



Size:  
5.00 x 3.21 x 1.38 inches  
127.0 x 81.6 x 35.1 mm

Weight:  
15oz (425g)

**FEATURES**

- Class I
- Single to Quad Outputs
- RoHS Compliant
- Internal EMI Filter
- Up to 63 Watts Output Power
- Power Fail Detect (Optional)
- Over Voltage and Over Current Protection
- Wide Input Voltage Range: 81~280VAC (90~420VDC)
- -20°C to +70°C Operating Temperature Range
- 2-Pin Screw Terminal Input Connector
- 3-Pin Screw Terminal Input Connector Available (See PSIUU60 Series)
- UL/cUL (UL 60950-1: 2nd Edition) & TUV/GS (EN 60950-1: 2nd Edition) Safety Approvals
- 100% Burn-in Tested

**DESCRIPTION**

The PSIUU61 series of Class I AC/DC switching mode power supplies provides up to 63 Watts of continuous output power in a 5.00" x 3.21" x 1.38" U-chassis package. This series has single, dual, triple, and quad output models with a wide input voltage range of 81~280VAC (90~420VDC). These power supplies have an internal EMI filter and are protected against over voltage and over current conditions. This series also has UL/cUL (UL 60950-1: 2nd edition) and TUV/GS (EN 60950-1: 2nd edition) safety approvals. These units are well suited for use in industrial equipment as well as many other applications. All models are 100% burn-in tested.

**TECHNICAL SPECIFICATIONS: PSIUU61 SERIES**

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage	Universal Input Voltage Range	90		264	VAC
		106		250	VDC
	Operating Input Voltage Range	81		280	VAC
		90		420	VDC
Input Frequency		47		63	Hz
Input Current	Vin = 100VAC or 160VDC, Io = full load		1.6		A
	Vin = 240VAC or 325VDC, Io = full load		0.8		
Inrush Current	Vin = 115VAC or 160VDC, Io = full load, 25°C, cold start			35	A
	Vin = 230VAC or 325VDC, Io = full load, 25°C, cold start			70	
No Load Power Consumption	Vin = 230VAC, Io = no load			2	W
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage		See Table			
Line Regulation	LL to HL, full load	0.5		1	%
Load Regulation	Vin = 230VAC or 325VDC	5		6	%
Output Power		See Table			
Output Current		See Table			
Ripple & Noise (peak to peak)	Vin = 85VAC or 100VDC, Io = full load	Outputs under 3.3VDC		2	%
		Others		1	
Hold-up Time	Vin = 110VAC or 160VDC, Io = full load	16			ms
Start-up Time	Vin = 100VAC or 140VDC, Io = full load			2	s
Transient Response Time	Vin = 100VAC or 140VDC, Io = Full load to half load			5	ms
Temperature Coefficient	0~50°C	-0.05		+0.05	%/°C
<b>PROTECTION</b>					
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
<b>GENERAL SPECIFICATIONS</b>					
Efficiency	Vin = 230VAC or 325VDC, Io = full load	70		88	%
Dielectric Withstanding Voltage	Primary to Secondary	4242			VDC
	Primary to PE	2414			
Isolation Resistance	Test Voltage = 500VDC	50			MΩ
Leakage Current	Vin = 240VAC/60Hz			0.45	mA
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature	Derating linearly from 100% Load at 50°C to 50% load at 70°C	-20		+70	°C
Storage Temperature		-40		+85	°C
Operating Humidity		0		95	%
Storage Humidity		0		95	%
Cooling		Free air convection			
MTBF	MIL-HDBK-217F, 25°C	100,000			hours
<b>PHYSICAL SPECIFICATIONS</b>					
Weight		15oz (425g)			
Dimensions (L x W x H)		5.00 x 3.21 x 1.38 inches (127.0 x 81.6 x 35.1 mm)			
Input Connector		Mates with screw terminal DINKLE#ESK750V-02P (10-24AWG)			
Output Connector		Mates with screw terminal DINKLE#ESK750V-05P (10-24AWG)			
<b>SAFETY</b>					
Safety Approvals		UL/cUL (UL 60950-1: 2nd edition); TUV/GS (EN 60950-1: 2nd edition)			

**MODEL SELECTION TABLE**

**SINGLE OUTPUT MODELS**

Model Number	Input Voltage Range	Output Voltage	Output Current	Total Regulation	Output Power
PSIUU61-101	81 ~ 280 VAC (90 ~ 420VDC)	3 ~ 5 VDC	16.66 ~ 10.00 A	5%	50W
PSIUU61-102		5 ~ 6 VDC	11.00 ~ 9.16 A	5%	55W
PSIUU61-103		6 ~ 8 VDC	10.00 ~ 7.50 A	5%	60W
PSIUU61-104		8 ~ 11 VDC	7.87 ~ 5.72 A	3%	63W
PSIUU61-105		11 ~ 13 VDC	5.72 ~ 4.84 A	3%	63W
PSIUU61-105-1		11 ~ 13 VDC	4.09 ~ 3.46 A	3%	45W
PSIUU61-106		13 ~ 16 VDC	4.84 ~ 3.93 A	3%	63W
PSIUU61-107		16 ~ 21 VDC	3.93 ~ 3.00 A	3%	63W
PSIUU61-108		21 ~ 27 VDC	3.00 ~ 2.33 A	2%	63W
PSIUU61-109		27 ~ 33 VDC	2.33 ~ 1.90 A	2%	63W
PSIUU61-110		33 ~ 40 VDC	1.90 ~ 1.57 A	2%	63W
PSIUU61-111	40 ~ 48 VDC	1.57 ~ 1.31 A	2%	63W	

**DUAL OUTPUT MODELS**

Model Number	Output #1				Output #2				Output Power
	Vo (nom)	Io (min)	Io (max)	Reg (max)	Vo (nom)	Io (min)	Io (max)	Reg (max)	
PSIUU61-200	+3.3 VDC	1.4A	7A	6%	+12 VDC	0.6A	3A	5%	59.1W
PSIUU61-201	+5 VDC	0.7A	7A	5%	+12 VDC	0.3A	3A	5%	63W
PSIUU61-202	+5 VDC	0.7A	7A	5%	+15 VDC	0.3A	3A	5%	63W
PSIUU61-203	+5 VDC	0.7A	7A	5%	+24 VDC	0.4A	2A	5%	63W
PSIUU61-204	+3.3 VDC	1.4A	7A	6%	+5 VDC	0.5A	5A	5%	48.1W
PSIUU61-215	+5 VDC	1.4A	7A	5%	-24 VDC	0.2A	2A	5%	63W

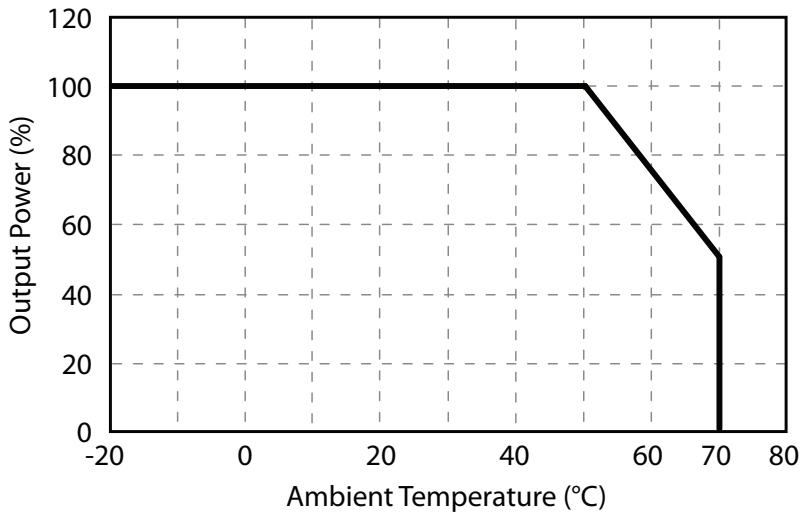
**TRIPLE OUTPUT MODELS**

Model Number	Output #1				Output #2				Output #3				Output Power
	Vo(nom)	Io(min)	Io(max)	Reg(max)	Vo(nom)	Io(min)	Io(max)	Reg(max)	Vo(nom)	Io(min)	Io(max)	Reg(max)	
PSIUU61-300	+3.3 VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	63W
PSIUU61-300-1	+3.3 VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	63W
PSIUU61-301	+5 VDC	0.6A	6A	5%	+12 VDC	0.3A	3A	5%	-5 VDC	0A	0.8A	5%	63W
PSIUU61-301-1	+5 VDC	0.6A	6A	5%	+12 VDC	0.3A	3A	5%	+5 VDC	0A	0.8A	5%	63W
PSIUU61-302	+5 VDC	0.6A	6A	5%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	63W
PSIUU61-302-1	+5 VDC	0.6A	6A	5%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	63W
PSIUU61-303	+5 VDC	0.6A	6A	5%	+15 VDC	0.3A	3A	5%	-15 VDC	0A	0.8A	5%	63W
PSIUU61-303-1	+5 VDC	0.6A	6A	5%	+15 VDC	0.3A	3A	5%	+15 VDC	0A	0.8A	5%	63W
PSIUU61-305	+5 VDC	1.2A	6A	5%	+24 VDC	0.4A	2A	5%	-12 VDC	0A	0.8A	5%	63W
PSIUU61-305-1	+5 VDC	1.2A	6A	5%	+24 VDC	0.4A	2A	5%	+12 VDC	0A	0.8A	5%	63W
PSIUU61-306	+3.3 VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	-5 VDC	0A	0.8A	5%	59.8W
PSIUU61-306-1	+3.3 VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	+5 VDC	0A	0.8A	5%	59.8W
PSIUU61-308	+3.3 VDC	0.5A	5A	6%	+5 VDC	0.5A	5A	5%	-12 VDC	0A	1A	5%	53.5W
PSIUU61-308-1	+3.3 VDC	0.5A	5A	6%	+5 VDC	0.5A	5A	5%	+12 VDC	0A	1A	5%	53.5W

**QUAD OUTPUT MODELS**

Model Number	Output #1				Output #2				Output #3				Output #4				Output Power
	Vo(nom)	Io(min)	Io(max)	Reg(max)	Vo(nom)	Io(min)	Io(max)	Reg(max)	Vo(nom)	Io(min)	Io(max)	Reg(max)	Vo(nom)	Io(min)	Io(max)	Reg(max)	
PSIUU61-400	+3.3VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	-5 VDC	0A	0.8A	5%	63W
PSIUU61-400-1	+3.3VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	+5 VDC	0A	0.8A	5%	63W
PSIUU61-400-2	+3.3VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	-5 VDC	0A	0.8A	5%	63W
PSIUU61-400-3	+3.3VDC	1.2A	6A	6%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	+5 VDC	0A	0.8A	5%	63W
PSIUU61-401	+5 VDC	0.6A	6A	5%	+12 VDC	0.3A	3A	5%	-12 VDC	0A	0.8A	5%	-5 VDC	0A	0.8A	5%	63W
PSIUU61-401-1	+5 VDC	0.6A	6A	5%	+12 VDC	0.3A	3A	5%	-12 VDC	0A	0.8A	5%	+5 VDC	0A	0.8A	5%	63W
PSIUU61-401-2	+5 VDC	0.6A	6A	5%	+12 VDC	0.3A	3A	5%	+12 VDC	0A	0.8A	5%	-5 VDC	0A	0.8A	5%	63W
PSIUU61-401-3	+5 VDC	0.6A	6A	5%	+12 VDC	0.3A	3A	5%	+12 VDC	0A	0.8A	5%	+5 VDC	0A	0.8A	5%	63W
PSIUU61-402	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	-12 VDC	0A	0.8A	5%	63W
PSIUU61-402-1	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	+12 VDC	0A	0.8A	5%	63W
PSIUU61-402-2	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	-12 VDC	0A	0.8A	5%	63W
PSIUU61-402-3	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	+12 VDC	0A	0.8A	5%	63W
PSIUU61-403	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	-24VDC	0A	0.8A	5%	63W
PSIUU61-403-1	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	-12 VDC	0A	0.8A	5%	+24VDC	0A	0.8A	5%	63W
PSIUU61-403-2	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	-24 VDC	0A	0.8A	5%	63W
PSIUU61-403-3	+5 VDC	1.2A	6A	5%	+12 VDC	0.6A	3A	5%	+12 VDC	0A	0.8A	5%	+24VDC	0A	0.8A	5%	63W
PSIUU61-404	+5 VDC	0.6A	6A	5%	+15 VDC	0.3A	3A	5%	-15 VDC	0A	0.8A	5%	-5 VDC	0A	0.8A	5%	63W
PSIUU61-404-1	+5 VDC	0.6A	6A	5%	+15 VDC	0.3A	3A	5%	-15 VDC	0A	0.8A	5%	+5 VDC	0A	0.8A	5%	63W
PSIUU61-404-2	+5 VDC	0.6A	6A	5%	+15 VDC	0.3A	3A	5%	+15 VDC	0A	0.8A	5%	-5 VDC	0A	0.8A	5%	63W
PSIUU61-404-3	+5 VDC	0.6A	6A	5%	+15 VDC	0.3A	3A	5%	+15 VDC	0A	0.8A	5%	+5 VDC	0A	0.8A	5%	63W

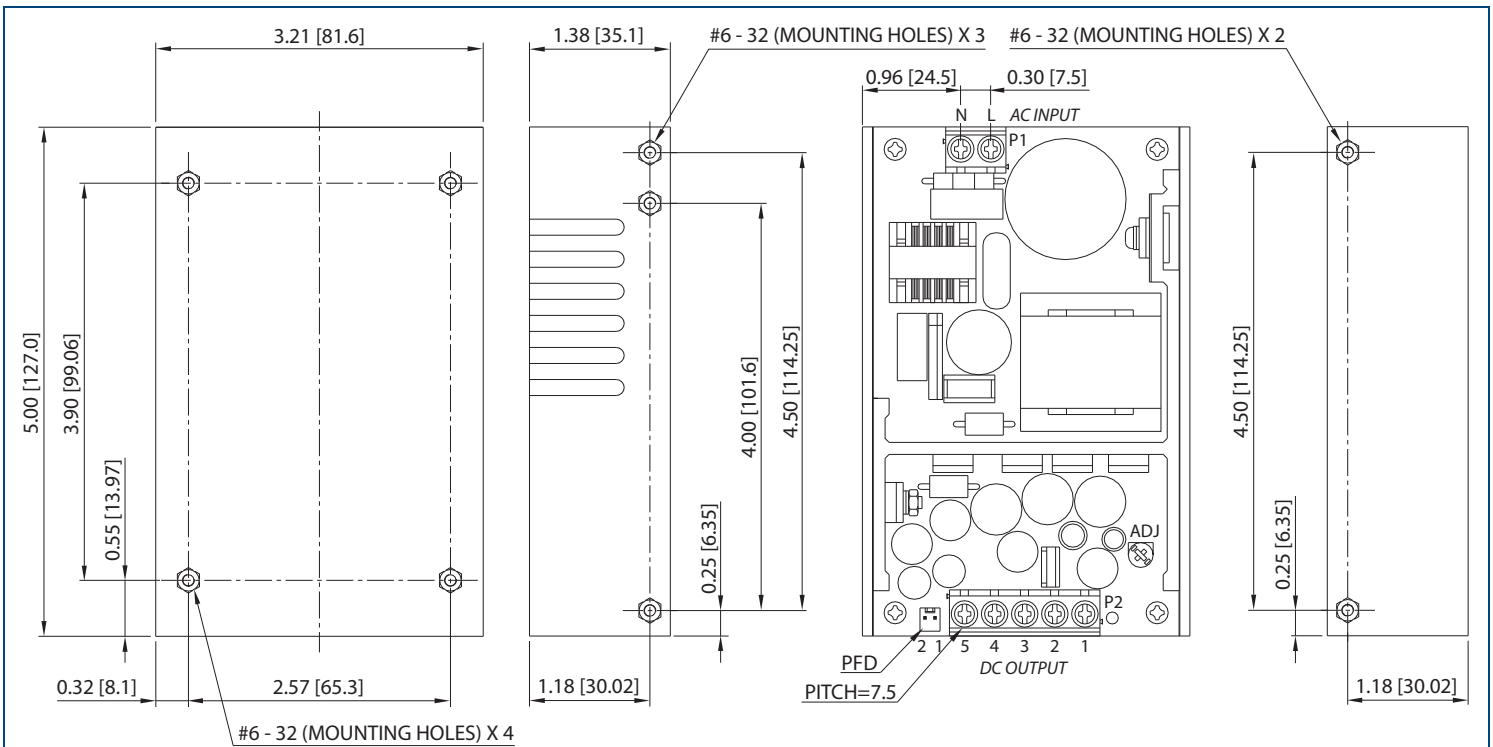
DERATING



Notes

1. Operating Temperature: -20°C to + 70°C
2. Derating linearly from 100% load at 50°C to 50% load at 70°C

MECHANICAL DRAWING



PIN CONNECTIONS					
MODEL \ PIN	1	2	3	4	5
PSIUU61-1XX	OUT	OUT	RTN	RTN	RTN
PSIUU61-2XX	Vo <sub>2</sub>	Vo <sub>1</sub>	COM	N/C	N/C
PSIUU61-215	N/C	Vo <sub>1</sub>	COM	Vo <sub>2</sub>	N/C
PSIUU61-3XX	Vo <sub>2</sub>	Vo <sub>1</sub>	COM	Vo <sub>3</sub>	N/C
PSIUU61-4XX	Vo <sub>2</sub>	Vo <sub>1</sub>	COM	Vo <sub>3</sub>	Vo <sub>4</sub>

PFD (Optional)	
1	2
OUT	RTN
OUT	RTN
OUT	RTN
OUT	RTN
OUT	RTN

NOTES

1. Unit: Inches [mm]
2. Tolerance: ±0.02 [±0.5]
3. Weight: 15oz (425g)
4. Input connector mates with screw terminal DINKLE#ESK750V-02P (10-24AWG)
5. Output connector mates with screw terminal DINKLE#ESK750V-05P (10-24AWG)
6. 3-pin screw terminal input connector also available (See PSIUU60 Series)
7. All dimensions are for reference only

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**COMPANY INFORMATION**

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Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001-2008 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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