## SIEMENS

## Data sheet

## 6ES7147-6BG00-0AB0



SIMATIC DP, ET 200ECO PN, 8 DIO 24 V DC/1.3 A; 8xM12, Degree of protection IP67

Figure	simi	ar
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General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	24 ∨
Reverse polarity protection	Yes
power supply according to NEC Class 2 required	Yes
Load voltage 2L+	
Rated value (DC)	24 V
<ul> <li>permissible range, lower limit (DC)</li> </ul>	20.4 V
<ul> <li>permissible range, upper limit (DC)</li> </ul>	28.8 V
<ul> <li>Reverse polarity protection</li> </ul>	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
Encoder supply	
24 V encoder supply	
<ul> <li>Short-circuit protection</li> </ul>	Yes; Electronic
<ul> <li>Output current, max.</li> </ul>	100 mA; per output
Power loss	
Power loss, typ.	6.5 W
Digital inputs	
Number of digital inputs	8
• in groups of	4
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 60 °C, max.	8
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	+11 to +30V
Input current	
● for signal "1", typ.	7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	typically 3 ms

— at "1" to "0", max.	typically 3 ms
Cable length	
unshielded, max.	30 m
Digital outputs	
Number of digital outputs	8
<ul> <li>in groups of</li> </ul>	4
Short-circuit protection	Yes; Electronic
<ul> <li>Response threshold, typ.</li> </ul>	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	
<ul> <li>for signal "1" rated value</li> <li>for signal "1" permissible range, may</li> </ul>	1.3 A; Maximum 1.3 A
<ul> <li>for signal "1" permissible range, max.</li> <li>for signal "0" residual current, max.</li> </ul>	1.5 MA
Parallel switching of two outputs	1.5 IIIA
for uprating	No
<ul> <li>for redundant control of a load</li> </ul>	Yes
Switching frequency	
with resistive load, max.	100 Hz
with resistive load, max.	0.5 Hz
<ul> <li>on lamp load, max.</li> </ul>	1 Hz
Total current of the outputs (per group)	
all mounting positions	
— up to 60 °C, max.	3.9 A
Cable length	
<ul> <li>unshielded, max.</li> </ul>	30 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
<ul> <li>— permissible quiescent current (2-wire sensor),</li> </ul>	1.5 mA
max.	
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
1. Interface	
Interface types	
M12 port	Yes
integrated switch	Yes
Interface types	
M12 port	Yes
Autonegotiation	Yes
<ul><li>Autocrossing</li><li>Transmission rate, max.</li></ul>	Yes 100 Mbit/s
Protocols	Y.
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFIsafe	No
PROFINET IO Device	
Services — IRT with the option "high flexibility"	Yes
— Prioritized startup	Yes
Redundancy mode	
Media redundancy	
- MRP	Yes
Open IE communication	
• TCP/IP	Νο
• TCP/IP • SNMP	No Yes
• SNMP	No Yes Yes
	Yes Yes
SNMP     DCP	Yes

• ARP	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Diagnoses	
Diagnostic information readable	Yes
<ul> <li>Monitoring the supply voltage</li> </ul>	Yes; green "ON" LED
<ul> <li>Wire-break in actuator cable</li> </ul>	Yes
<ul> <li>Wire-break in signal transmitter cable</li> </ul>	Yes
Short-circuit	Yes
<ul> <li>Short-circuit encoder supply</li> </ul>	Yes
Group error	Yes; Red/yellow "SF/MT" LED
Potential separation	
between the load voltages	Yes
between load voltage and all other switching components	No
between Ethernet and electronics	Yes
Potential separation channels	
<ul> <li>between the channels</li> </ul>	No
Isolation	
tested with	
24 V DC circuits	707 V DC (type test)
<ul> <li>Test voltage for interface, rms value [Vrms]</li> </ul>	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	No
connection method / header	
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
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