

## Data sheet

## 6ES7142-6BH00-0AB0



\*\*\* spare part \*\*\* SIMATIC DP, ET 200eco PN, 16 DO 24 V DC/1.3 A; 8xM12, duplicate assignment; degree of protection IP67

General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
power supply according to NEC Class 2 required	Yes
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	
Current consumption, typ.	100 mA
from supply voltage 1L+, max.	4 A
from load voltage 1L+ (unswitched voltage)	4 A
from load voltage 2L+, max.	4 A
Power loss	
Power loss, typ.	5.5 W
Digital outputs	
Number of digital outputs	16
• in groups of	8
Short-circuit protection	Yes
• Response threshold, typ.	1.8 A
Limitation of inductive shutdown voltage to	Typ. (L1+, L2+) -47 V
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	5 W
Output current	
• for signal "1" rated value	1.3 A; Maximum
• for signal "0" residual current, max.	1.5 mA
Parallel switching of two outputs	
• for uprating	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>Total current of the outputs (per group)</b>	
all mounting positions	
— up to 60 °C, max.	3.9 A
<b>Cable length</b>	
• unshielded, max.	30 m
<b>Interfaces</b>	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
<b>1. Interface</b>	
<b>Interface types</b>	
• integrated switch	Yes
<b>PROFINET IO Device</b>	
<b>Services</b>	
— IRT with the option "high flexibility"	Yes
— Prioritized startup	Yes
<b>Interface types</b>	
<b>M12 port</b>	
• Autonegotiation	Yes
• Autocrossing	Yes
• Transmission rate, max.	100 Mbit/s
<b>Protocols</b>	
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFIsafe	No
<b>Redundancy mode</b>	
<b>Media redundancy</b>	
— MRP	Yes
<b>Open IE communication</b>	
• TCP/IP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• ping	Yes
• ARP	Yes
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnoses</b>	
• 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
<b>Potential separation</b>	
between the load voltages	Yes
between load voltage and all other switching components	No
between Ethernet and electronics	Yes
<b>Potential separation channels</b>	
• between the channels	No
<b>Isolation</b>	
<b>tested with</b>	
• 24 V DC circuits	707 V DC (type test)
• Test voltage for interface, rms value [Vrms]	1 500 V; According to IEEE 802.3

Degree and class of protection	
IP degree of protection	IP65/67
Standards, approvals, certificates	
Suitable for safety-related tripping of standard modules	Yes
Highest safety class achievable for safety-related tripping of standard modules	
<ul style="list-style-type: none"> <li>Performance level according to ISO 13849-1</li> <li>Category according to ISO 13849-1</li> <li>SIL acc. to IEC 62061</li> <li>remark on safety-oriented shutdown</li> </ul>	PL d Cat. 3 SIL 2 <a href="https://support.industry.siemens.com/cs/de/en/view/39198632">https://support.industry.siemens.com/cs/de/en/view/39198632</a>
Use in hazardous areas	
<ul style="list-style-type: none"> <li>Explosion protection category for gas</li> <li>Explosion protection category for dust</li> </ul>	ATEX II 3G Ex nA II T4 ATEX II 3D Ex tc IIIC T90°C Dc
Connection method	
Design of electrical connection	4/5-pin M12 circular connectors
Dimensions	
Width	60 mm
Height	175 mm
Depth	49 mm
Weights	
Weight, approx.	910 g
Classifications	

	Version	Classification
eClass	14	27-24-26-04
eClass	12	27-24-26-04
eClass	9.1	27-24-26-04
eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599
IDEA	4	3566
UNSPSC	15	32-15-17-05

**Approvals / Certificates**

**General Product Approval**

[Miscellaneous](#)

[Manufacturer Declaration](#)



**General Product Approval**      **EMV**      **For use in hazardous locations**



[CCC-Ex](#)

**For use in hazardous locations**      **Maritime application**




[Miscellaneous](#)

[CCC-Ex](#)



Maritime application			Industrial Communication		
	<a href="#">NK / Nippon Kaiji Kyokai</a>		<a href="#">CCS (China Classification Society)</a>	<a href="#">KR (Korean Register of Shipping)</a>	<a href="#">PROFINET</a>

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