EN

PIC-02 Power Supply Instruction Manual

PIC120.241D	AC 100-120V/ 200-240V DC 24-28V 5A 120W
PIC240.241D	AC 100-240V DC 24-28V 10A 240W

Before operating the power supply, read this manual thoroughly and retain it for future reference! This device may only be installed and put into operation by qualified personnel. If damage or malfunction should occur during operation, immediately turn power off and send unit to the factory for inspection. The unit does not contain serviceable parts. The tripping of an internal fuse is caused by an internal defect.

This power supply is designed for installation in an enclosure and is intended for general use such as in industrial control, office, communication, and instrumentation equipment. Do not use this device in equipment, where malfunction may cause severe personal injury or threaten human life.

Risk of electrical shock, fire, personal injury or death:

(1) Do not use the power supply without proper grounding (Protective Earth).
(2) Turn power off before working on the device. Protect against inadvertent re-powering.
(3) Make sure that the wiring is correct by following all local and national codes.
(4) Do not modify or repair the unit. The unit does not contain serviceable parts.
(5) Do not open the unit as high voltages are present inside.
(6) Use caution to prevent any foreign objects from entering the housing.
(7) Do not use in wet locations or in areas where moisture or condensation can be expected.
(8) Do not touch during power-on, and immediately after power-off. Hot surfaces may cause burns.

Installation Notes

- Install the device on a DIN-rail according to EN 60715 with the input terminals on the bottom of the unit.
- Do not obstruct air flow as the unit is convection cooled.
  Ventilation grid must be kept free of any obstructions (min. 40mm on top, 20mm on the bottom, 5mm left and right side).
- Do not place heat sources adjacent to the power supply.
- Do not use the device in pollution degree 3 environments.
- Do not use the device in parallel connection.
- The unit is tested and approved for branch circuits up to 32A without additional protection device.
  If an external fuse is utilized, do not use breakers smaller than 10A B- or 6A C-Characteristic to avoid nuisance tripping.
- Maximum surrounding air temperature: 70°C / 158°F.
- For use in CSA C22.2 No 107 areas: Provide an output disconnecting means and use only in controlled environments.

CE Declaration

The CE mark is in conformance with EMC directive and the low-voltage directive (LVD).

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Technical Data [1]			PIC120.241D	PIC240.241D
Output Voltage		nom.	DC 24-28V	DC 24-28V
Output Current		nom.	5A at 24V, 4.3A at 28V	10A at 24V, 8.6A at 28V
Output Ripple & Noise Voltage [2]		max.	100mVpp	100mVpp
Input Voltage		nom.	Autoselect, AC 100-120/ 200-240V ±10%	Wide range AC 100-240V ±10%
Input Frequency		nom.	50-60Hz ±6%	50-60Hz ±6%
Input Current (120/ 230Vac)		typ.	1.71A/ 1.05A	2.2A/ 1.21A
Power Factor (120/ 230Vac)		typ.	0.64/ 0.54	0.97/ 0.91
Input Inrush Current [3]		typ.	22A/ 33A peak	14A/ 26A peak
Efficiency / Power Losses		typ.	91.2% / 11.6W at 120Vac 92.3% / 10.0W at 230Vac	93.6% / 16.4W at 120Vac 94.8% / 13.2W at 230Vac
Operational Temperature Range [4]		nom.	-10°C - +70°C	-25°C - +70°C
Output Derating		nom.	3W/°C from 55°C to +70°C [7] 3W/°C from 50°C to +70°C [8]	6W/°C from 55°C to +70°C
Storage Temperature Range		nom.	-40°C - +85°C	-40°C - +85°C
Terminals [5]	Stranded / solid wire	nom.	0.5-4mm² / 0.5-6mm²	0.5-4mm² / 0.5-6mm²
	AWG	nom.	20-10AWG	20-10AWG
	Wire stripping length	nom.	7mm, 0.28inch	7mm, 0.28inch
	Tightening torque	nom.	1Nm, 9lb.in	1Nm, 9lb.in
DC-OK Contact			Yes [6]	Yes [6]
EMC Immunity	Generic Standard		IEC 61000-6-1/ -6-2	IEC 61000-6-1/ -6-2
EMC Emission	Generic Standard		IEC 61000-6-3/ -6-4	IEC 61000-6-4
	Radiated Emission		EN 55011/22 Class B	EN 55011/22 Class A
	Conducted Emission		EN 55011/22 Class B	EN 55011/22 Class B
	Harmonic Input Current		IEC 61000-3-2 Class A	IEC 61000-3-2 Class A
Dimensions	(WxHxD, without DIN-rail)	nom.	39x124x124mm	49x124x124mm
Weight		max.	370g, 0.81lb	540g, 1.2lb

1) All parameters are specified at 230Vac, nominal output current, 25°C ambient and after a 5 minutes run-in time unless otherwise noted.
2) 50-Ohm measurement, bandwidth 20MHz
3) At 120/ 230Vac, 40°C ambient and cold start. The input inrush current is temperature dependent.
4) The operational temperature range equals the surrounding air temperature measured 2cm below the unit.
   Observe required output derating above +50°C / +55°C
5) Use appropriate copper cables, that are designed for a minimum operating temperature of 75°C for ambient temperatures up to 55°C and 90°C for ambient temperatures up to 70°C.
   Follow national installation codes and regulations! Ensure that all strands of a stranded wire enter the terminal.
6) Contact ratings: 60Vdc 0.3A; 30Vdc 1A; 30Vac, 0.5A; resistive load, min. current 1mA.
7) for AC 110-120 / 220-240V mains systems
8) for AC 100 / 200V mains systems