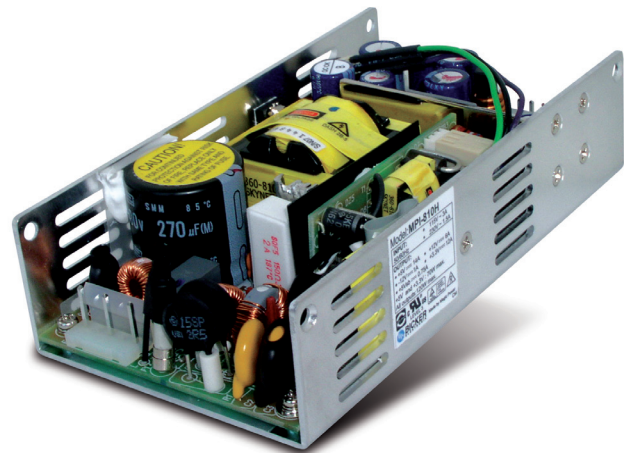


MPI-810H

120 Watt

- 85 Watt continuous fanless power
- Operating temperature up to +70 °C
- Ideal for industrial applications

The ATX PC power supply MPI-810H is designed for industrial and mobile computer systems with low performance requirements. Due to its compact design, fanless operation, and an ambient temperature of up to +70 °C the MPI-810H is a universal solution for various applications. For the quick and easy connection of modules that have to be supplied both an AC and DC cable harness is available. As a fit-form-compatible variation of the MPI-810H model MPD-810H with an input range of 10...30 VDC is also available.



Technical data

Input voltage	90...260 VAC, 130...367 VDC
Input frequency	47...63 Hz
Input current	3 A (115 VAC) / 1.5 A (230 VAC)
Inrush current	30 A (115 VAC) / 60 A (230 VAC)
Efficiency	>74 % / 230 VAC
Hold up time	16 ms / 115 VAC
Protection	Short circuit protection: At each output, auto recovery Overload protection: 110...130 %
Earth leakage current	<3.5 mA
Safety / EMC	TÜV / UL / cUL
Operating temperature	0...+50 °C
Derating	2 % / K from +50...+70 °C
MTBF	185 000 h at +50 °C
Storage temperature	-40...+75 °C
Operating humidity	5 % to 95 %, non-condensing
Dimensions	152.4 x 83.8 x 38 mm ±0.5 mm
Weight (net)	0.6 kg

Product specific data

On- / Off-ATX function	The power supply switches on as soon as PSON (TB3 PIN2) is connected to GND.
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Article No.	Output voltage	Output current		Load regulation	Ripple & Noise
		min	max		
MPI-810H	+3.3 V	0 A*	12 A	3.1...3.5 V	50 mV
	+5 V	1 A*	14 A	5.05...5.15 V	50 mV
	+12 V	1 A*	6 A	11.25...13 V	120 mV
	-12 V	0.1 A*	1,0 A	-11.25...-13.3 V	240 mV
	+5 V _{sb}	0 A	0.75 A	4.8...5.2 V	120 mV

* If the minimum loads are not observed, the output voltages can increase and thus damage the connected consumer loads. The +5 V output can supply up to 14 A if a minimum load of +3.3 V / 1.5 A, +12 V / 1 is connected. The +3.3 V output can supply up to 12 A and the +12 V output up to 5 A if a minimum load of 2 A is connected at +5 V.

Output power is 85 W without fan, 100 W with 6CFM fan, and 120 W with 18CFM fan. Combined output power at +3.3 V and +5 V must not exceed 70 W. This power supply is for assembly purposes only and it must not be operated in unassembled condition. The final assembly has to comply with the valid EMC standards.

The power supply does not provide a power factor correction (PFC) circuit. It is however possible to integrate an optionally available PFC upstream inductor.

Drawing MPI-810H

Technical drawing of the MPI-810H power supply showing front, top, and side views with dimensions and component labels.

Dimensions:
 Front view: 152.4 mm width, 83.8 mm height.
 Top view: 144.4 mm width, 38.0 mm height, 4.0 mm offset.
 Side view: 40.0 MAX. height.

Labels:
 TB1: AC input / Molex 5273-05A
 E: Ground, L: Phase, N: Neutral
 TB2: DC output / Molex 5273-14A
 Pin 1-3: +5 VDC, Pin 4-8: GND, Pin 9,10: +12 V, Pin 11-13: +3.3 V, Pin 14: -12 V
 TB3: DC output on adjoining Modul / Molex 5045-03A
 Pin 1: On- / Off function, Pin 2: GND, Pin 3: +5 V_{sb}

Options:
 MPD / MPI-H: DC cable harness ATX 20 PIN (app. 280 mm), 1 hard disk connector (app. 220 mm) and as extension 1 floppy and 1 hard disk connector (app.120 mm) each.
 MPI-PFC: PFC upstream inductor (without connection and cabling)

Measuring the screw protrusion first:
 Use #6-32 screw
 Protrusion limit 2.5mm x4

Customer system chassis

Cable harness MPI-810H (optional)

Diagram of the optional cable harness for the MPI-810H power supply, showing connections to ATX, P4, HD, and Modul connectors.

Length cable harness			
	PIN	Length	AWG
ATX		280 mm	18
+3.3 V	1, 2, 11		
+5 V	4, 6, 19, 20		
+5 V _{sb}	9		
+12 V	10		
-12V	12		
GND	3, 5, 7, 13, 15-17		
PG	8		
PERSON	14		
P4		280 mm	18
+12 V	3, 4		
GND	1, 2		
HD		220 mm	18
HD1/FDD		120 mm	18/22
+5 V	4		
+12 V	1		
GND	2, 3		
CN2, TB3 on Modul		300 mm	22
CN4		280 mm	22

Tolerance ±20 mm

Article No.: MPD- / MPI-H
 Not included in delivery

Specification is subject to change without notice. Errors excepted. Status: 30.07.2009