

# SIEMENS

## Product data sheet

**6ES7142-6BH00-0AB0**


SIMATIC DP, ET 200ECO PN,  
16 DO 24V DC/1,3A;  
8 X M12,  
DOUBLE-ASSIGNMENT DEGREE OF  
PROTECTION IP67

### General information

|                                  |       |
|----------------------------------|-------|
| Vendor identification (VendorID) | 002AH |
| Device identifier (DeviceID)     | 0306H |

### Supply voltage

#### Load voltage 1L+

|                                     |        |
|-------------------------------------|--------|
| Rated value (DC)                    | 24 V   |
| permissible range, lower limit (DC) | 20.4 V |
| permissible range, upper limit (DC) | 28.8 V |
| Reverse polarity protection         | Yes    |

#### Load voltage 2L+

|                                     |        |
|-------------------------------------|--------|
| Rated value (DC)                    | 24 V   |
| permissible range, lower limit (DC) | 20.4 V |
| permissible range, upper limit (DC) | 28.8 V |
| Reverse polarity protection         | Yes    |

### Input current

|                                                 |                       |
|-------------------------------------------------|-----------------------|
| from load voltage 1L+ (unswitched voltage)      | 4 A                   |
| from load voltage 2L+, max.                     | 4 A                   |
| <b>Power losses</b>                             |                       |
| Power loss, typ.                                | 5.5 W                 |
| <b>Digital outputs</b>                          |                       |
| Number/binary outputs                           | 16                    |
| In groups of                                    | 8                     |
| Functionality/short-circuit strength            | Yes ; Electronic      |
| Response threshold, typ.                        | 1.8 A                 |
| Limitation of inductive shutdown voltage to     | Typ. (L1+, L2+) -47 V |
| <b>Switching capacity of the outputs</b>        |                       |
| on lamp load, max.                              | 5 W                   |
| Controlling a digital input                     | Yes                   |
| <b>Output current</b>                           |                       |
| for signal "1" rated value                      | 1.3 A ; Maximum       |
| for signal "0" residual current, max.           | 1.5 mA                |
| <b>Parallel switching of 2 outputs</b>          |                       |
| for increased power                             | No                    |
| for redundant control of a load                 | Yes                   |
| <b>Switching frequency</b>                      |                       |
| with resistive load, max.                       | 100 Hz                |
| with inductive load, max.                       | 0.5 Hz                |
| on lamp load, max.                              | 1 Hz                  |
| <b>Aggregate current of outputs (per group)</b> |                       |
| all mounting positions                          |                       |
| up to 60 °C, max.                               | 3.9 A                 |
| <b>Cable length</b>                             |                       |
| Cable length unshielded, max.                   | 30 m                  |
| <b>Interfaces</b>                               |                       |
| Transmission procedure                          | 100BASE-TX            |
| Transmission rate, max.                         | 100 Mbit/s            |
| <b>Supports protocol for PROFINET IO</b>        |                       |
| Number of PROFINET interfaces                   | 2                     |

|                                                         |                              |
|---------------------------------------------------------|------------------------------|
| Autocrossing                                            | Yes                          |
| Automatic detection of transmission speed               | Yes                          |
| Integrated switch                                       | Yes                          |
| PROFINET IO Device                                      |                              |
| IRT with the option "high flexibility" supported        | Yes                          |
| Prioritized startup supported                           | Yes                          |
| Protocols                                               |                              |
| Supports protocol for PROFINET IO                       | Yes                          |
| Protocols (Ethernet)                                    |                              |
| SNMP                                                    | Yes                          |
| DCP                                                     | Yes                          |
| LLDP                                                    | Yes                          |
| ping                                                    | Yes                          |
| arp                                                     | Yes                          |
| Interrupts/diagnostics/status information               |                              |
| Status indicator                                        | Yes ; Green LED              |
| Alarms                                                  |                              |
| Diagnostic alarm                                        | Yes                          |
| Diagnostic messages                                     |                              |
| Diagnostic functions                                    | Yes                          |
| Diagnostic information readable                         | Yes                          |
| Monitoring the supply voltage                           | Yes ; Green "ON" LED         |
| Wire break in actuator cable                            | Yes                          |
| Short circuit                                           | Yes                          |
| Group error                                             | Yes ; Red/yellow "SF/MT" LED |
| Galvanic isolation                                      |                              |
| between the load voltages                               | Yes                          |
| between load voltage and all other switching components | No                           |
| between Ethernet and electronics                        | Yes                          |
| Galvanic isolation digital outputs                      |                              |
| between the channels                                    | No                           |
| Permissible potential difference                        |                              |
| between different circuits                              | 75 VDC / 60 VAC              |

|                                |                                  |
|--------------------------------|----------------------------------|
| Isolation                      |                                  |
| tested with                    |                                  |
| 24 V DC circuits               | 500 V                            |
| Interface                      | 1500 V ; According to IEEE 802.3 |
| Degree and class of protection |                                  |
| IP65                           | Yes                              |
| IP66                           | Yes                              |
| IP67                           | Yes                              |
| Connection method              |                                  |
| M12                            | Yes                              |
| Dimensions                     |                                  |
| Width                          | 60 mm                            |
| Height                         | 175 mm                           |
| Depth                          | 49 mm                            |
| Weight                         |                                  |
| Weight                         | 910 g                            |
| Status                         | Jul 17, 2012                     |