TOTAL POWER INT'L

DUAL SELECTABLE AC INPUT AC-DC 19" COMPATIBLE DOUBLE & EXTENDED EUROCARD 400 WATTS MULTIPLE OUTPUT SWITCHING MODE POWER SUPPLIES HSU393 SERIES



FEATURES:

- **DUAL INPUT RANGE USER SELECTABLE**
- **19" COMPATIBLE EUROCARD FORMAT**
- **DUAL CONVERTER ARCHITECTURE FOR HEPTAD OUTPUT**
- **MEET THE SAFETY STANDARDS**
- **EMI MEET CISPR PUB. 22 & FCC CLASS A**
- **CE MARKING COMPLIANCE**
- **6U X 12HP X 280MM DOUBLE EUROCARD FOR EXTENDED MULTIbus**

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: 115Vac/230Vac dual selectable.
Input Connector: DIN 41612 at rear or IEC320 AC receptacle for HSU393-J.
Input Frequency: 47-63Hz
Inrush Current: Typ. 40A @230Vac.
Input Current: Typ. 6.0A@115Vac/2.5A@230Vac.
Dielectric Withstand: Meet IEC950.
EMI: Meet CISPR PUB. 22 & FCC Class A.
Power Fail Signal: Installed.
Remote (Logic) Inhibit: Available.
Hold-up Time: Typ. 6-8mS @115Vac/10-12mS@230Vac.
Earth leakage: Typ. 0.3mA @230Vac.
Overload Protection (OLP): Fully protected against output overload and short circuit. Consult the factory for OLP setting.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: Typ. 400 Watts continuous.
Output Connection: DIN 41612 at rear.
Line Regulation: Typ. 0.1%.
Load Regulation:

HSU393-Q:	HSU393-J
Main VO1 typ. ±1-2.0%	Main VO1 typ. ±1-2.0%.
Aux. VO2 typ. ±2.0%(MA)	Aux. VO2 typ. ±2.0%(MA)
Aux. VO3 typ. ±2.0%(MA)	Main VO3 typ. ±1-2.0%.
Aux. VO4 typ. ±3.0%(PR)	Aux. VO4 typ. ±2.0%(MA)
	Aux. VO5 typ. ±2.0%(MA)
	Aux. VO6 typ. ±3.0%(PR)
	Aux. VO7 typ. ±3.0%(PR)

Noise & Ripple: Typ.1% peak to peak.
OVP: Built-in at main VO1 (latch).
Adjustability: Available at main output VO1 and Aux. output VO2 (Mag. Amp.).
Remote Sense: Installed at main VO1.
Output LED Indicator: Installed.

GENERAL SPECIFICATION

Efficiency: Typ. 74-77.0%.
Switching Frequency: Typ. 65-70K Hz.
Circuit Topology: Forward circuit.
Transient Response: Typ. 3mS following a 25% load change.
Safety Standard: IEC950/UL1950 Class I.
Power Density: 1.46 Watt / Cubic Inch.
Operating Temperature: 0 to +50°C at full load. Derates linearly to +70°C at half load.
Storage Temperature: -20 to +85°C.
Temperature Coefficient: Typ. 0.04%/°C.
Cooling: Forced air flow is recommended for Ta > +50°C full load operation.
Construction format: 12HP(TE)x6Ux280mm. 19" compatible double Eurocard & extended MULTIbus format.

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

OUTPUT VOLTAGE/CURRENT RATINGS CHART

QUAD OUTPUT

MODEL NO.	MAIN VO1 ★@#		AUX. VO2 @▲#		AUX. VO3 @▲#		AUX. VO4 #	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HSU393-Q050KKE (HSU393-41)	60.0A	**+5.0V**	3.0A	**15.0V**	1.5A	**15.0V**	5.0A	**5.0V**
HSU393-Q050MII	60.0A	**+5.0V**	2.5A	**24.0V**	2.0A	**12.0V**	1.0A	**12.0V**
HSU393-Q050DII	60.0A	**+5.0V**	15.0A	**3.3V**	2.0A	**12.0V**	1.0A	**12.0V**
HSU393-Q050DMI	60.0A	**+5.0V**	15.0A	**3.3V**	1.0A	**24.0V**	1.0A	**12.0V**
HSU393-Q033EII	60.0A	**+3.3V**	15.0A	**5.0V**	2.0A	**12.0V**	1.0A	**12.0V**

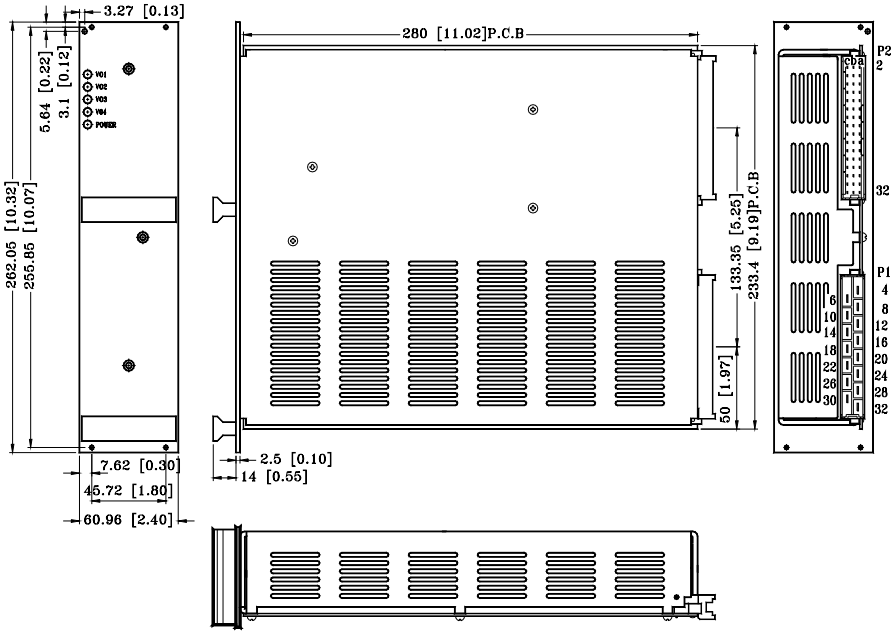
HEPTAD OUTPUT

MODEL NO.	MAIN VO1 ★@#		AUX. VO2★@▲#		Main VO3★@#		AUX. VO4★@▲		AUX. VO5★@▲		AUX. VO6 ●		AUX. VO7 ●	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HSU393-J050EEEHKK	45.0A	**5.0V**	10.0A	**5.0V**	10.0A	**5.0V**	4.0A	**5.0V**	3.0A	**10.0V**	1.0A	**15.0V**	0.5A	**15.0V**
HSU393-J050IDEIKK	45.0A	**5.0V**	4.0A	**12.0V**	12.0A	**3.3V**	4.0A	**5.0V**	3.0A	**12.0V**	1.0A	**15.0V**	0.5A	**15.0V**

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing. . "▲" Magnetic Amplifier. "●" Installed with Post Regulator.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: HSU393-Q 2.52kg (5.56 lb.)
HSU393-J 3.20kg (7.05lb.)

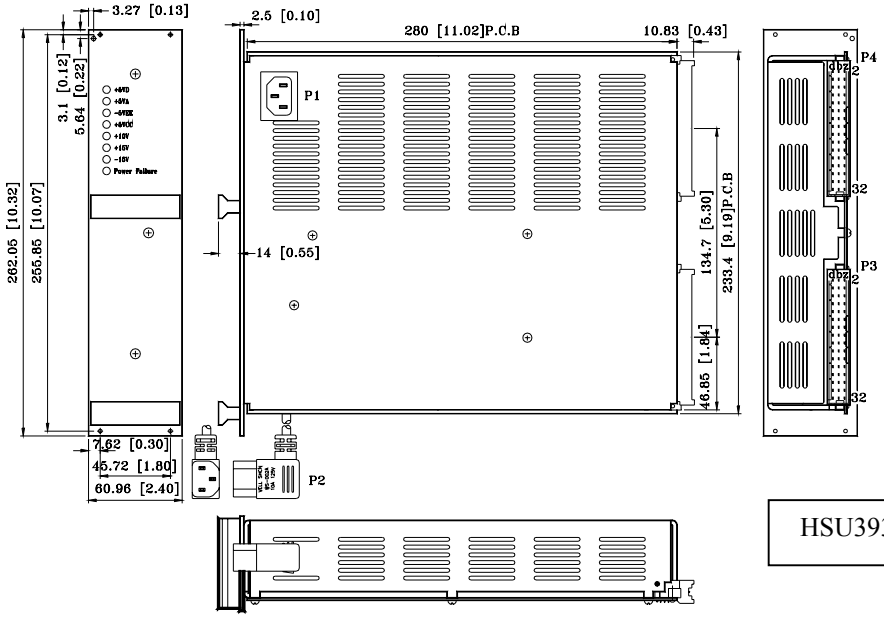


HSU393-Q

PIN ASSIGNMENT

ASSIGNMENT	PIN NO.
AC-L	P1-28
AC-N	P1-30
AC-G	P1-32
VO1(+)	P1-4,6,8
VO1(-)	P1-10,12,14
VO2(+)	P1-20
VO2(-)	P1-22
VO3(+)	P1-16
VO3(-)	P1-18
VO4(+)	P1-24
VO4(-)	P1-26
VO1(+)Sense	P2-29a
VO1(-)Sense	P2-30a
VO2(+)Sense	P2-25a,P2-25b
VO2(-)Sense	P2-26a
VO3(+)Sense	P2-27a,P2-27b
VO3(-)Sense	P2-28a,P2-28b
VO4(+)Sense	P2-31a
VO4(-)Sense	P2-32a,P2-32b
Power Fail (E)	P2-1a,P2-1b
Power Fail (C)	P2-2a

Mating connector: DIN 41612-H15 Female



HSU393-J

PIN ASSIGNMENT

ASSIGNMENT	PIN NO.
I/P AC-L	P1-L
I/P AC-N	P1-N
I/P AC-G	P1-G
O/P AC-L	P2-L
O/P AC-N	P2-N
O/P AC-G	P2-G
VO1(+)	P3-20,22,24,26,28, 30,32(D,B,Z)
DC COM	P3-2,4,6,8,10,12, 14,16(D,B,Z)
VO1(+)Sense	P3-18D
VO1(-)Sense	P3-18B
VO2(+)	P4-6,8,10(D,B,Z)
DC COM	P4-2,4,22,30,32 (D,B,Z)
VO2(+)Sense	P4-10Z
VO2(-)Sense	P4-12D
VO3	P4-26,28(D,B,Z)
VO3(+)Sense	P4-24Z
VO3(-)Sense	P4-24B
VO4	P4-16B,P4-16Z
VO5	P4-12B,P4-12Z
VO6	P4-18B,P4-18Z
VO7	P4-20B,P4-20Z
INH.	P4-14D
PF	P4-20D