

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



Figure similar

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

<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
<b>Switching capacity of the outputs</b>	
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	10 W
<b>Load resistance range</b>	
<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
<b>Output voltage</b>	
<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
<b>Output current</b>	
<ul style="list-style-type: none"> <li>• for signal "1" rated value</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• for signal "1" permissible range for 0 to 60 °C, min.</li> </ul>	20 mA
<ul style="list-style-type: none"> <li>• for signal "1" permissible range for 0 to 60 °C, max.</li> </ul>	2.4 A
<ul style="list-style-type: none"> <li>• for signal "0" residual current, max.</li> </ul>	0.5 mA
<b>Parallel switching of two outputs</b>	
<ul style="list-style-type: none"> <li>• for uprating</li> </ul>	No
<ul style="list-style-type: none"> <li>• for redundant control of a load</li> </ul>	No
<b>Switching frequency</b>	
<ul style="list-style-type: none"> <li>• with resistive load, max.</li> </ul>	30 Hz
<ul style="list-style-type: none"> <li>• with inductive load, max.</li> </ul>	0.1 Hz
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	10 Hz
<b>Total current of the outputs (per group)</b>	
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
<b>Relay outputs</b>	
<b>Switching capacity of contacts</b>	
— with resistive load, up to 50 °C, max.	10 A
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>	200 m
<ul style="list-style-type: none"> <li>• unshielded, max.</li> </ul>	200 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes

### Diagnostic messages

- |                                   |     |
|-----------------------------------|-----|
| • 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
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### 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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**last modified:** 05/09/2019