

# TOTAL POWER INT'L

## UNIVERSAL AC INPUT HARMONIC CORRECTION AC-DC 19" COMPATIBLE EUROCARD 60 WATTS MULTIPLE OUTPUT SWITCHING MODE POWER SUPPLIES HPU60 SERIES



### FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- MEET IEC1000-3-2 HARMONIC CORRECTION
- MEET UNIVERSAL SAFETY STANDARDS
- 19" COMPATIBLE EUROCARD FORMAT
- EMI MEET EN 55022 & FCC CLASS B
- CE MARKING COMPLIANCE
- 3U X 8HP X 160MM FOR VMEbus STANDARD

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** Typ. 90-264Vac with PFC.  
**Input Connector:** DIN 41612 at rear.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** Typ.  $\leq 30.6A$  @ 230Vac.  
**Input Current:** 0.73A @ 115Vac, 0.37A @ 230Vac.  
**Dielectric Withstand:** Meet IEC950.  
**EMI/RFI:** Meet EN 55022 & FCC B.  
**Power Indicator:** Green LED.  
**Power Failure Signal:** Installed.  
**Remote On/Off:** Installed.  
**Power Factor Correction:** Meet Harmonic Correction IEC1000-3-2 .PF typ. 0.97-0.98.  
**Hold-up Time:** 41mS @ 115Vac & 230Vac.  
**Earth Leakage:** Less than 0.40mA @ 230Vac.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Connector:** DIN 41612 at rear.  
**Line Regulation:** Typ. 0.5%.  
**Load Regulation:** Main VO1 typ.  $\pm 1.0\%$ .  
Aux.VO2 typ.  $\pm 2.0\%$  (Mag. Amp.)  
typ.  $\pm 3.0\%$  (P.R.).  
Aux.VO3 typ.  $\pm 3.0\%$  (P.R.).  
**Noise & Ripple:** Typ. 1% peak to peak.  
**OVP:** Built-in at main VO1.  
**Adjustability:** Available at VO1 & VO2.  
**Overload Protection (OLP):** Fully protected against output overload and short circuit. Consult the factory for OLP setting.

#### GENERAL SPECIFICATION

**Efficiency:** Typ. 73%.  
**Switching Frequency:** Fixed frequency 83K Hz.  
**Circuit Topology:** Fixed frequency forward circuit.  
**Transient Response:** Output voltage returns in less than 3mS following a 25% load change.  
**Safety Standard:** IEC950 /UL1950 Class I.  
**Power Density:** 1.52 Watts / Cubic Inch.

**Operating Temperature:** 0 to +50°C.  
**Storage Temperature:** -25 to +85°C.  
**Temperature Coefficient:** Typ. 0.03% /°C.  
**Cooling:** Forced air flow is recommended for full load >+40°C operation.  
**Construction format:** 3U x 8HP(TE) x 160mm. VMEbus standard Eurocard format.

**Note:** All measurements are at nominal input, full load, and +25°C unless otherwise specified.



# OUTPUT VOLTAGE/CURRENT RATINGS CHART

03/14/2002

## SINGLE OUTPUT

MODEL NO.	MAIN VO1 ★@#	
	Typ.	Volt.
HPU60-S025180	18.0A	2.5V
HPU60-S033150	15.0A	3.3V
HPU60-S050120	12.0A	5.0V
HPU60-S060100	10.0A	6.0V
HPU60-S120050	5.0A	12.0V
HPU60-S150040	4.0A	15.0V
HPU60-S190030	3.0A	19.0V
HPU60-S240025	2.5A	24.0V
HPU60-S480013	1.3A	48.0V

## DUAL OUTPUT

MODEL NO.	MAIN VO1 ★@#		AUX. VO2 ▲◇	
	Typ.	Volt.	Typ.	Volt.
HPU60-D030E	6.0A	3.0V	6.0A	5.0V
HPU60-D030I	6.0A	3.0V	3.0A	12.0V
HPU60-D050I	5.0A	5.0V	3.0A	12.0V
HPU60-D120I	2.5A	12.0V	2.5A	12.0V
HPU60-D050K	5.0A	5.0V	2.5A	15.0V
HPU60-D150K	2.0A	15.0V	2.0A	15.0V
HPU60-D050M	5.0A	5.0V	1.5A	24.0V
HPU60-D240M	1.4A	24.0V	1.4A	24.0V

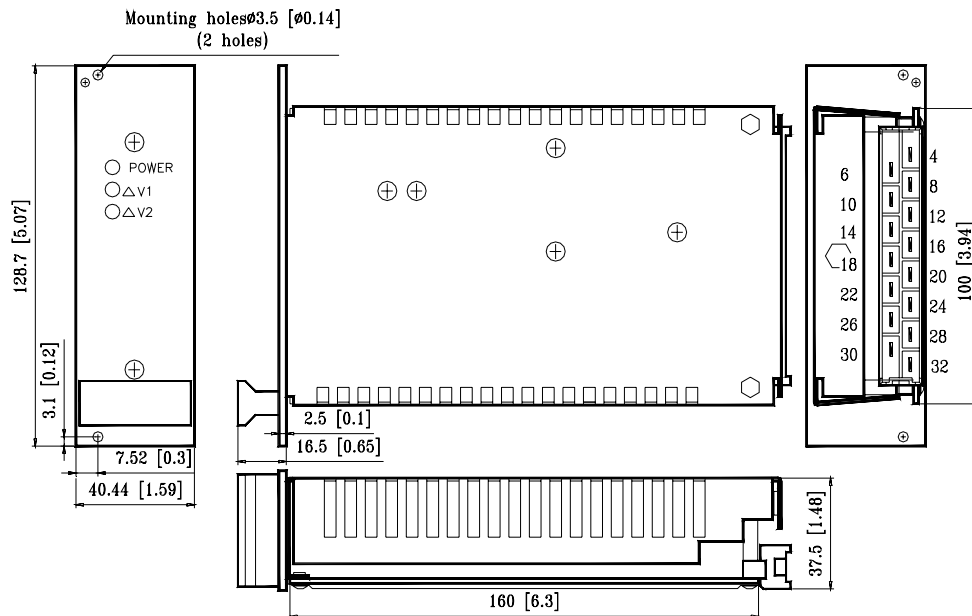
## TRIPLE OUTPUT

MODEL NO.	MAIN VO1 ★@◇		AUX. VO2 @▲◇ or●		AUX. VO3 ●◇	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HPU60-T050IE (HPU60-30)	5.0A	5.0V	2.5A	12.0V	1.0A	5.0V
HPU60-T050KK (HPU60-31)	5.0A	5.0V	2.0A	15.0V	0.5A	15.0V
HPU60-T050II (HPU60-32)	5.0A	5.0V	2.5A	12.0V	0.5A	12.0V
HPU60-T030EI	6.0A	3.0V	5.0A	5.0V	1.0A	12.0V
HPU60-T030KK	6.0A	3.0V	2.0A	15.0V	0.5A	15.0V
HPU60-T030II	6.0A	3.0V	2.5A	12.0V	0.5A	12.0V

Symbol: "★" OVP built-in. "@#" Adjustable. "▲" Magnetic Amplifier "●" Installed with Post Regulator.  
 "◇" Floating(or isolated)output. "#" Remote sensing.

## MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 720.0g (25.40z.)



## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	AC INPUT			SINGLE OUTPUT					DUAL OUTPUT					TRIPLE OUTPUT							Status/Control	
	AC-L	AC-N	AC-G	+VO1	+S	-VO1	-S	NC	+VO1	-VO1	+VO2	-VO2	NC	+VO1	-VO1	+VO2	-VO2	+VO3	-VO3	NC	Log. Inh.	P. Fail
CNTR & Pin#	28	30	32	4,6	8	12,14	10	16,18,24,26	4	6	8	10	12,14,16,18,24,26	4,6	8,10	12	14	16	18	24,26	20	22

Mating connector: DIN 41612-H15 Female