

FEATURES

- Splash Proof
- Class I Insulation
- Two Year Warranty
- IEC-320-C14 Input Inlet
- Optional Output Connectors
- Single, Dual, and Triple Outputs
- Over Voltage Protection (Crowbar Design)
- -20°C~+70°C Operating Temperature Range
- Wide Input Voltage Range: 90~264VAC, 47~63Hz
- Input Surge Current, Over Voltage, and Over Load Protection

APPLICATIONS

- Scanners
- LCD Monitors
- Thermal Printers
- Humidity Temperature Meters



DESCRIPTION

The DTIPU45 series of AC/DC switching mode power supplies provide up to 50 watts of continuous output power. Models have a universal input range and are available with single, dual, or triple outputs. Some features include -20°C ~ +70°C operating temperature and input surge current, over voltage, and over load protection. All supplies are UL94V-1 compliant and include an IEC-320-C14 input for worldwide applications. These supplies meet FCC Part-15 class B and CISPR-22 class B emission limits and are designed to comply with UL/c-UL (UL 60950-1), TUV/GS (EN 60950-1), and new CE requirements. All units are 100% burn-in tested.

SPECIFICATIONS: DTIPU45 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	Nom	Max	Unit	
INPUT (V_{in})						
Input Voltage		90		264	VAC	
Input Frequency		47		63	Hz	
Input Current (Low Line)	Io = Full Load, Vin = 115VAC			1.35	A	
Input Current (High Line)	Io = Full Load, Vin = 230VAC			0.8	A	
Inrush Current (Low Line)	Io = Full Load, 25°C, Cool Start, Vin = 115VAC		12	15	A	
Inrush Current (High Line)	Io = Full Load, 25°C, Cool Start, Vin = 230VAC		26	30	A	
Safety Ground Leakage Current	Io = Full Load, Vin = 240VAC		0.5	0.75	mA	
Start-Up Time	Io = Full Load, Vin = 100VAC	0.3	1	2	s	
OUTPUT (V_o)						
Output Voltage Range		See Rating Chart				
Load Regulation	Vin = 230VAC		3	15	%	
Line Regulation	Io = Full Load		0.5	1	%	
Output Power Range	Vin = 90 to 264VAC	0		50	W	
Output Current Range		See Rating Chart				
*Ripple & Noise (peak to peak)	Full Load, Vin = 90VAC		0.5	1	%	
Transient Response	Io = Full Load to Half Load, Vin = 100VAC			4	ms	
Hold-Up Time	Io = Full Load, Vin = 110VAC	16			ms	
PROTECTION						
Over Voltage Protection		112		132	%	
Over Current Protection		110		150	%	
GENERAL						
Efficiency	Io = Full Load, Vin = 230VAC	75	83	88	%	
Dielectric Withstanding Voltage For Primary to Secondary	Primary to Secondary	4242			VDC	
Dielectric Withstanding Voltage For Primary to Ground	Primary to Ground	2121			VDC	
Isolation Resistance	Test Voltage = 500VDC	50			MΩ	
ENVIRONMENTAL						
Operating Temperature	Derate linearly from 100% Load at 40°C to 50% load at 70°C	-20		70	°C	
Storage Temperature		-40		85	°C	
Relative Humidity		5		95	%	
Temperature Coefficient	All Outputs	-0.04		+0.04	%/°C	
MTBF	Operating temperature at 25°C, Calculated per MIL-HDBK-217F	100,000 hours				
PHYSICAL						
Weight		Approximately 535 ~ 560 grams				
Dimensions		5.75(L) x 2.99(W) x 1.69(H) inches 146.0(L) x 76.0(W) x 43.0(H) mm				
Warranty		2 years				
SAFETY						
EMI Requirements for CISPR-22	Vin = 220VAC	B			Class	
EMI Requirements for FCC PART-15	Vin = 110VAC	B			Class	

*Note: The Ripple & Noise for output voltages under 3.3VDC is 2% max.

MODEL SELECTION CHARTS

SINGLE OUTPUT MODELS					
Model Number	Preset Voltage	Output Voltage Range	Max. Output Current	Total Regulation	Max. Output Power
DTIPU45-100	3 VDC	2 ~ 3 VDC	8.00A max.	7%	24W
DTIPU45-101	5 VDC	3 ~ 5 VDC	8.00A max.	5%	40W
*DTIPU45-102	6 VDC	5 ~ 6 VDC	8.00 ~ 6.66A	5%	40W
*DTIPU45-103	8 VDC	6 ~ 8 VDC	7.00 ~ 5.25A	5%	42W
*DTIPU45-104	11 VDC	8 ~ 11 VDC	5.63 ~ 4.00A	4%	45W
*DTIPU45-105	13 VDC	11 ~ 13 VDC	4.00 ~ 3.46A	3%	45W
*DTIPU45-106	16 VDC	13 ~ 16 VDC	3.46 ~ 2.81A	3%	45W
DTIPU45-107	21 VDC	16 ~ 21 VDC	3.12 ~ 2.38A	3%	50W
DTIPU45-108	27 VDC	21 ~ 27 VDC	2.30 ~ 1.85A	2%	50W
DTIPU45-109	33 VDC	27 ~ 33 VDC	1.85A ~ 1.51A	2%	50W
DTIPU45-110	40 VDC	33 ~ 40 VDC	1.51 ~ 1.25A	2%	50W
DTIPU45-111	50 VDC	40 ~ 50 VDC	1.25 ~ 1.00A	2%	50W

DUAL OUTPUT MODELS						
Model Number	Output Voltage	Min. Output Current	Max. Output Current	Max. Regulation	Max. Output Power	
*DTIPU45-200	Output 1	+3.3 VDC	0.5A	5A	7%	40W
	Output 2	+12.0 VDC	0.3A	2A	5%	
*DTIPU45-201	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 2	+12.0 VDC	0.3A	2A	5%	
*DTIPU45-202	Output 1	+5.0 VDC	0.8A	5A	7%	42W
	Output 2	+15.0 VDC	0.3A	1.5A	5%	
DTIPU45-203	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 2	+24.0 VDC	0.1A	1A	5%	
DTIPU45-204	Output 1	+3.3 VDC	0.5A	5A	7%	26.5W
	Output 2	+5.0 VDC	0.2A	2A	5%	
*DTIPU45-209	Output 1	+12 VDC	0.3A	3A	5%	42W
	Output 3	-12 VDC	0.1A	1A	5%	
*DTIPU45-210	Output 1	+15.0 VDC	0.2A	2A	5%	42W
	Output 3	-15.0 VDC	0.1A	1A	5%	
DTIPU45-215	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 3	-24.0 VDC	0.1A	1A	5%	
DTIPU45-216	Output 1	+5.1 VDC	0A	1A	5%	23.82W
	Output 3	+7.2 VDC	0.2A	2.6A	5%	

TRIPLE OUTPUT MODELS						
Model Number	Output Voltage	Min. Output Current	Max. Output Current	Max. Regulation	Max. Output Power	
*DTIPU45-300	Output 1	+3.3 VDC	1.0A	5A	7%	42W
	Output 2	+12.0 VDC	0.3A	2A	5%	
	Output 3	-12.0 VDC	0.1A	0.8A	5%	
*DTIPU45-301	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 2	+12.0 VDC	0.2A	2A	5%	
	Output 3	-5.0 VDC	0A	0.8A	5%	
*DTIPU45-302	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 2	+12.0 VDC	0.2A	2A	5%	
	Output 3	-12.0 VDC	0A	0.8A	5%	
*DTIPU45-303	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 2	+15.0 VDC	0.3A	2A	6%	
	Output 3	-15.0 VDC	0A	0.8A	5%	
DTIPU45-304	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 2	+24.0 VDC	0.2A	1A	5%	
	Output 3	-24.0 VDC	0A	0.5A	5%	
DTIPU45-305	Output 1	+5.0 VDC	0.5A	5A	5%	42W
	Output 2	+24.0 VDC	0.1A	1A	5%	
	Output 3	-12.0 VDC	0A	0.8A	5%	
*DTIPU45-306	Output 1	+3.3 VDC	0.5A	5A	7%	42W
	Output 2	+12.0 VDC	0.4A	2A	5%	
	Output 3	-5.0 VDC	0A	0.8A	5%	

NOTES

1. For single output models the output voltage is specified as a range (Ex: 40 ~ 50VDC); the preset voltage will be set as standard models if nothing different is requested. Please contact factory for ordering details.
2. The “ * ” symbol means PSE approval.
3. Models with output voltages under 15VDC have been approved by JET/PSE.
4. Optional output connectors are available. Please call factory for ordering details.

MECHANICAL DRAWINGS

Unit: inches [mm]

