

# **DUAL SELECTABLE AC INPUT AC-DC 19" COMPATIBLE DOUBLE EUROCARD MULTIPLE OUTPUT 250-360 WATTS SWITCHING MODE POWER SUPPLIES HSU250, HSU300 & HSU360 SERIES**



## **FEATURES:**

- **DUAL INPUT RANGE USER SELECTABLE**
- **DOUBLE OR TRIPLE CONVERTER ARCHITECTURE**
- **19" COMPATIBLE EUROCARD FORMAT**
- **MEET THE SAFETY STANDARDS**
- **EMI MEET CISPR PUB. 22 & FCC CLASS A**
- **CE MARKING COMPLIANCE**
- **6U X 12HP X 160MM DOUBLE EUROCARD VMEbus STANDARD**

## **SPECIFICATION**

### **INPUT SPECIFICATION**

**Input Voltage:** 115Vac/230Vac dual selectable.  
**Input Connector:** DIN 41612 for HSU250/300/360T.  
 IEC320 AC receptacle for HSU360.  
**Input Frequency:** 47-63Hz  
**Inrush Current:** Typ. 65A @230Vac.  
**Input Current:** HSU250 6.0A@115Vac/3.0A@230Vac.  
 HSU300 1.2A@115Vac/0.7A@230Vac.  
 HSU360 6.5A@115Vac/3.5A@230Vac.  
 HSU360T 6.2A@115Vac/3.0A@230Vac.  
**Dielectric Withstand:** Meet IEC950.  
**EMI:** Meet CISPR PUB. 22 & FCC Class A.  
**Power Fail/OK:** Option.  
**Remote (Logic) Inhibit:** Available.  
**Hold-up Time:** Typ. 20mS.  
**Earth leakage:** Typ. 0.3mA @230Vac.  
**Over Temperature Protection (OTP):** Option.

### **OUTPUT SPECIFICATION**

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Wattage:** Typ. 250 Watts for HSU250.  
 Typ. 300 Watts for HSU300.  
 Typ. 360 Watts for HSU360/HSU360T.  
**Output Connector:** DIN 41612 at rear.  
**Line Regulation:** Typ. 0.4%.  
**Load Regulation:** VO1 typ. ±1.0%(Main).  
 VO2 typ. ±1.0%(Main).  
 VO3 typ. ±1.0%(Main).  
 or typ. ±3.0%(PR) for HSU360T.  
**Noise & Ripple:** Typ. 1% peak to peak.  
**OVP:** Built-in at main VO1/VO2/VO3 (Latch).  
**Adjustability:** Available at main output VO1, VO2, VO3.  
**Remote Sense:** Installed at main VO1.  
**Overload Protection (OLP):** Fully protected against output overload and short circuit.  
 Consult factory for OLP setting.

### **GENERAL SPECIFICATION**

**Efficiency:** Typ. 75-80.0%.  
**Switching Frequency:** Typ. 100K Hz.  
**Circuit Topology:** Forward circuit.  
 HSU250/HSU300/HSU360 triple converter.  
 HSU360T dual converter architecture.  
**Transient Response:** Typ. 3mS following a 25% load change.  
**Power Density:** 1.58 Watts / Cubic Inch for HSU250.  
 1.90 Watts / Cubic Inch for HSU300.  
 2.28 Watts / Cubic Inch for HSU360 & HSU360T.  
**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:** At least 60cfm forced air flow is required for full load.  
**Construction format:** 12HP(TE)x6Ux160mm 19" compatible double Eurocard VMEbus standard.  
**Safety Standard:** IEC950/UL1950 Class I.

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

# OUTPUT VOLTAGE/CURRENT RATINGS CHART

## HSU250 Series

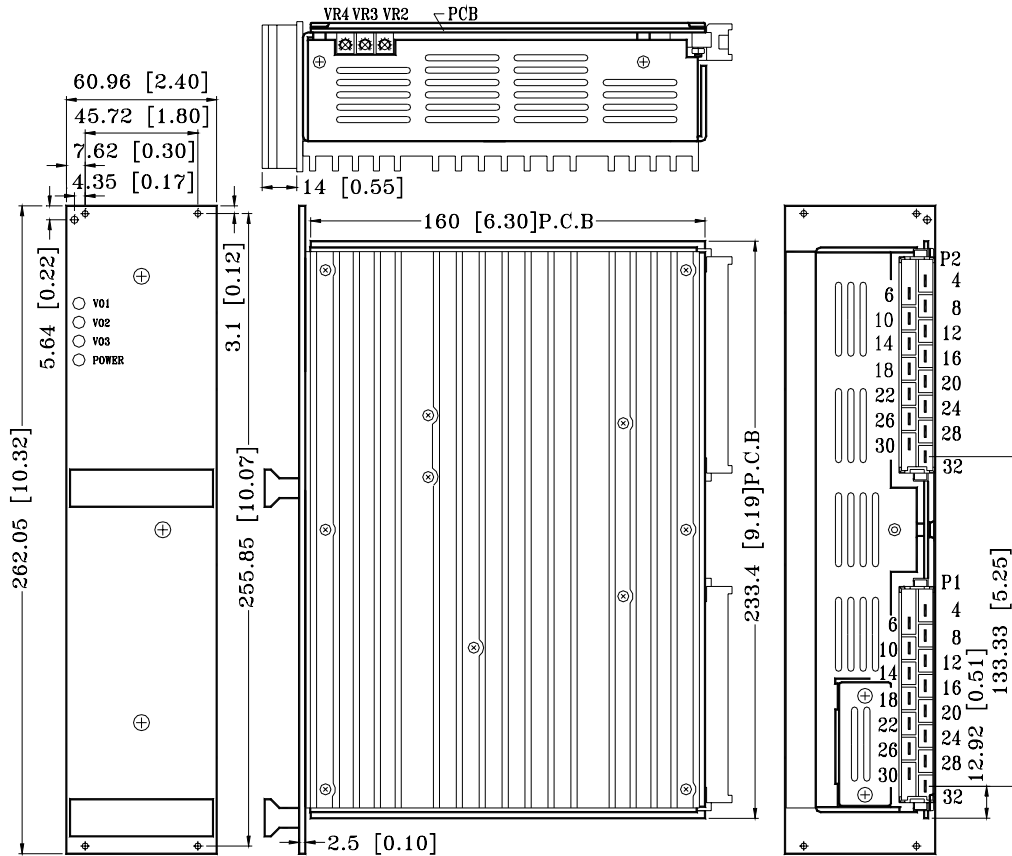
### TRIPLE OUTPUT

MODEL NO.	MAIN VO1 ★@#			MAIN VO2 @★			MAIN VO3 @★		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HSU250-T050II (HSU250-32)	25.0A	5.0V	30A	5.0A	12.0V	10A	5.0A	12.0V	10A
HSU250-T050KK	25.0A	5.0V	30A	4.0A	15.0V	8A	4.0A	15.0V	8A
HSU250-T050MI	25.0A	5.0V	30A	2.5A	24.0V	5A	5.0A	12.0V	10A
HSU250-T033II	35.0A	3.3V	40A	5.0A	12.0V	10A	5.0A	12.0V	10A
HSU250-T033EI	35.0A	3.3V	40A	12.0A	5.0V	20A	5.0A	12.0V	10A
HSU250-T050DI	25.0A	5.0V	30A	15.0A	3.3V	20A	5.0A	12.0V	10A

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing.

**MECHANICAL DIMENSIONS: MM [INCHES]**

**WEIGHT: HSU250 2.54kg (5.60 lb.)**



### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENTS

ASSIGNMENT	AC INPUT			TRIPLE OUTPUT					ASSORTED SIGNAL			
	AC-L	AC-N	AC-G	+VO1	+VO2	-VO3	DC COM	NC	S(+)	S(-)	SYS Reset	AC Fail
HSU250-T	P1-28	P1-30	P1-32	P2-4,6,8,10,12	P2-28,30	P2-16	P2-18,20,22,24,26	P1-8,10,12,24,16,18,20,22,24,26	P2-14	P2-32	P1-6	P1-4

Mating connector: DIN41612-H15 Female

# OUTPUT VOLTAGE/CURRENT RATINGS CHART

## HSU300 Series

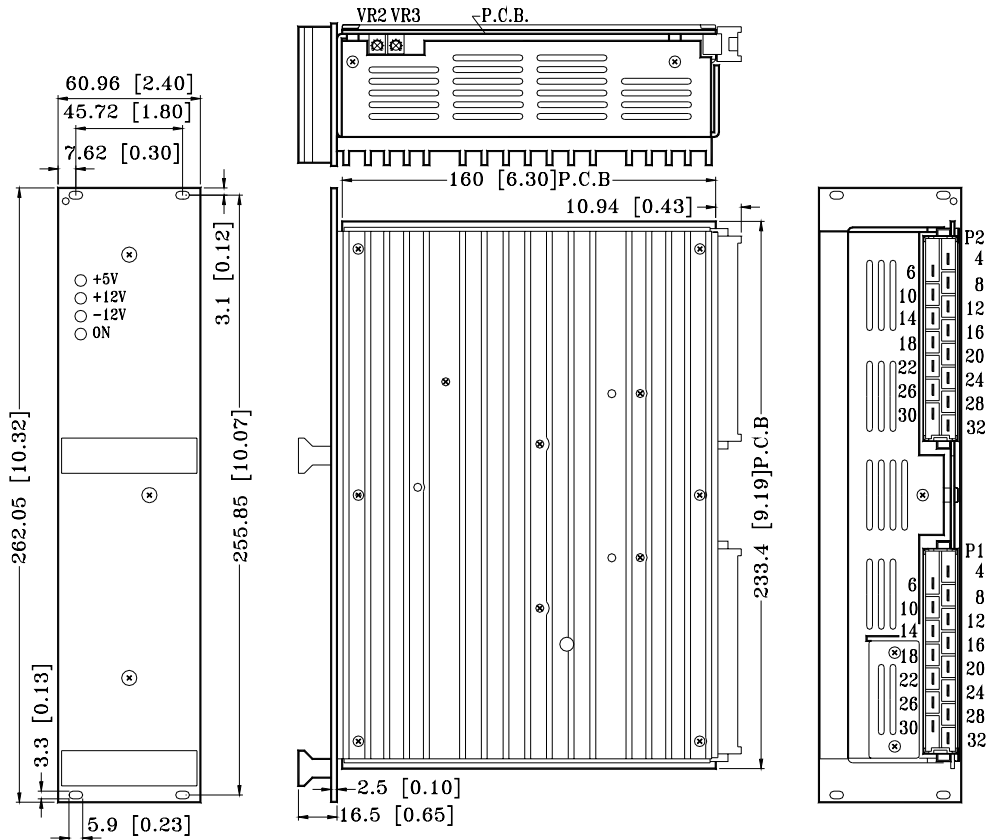
### TRIPLE OUTPUT

MODEL NO.	MAIN VO1 ★@#			MAIN VO2 @★			MAIN VO3 @★		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HSU300-T050II (HSU300-32)	36.0A	5.0V	40A	6.0A	12.0V	12A	6.0A	12.0V	12A
HSU300-T050KK	36.0A	5.0V	40A	5.0A	15.0V	10A	5.0A	15.0V	10A
HSU300-T050MI	36.0A	5.0V	40A	3.0A	24.0V	6A	6.0A	12.0V	12A
HSU300-T033II	50.0A	3.3V	55A	6.0A	12.0V	12A	6.0A	12.0V	12A
HSU300-T033EI	50.0A	3.3V	55A	15.0A	5.0V	--	6.0A	12.0V	12A
HSU300-T050DI	36.0A	5.0V	40A	18.0A	3.3V	--	6.0A	12.0V	12A

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing.

### MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: HSU300 2.75kg (6.06 lb.)



### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENTS

ASSIGNMENT	AC INPUT			TRIPLE OUTPUT					ASSORTED SIGNAL			
	AC-L	AC-N	AC-G	+VO1	+VO2	-VO3	DC COM	NC	S(+)	S(-)	SYS Reset	AC Fail
HSU300-T	P1-28	P1-30	P1-32	P2-4,6,8,10,12	P2-28,30	P2-16	P2-18,20,22,24,26	P1-8,10,12,24,16,18,20,22,24,26	P2-14	P2-32	P1-6	P1-4

Mating connector: DIN41612-H15 Female

# OUTPUT VOLTAGE/CURRENT RATINGS CHART

## HSU360 Series

### TRIPLE OUTPUT

MODEL NO.	MAIN VO1 ★@#			MAIN VO2 @★			MAIN VO3 @★		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HSU360-T050H	42.0A	5.0V	45A	6.0A	12.0V	12A	6.0A	12.0V	12A
HSU360-T050KK	42.0A	5.0V	45A	5.0A	15.0V	10A	5.0A	15.0V	10A
HSU360-T050MI	42.0A	5.0V	45A	3.0A	24.0V	6A	6.0A	12.0V	12A
HSU360-T033H	55.0A	3.3V	60A	6.0A	12.0V	12A	6.0A	12.0V	12A
HSU360-T033EI	55.0A	3.3V	60A	15.0A	5.0V	--	6.0A	12.0V	12A
HSU360-T050DI	42.0A	5.0V	45A	18.0A	3.3V	--	6.0A	12.0V	12A

## HSU360T Series

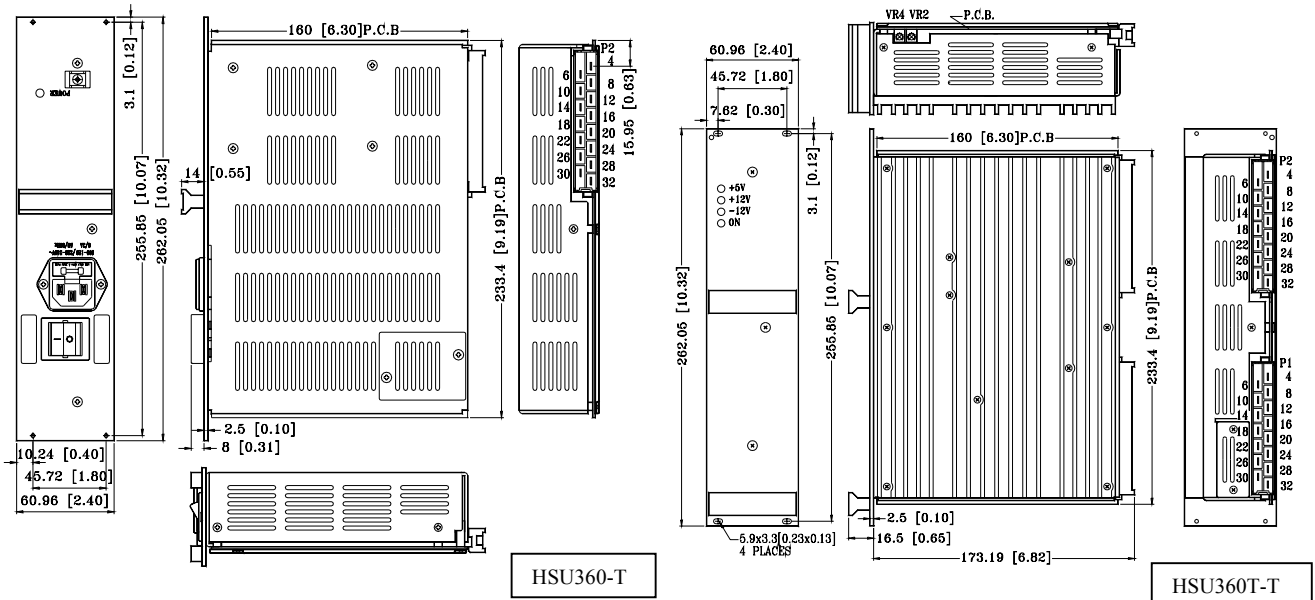
### TRIPLE OUTPUT

MODEL NO.	MAIN VO1 ★@#			MAIN VO2 @★			MAIN VO3 ●		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HSU360T-T050H (HSU360T-32)	60.0A	5.0V	70A	2.5 A	12.0V	3.5A	2.0A	12.0V	3.0A
HSU360T-T050KK	60.0A	5.0V	70A	2.0 A	15.0V	3.0A	2.0A	15.0V	3.0A
HSU360T-T050MI	60.0A	5.0V	70A	1.25 A	24.0V	2.5A	2.0A	12.0V	3.0A
HSU360T-T033H	65.0A	3.3V	75A	2.5 A	12.0V	3.5A	2.0A	12.0V	3.0A
HSU360T-T033EI	65.0A	3.3V	75A	6.0 A	5.0V	--	2.0A	12.0V	3.0A
HSU360T-T050DI	60.0A	5.0V	70A	8.0 A	3.3V	--	3.0A	12.0V	8.0A

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

## MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: HSU360&T 2.80kg (6.17 lb.)



## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENTS

ASSIGNMENT	AC INPUT			TRIPLE OUTPUT					ASSORTED SIGNAL			
	AC-L	AC-N	AC-G	+VO1	+VO2	-VO3	DC COM	NC	S(+)	S(-)	SYS Reset	AC Fail
HSU360-T	L	N	G	P2-4,6,8,10,12	P2-28,30	P2-14,16	P2-20,22 24,26,32	P2-18	P2-12	--	--	--
HSU360T-T	P1-28	P1-30	P1-32	P2-4,6,8,10,12	P2-28,30	P2-16	P2-18,20,22 24,26	P1-8,10,12,24,16 18,20,22,24,26	P2-14	P2-32	P1-6	P1-4

Mating connector: DIN41612-H15 Female