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Data sheet 6ES7138-4CF03-0AB0



SIMATIC DP, Power Module PM-E F PROFIsafe, f. ET200S; 24 V DC suitable for ungrounded setup relay for switching the voltage buses P1 and P2 up to Category 3 (EN 954-1)/ SIL2 (IEC61508)/PLD (ISO13849), 2 fail-safe dig. outputs up to Category 4 (EN 954-1)/ SIL3 (IEC61508)/PLE (ISO13849), can also be used in PROFINET configuration with IM 151-3 HF

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	No
Input current	
From load voltage L+ (no load), typ.	100 mA
from backplane bus 24 V DC, max.	28 mA
Power loss	
Power loss, typ.	4 W
Address area	
Address space per module	
• Inputs	5 byte
• Outputs	5 byte
Digital outputs	
Number of digital outputs	2
Short-circuit protection	Yes; Electronic

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• Response threshold, typ.	Response threshold (short-circuit): 5 to 12 A; response threshold (external short-circuit to ground): 5 to 12 A; response threshold (external short-circuit to P potential): 25 to 45 A
Limitation of inductive shutdown voltage to	L+ (-2x 47 V)
Controlling a digital input	No
Switching capacity of the outputs	
• on lamp load, max.	10 W
Load resistance range	
• lower limit	12 Ω
• upper limit	1 kΩ
Output voltage	
• for signal "1", min.	L+ (-2,0 V), current sourcing switch: L+ (-1,5 V), voltage drop on current sinking switch: max. 0.5 V
Output current	
• for signal "1" rated value	2 A
• for signal "1" permissible range for 0 to 60 °C, min.	20 mA
• for signal "1" permissible range for 0 to 60 °C, max.	2.4 A
• for signal "0" residual current, max.	0.5 mA
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	No
Switching frequency	
• with resistive load, max.	30 Hz
• with inductive load, max.	0.1 Hz
• on lamp load, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	10 A
— up to 55 °C, max.	7 A
— up to 60 °C, max.	6 A
vertical installation	
— up to 40 °C, max.	6 A
Relay outputs	
Switching capacity of contacts	
— with resistive load, up to 50 °C, max.	10 A
Cable length	
• shielded, max.	200 m
• unshielded, max.	200 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes

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Diagnoses	
• Diagnostic information readable	Yes
• Wire-break	Yes
• Short-circuit	Yes
• missing load voltage	Yes
Diagnostics indication LED	
• Rated load voltage PWR (green)	Yes
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes

Potential separation

Potential separation digital outputs	
• between the channels	No
• between the channels and backplane bus	Yes
• Between the channels and load voltage L+	No

Isolation

Isolation tested with	500 V DC

Standards, approvals, certificates

Highest safety class achievable in safety mode	
• acc. to EN 954	4
• Performance level according to ISO 13849-1	e
• SIL acc. to IEC 61508	Up to SIL 3

Dimensions

Width	30 mm
Height	81 mm
Depth	52 mm

Weights

Weight, approx.	88 g

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