

Features

- Universal input 85-265VAC
- High Efficiency Rating up to 90.5%
- Operating ambient temperature range: -40°C to +85°C
- Approved to UKCA, CE, CB, cURs, FCC, RoHS & REACH
- EN/IEC/UL 62368-1 Safety Approved
- Output Voltage 05 - 53VDC



Ideal Power's 43TxD65-Uzxy 65W AC/DC Power Supply Module Series are certified to cURus, UKCA, CE, FCC, CB, RoHS, REACH & EN 62368-1/IEC 62368-1/UL 62368-1 Standards and comply with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Part Number Structure

43TxD65 - U □ □ □ □ □ C - XX YY- □ □ □

Series Name	Input Voltage (V AC)	Output Quantity	Output Voltage 1 (V DC)	Output Voltage 2 (V DC)	Output Voltage 3 (V DC)	Output Voltage 3 (V DC)	Protection Type	Vo2 Voltage Code	Vo3 Voltage Code	Connector Options	Application Options	Conformal Coating Options
			Vo1	Vo2	Vo3 (Triple only)							
A: Open type	U: Universal	D: Dual	3: 5	1: 2.5	M: Minus	1: 2.5	□: CLASS I			□: JST	□: None	□: None
E: Enclosed type	85 ~ 264	T: Triple	4: 7.5	2: 3.3	□: Positive	2: 3.3	D: CLASS II			M: Molex	C: OVC III	R: Conformal Coating
U: U Chassis type			5: 9	3: 5		3: 5	□: CLASS I			T: Terminal block		
D: Din Rail type			6: 12	X: refer to suffix		4: 7.5	(※NRND)					
			7: 15	xx		5: 9	B: CLASS II					
			8: 18			6: 12	(※NRND)					
			9: 24			7: 15						
			0: 28			8: 18						
						9: 24						
						y: refer to Suffix yy	※NRND: Not recommend for new designs					

Models

Model Number	Output 1			Output 2			Output 3		Max Output Power W	Efficiency %	Maximum Capacitor Load µF
	Voltage V DC	Current (Normal) A	Current (MAX) A	Voltage V DC	Current (Normal) A	Current (MAX) A	Voltage V DC	Current (MAX) A			
43TAD65UD32C 43TUD65UD32C 43TED65UD32C 43TDD65UD32C	+5	6	10	+3.3	6	8	---	---	50	88.5	12000 / 3000
43TAD65UD63C 43TUD65UD63C 43TED65UD63C 43TDD65UD63C	+12	3	5.42	+5	6	8	---	---	65	90	2500 / 3000
43TAD65UD62C 43TUD65UD62C 43TED65UD62C 43TDD65UD62C	+12	3	5.42	+3.3	6	8	---	---	65	89.5	2500 / 3000
43TAD65UD73C 43TUD65UD73C 43TED65UD73C 43TDD65UD73C	+15	2.4	4.34	+5	6	8	---	---	65	90.5	1200 / 3000
43TAD65UD93C 43TUD65UD93C 43TED65UD93C 43TDD65UD93C	+24	1.5	2.71	+5	6	8	---	---	65	89	625 / 3000
43TAD65UD03C 43TUD65UD03C 43TED65UD03C 43TDD65UD03C	+28	1.25	2.33	+5	6	8	---	---	65	88	390 / 3000
43TAD65UT32M3C 43TUD65UT32M3C 43TED65UT32M3C 43TDD65UT32M3C	+5	6	10	+3.3	6	8	-5	0.6	50	88	12000 / 3000 / 500
43TAD65UT326C 43TUD65UT326C 43TED65UT326C 43TDD65UT326C	+5	6	10	+3.3	6	8	+12	0.6	50	88	12000 / 3000 / 500
43TAD65UT32M6C 43TUD65UT32M6C 43TED65UT32M6C 43TDD65UT32M6C	+5	6	10	+3.3	6	8	-12	0.6	50	88	12000 / 3000 / 500
43TAD65UT63M3C 43TUD65UT63M3C 43TED65UT63M3C 43TDD65UT63M3C	+12	3	5.42	+5	6	8	-5	0.6	65	89.5	2500 / 3000 / 500
43TAD65UT63M6C 43TUD65UT63M6C 43TED65UT63M6C 43TDD65UT63M6C	+12	3	5.42	+5	6	8	-12	0.6	65	89	2500 / 3000 / 500
43TAD65UT623C 43TUD65UT623C 43TED65UT623C 43TDD65UT623C	+12	3	5.42	+3.3	6	8	+5	0.6	65	89	2500 / 3000 / 500

Models (continued)

43TAD65UT62M6C 43TUD65UT62M6C 43TED65UT62M6C 43TDD65UT62M6C	+12	3	5.42	+3.3	6	8	-12	0.6	65	88.5	2500 / 3000 / 500
43TAD65UT73M7C 43TUD65UT73M7C 43TED65UT73M7C 43TDD65UT73M7C	+15	2.4	4.34	+5	6	8	-15	0.6	65	89.5	1200 / 3000 / 500
43TAD65UT936C 43TUD65UT936C 43TED65UT936C 43TDD65UT936C	+24	1.5	2.71	+5	6	8	+12	0.6	65	88.5	625 / 3000 / 500
43TAD65UT93M6C 43TUD65UT93M6C 43TED65UT93M6C 43TDD65UT93M6C	+24	1.5	2.71	+5	6	8	-12	0.6	65	88.5	625 / 3000 / 500

Input Specifications

Parameter	Conditions	Min	Typ	Max	Unit
Operating input voltage range	AC input	85		264	VAC
	DC input	120		370	VDC
Input frequency	AC input	47		63	Hz
Input current	100VAC and Full Load			1.65	A
	240VAC and Full Load			0.95	
No load input power	230VAC		0.15		W
Leakage current	264VAC		75		µA
Start up time				1000	ms
Rise time			20		ms
Hold up time	115VAC and Full Load		16		ms
Input inrush current	230VAC		60		A
Input protection	Internal fuse in line and neutral			T3.15A/250VAC	

Output Specifications

Parameter	Conditions		Min	Typ	Max	Unit
Output power	Pout 1+Pout 2+Pout 3	Vout 1	5V		50	W
			Others		65	
Initial set voltage accuracy	230VAC and Full Load	Vout 1		-1.0	+1.0	
			Vout 2, Vout 3		-2.0	
Line regulation	Low Line to High Line at Full Load			-0.2	+0.2	
Load regulation	No Load to Full Load	Vout 1		-0.5	+0.5	%
			Vout 3		-0.7	
	0.1W Load to Full Load	Vout 2		-1.5	+1.5	
			Vout 2		-0.7	
Cross regulation			-1.5	+1.5		
Voltage adjustability	Single output	Vout 1		-10	+10	
Minimum load	43T□D65UD□□				0	W
	43T□D65UT□□□; Vout 3 is full load	Vout 1, Vout 2			0.5	
Ripple and noise	Measured by 20MHz bandwidth					mVp-p
	With a 10μF/25V 1206 X7R MLCC	Vout 1	5V		100	
			12V		120	
			15V		150	
			24V		240	
	With a 1μF/50V 1206 X7R MLCC	Vout 1	28V		280	
			ALL		100	
			Vout 2	5V		
12V					120	
With a 10μF/25V 1206 X7R MLCC	Vout 3	15V		150		
Temperature coefficient			-0.02		+0.02	%/°C
Transient response	Load step from 50 ~ 75% change at 2.5A/μs	Peak deviation			3	% Vout
		Recovery time			600	μs
Over voltage protection	% of Vout(nom); Latch mode	Vout 1		125	140	%
Overload protection	% of maximum Iout rated; Hiccup mode	Pout 1+Pout 2			145	%

General Specifications

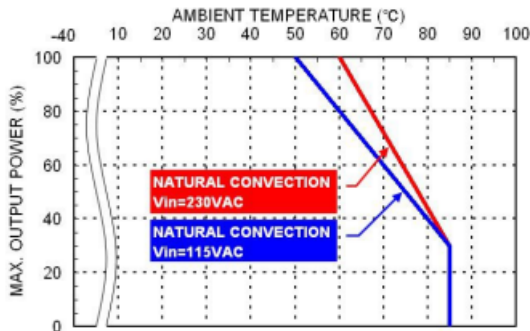
Parameter	Conditions		Min	Typ	Max	Unit
Isolation voltage	1 minute (Reinforced insulation)	Input to Output	3000			V AC
		Input (Output) to F.G	2500			
Isolation resistance	500V DC		0.1			GΩ
Switching frequency	230VAC, Full load	Vout 1	5V		60	kHz
			Others		115	
		Vout 2		750		
		Vout 3		510		
Safety approvals	IEC/ EN/ UL 62368-1					UL:E193009 CB:UL(Demko)
Weight	43TAD				155g (5.47oz)	
	43TUD				203g (7.16oz)	
	43TED				172g (6.07oz)	
	43TDD				193g (6.81oz)	
MTBF	MIL-HDBK-217F Ta=25°C, Full load					1.494 x 10 ⁵ hrs

Environmental Specifications

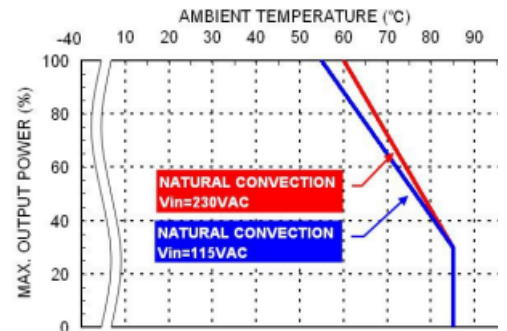
Parameter	Conditions		Min	Typ	Max	Unit
Operating ambient temperature	Natural Convection	With derating	-40		+85	°C
Storage temperature range			-40		+85	°C
Operating altitude					5000	m
Shock					IEC60068-2-27	
Vibration					IEC60068-2-6	
Relative humidity	Non-condensing				5% to 95% RH	

EMC Specifications

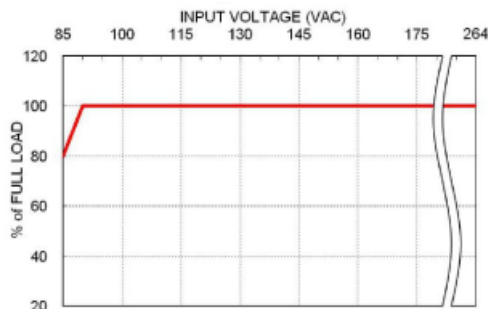
Parameter	Conditions		Level	
EMI	EN55032 and FCC Part 15 External components may be required for class I application.		Conducted	Class B
			Radiated	Class B
Harmonic currents	EN61000-3-2	Full Load		Class A
Voltage flicker	EN61000-3-3			
EMS	EN55024	and Complies with EN 61850-3		
ESD	EN61000-4-2			Perf. Criteria A
Radiated immunity	EN61000-4-3	20 V/m		Perf. Criteria A
Fast transient	EN61000-4-4	± 4kV		Perf. Criteria A
Surge	EN61000-4-5	DM ± 2kV and CM ± 4kV		Perf. Criteria A
Conducted immunity	EN61000-4-6	20 Vr.m.s		Perf. Criteria A
Power frequency magnetic field	EN61000-4-8	100 A/m		Perf. Criteria A
Dip and interruptions	EN61000-4-11			
Damped Oscillatory Wave	EN61000-4-18	DM ± 1kV and CM ± 2.5kV		Perf. Criteria A

Characteristic Curve


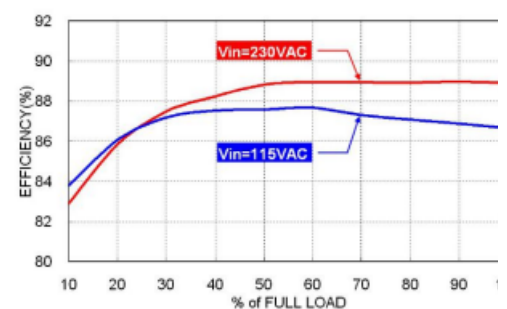
43T□D65UD Derating Curve vs. Ambient Temperature



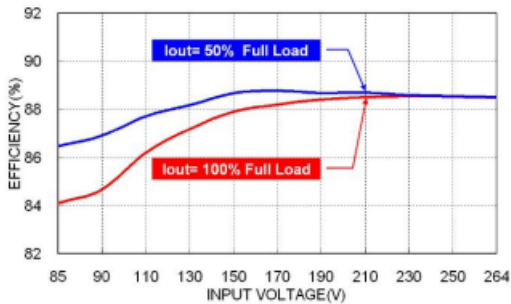
43TDD65UT Derating Curve vs. Ambient Temperature



43T□65UT63M6B Derating Curve vs. Input Voltage



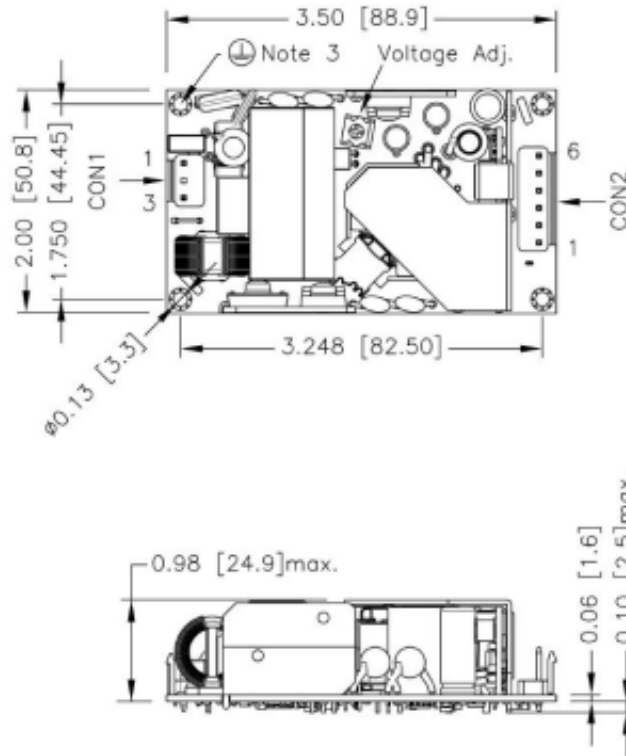
43T□D65UT63M6B Efficiency VS Output Load



43T□D65UT63M6B Efficiency VS Input Voltage

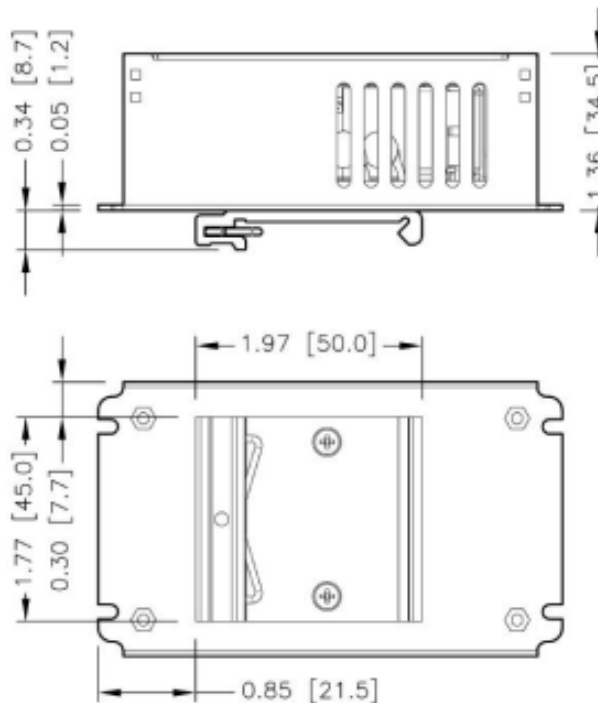
Mechanical Drawing

43TAD Open Type



FRONT VIEW

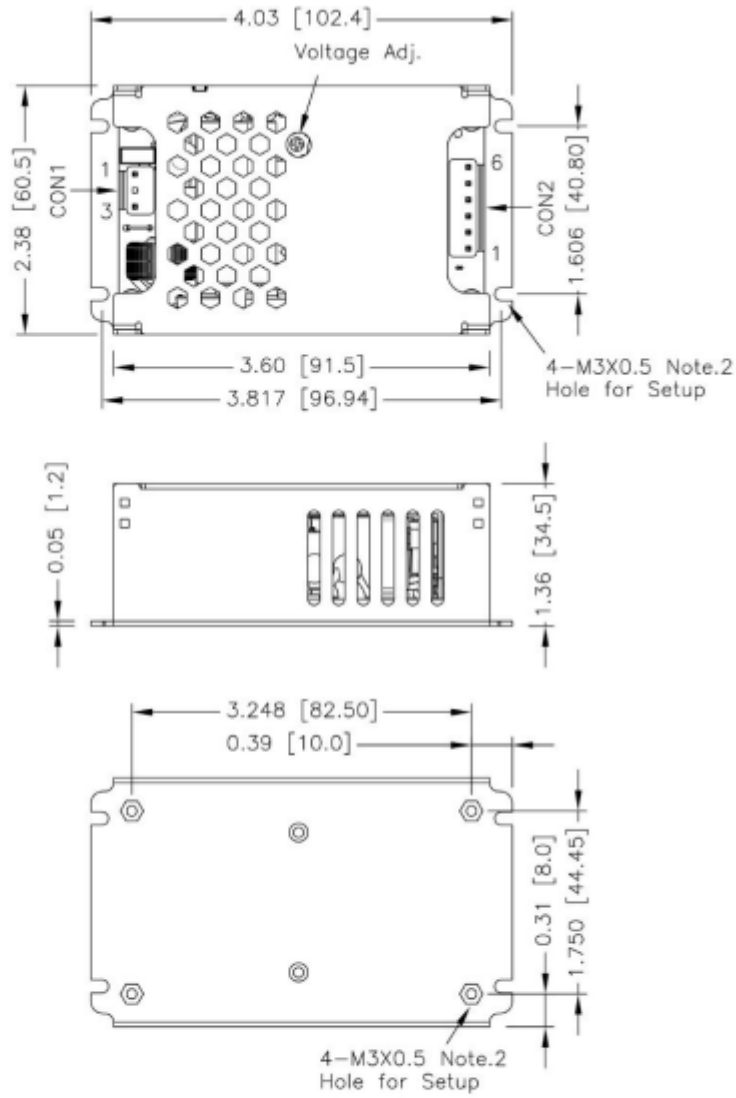
43TDD Din Rail Type



BOTTOM VIEW

Mechanical Drawing (continued)

43TED Enclosed Type



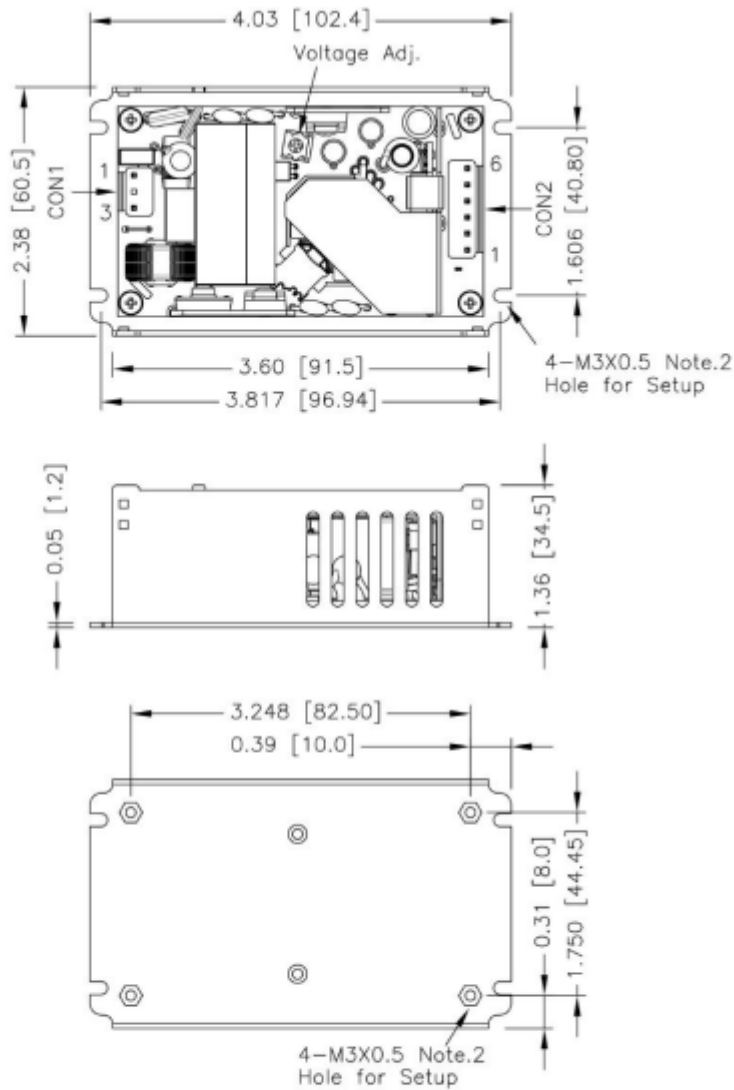
BOTTOM VIEW

- All dimensions in inch[mm]
Tolerance: x.xx±0.02[x.x±0.5] x.xxx±0.010[x.xx±0.25]
- The screw locked torque: MAX 5.0kgf-cm/0.49N-m

AC – DC

Mechanical Drawing (continued)

43TUD U Chassis Type



BOTTOM VIEW

1. All dimensions in inch[mm]
Tolerance: x.xx±0.02[x.x±0.5] x.xxx±0.010[x.xx±0.25]
2. The screw locked torque: MAX 5.0kgf-cm/0.49N-m

CON1-Input Connector

Pin Number	AC Input	DC Input
		43T□D65UDXXC, 43T□D65UDXXD 43T□D65UTXXC, 43T□D65UTXXD
Pin 1	Line	DC+
Pin 3	Neutral	DC-

CON2-Output Connector

Pin 1	Vout3
Pin 2,3	Com
Pin 4,5	Vout2
Pin 6	Vout1

Connector Options

Blank:

JST Type

 Mates with housing
 CON1: **VHR-3N**
 CON2: **VHR-4N**

 Crimp terminals
 CON1: **SVH-21T-P1.1**
 CON2: **SVH-21T-P1.1**
-M
Molex Type

 Mates with housing
 CON1: **09-50-8031**
 CON2: **09-50-8041**

 Crimp terminals
 CON1: **SD-2478**
 CON2: **SD-2478**
-T
Terminal Block

 Screw locked torque
 MAX 2Kgf.cm/0.2N.m

 Wire dimension range
 26 ~ 16AWG