

HSU SERIES

AC/DC Eurocard: 45-100 Watts



Features

- Universal AC input models
- Power fail LED
- Single and multi outputs
- Convection cooled
- DIN41612 connector

The HSU Series of DC power supplies offer a standard Eurocard package, 3U x 160mm or 220mm.

They are available in single, dual or triple outputs in 45, 50, 60 and 100 watts power ratings.

HSU45: 6TE x 3U x 160mm

HSU50: 12TE x 3U x 220mm

HSU60: 8TE x 3U x 160mm

HSU100: 10TE x 3U x 160mm

HSU101: 12TE x 3U x 220mm

Specifications

INPUT VOLTAGE:	HSU45/60/100: 115VAC/230VAC dual selectable. HSU50: universal input range 85-264VAC HSU101: auto ranging input 115/230VAC
INRUSH CURRENT:	25A at cold start
INPUT CONNECTOR:	DIN41612 at rear.
FUSE ON INPUT LINE:	HSU45.....T2.0A/250VAC HSU60.....T2.5A/250VAC HSU100.....T3.15A/250VAC HSU50.....T2.0A/250VAC HSU101.....T3.15A/250VAC
POWER INDICATOR:	Green LED(s)
POWER FAILURE SIGNAL:	Option for users choice... an open collector output high level for normal operation, a low level for failure condition. TTL compatible max. rating 16mA/30V (fig.2)
INHIBIT SHUTDOWN:	Available in HSU45/60/100 "H" level supply shutdown. Not available in HSU50 an HSU101 series.
ISOLATION VOLTAGE (Dielectric Withstand):	Y-capacitors and capacitors across DC-Com. and GND must be removed before test. 3,750VAC output/input 1,500VAC input/safety GND. 500VAC output/safety GND.
EMI/RFI:	In compliance with FCC 20780 Class B and VDE0871 Class B.
AMBIENT TEMP. RANGE:	0°C to 50°C full rating. 50°C to 70°C derate linearly to 50% full rating. -20°C to 85°C storage.
COOLING:	Natural convection cooling.
EFFICIENCY:	70% typical.
HOLD UP TIME:	20m.sec min. after loss of AC line at full load and nominal input.
TRANSIENT RESPONSE:	Output voltage returns in less than 3m.sec. following a 50% load change.
OUTPUT VOLTAGE:	See rating chart.
OUTPUT CURRENT:	See rating chart.
OUTPUT CONNECTOR:	Single DIN41612 at rear.
LINE REGULATION:	0.4% typical between input range.
LOAD REGULATION:	For 50% to 100% load change. 1% typical for main VO1 output rail. 5% typical for auxilliary output without post regulator. 1.5% typical for auxilliary with 3T post regulator or magnetic amplifier regulator.
OUTPUT VOLT ADJUST:	Main VO1 output from -10% till +10% or OVP trip point. Auxilliary output with magnetic amplifier +/- 10% adjustable.
RIPPLE:	Peak to peak 1% max.
REMOTE SENSING:	HSU45/60/100 single output models are installed with remote sensing.
OVP:	VO1 main rail output available.
OVERLOAD PROTECTION:	The OLP feature will reduce all output voltage to a safe dissipation level when the average power rating exceeds 125% to 150% of max. power. The OLP feature will also protect against short circuit on any output.
MTBF:	Greater than 40K hours at typical load at 25°C ambient temp. calculated according to MIL-HDBK-217E.

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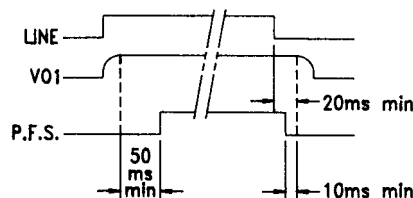
AC/DC Eurocard: 45-100 Watts

MODEL	Output									Power W
	V1			V2			V3			
	TYP.	(1/2/3)	MAX.	TYP.	(3/4)	MAX.	TYP.	(3/4)	MAX.	
HSU45 - 10	9A	5V#	9A							45W
HSU45 - 11	4A	12V#	4A							45W
HSU45 - 12	3A	15V#	3A							45W
HSU45 - 13	2A	24V#	2A							45W
HSU45 - 20	4A	5V	4A	2A	12V	2A				45W
HSU45 - 21	2A	12V	2A	1.5A	12V	2A				45W
HSU45 - 22	4A	5V	4A	1.5A	15V	2A				45W
HSU45 - 23	1.5A	15V	2A	1.5A	15V	2A				45W
HSU45 - 24	4A	5V	4A	1A	24V	1A				45W
HSU45 - 25	1A	24V	1A	1A	24V	1A				45W
HSU45 - 30	3A	5V	4A	2A	12V	2A	0.5A	5V	1A	45W
HSU45 - 31	3A	5V	4A	2A	15V	2A	0.5A	15V	1A	45W
HSU45 - 32	3A	5V	4A	2A	12V	2A	0.5A	12V	1A	45W
HSU45 - 33	3A	5V	4A	1A	24V	1A	0.5A	12V	1A	45W
	TYP.	+V1 (1/2)	MAX.	TYP.	+V2 (5)	MAX.	TYP.	V3 (3/4)	MAX.	
HSU50 - 10	10A	+5V	10A							50W
HSU50 - 11	4.2A	+12V	4.5A							50W
HSU50 - 12	3.3A	+15V	3.5A							50W
HSU50 - 13	2.1A	+24V	2.5A							50W
HSU50 - 20	3A	+5V	2.5A	3A	+12V	3A				50W
HSU50 - 21	3A	+12V	5A	1.2A	+12V	1.5A				50W
HSU50 - 22	4A	+5A	3A	2A	+15V	2A				50W
HSU50 - 23	2A	+15V	5A	1.4A	+15V	2A				50W
HSU50 - 24	5A	+5V	3A	1A	+24V	1A				50W
HSU50 - 30	3A	+5V	5A	2.8A	+12V	3A	0.5A	5V	1A	50W
HSU50 - 31	3.5A	+5V	5A	2A	+15V	2A	0.5A	15V	1A	50W
HSU50 - 32	3A	+5V	5A	2.5A	+12V	3A	0.5A	12V	1A	50W
HSU50 - 33	4A	+5V	5A	1A	+24V	1A	0.5A	12V	1A	50W
	TYP.	V1 (1/2/3)	MAX.	TYP.	V2 (2/3/6)	MAX.	TYP.	V3 (3/4)	MAX.	
HSU60 - 10	12A	5V#	12A							60W
HSU60 - 11	5A	12V#	5A							60W
HSU60 - 12	4A	15V#	4A							60W
HSU60 - 13	2.5A	24V#	2.5A							60W
HSU60 - 20	5A	5V	5A	3A	12V	3A				60W
HSU60 - 21	2.5A	12V	2.5A	2.5A	12V	2.5A				60W
HSU60 - 22	4.5A	5V	6A	2.5A	15V	3A				60W
HSU60 - 23	2A	15V	3A	2A	15V	2A				60W
HSU60 - 24	5A	5V	6A	1.5A	24V	2A				60W
HSU60 - 25	1.3A	24V	2A	1.3A	24V	2A				60W
HSU60 - 30	5A	5V	6A	2.5A	12V	3A	1A	5V	1A	60W
HSU60 - 31	4.5A	5V	6A	2A	15V	3A	0.5A	15V	1A	60W
HSU60 - 32	5A	5V	6A	2.5A	12V	3A	0.5A	12V	1A	60W
HSU60 - 33	5A	5V	6A	1.3A	24V	2A	0.5A	12V	1A	60W

NOTES: ()

1. OVP built-in.
 2. Adjustable.
 3. Floating (or isolate) output.
 4. With 3T regulator.
 5. Stack on main output.
 6. With magnetic amplifier.
- # Remote sense.

Fig.2: Power Fail Signal



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MODEL	Output									Power W
	V1			V2			V3			
	TYP.	(1/2/3)	MAX.	TYP.	(2/3/6)	MAX.	TYP.	(3/4)	MAX.	
HSU100 - 10	20A	5V#	20A							100W
HSU100 - 11	8A	12V#	8.5A							100W
HSU100 - 12	7A	15V#	7A							100W
HSU100 - 13	4.2A	24V#	4.3A							100W
HSU100 - 20	8A	5V	10A	5A	12V	6A				100W
HSU100 - 21	4.2A	12V	6A	4.2A	12V	6A				100W
HSU100 - 22	8A	5V	10A	4A	15V	6A				100W
HSU100 - 23	3.4A	15V	5A	3.4A	15V	5A				100W
HSU100 - 24	8A	5V	10A	2.5A	24V	3A				100W
HSU100 - 25	2.1A	24V	3A	2.1A	24V	3A				100W
HSU100 - 30	7A	5V	10A	5A	12V	6A	1A	5V	1A	100W
HSU100 - 31	6A	5V	10A	4A	15V	5A	0.6A	15V	1A	100W
HSU100 - 32	7A	5V	10A	5A	12V	6A	0.5A	12V	1A	100W
HSU100 - 33	7A	5V	10A	2.5A	24V	3A	0.5A	12V	1A	100W

MODEL	Output									Power W
	+V1			+V2			V3			
	TYP.	(1/2)	MAX.	TYP.	(5)	MAX.	TYP.	(3/4)	MAX.	
HSU101 - 10	20A	+5V	20A							100W
HSU101 - 11	8A	+12V	8.5A							100W
HSU101 - 12	7A	+15V	7A							100W
HSU101 - 13	4.2A	+24V	4.3A							100W
HSU101 - 20	8A	+5V	10A	5A	+12V	6A				100W
HSU101 - 21	4.2A	+12V	6A	4.2A	+12V	6A				100W
HSU101 - 22	8A	+5V	10A	4A	+15V	6A				100W
HSU101 - 23	3.4A	+15V	6A	3.4A	+15V	5A				100W
HSU101 - 24	8A	+5V	10A	2.5A	+24V	3A				100W
HSU101 - 25	2.1A	+24V	3A	2.1A	+24V	3A				100W
HSU101 - 30	7A	+5V	10A	5A	+12V	6A	1A	5V	1A	100W
HSU101 - 31	6A	+5V	10A	4A	+15V	5A	0.6A	15V	1A	100W
HSU101 - 32	7A	+5V	10A	5A	+12V	6A	0.5A	12V	1A	100W
HSU101 - 33	7A	+5V	10A	2.5A	+24V	3A	0.5A	12V	1A	100W

Maximum current cannot be drawn from all outputs simultaneously. At no time should the average power (excluding transients) exceed the maximum continuous output Watts. For full load application, typical load currents are recommended. Current ratings stated at 40°C.

NOTES: ()

1. OVP built-in.
 2. Adjustable.
 3. Floating (or isolate) output.
 4. With 3T regulator.
 5. Stack on main output.
 6. With magnetic amplifier.
- # Remote sense.

HSU45/60/100 Pin Assignment

Pin	Single O/P	Dual O/P	Triple O/P
4	+V01	+V01	+V01
6	+V01	-V01	+V01
8	Sense+	+V02	-V01
10	Sense -	-V02	-V01
12	-V01	NC	+V02
14	-V01	NC	-V02
16	NC	NC	+V03
18	NC	NC	-V03
20	Log.Inh.	Log.Inh.	Log.Inh.
22	Power Fail	Power Fail	Power Fail
24	NC	NC	NC
26	NC	NC	NC
28	AC Line	AC Line	AC Line
30	AC Neutral	AC Neutral	AC Neutral
32	Safety Gnd.	Safety Gnd.	Safety Gnd.

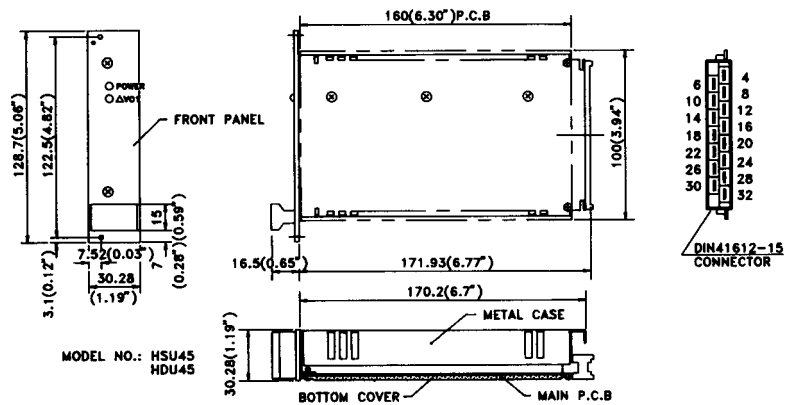
HSU50/101 Pin Assignment

Pin	Single O/P	Dual O/P	Triple O/P
4	+V01	+V01	+V01
6	+V01	DC Comm	+V01
8	Sense+	+V02	DC Comm
10	Sense -	DC Comm	DC Comm
12	DC Comm.	NC	+V02
14	DC Comm	NC	DC Comm
16	NC	NC	+V03
18	NC	NC	-V03
20	Log.Inh.	Log.Inh.	Log.Inh.
22	Power Fail	Power Fail	Power Fail
24	NC	NC	NC
26	NC	NC	NC
28	AC Line	AC Line	AC Line
30	AC Neutral	AC Neutral	AC Neutral
32	Safety Gnd.	Safety Gnd.	Safety Gnd.

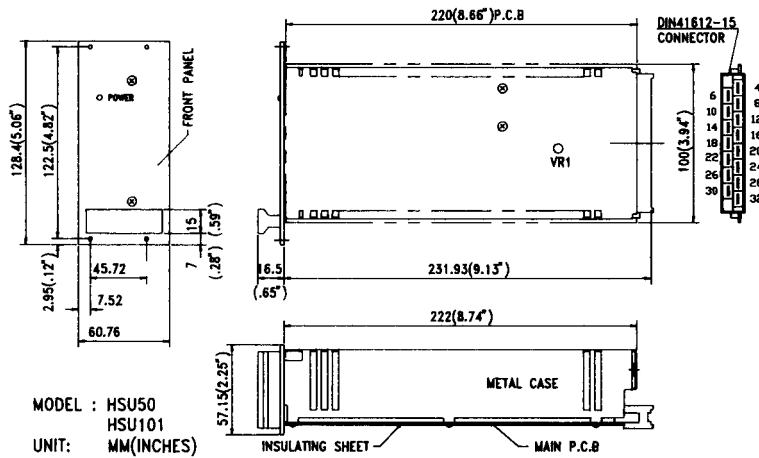
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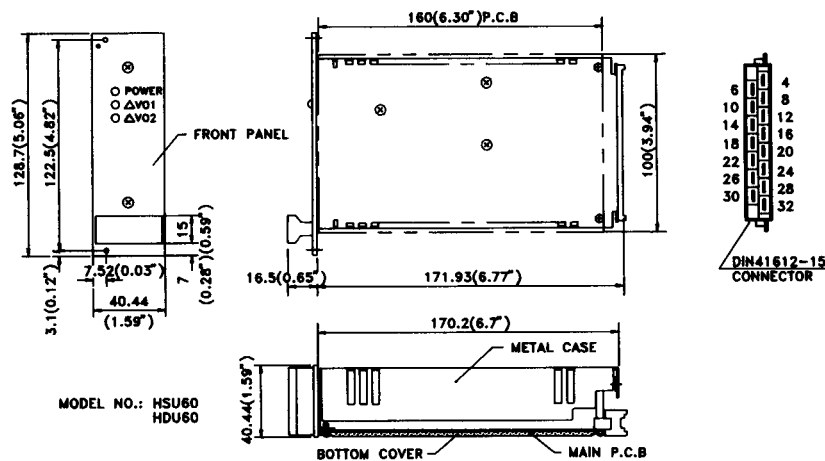
HSU45
Dimensions in mm
(Inches)



HSU50/HSU101
Dimensions in mm
(Inches)



HSU60
Dimensions in mm
(Inches)



HSU100
Dimensions in mm
(Inches)

