


Properties

1.1 Power module PM-E DC24V (6ES7138-4CA01-0AA0)

Properties

- The PM-E DC24V power module monitors the supply voltage for all the electronic modules in the voltage group. The supply voltage is fed in by means of the TM-P terminal module.
- You can use all the electronic modules except the 2DI AC120V ST, 2DI AC230V ST, and 2DO AC24..230V/1A in the voltage group of the PM-E DC24V power module.
- The current status of the power module is stored in the status byte in the process input image (PII). This is updated irrespective of whether the "No Load Voltage" diagnosis has been enabled.
- The PM-E DC24V power module is suitable for fail-safe modules.
- Extended temperature range from 0 to 55°C with vertical installation.

 CAUTION
Only connect the specified rated load voltage of 24 VDC to the TM-P terminal module of the power module.
The connected rated load voltage must correspond to the supply voltage of the electronic modules in the voltage group.

Maximum configuration per voltage group

The number of modules that can be connected depends on the total current of all modules in a voltage group. This total must not exceed the maximum current carrying capacity.

Address space of inputs/outputs

Address space of inputs/outputs by selecting the following as an option:

Options	Address space of the inputs	Address space of the outputs
Status byte (S)	1 byte	–
Option handling (O)	8 bytes	8 bytes
Status byte and option handling (SO)	9-byte inputs	9 bytes (9th byte not relevant)

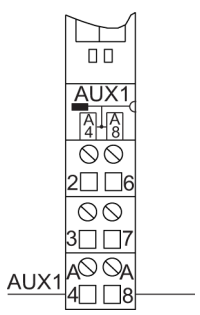
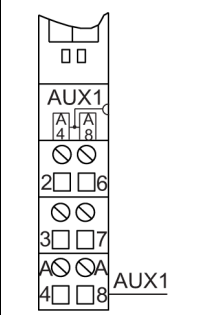
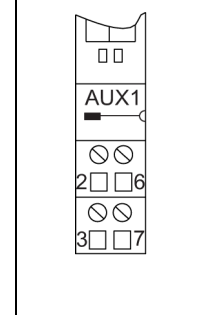
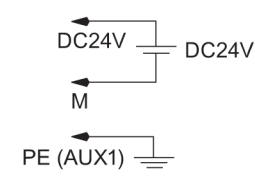
General terminal assignment

Note

Terminals A4 and A8 are only available at specified terminal modules.

Terminal assignment for PM-E DC24V (6ES7138-4CA01-0AA0)				
Terminal	Assignment	Terminal	Assignment	Notes
2	L+	6	L+	<ul style="list-style-type: none">• L+: Rated load voltage 24 VDC• M: Chassis ground• AUX1: Protective-conductor terminal or potential bus (freely usable up to 230 VAC)
3	M	7	M	
A4	AUX1	A8	AUX1	

Usable terminal modules

Usable terminal modules for PM-E DC24V (6ES7138-4CA01-0AA0)			
TM-P15C23-A1 (6ES7193-4CC30-0AA0)	TM-P15C23-A0 (6ES7193-4CD30-0AA0)	TM-P15C22-01 (6ES7193-4CE10-0AA0)	← Spring terminal
TM-P15S23-A1 (6ES7193-4CC20-0AA0)	TM-P15S23-A0 (6ES7193-4CD20-0AA0)	TM-P15S22-01 (6ES7193-4CE00-0AA0)	← Screw-type terminal
TM-P15N23-A1 (6ES7193-4CC70-0AA0)	TM-P15N23-A0 (6ES7193-4CD70-0AA0)	TM-P15N22-01 (6ES7193-4CE60-0AA0)	← Fast Connect
			<p>Connection examples</p> 

Block diagram

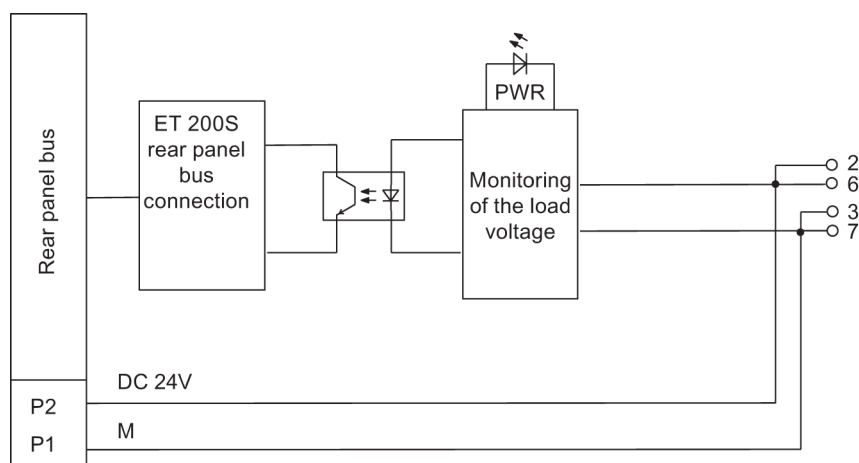


Figure 1-1 Block diagram of the PM-E DC24V power module

Technical data PM-E DC24V (6ES7138-4CA01-0AA0)

Dimensions and weight	
Dimension B (mm)	15
Weight	Approx. 35 g
Voltages, currents, potentials	
Rated load voltage	24 VDC
• Overvoltage protection	No
Protection with automatic circuit breakers	Yes, tripping characteristic B, C
Max. current-carrying capacity (up to 60°C)	10 A
• Short-circuit protection	No
Electrical isolation	
• Between rated load voltage and backplane bus	Yes
• Between the power modules	Yes
Insulation test voltage	500 VDC
Current consumption	
• From the load voltage L+ (no load)	Max. 4 mA
Power dissipation of the module	Typically 100 mW
Parameter length	3 bytes
Status, interrupts, diagnostics	
Diagnostic function	Yes
• Group error	Red "SF" LED
• Load voltage monitoring	Green "PWR" LED
• Diagnostic information readable	Yes