

Industrial

IPU130 series

V1.4

The IPU130 series of AC/DC switching mode power supplies provide 130 Watts of continuous output power. All models meet FCC Part-15 class B and CISPR-22 class B emission Limits and are designed to comply with UL/c-UL, Tntertek/GS marking conformity assessment. All units pass burn-in test at full load condition.



130W External Power Supply for Industrial Purpose

FEATURES:

- * Wide Operating Voltage, 90 to 260 VAC, 47 to 63 Hz
- * IEC-320-C14 Input Inlet
- * Single and Dual Output
- * Crowbar Mode Over Voltage Protection
- * Active Power Factor Correction
- * Long Hold Up Times (50ms)
- * Option : Mounting Tab and Desk Top
- * Operating temperature -20~70°C
- * 5 year warranty

APPLICATIONS:

- * Printer
- * Industrial PC
- * Power Tools
- * DC Moto
- * AV Equipment
- * LED Lighting

APPROVALS:



GENERAL SPECIFICATION:

- * **Short Circuit Protection:** Auto Recovery
- * **Cooling:** Free Air Convection
- * **Protection Classes:** Class I
- * **Safety:** UL 60950-1:2nd Edition, CSA C22.2 No.60950-1-07
IEC 60950-1:2005 /A2:2013, EN60950-1:2006 /A2:2013
The IPU130-101~112 is available on CCC mark

Electrical Characteristics:

Symbol	Characteristic	Condition	Min.	Typ.	Max.	Unit
Vins	Safety Approval Input Voltage Range	Safety Approval & Specification in Label	100		240	VAC
Vin	Input Operate Voltage Range	Detail to see Fig.1	90		260	VAC
Fi	Input Frequency	Sine wave	47		63	Hz
PF	Power Factor Correction	Io=Full load, Vin=240VAC	0.95		1	
Po	Output Power Range	See Rating Chart			130	W
Iil	Low Line Input Current	Full Load, Vin=100VAC		3.2		A
Iih	High Line Input Current	Full Load, Vin=240VAC		1.3		A
Irl	Low Line Input Inrush Current	Full Load, 25°C, Cool start, Vin=100VAC			30	A
Irh	High Line Input Inrush Current	Full Load, 25°C, Cool start, Vin=240VAC			72	A
Ik	Safety Ground Leakage Current	Vin=240VAC, Fi=60Hz			0.75	mA
η	Efficiency	Full Load, Vin=230VAC, Detail to see Rating Chart	See Rating Chart			
ΔVoi	Line Regulation	Full Load, Vin=100~120VAC	0.5		1	%
ΔVoL	Load Regulation	Vin=230VAC, 10~90% Load Change at Condition	3		10	%
OVP	Over Voltage Protection	Over Voltage Protection	112		132	%
OLP	Over Load Protection	Recovers automatically after fault condition is removed	110		150	%
ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=110VAC			4	ms
thu	Hold-Up Time	Full Load, Vin=100VAC	See Rating Chart			
ts	Start-up time	Full Load, Vin=100~240VAC			3	s
Tc	Temperature Coefficient	Full load, Vin=100~240VAC			±0.04	%/°C
HV	Dielectric Withstanding Voltage (P-S)	Primary to Secondary			4242	VDC
Vpg	Dielectric Withstanding Voltage (P-G)	Primary to PE			2121	VDC
EMI	EMC Emission	Compliance to EN55032 (CISPR32)			B	Class

Environmental:

Symbol	Characteristic	Condition	Min.	Typ.	Max.	Unit
To	Operating Temperature	Detail to see Fig.2 (Derate linearly from 100% load at 25°C to 50% load at 70°C)	-20		70	°C
Ts	Storage Temperature	10 ~ 95% RH	-40		85	°C
Ho	Operating Humidity	non-condensing	0		95%	RH
Hs	Storage Humidity		0		95%	RH
ESDa	Electro Static Discharge	Air Discharge, IEC61000-4-2			8	kV
ESDc	Electro Static Discharge	Contact Discharge, IEC61000-4-2			4	kV
MTBF	Mean Time Between Failure	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	100k			h
ELEV	Operating Altitude (Elevation)	All condition			2000	m
VBR	Vibration	10 ~ 500Hz, 10min./1cycle, 60min. each along X, Y, Z axes			5	G
Vsl	Surge Voltage	Line-Neutral			1	kV
Vsg	Surge Voltage	Line-PE & Neutral-PE			2	kV

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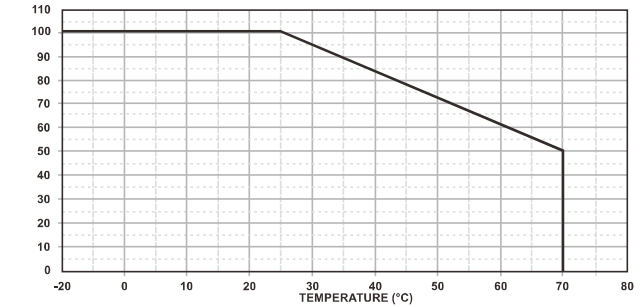
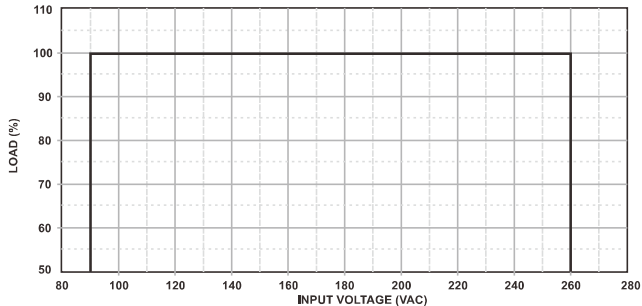
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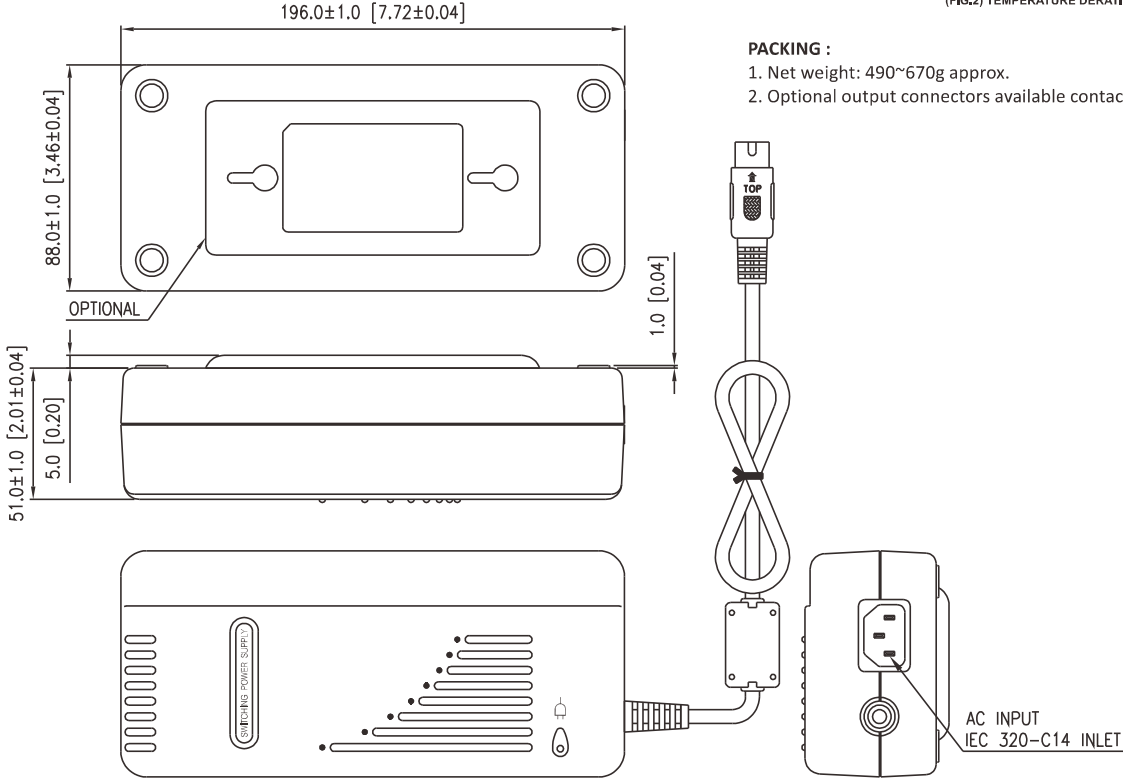
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SPECIFICATION NOTE :

1. Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
4. Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load.
5. The ripple is measured from peak to peak with a bandwidth-limit of 20MHz (Measured at the output connector with a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor).
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load, and nominal line.



MECHANICAL DIMENSIONS: (UNIT: mm [inch])



PACKING :

1. Net weight: 490~670g approx.
2. Optional output connectors available contact sales for details.

Rating Chart: (Single Output)

MODEL NO.	Setting Voltage Range (Factory setting, can't be adjusted)		Output Current (Based on the output volt.)		Maximum Output Power (W)	Ripple & Noise (mVp-p)	Total Regulation (%)	Typ. Efficiency (%)	Typ. No Load Consumption (W)	Hold-Up Time (ms)	Protection Mode
	min	max	min	max							
	(VDC)	(VDC)	(A)	(A)							
*IPU130-101	3.0	5.0	18.00	30.00	90	66	±10	60	7.0	50	Hiccup
IPU130-102	5.0	6.0	19.16	23.00	115	60	±7	65	7.5	50	Hiccup
*IPU130-103	6.0	8.0	16.25	21.60	130	80	±7	70	7.0	50	Hiccup
*IPU130-104	8.0	11.0	11.80	16.25	130	110	±5	80	7.5	50	Hiccup
*IPU130-105	11.0	13.0	10.00	11.80	130	130	±5	80	7.5	50	Hiccup
*IPU130-106	13.0	16.0	8.12	10.00	130	160	±5	80	7.0	50	Hiccup
IPU130-107	16.0	21.0	6.19	8.12	130	200	±5	80	7.5	50	Hiccup
IPU130-108	21.0	27.0	4.81	6.19	130	200	±5	80	7.5	50	Hiccup
*IPU130-109	27.0	33.0	3.93	4.81	130	250	±5	80	7.5	50	Hiccup
*IPU130-110	33.0	40.0	3.25	3.93	130	250	±3	80	9.0	50	Hiccup
*IPU130-111	40.0	50.0	2.60	3.25	130	300	±3	80	8.2	50	Hiccup
*IPU130-112	50.0	55.0	2.36	2.60	130	300	±3	80	8.5	50	Hiccup

[*] =MOQ is required. Please contact sales.

Rating Chart: (Multi Output)

MODEL NO.	Setting Voltage Range (Factory setting, can't be adjusted)	Output Current (Based on the output volt.)		Maximum Output Power (W)	Ripple & Noise (mVp-p)	Total Regulation (%)	Typ. Efficiency (%)	Typ. No Load Consumption (W)	Hold-Up Time (ms)	Protection Mode
		min (A)	max (A)							
*IPU130-200	+3.3	4.0	20.0	90	66	±7	70	8.5	50	Hiccup
	+12.0	0.0	2.0		120	±5				
IPU130-201	+5.0	4.0	20.0	120	50	±7	70	8.5	50	Hiccup
	+12.0	0.0	2.0		120	±5				
*IPU130-201-1	+5.0	2.0	10.0	110	50	±5	70	7.5	50	Hiccup
	+12.0	1.0	5.0		120	±10				
*IPU130-202	+5.0	4.0	20.0	120	50	±7	70	7.5	50	Hiccup
	+15.0	0.0	2.0		150	±5				
*IPU130-203	+5.0	4.0	20.0	120	100	±7	70	7.5	50	Hiccup
	+24.0	0.2	2.0		240	±5				

[*]=MOQ is required. Please contact sales.