

SIMATIC DP, POWER MODULE PM-E F PROFISAFE, FOR ET 200S; 24V DC USEABLE FOR INSTALLATIONS WITH UNGROUNDED REFERENCE POTENTIAL RELAIS FOR FAIL-SAFE SWITCHING OF VOLTAGE BUSES P1 AND P2 UP TO CATEGORY 3 (EN954-1)/ SIL2 (IEC61508)/PLD (ISO13849), 2 FAIL-SAFE DIGITAL OUTPUTS UP TO CATEGORY 4 (EN954-1)/ SIL3 (IEC61508)/PLE (ISO13849), ALSO USEABLE IN PROFINET-NETWORKS W. IM151-3 HF

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>Reverse polarity protection</li> </ul>	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	
Occupied address area	
<ul style="list-style-type: none"> <li>Inputs</li> </ul>	5 byte
<ul style="list-style-type: none"> <li>Outputs</li> </ul>	5 byte
Digital outputs	
Number of digital outputs	2
Short-circuit protection	Yes; Electronic
<ul style="list-style-type: none"> <li>Response threshold, typ.</li> </ul>	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	
<ul style="list-style-type: none"> <li>on lamp load, max.</li> </ul>	10 W
Load resistance range	
<ul style="list-style-type: none"> <li>lower limit</li> </ul>	12 Ω
<ul style="list-style-type: none"> <li>upper limit</li> </ul>	1 kΩ
Output voltage	
<ul style="list-style-type: none"> <li>for signal "1", min.</li> </ul>	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
<b>Parallel switching of two outputs</b>	
• for uprating	No
• for redundant control of a load	No
<b>Switching frequency</b>	
• with resistive load, max.	30 Hz
• with inductive load, max.	0.1 Hz
• on lamp load, max.	10 Hz
<b>Total current of the outputs (per group)</b>	
<b>horizontal installation</b>	
— up to 40 °C, max.	10 A
— up to 55 °C, max.	7 A
— up to 60 °C, max.	6 A
<b>vertical installation</b>	
— up to 40 °C, max.	6 A
<b>Relay outputs</b>	
<b>Switching capacity of contacts</b>	
— with resistive load, up to 50 °C, max.	10 A
<b>Cable length</b>	
• shielded, max.	200 m
• unshielded, max.	200 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostic functions	Yes
<b>Diagnostic messages</b>	
• Diagnostic information readable	Yes
• Wire-break	Yes
• Short-circuit	Yes
• missing load voltage	Yes
<b>Diagnostics indication LED</b>	
• Rated load voltage PWR (green)	Yes
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
<b>Potential separation digital outputs</b>	
• 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
- SIL acc. to IEC 61508

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Up to SIL 3

### Dimensions

Width

30 mm

Height

81 mm

Depth

52 mm

### Weights

Weight, approx.

88 g

**last modified:**

14.05.2016