RSG ELECTRONIC COMPONENTS

RSG Electronic Components GmbH ▪ Sprendlinger Landstr. 115 ▪ D-63069 Offenbach/Germany
Tel. +49 69 984047-0 ▪ Fax +49 69 984047-77 ▪ info@rsg-electronic.de ▪ **www.rsg-electronic.de**
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65 WATT SWITCHING POWER SUPPLIES

DESCRIPTION

PU66 SERIES CE (LVD)

The PU66 series of compact, open PCB constructed, AC–DC switching power supplies are capable of delivering 50 to 65 watts of continuous power. They operate at 90 to 264 VAC input voltage without the need of voltage selection. They are ideally suited for use in data networking, computing and telecommunication applications.



FEATURES

- EN61000–3–2 class A compliant
- 3″×5″ PCB and 1.2″ height for 1u applications
- 65W output with free air convection cooling
- Wide input range 90 to 264 VAC
- Overvoltage protection
- Overcurrent protection

Safety Standard Approvals:

UL 60950
File No. E137410

CSA–C22.2 No. 60950
Certificate No. 157810

EN 60950
Certificate No. R50014720

INPUT SPECIFICATIONS

Input voltage:	90 to 264 VAC
Input frequency:	47 to 63 Hz
Input current:	1.60A (rms) for 115VAC 1.00A (rms) for 230VAC
Leakage current:	0.47mA max.@ 115VAC, 60Hz 0.85mA max.@ 230VAC, 50Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart
Total output power:	65 watts maximum
Ripple and noise:	1% peak to peak max.(VO≧5V) 1.5% peak to peak max.(VO=3.3V)
Overvoltage protection:	Provided on output #1 only, (Vo have 3.3V provided on output #2); set at 112–132% of its nominal output voltage
Overcurrent protection:	All outputs protected to short circuit conditions
Temperature coefficient:	All outputs +/–0.04%/°C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0°C to +70°C
Storage temperature:	–40°C to +85°C
Relative humidity:	5% to 95% non–condensing
Derating:	Derate from 100% at +50°C linearly to 50% at +70°C

GENERAL SPECIFICATIONS

Switching frequency:	42KHz +/–5KHz
Efficiency:	75% typical
Hold–up time:	10 msec minimum at 110VAC
Line regulation:	+/–0.5% maximum at full load
Inrush current:	17 amps @ 115VAC, or 34 amps @ 230VAC, at 25 °C and cold start
Withstand voltage:	3000VAC from input to output 1500VAC from input to ground 500VAC from output to ground
MTBF:	400,000 hours minimum at full load at 25 °C ambient, calculated per MIL–HDBK–217F

EMC PERFORMANCE

EN55022	Class B, conducted and radiated
FCC Part 15	Class B, conducted and radiated
VCCI	Class B, conducted and radiated
EN61000–3–2	Harmonic distortion, Class A
EN61000–3–3	Line flicker
EN61000–4–2	ESD, +/– 8KV air and +/– 4KV contact
EN61000–4–3	Radiated immunity, 3V/m
EN61000–4–4	Fast transient/burst, +/– 1KV
EN61000–4–5	Surge, +/– 1KV diff., +/– 2KV com.
EN61000–4–6	Conducted immunity, 3Vrms
EN61000–4–8	Magnetic field immunity, 1A/m
EN61000–4–11	Voltage dips, 30% reduction for 500ms and >95% reduction for 10ms

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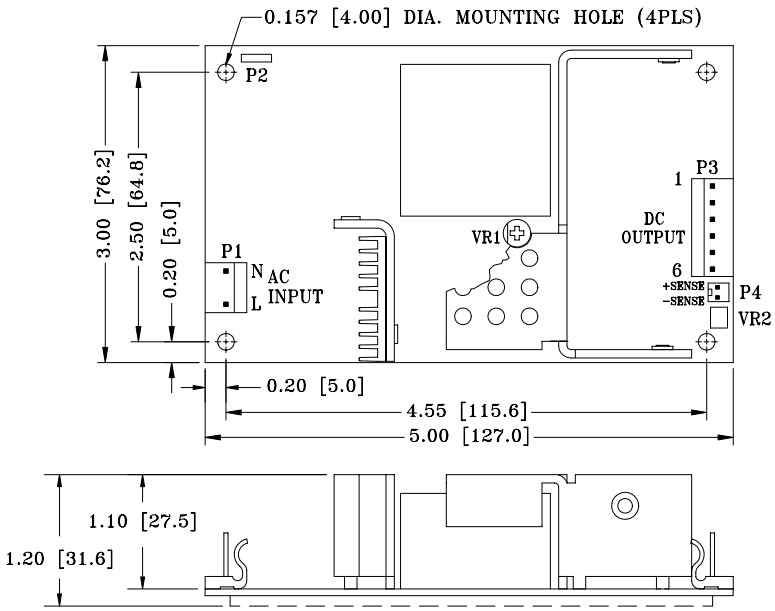
UNIVERSAL INPUT — PU66 SERIES

OUTPUT VOLTAGE/CURRENT RATING CHART

(1)(2) Model	Output #1 Vnom.	Imin.	Imax.	Tol.	Output #2 Vnom.	Imin.	Imax.	Tol.	Output #3 Vnom.	Imin.	Imax.	Tol.	Maximum Output Power
PU66-10A	5.1V	0A	10A	3%	(N/A)				(N/A)				51W
PU66-12A	12V	0A	5.5A	2%	(N/A)				(N/A)				65W
PU66-13A	15V	0A	4.4A	2%	(N/A)				(N/A)				65W
PU66-14A	24V	0A	2.8A	2%	(N/A)				(N/A)				65W
PU66-15A	28V	0A	2.4A	2%	(N/A)				(N/A)				65W
PU66-18A	48V	0A	1.4A	2%	(N/A)				(N/A)				65W
PU66-23A	+5.1V	1A	6A	3%	+12V	0.5A	3A	5%	(N/A)				65W
PU66-23-3A	+3.3V	1A	6A	3%	+5.1V	0.5A	5A	4%	(N/A)				45W
PU66-25A	+5.1V	1A	6A	3%	+24V	0.3A	2A	5%	(N/A)				65W
PU66-30A	+5.1V	1A	6A	3%	+12V	0.5A	3A	5%	−5V	0.1A	0.5A	5%	65W
PU66-31A	+5.1V	1A	6A	3%	+12V	0.4A	3A	5%	−12V	0.1A	0.5A	5%	65W
PU66-31-1A	+5.1V	1A	6A	3%	+12V	0.4A	3A	5%	+12V	0.1A	0.5A	5%	65W
PU66-31-3A	+3.3V	1A	6A	3%	+5.1V	0.5A	4A	4%	+12V	0.1A	1A	5%	52W
PU66-32A	+5.1V	1A	6A	3%	+15V	0.4A	3A	5%	−15V	0.1A	0.5A	5%	65W
PU66-39A	+5.1V	1A	6A	3%	+24V	0.3A	2A	5%	−12V	0.1A	0.5A	5%	65W

Notes: (1) All multiple output models may be operated at no-load without damage. At no-load, output voltage tolerance increases to 10%.
(2) Ripple and noise: Peak-to-peak with 20MHz bandwidth and 10uF tantalum capacitor in parallel with a 0.1uF ceramic capacitor at rated line voltage and load ranges.

MECHANICAL SPECIFICATIONS



NOTES:
1. Dimensions shown in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal.
5. P4 is on single output models only. It mates with Molex housing 22-01-1023 and Molex 40445 series crimp terminal.
6. Weight: 330 grams (PCB format).
7. VR1 is for voltage adjustment of output #1, except models PU66-23-3A and PU66-31-3A. On models PU66-23-3A and PU66-31-3A, VR1 is for voltage adjustment of output #2, and and VR2 for output #1.

PIN CHART

CONN / PIN / MODEL	P1		P2	P3						P4	
	1	2	1	1	2	3	4	5	6	1	2
PU66-10A PU66-12A PU66-13A PU66-14A PU66-15A PU66-18A	AC LIVE	AC NEUTRAL	AC GROUND	OUTPUT # 1	OUTPUT # 1	OUTPUT # 1	RETURN	RETURN	RETURN	+SENSE	-SENSE
PU66-23A PU66-23-3A PU66-25A	AC LIVE	AC NEUTRAL	AC GROUND	OUTPUT # 2	OUTPUT # 1	OUTPUT # 1	COM. RET	COM. RET	N.C.		
PU66-30A PU66-31A PU66-31-1A PU66-31-3A PU66-32A PU66-39A	AC LIVE	AC NEUTRAL	AC GROUND	OUTPUT # 2	OUTPUT # 1	OUTPUT # 1	COM. RET	COM. RET	OUTPUT # 3		