

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. $\pm 1-2.0\%$	Main VO1 typ. $\pm 1-2.0\%$.
Aux. VO2 typ. $\pm 2.0\%$ (MA)	Aux. VO2 typ. $\pm 2.0\%$ (MA)
Aux. VO3 typ. $\pm 2.0\%$ (MA)	Main VO3 typ. $\pm 1-2.0\%$.
Aux. VO4 typ. $\pm 3.0\%$ (PR)	Aux. VO4 typ. $\pm 2.0\%$ (MA)
	Aux. VO5 typ. $\pm 2.0\%$ (MA)
	Aux. VO6 typ. $\pm 3.0\%$ (PR)
	Aux. VO7 typ. $\pm 3.0\%$ (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

03/14/2002

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

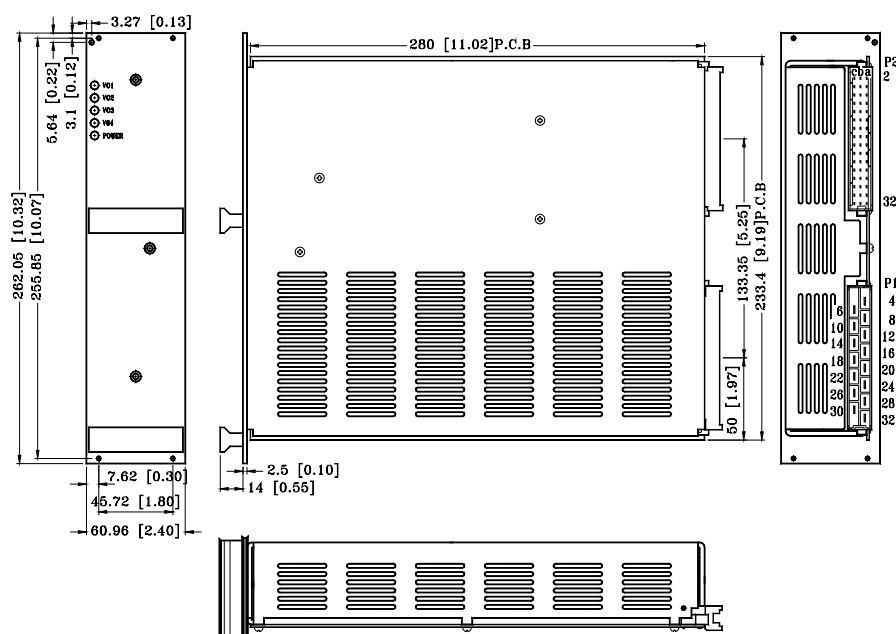
HEPTAD OUTPUT

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.)



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-Q

PIN ASSIGNMENT

ASSIGNMENT	PIN NO.
I/PAC-L	P1-L
I/PAC-N	P1-N
I/PAC-G	P1-G
O/PAC-L	P2-L
O/PAC-N	P2-N
O/PAC-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

HSU393-J