

POWER SUPPLY 1-PHASE, 24 V DC PIANO SERIES

PIC240.241D

Powersupply 115-230VAC 24VDC/10A DC OK

- Output current of 10 A
- Up to 91.4% efficiency
- Only 49 mm wide
- DC-OK relay output



PRODUCT DESCRIPTION

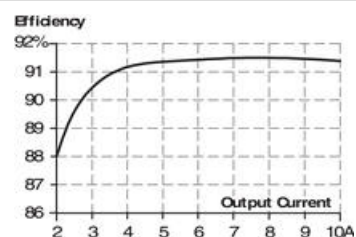
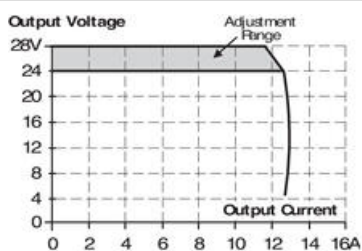
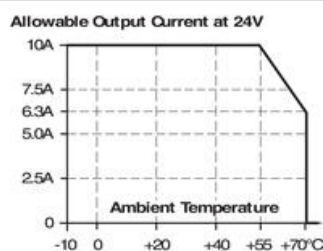
These PIANO series units are extraordinarily compact, industrial grade power supplies that focus on the essential features required in today's industrial applications. The excellent cost/performance ratio presents many new and exciting opportunities without compromising quality or reliability.

The mechanically robust housing is made of a high-grade, reinforced molded material, which permits the units to be used in surrounding temperatures up to +70°C.

Since typical industrial applications do not require multiple mains inputs, the reduction to a regional input voltage range (AC 200 240V) simplifies the circuitry and has significant advantages for reliability, efficiency and cost.

The integrated DC-OK signal makes the unit suitable for many industry applications, such as process, automation and many other critical applications where preventive function monitoring can help to avoid long downtimes.

Output characteristics



Wiring



- A = Primary side, 230 V ac
- B = Secondary side, 24-28 V dc
- C = Potentiometer for voltage output
- D = DC-OK LED
Lights green when the output voltage is over 18 V dc
- E = DC-OK output relay

SPECIFICATIONS

Input voltage range	Wide-range
Number of phases	1
Input voltage AC	100-240 V
Input voltage ac min	90 V AC
Input voltage ac max	264 V AC
Inrush current at 120 V ac typical	14 A
Inrush current at 230 V ac typical	26 A
Power Factor at 120 V AC, full load. Typical	0.98
Power Factor at 230 V AC, full load. Typical	0.93
Supply Frequency	50-60 ± 6 %
Power Consumption At 120 V AC	2.17 A
Power Consumption At 230 V AC	1.18 A
Type Power Supply	AC-DC
Output voltage	24 V DC

Output voltage min	24 V DC
Output voltage max	28 V DC
Output Current	10 A
Effect	240 W
Power Reduction Of 60 To 70 ° C	6 W/°C
Ripple. max	100 mV pp
Temperature Range Without Derating From	-10 °C
Temperature Range Without Derating To	55 °C
Efficiency At 120 V AC, full load. Typical	94 %
Efficiency At 230 V AC. Typical	93.9 %
Efficiency At 230 V AC, full load. Typical	95.2 %
Lifetime at 120 V ac, full load and +40 ° C	55000 h
Lifetime at 230 V ac, full load and +40 ° C	74000 h
MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° C	822000 h
Width	49 mm
Height	124 mm
Depth	124 mm
Weight	0.54 kg
Clamp type	Screw
Series	Piano
Approvals	CB, CE, cRUus, cULus
DC relay output	Yes
Material Protection	Polycarbonate
Hold-up time at 120 V AC, full load. Typical.	32 ms
Hold-up time at 230 V AC, full load. Typical.	32 ms
IP Class	IP20

Fig. 9-1 Efficiency vs. output current at 24V, typ.

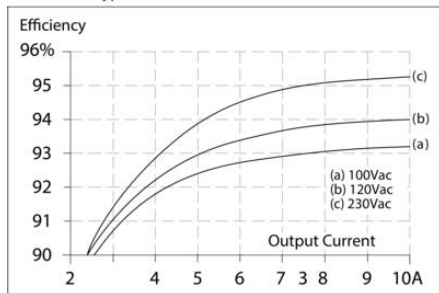


Fig. 6-1 Output voltage vs. output current, typ.

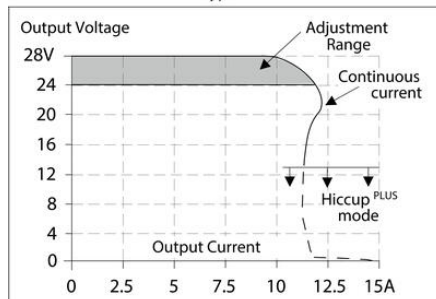


Fig. 6-2 Short-circuit (50mOhm) on output, Hiccup PLUS mode, typ.

