

65W Desktop Switching Power Supplies

SPU65 series



6.61" x 3.06" x 1.77"

- Universal 90-264VAC Input
- IEC-320-C14 Input Receptacle
- Single, Dual, Triple and Quad Outputs
- 3000V Isolation
- Efficiency Level V and VI



Model Number	Output VDC	Output Amps	Min. Load	Total Regulation	Output Power Max.	No-Load Input Power Max.	Efficiency Level VI?	Output Connector
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SINGLE OUTPUT

SPU65-101(S)	3.3	15.15	0A	7%	50W	3W	No	8 Pin DIN
SPU65-102(S)	5	13	0A	7%	65W	3W	Yes	8 Pin DIN
SPU65-103(S)	6	11.6	0A	5%	69.6W	3W	Yes	5 Pin DIN
SPU65-104(S)	10	7.5	0A	5%	75W	3W	Yes	5 Pin DIN
SPU65-105(S)	12	6.66	0A	5%	80W	0.5W	Yes	5 Pin DIN
SPU65-106(S)	15	5.33	0A	5%	80W	0.5W	Yes	5 Pin DIN
SPU65-107(S)	18	4.44	0A	5%	80W	0.5W	Yes	2.1mm Coax
SPU65-108(S)	24	3.33	0A	5%	80W	0.5W	Yes	2.1mm Coax
SPU65-109(S)	30	2.66	0A	3%	80W	0.5W	Yes	2.1mm Coax
SPU65-110(S)	36	2.22	0A	3%	80W	0.5W	Yes	2.1mm Coax
SPU65-111(S)	48	1.66	0A	3%	80W	0.5W	Yes	2.1mm Coax

Note: "(S)" Denotes that there is an ON/OFF Switch option available for the SPU65 family of products. To order an SPU65 product with the optional ON/OFF Switch, simply add an "S" to the end of the standard Part Number. For example SPU65-101S.

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Model Number	Output VDC	Output Amps	Min. Load	Total Regulation	Output Power Max.	No-Load Input Power Max.	Efficiency Level VI?	Output Connector
DUAL OUTPUT								
SPU65-200(S)	3.3/12	7/2.75	0.7/0.55A	7/5%	56.1W	3W	Yes	8 Pin DIN
SPU65-201(S)	5/12	7/3	0.7/0.6A	5/5%	65W	3W	Yes	5 Pin DIN
SPU65-202(S)	5/15	7/3	1.4/0.6A	5/5%	65W	3W	Yes	5 Pin DIN
SPU65-203(S)	5/24	7/2	1.4/0.3A	5/5%	65W	3W	Yes	5 Pin DIN
SPU65-204(S)	3.3/5	7/3	1.4/0.6A	7/5%	38.1W	3W	Yes	5 Pin DIN
SPU65-215(S)	5/-24	7/2	1.4/0.4A	5/5%	65W	3W	Yes	5 Pin DIN
TRIPLE OUTPUT								
SPU65-300(S)	3.3/12/-12	7/3/0.8	1.4/0.6/0.8A	7/5/5%	65W	3W	Yes	8 Pin DIN
SPU65-301(S)	5/12/-5	6/3/0.8	0.6/0.3/0.8A	5/5/5%	65W	3W	Yes	5 Pin DIN
SPU65-302(S)	5/12/-12	6/3/0.8	0.6/0.3/0.8A	5/5/5%	65W	3W	Yes	5 Pin DIN
SPU65-303(S)	5/15/-15	6/3/0.8	0.6/0.3/0.8A	5/5/5%	65W	3W	Yes	5 Pin DIN
SPU65-304(S)	5/24/-24	7/2/0.8	0.7/0.2/0.8A	5/5/5%	65W	3W	Yes	5 Pin DIN
SPU65-305(S)	5/24/-12	6/2/0.8	0.6/0.2/0.8A	5/5/5%	65W	3W	Yes	5 Pin DIN
SPU65-306(S)	3.3/12/-5	7/3/0.8	0.7/0.6/0.8A	7/5/5%	63.1W	3W	Yes	5 Pin DIN
QUAD OUTPUT								
SPU65-403(S)	5/24/12/-12	3.5/1.5/0.25/0.15	0.6/0.1/0/0A	5/5/5/5%	65W	3W	No	8 Pin DIN

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INPUT SPECIFICATIONS

Input Voltage Range	100-240 VAC (Nom., Safety)
	90-264 VAC (Universal)
Frequency Range	47-63 Hz
Input Current	Low Line (FL, 115VAC): 1.9A
	High Line (FL, 230VAC): 1.9A
Inrush Current, typ (Cold Start, max.)	Low Line (FL, 115VAC): 30A
	High Line (FL, 230VAC): 65A
Leakage Current	0.75mA max. @ 240 VAC, FL
No Load Power Consumption (230Vin)	See Selection Charts

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Charts
Output Power Range	0 to FL Rating
Load Regulation (230Vin)	+/- 3~7%
Line Regulation	+/- 0.5~1% FL
Transient Response	100Vin, FL to 1/2L: 4mS max.
Temperature Coefficient	+/-0.04%/°C, typ
Ripple/Noise (FL, 90Vin)	1% Pk-Pk, max.
Over Voltage Protection	112-132% *, crowbar mode
Over Current Protection	110-150% *
Start Up / Hold Up Time (100Vin, FL)	2S max. / 12mS min.

GENERAL SPECIFICATIONS

Input-Out Isolation	4242 VDC
Input-Ground Isolation	2414VAC
Isolation Resistance (500V Test)	50 MΩ
Efficiency (FL, 230Vin)	87~90%, typ
Switching Frequency	58 KHz
Safety	UL/cUL: UL60950-1:2nd Ed.

PHYSICAL SPECIFICATIONS

Size	6.6" x 3.0" x 1.77"
Construction	Desktop Style
Weight	26.4oz (750g)

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	See Derate Curves
Storage Temperature	-40 to +85°C *
Operating/Storage Humidity	0% to 95% * Non-cond.
EMC	110Vin: FCC Part 15 Class B
	220Vin: CISPR-22 Class B
MTBF (MIL-HDBK-217F, 25°C)	100,000 Hrs min.
Efficiency Level	See Selection Charts

NOTES

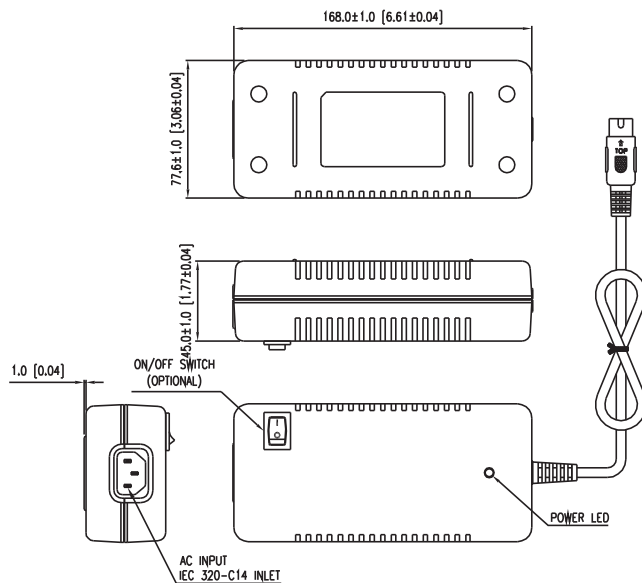
1. All specifications are typical at nominal input, full load, and 25DegC unless otherwise noted
2. Low cost 3 Wire IEC320/C13 (Part Number ACCRD-C13) Input Power Cords are available for these products. Inquire to the Astrodyne Sales Depart.
3. * These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

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MECHANICAL DIMENSIONS

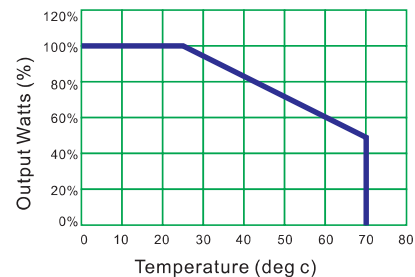
SPU65-101~106 are required to use AWG#16X5C/4FT output cable
 SPU65-107 is required to use AWG#18X2C/4FT output cable
 SPU65-108~109 are required to use AWG#18X2C/6FT output cable
 SPU65-110~111 are required to use AWG#20X2C/6FT output cable
 SPU65-2xx,3xx are required to use AWG#16X5C/4FT+core output cable
 SPU65-200,204,300,306 are required to use AWG#16X5C/4FT+core output cable

Mechanical Specifications:



Note:
 1. Dimensions are shown in mm.
 2. Weight: 450-700gs approx.

Derating Curve: (without Level V)



- Operating Temperature: 0 to 70°C
- Derate linearly from 100% load at 25°C to 50% load at 70°C

Coaxial Plug:

5.5mm outer diameter
 2.1mm inner diameter, female
 11mm length, center "+"

-Vout —  +Vout

DIN Connector

8 Pin DIN



Single Output

1. COM
 2. COM
 3. Vout
 4. COM
 5. Vout
 6. COM
 7. Vout
 8. Vout
 Shell = GND

Dual Output

1. COM
 2. Vout2
 3. Vout1
 4. Vout2
 5. Vout1
 6. COM
 7. Vout1
 8. COM
 Shell = GND

Triple Output

1. Vout1
 2. COM
 3. Vout3
 4. Vout1
 5. Vout2
 6. Vout1
 7. COM
 8. COM
 Shell = GND

Quad Output

1. COM
 2. Vout4
 3. Vout1
 4. Vout2
 5. Vout3
 6. COM
 7. Vout1
 8. N/C
 Shell = GND

5 Pin DIN



1. COM
 2. COM
 3. Vout
 4. COM
 5. Vout
 Shell = GND

1. COM
 2. COM
 3. Output #1
 4. No Connection
 5. Output #2
 Shell = GND

1. COM
 2. COM
 3. Output #1
 4. Output #3
 5. Output #2
 Shell = GND