## 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 similar

General information	
	002411
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Load voltage 2L+	
Rated value (DC)	24 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 2L+, max.	4 A
Encoder supply	
Number of outputs	8
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
• in groups of	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> </ul>	1.3 A; Maximum
• for signal "0" residual current, max.	1.5 mA
Parallel switching of two outputs	
• for uprating	No
<ul> <li>for redundant control of a load</li> </ul>	Yes
Switching frequency	
• with resistive load, max.	100 Hz

	0.511
<ul> <li>with inductive load, max.</li> </ul>	0.5 Hz
• on lamp load, max.	1 Hz
Total current of the outputs (per group)	
all mounting positions	
— up to 60 °C, max.	3.9 A
Cable length	
• unshielded, max.	30 m
Encoder	
Connectable encoders	
2-wire sensor	Yes
permissible quiescent current (2-wire	1.5 mA
sensor), max.	
Interfaces	
Transmission procedure Number of PROFINET interfaces	100BASE-TX
	1
1. Interface	
Interface types	
<ul> <li>integrated switch</li> </ul>	Yes
M12 port	Yes
Interface types	
Interface types M12 port	
Autonegotiation	Yes
Autorossing	Yes
Transmission rate, max.	100 Mbit/s
• Transmission rate, max.	
Protocols	
Supports protocol for PROFINET IO	
	Yes
PROFINET CBA	Yes No
PROFINET CBA PROFIsafe	
PROFINET CBA	No
PROFINET CBA PROFIsafe	No
PROFINET CBA PROFIsafe PROFINET IO Device	No
PROFINET CBA PROFIsafe PROFINET IO Device Services	No No
PROFINET CBA PROFIsafe PROFINET IO Device Services — IRT with the option "high flexibility"	No No Yes
PROFINET CBA PROFISATE PROFINET IO Device Services — IRT with the option "high flexibility" — Prioritized startup	No No Yes
PROFINET CBA PROFISATE PROFINET IO Device Services — IRT with the option "high flexibility" — Prioritized startup Redundancy mode	No No Yes
PROFINET CBA PROFISATE PROFINET IO Device Services — IRT with the option "high flexibility" — Prioritized startup Redundancy mode Media redundancy	No No Yes Yes
PROFINET CBA PROFISATE PROFINET IO Device Services — IRT with the option "high flexibility" — Prioritized startup Redundancy mode Media redundancy — MRP	No No Yes Yes
PROFINET CBA PROFISATE PROFINET IO Device Services — IRT with the option "high flexibility" — Prioritized startup Redundancy mode Media redundancy — MRP Open IE communication	No No Yes Yes
PROFINET CBA PROFISATE PROFINET IO Device Services — IRT with the option "high flexibility" — Prioritized startup Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP	No No Yes Yes Yes
PROFINET CBA PROFISATE PROFINET IO Device Services — IRT with the option "high flexibility" — Prioritized startup Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP	No No Yes Yes Yes

• ping	Yes
• ARP	Yes
Interrupts/diagnostics/status information	Vec
Diagnostics function Alarms	Yes
	Yes
Diagnostic alarm     Diagnostic messages	
Diagnostic information readable	Yes
•	Yes; green "ON" LED
Monitoring the supply voltage	
Wire-break in actuator cable	Yes
Wire-break in signal transmitter cable	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	No
components	
between Ethernet and electronics	Yes
Potential separation channels	
	No
between the channels	
Between the channels  Isolation	
Isolation	707 V DC (type test)
Isolation tested with	
Isolation tested with • 24 V DC circuits • Test voltage for interface, rms value [Vrms]	707 V DC (type test)
Isolation tested with • 24 V DC circuits	707 V DC (type test)
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection	707 V DC (type test) 1 500 V; According to IEEE 802.3
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection	707 V DC (type test) 1 500 V; According to IEEE 802.3
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related tripping	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related trippin         • Performance level according to ISO 13849-1	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules PL d
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related trippin         • Performance level according to ISO 13849-1         • Category according to ISO 13849-1         • SILCL according to IEC 62061	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules PL d Cat. 3
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related trippin         • Performance level according to ISO 13849-1         • Category according to ISO 13849-1         • SILCL according to IEC 62061         Connection method	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules PL d Cat. 3 SILCL 2
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related trippin         • Performance level according to ISO 13849-1         • Category according to ISO 13849-1         • SILCL according to IEC 62061         Connection method         Design of electrical connection	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules PL d Cat. 3
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related trippin         • Performance level according to ISO 13849-1         • Category according to ISO 13849-1         • SILCL according to IEC 62061         Connection method         Design of electrical connection	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules PL d Cat. 3 SILCL 2 4/5-pin M12 circular connectors
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related trippint         • Performance level according to ISO 13849-1         • Category according to ISO 13849-1         • SILCL according to IEC 62061         Connection method         Design of electrical connection         Dimensions         Width	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules PL d Cat. 3 SILCL 2 4/5-pin M12 circular connectors 60 mm
Isolation         tested with         • 24 V DC circuits         • Test voltage for interface, rms value [Vrms]         Degree and class of protection         IP degree of protection         Standards, approvals, certificates         Suitable for safety-related tripping of standard modules         Highest safety class achievable for safety-related trippin         • Performance level according to ISO 13849-1         • Category according to ISO 13849-1         • SILCL according to IEC 62061         Connection method         Design of electrical connection	707 V DC (type test) 1 500 V; According to IEEE 802.3 IP65/67 Yes ng of standard modules PL d Cat. 3 SILCL 2 4/5-pin M12 circular connectors

Weights

Weight, approx.

last modified:

910 g

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