |
| General Product Approval                  |                                         | Maritime application | other          |



[Confirmation](#)



|       |             |
|-------|-------------|
| other | Environment |
|-------|-------------|

[Miscellaneous](#)

[Environmental Con-  
firmations](#)

last modified:

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