Digital Power Solutions

Flexible Power Solutions

(877) 634-0982 www.digipwr.com

HD130 SERIES AC-DC ITE SWITCHING PSU - 130 WATT



KEY FEATURES

Digital Power's HD130 Series are switching power supplies that produce superior output wattages with natural convection. The series include enclosed, open fame and U bracket format with output voltage options of 12V, 24V and 48V. Featured with compact, low profile footprint, and best-in-class performance, HD130 Series are optimal for broad Industrial and Telecommunication Applications.

Designed with energy saving in mind, Digital Power's HD130 Series boasts not only high operating efficiency up to 91%, but also high-power density with full input range of 90-264Vac and built-in active PFC.

HD130 operates over wide temperature range from -30°C to +80°C with complete protections, and certified to UL / IEC / EN 62368-1.



PRODUCT SPECIFICATION

Enclosed, Open Frame, U Bracket Switching Power Supply

- Universal Input Range 90-264VDC
- O/P Voltage: 12,24,48V
- 125W with Natural Convection
- No Load Power Consumption<0.3W
- -30°C to +80°C Wide Operation Temperature Range
- Operating Altitude 5000M
- Active PFC Function
- I/O Isolation 4000VAC
- EMI for Both Class I (with PE) and Class II (without PE) Configuration
- Safety Approvals: UL / IEC / EN 62368-1
- Ultra Compact Size:

HD130O:3.59 x 2.15 x 1.32 Inches HD130U:3.15 x 2.35 x 1.5 Inches HD130E:3.15 x 2.35 x 1.7 Inches



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ELECTRICAL SPECIFICATION - HD1300 SERIES

Model No.			HD1300-112	HD1300-124	HD130Q-148		
Max Output Wattage (with 10CEM FAN) (W)			130 W				
			10 W (115 VAC) /		15 W (115 VAC) /		
Max Output V	attage (Natural Convection)						
Valence (Nate Z)			19 W (250 VAC)	IIV W (250 VAC) I25 W (250 VAC)			
	Frequency (Hz)		17 63 H-	90-264 VAC			
	Current (Full load)		47-03 HZ	4/-00 HZ			
1000	Current (Full load)		< 50 A max (115 VA	< 2.0 A max. (115 VAC) / < 1.0 A max. (250 VAC)			
Input	Power Easter (at 230 V/AC)		PESO 9 at Full Logo	< 50 A max. (IIS VAC) / < 85 A max. (250 VAC)			
	No Logd		11 20.9 dl 1 dli E0de < 0.3W (115 / 230)	< 0.3W (115 / 230 VAC)			
			121/	241/	481/		
	Voltage Adi Range (V.D.C.)		+10% Output Volta	241	407		
	Voltage Acquiracy		+2%				
	Current (with 10 CEM EAN) (A) (max)		10.833				
	Current	at 115 VAC	9.166	4 583	2.700		
		at 230 V/AC	9.100	4.505	2.575		
	(Natural Convection) (A) (max.)	UI 230 VAC	7.717	4.750	2.004		
	Line Regulation		±1%	±1%			
	Load Regulation (10–100%)		±1%	±1%			
Output	Minimum Load		0%				
	Maximum Capacitive Load		4,000μF	1,000µF	330µF		
	Ripple & Noise (max.) (Note 1)		160mV	1% Vout			
	Efficiency (at 230VAC)		90%	90%	91%		
	Hold-up Time (at 115 VAC) (Note 2)		8 ms min.	8 ms min.			
	Over Power Protection		Protection level 1 (Protection level 1 (nominal) : Auto recovery, Hiccup mode			
			Protection level 2	Protection level 2 (instantaneous high current) : Latch			
			Protection level 1 (Protection level 1 (nominal) : Auto recovery			
	Over Voltage Protection		Protection level 2	Protection level 2 (instantaneous high voltage) : Latch			
Protection	Overt Temperature Protection		Auto recovery		3.7.		
	Short Circuit Protection		Protection level 1 (Protection level 1 (nominal) : Continuous, Auto recovery			
			Protection level 2	Protection level 2 (instantaneous high current) : Latch			
	Input-Output (Note 4)		4000VAC or 5656	4000VAC or 5656VDC			
	Input-PE (Note 4)		2000VAC or 2828	2000VAC or 2828VDC			
lsolation	Output-PE (Note 4)		1500VAC or 2121V	1500VAC or 2121VDC			
	Operating Temperature		-30°C+70°C (wit	-50°C+/0°C (with derating)			
	Storage Temperature		-30°C+80°C				
	lemperature Coefficient		±0.05%/°C	10.03%/C			
	Altitude During Operation						
Environment			>20 90% RH	257.0 000 h @ 25°C (MIL-HDBK-217E Notice 1)			
	MIBF Vibration		JEC60068-2-6 (10)	IEC60068-2-6 (10 [°] 500Hz, 2G 10min /lovele 60min each along X, Y, 7			
			12000000-2-0 (10				
	Shock		IEC60068-2-27	IEC60068-2-27			
	Dimensions (L x W x H)		3.59 x 2.15 x 1.32 l	3.59 x 2.15 x 1.32 Inches (91.19 x 54.61 x 33.5 mm) Tolerance 0.5 mm			
	Weight		200 g				
Physical	Cooling Method		Natural Convectio	Natural Convection / 10CFM FAN			
Safety	Approval		UL / IEC / EN 623	UL / IEC / EN 62368			
EMC	Conducted EMI (Note 5)		EN55032 Class B	EN55032 Class B			
	Radiated EMI Note 5)		EN55032 Class I C	EN55032 Class I Class B / Class II Class A			
	EMS		EN55035	EN55035			

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Digital Power Flexible Power Solutions

ELECTRICAL SPECIFICATION - HD1300 SERIES

NOTE

- 1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- 2. Hold-up Time measured at 90% Vout.
- 3. Please check the derating curve for more details.
- 4. Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Digital Power power supply.
- 5. Please secure the power supply unit to your metal case by using the four screw holes in the corners for either Class I or Class II equipment
- 6. CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.
- 7. The ambient temperature derating of 3.5 /1000m with fanless models and of 5 /1000m with fan models for operating altitude higher.

DERATING

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MECHANICAL DIMENSIONS- HD1300 SERIES



B=For fixture to pcb/chassis only B=M3x0.5P



Brands		Alex		JST	
PIN#	Single	Mating	Terminal	Mating	Terminal
		Housing		Housing	
1	AC IN (N)				
2	NO PIN	9396-3	96T series	VHR-3N	SVH-41T-P1.1
3	AC IN (L)				
4~5	+DC OUT				
6~7	-DC OUT	9396-4	961 series	VHR-4N	SVH-411-P1.1
8	PE	_		_	-

ASSEMBLY INSTRUCTIONS Heatsink T=2.0mm Customer is advised to screw into the threads no more than 2.0mm



Chassis of HD130O Series



HD130 Series



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ELECTRICAL SPECIFICATION - HD130U SERIES

Max Cutput Wettage (with IDCFM FAN) (M) IB 0W Max Output Wettage (Conduction Cooling) (Note 6) IB 0W Max Output Wettage (Natural Convection) ID W (100 VAC) / IS W (100 VAC) / I2 W (120 VAC) Max Output Wettage (Natural Convection) ID W (100 VAC) / IS W (100 VAC) / I2 W (120 VAC) Voltage (Natural Convection) ID W (100 VAC) / I2 W (120 VAC) Voltage (Natural Convection) ID W (100 VAC) / I2 W (120 VAC) Prever (Full Load) < 2.0 A max. (I5 VAC) / < 10 A max. (230 VAC) Input Prever Factar (IT 230 VAC) < 850 A max. (I5 VAC) / < 85 A max. (230 VAC) Voltage (NDC.) IV V 24V 45V Voltage (VDC.) IV V 24V 45V Current (Convection) IO XAC 9 K37 4.792 Current (Convection) IT 20 VAC 9 K37 4.792 Maximum Copacitive Load	Model No.			HD130U-112	HD130U-124	HD130U-148		
Max Output Wettage (Conduction Cooling) (Note 6) 150 W Max Output Wettage (Natural Convection) 150 W (100 VAC) / 15 W (100 VAC) / 120 W (120 VAC) / 120	Max Output Wattage (with 10CFM FAN) (W)			130 W	130 W			
Max Output Wortage (Natural Convection) IDW (100 VAC) / IDW (120 VAC) ISW (100 VAC) / IDW (120 VAC) IDW	Max Output Wattage (Conduction Cooling) (Note 6)			130 W	130 W			
Max Culput Wortige (Noture] Convection) pw (/230 VAC) 120 W (/230 VAC) 125 W (/230 VAC) Input Frequency (Hz) 47-63 Hz		0, ()		110 W (100 VAC) /	115 W (100 VAC) /	120 W (100 VAC) /		
Voltage (Note 3) 90-244 M/C Look Mark Input Frequency (Hz) 47-63 Hz Current [Full load] <2.0 A max. (IS VAC) / <1.0 A max. (230 VAC)	Max Output Wattage (Nature	al Convection)		19 W (230 VAC)	120 W (230 VAC)	125 W (230 VAC)		
Input 47-63 Hz Current [Full load] < 20 A max. [B VAC] / < 1.0 A max. [250 VAC]		Voltage (Note 3)		90-264 VAC	90-264 VAC			
Input c 2.0 A max, (15 VAC) / c 10 A max, (230 VAC) insub Current (c2m) c 50 A max, (15 VAC) / c 85 A max, (230 VAC) Prover Factor (at 230 VAC) PF5.09 at Full Load values (VDC) PF5.09 at Full Load values (VDC) PF5.09 at Full Load values (VDC) Values (VDC)		Frequency (Hz)		47-63 Hz				
Inguit Inguit < 50 A mox. (15 WG) < 85 A mox. (220 VAC)		Current (Full load)		< 2.0 A max. (115 VAC) / < 1.0 A max. (230 VAC)				
Input Power-factor (at 220 VAC) PF-x9.9 tr full tool No Load < 0.3W (15 / 230 VAC)		Inrush Current (<2ms)		< 50 A max. (115 VAC) / < 85 A max. (230 VAC)				
No Load c 0.5W (15 / 250 VAC) Voltage (VDC.) 12V 24V 48V Voltage Ad, Range (VDC.) 40% Output Voltage 42% Uotage Ad, Range (VDC.) 42% 27.6 Current (with 10CPM FAN) (A) (max.) 10.835 5.417 2.708 Current (current (with 10CPM FAN) (A) (max.) 10.835 5.417 2.708 Current (current (current or colling) (A) (max.) 10.835 5.417 2.708 Current (current or colling) (A) (max.) 10.835 5.417 2.708 Current (current or colling (A) (max.) 10.835 5.417 2.708 Current (mit 10CPM FAN) (A) (max.) 10.835 5.417 2.708 Current (mit 10CPM FAN) (A) (max.) 41% 40.792 2.5 (Natural Convection) 41% 5.417 2.604 Load Regulation (10-100%) 41% 5.017 2.604 Hold-up Time (at 15 VAC) (Note 2) 8 m min. 90% 91% Protection lowel 2 (instantaneous high current): Latch Protection lowel 2 (instantaneous high current): Latch Over Volrage Protection	Input	Power Factor (at 230 VAC)		PF>0.9 at Full Load	PF>0.9 at Full Load			
Voltage (VDC.) 12V 24V 48V Voltage Adj Range (VDC.) ±10% Output Voltage 42% Voltage Adj Range (VDC.) ±20% Output Voltage 42% Current (conduction Cooling) (A) (max.) 10.835 5.417 2.708 Output Line Regulation ±1% 4.792 2.5 India (max) uoto Regulation (D-100%) ±1% 1000µF 350µF Ripple & Noise (max.) (Note 1) 160m/ 1% 1000µF 350µF Ripple & Noise (max.) (Note 1) 160m/ 1% 1000µF 350µF Ripple & Noise (max.) (Note 1) 160m/ 1% 1000µF 1500µF Protection level 1 (momi		No Load		< 0.3W (115 / 230 VAC)				
Voltage Ad Range (VDC.) ±10% Output Voltage Voltage Ad Range (VDC.) ±2% Current (with IOCPM FAN) (A) (max.) 10.835 5.417 2.708 Current (with IOCPM FAN) (A) (max.) 10.835 5.417 2.708 Current (with IOCPM FAN) (A) (max.) 10.835 5.417 2.708 Current (with IOCPM FAN) (A) (max.) 10.835 5.417 2.708 Current (with IOCPM FAN) (A) (max.) 10.835 5.417 2.708 Current (with IOCPM FAN) (A) (max.) 10.835 5.417 2.708 Current (with IOCPM FAN) (A) (max.) 10.835 5.417 2.708 Current (Lond Equilition (Convection) 10.904 4.792 2.5 (National Convection) 11%		Voltage (V.DC.)		12V	24V	48V		
Voltage Accuracy ±2% Current (with IOCFM FAN) (A) (max.) 10.833 5.417 2.708 Current (Conduction Cooling) (A) (max.) 10.835 5.417 2.708 Current (Conduction Cooling) (A) (max.) 10.835 5.417 2.708 Current (Conduction Cooling) (A) (max.) 10.855 5.417 2.708 Output dr 100 VAC 9.977 5 2.604 (Al (max.) dr 250 VAC 9.917 5 2.604 (Al (max.) dr 250 VAC 9.917 5 2.604 (Al (max.) dr 250 VAC 9.917 5 2.604 Minimum Load 0% 41%		Voltage Adj Range (V.D	C.)	±10% Output Voltage	±10% Output Voltage			
Current (with IOCFM FAN) (Å) (mox.) 10.835 5.417 2.708 Current (Conduction Cooling) (Å) (mox.) 10.835 5.417 2.708 Output at 100 VAC 9.167 4.792 2.5 Inter Regulation at 200 VAC 9.917 5 2.604 Inter Regulation ±1% 5 2.604 5 Load Regulation (10-100%) ±1% 5 2.604 5 Minimum Load 0% 0% 5 3.50µF Ripple & Noise (max.) (Note 1) 160mV 1% Vort 5 3.50µF Ripple & Noise (max.) (Note 1) 160mV 1% Vort 5 5 6 Protection level 1 (nominal) : Auto recovery, Hiccup mode Protection level 1 (nominal) : Auto recovery 6 Protection level 2 (instantaneous high voltage) : Latch Protection level 2 (instantaneous high voltage) : Latch Protection level 2 (instantaneous high voltage) : Latch 1000VAC or 5556VDC 1000VAC or 5556VDC Impat-PE (Note 4) 2000VAC or 5556VDC 1000VAC or 5550VDC 1000VAC or 5550VDC Impat-PE (Note 4) 1500VAC		Voltage Accuracy		±2%				
Output Current (Conduction Cooling) (A) (max.) 10.833 5.417 2.708 Output Current (Conduction Cooling) (A) (max.) 10.833 5.417 2.50 Output Current (Conduction Cooling) (A) (max.) 9.917 5 2.604 Ima Regulation (Lad Regulation (D-100%) ±1% 2.50 2.604 Maximum Load 0% Maximum Load 0% 330µF Maximum Load 0% 90% 91% 1000µF 330µF Ripple & Nose (max.) (Note 1) 160mV 1% vout 91% 91% Efficiency (at 250vAC) 90% 90% 91% 91% Hold-up Time (at 15 VAC) (Note 2) 8 ms min. Protection level 1 (nominal) : Auto recovery. 91% Over Voltage Protection Protection level 1 (nominal) : Auto recovery. 91% 91% Protection Nevel (nominal) : Auto recovery. Soft Circuit Protection Protection level 1 (nominal) : Continuous, Auto recovery. Isolation Input-Output (Note 4) 2000VAC or 2828/DC 100/VAC or 2656/DC Isolation Input-PE (Note 4) 15000MC or 212/DC		Current (with 10CFM FA	N) (A) (max.)	10.833	5.417	2.708		
Output at 100 VAC 9,167 4,792 2.5 Output at 230 VAC 9,917 5 2.604 Output Line Regulation 11% 5 2.604 Line Regulation 11% 1000µF 5 2.604 Minimum Load 0% 11% 1000µF 330µF Ripple & Noise (mox) (Note 1) 160mV 1% Vout 160mV 1% Vout Efficiency (at 230VAC) 90% 90% 91% 1000µF 330µF Noise (mox) (Note 1) 160mV 1% Vout 160mV 1% Vout 160mV Efficiency (at 230VAC) 90% 90% 91% 160mV 1% Vout Efficiency (at 230VAC) 90% 90% 91% 160mV 1% Vout Over Power Protection Protection level 1 (nominal): Auto recovery, Hiacup mode Protection level 2 (instantaneous high voltage): Latch Auto recovery Over Voltage Protection Protection level 1 (nominal): Continuous, Auto recovery Protection level 2 (instantaneous high current): Latch Input-Dutput (Note 4) 1500VAC		Current (Conduction C	oolina) (A) (max.)	10.833	5.417	2.708		
Output (Natural Convection) (A) (max,). of 230 VAC 9.917 5 2.604 Output Load Regulation ±1%.		Current	at 100 VAC	9.167	4.792	2.5		
Output Inex.) 1% Line Regulation 1% Load Regulation (10-100%) 1% Minimum Load 0% Minimum Capacitive Load 4,000µF 1,000µF 350µF Ripple & Noise (max), (Note 1) 160mV 1% Vout 1% Efficiency (at 250VAC) 90% 90% 91% Protection level 1 (nominal) : Auto recovery, Hiccup mode 100 V 1% Over Voltage Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high voltage) : Latch Protection level 1 (nominal) : Auto recovery Over Voltage Protection Protection level 2 (instantaneous high voltage) : Latch Protection level 1 (nominal) : Continuous, Auto recovery Protection level 2 (instantaneous high voltage) : Latch Over Voltage Protection Protection level 2 (instantaneous high voltage) : Latch Output-PE (Note 4) 2000VAC or 328VDC Isolation Output-PE (Note 4) 2000VAC or 2121VDC Output-PE (Note 4) 1500VAC or 2121VDC Operating Temperature -30°C+80°C Temperature Coefficient 40.05%/°C Humidity <td></td> <td>(Natural Convection)</td> <td>at 230 VAC</td> <td>9.917</td> <td>5</td> <td>2.604</td>		(Natural Convection)	at 230 VAC	9.917	5	2.604		
Output 1% Output Load Regulation Ihre Regulation 1% Minimum Load 0% Minimum Capacitive Load 4,000µF 1,000µF 330µF Ripple & Noise (max), (Note 1) 160mV 1% Vout 1% Efficiency (at 230VAC) 90% 90% 91% Hold-up Time (at 115 VAC) (Note 2) 8 ms min. Protection level 1 (nominal) : Auto recovery, Hiccup mode Over Power Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Isolation Input-PE (Note 4) 4000VAC or 2828VDC Storge Temperature Isolation Coperating Temperature -30°C								
Output Load Regulation (10-100%) ±1% Minimum Load 0% Maximum Capacitive Load 4,000µF 1,000µF 330µF Ripple & Noise (max.) (Note 1) 160mV 1% Vout 9% 91% Efficiency (at 230VAC) 90% 90% 91% 91% Hold-up Time (at 115 VAC) (Note 2) B ms min. Protection level 1 (nominal) : Auto recovery, Hiccup mode Over Power Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Over Voltage Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Over Voltage Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Input-Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (Instantaneous high current) : Latch Input-Protection Protection level 2 (Instantaneous high current) : Latch Protection level 2 (Instantaneous high current) : Latch Input-Protection Protection level 2 (Instantaneous high current) : Latch 1000VAC or 2828VDC Input-Protection Input-Protection <t< td=""><td></td><td>Line Regulation</td><td></td><td>±1%</td><td></td><td></td></t<>		Line Regulation		±1%				
Minimum Load 0% Maximum Capacitive Load 4,000µF 1,000µF 330µF Ripple & Noise (max,) (Note 1) 160mV 1% Yout 1% Yout Efficiency (at 230VAC) 90% 90% 91% Hold-up Time (at 15 VAC) (Note 2) 8 ms min. Protection level 1 (nominal) : Auto recovery, Hiccup mode Protection Protection level 1 (nominal) : Auto recovery. Protection level 2 (instantaneous high current) : Latch Protection Qver Voltage Protection Protection level 1 (nominal) : Auto recovery Over Temperature Protection Auto recovery Protection level 1 (nominal) : Auto recovery Protection level 1 (nominal) : Continuous, Auto recovery Protection level 1 (nominal) : Continuous, Auto recovery Isolation Input-PE (Note 4) 2000VAC or 5656VDC Input-PE (Note 4) 1500VAC or 212VDC Output-PE (Note 4) 1500VAC or 212VDC Operating Temperature -30°C480°C Isolation Utput-PE (Note 4) Isolow/C or 2550(000 he 25°C (ML-HDBK-217F, Notice 1) Isolation 1000% Humidity 20°90% RH Winght	Output	Load Regulation (10-100%)		±1%				
Maximum Capacitive Load 4,000µF 1,000µF 330µF Ripple & Noise (mox.) (Note 1) 160mV 1% Vout 1% Vout Efficiency (at 230VAC) 90% 90% 91% Hold-up Time (at 115 VAC) (Note 2) 8 ms min. 90% 91% Hold-up Time (at 115 VAC) (Note 2) 8 ms min. Protection level 1 (nominal) : Auto recovery, Hiccup mode Over Power Protection Protection level 2 (Instantaneous high current) : Latch Protection level 1 (nominal) : Auto recovery Protection level 1 (nominal) : Auto recovery Protection level 1 (nominal) : Auto recovery Protection level 1 (nominal) : Auto recovery Short Circuit Protection Auto recovery Protection level 1 (nominal) : Continuous, Auto recovery Short Circuit Protection Protection level 1 (nominal) : Continuous, Auto recovery Isolation Input-Output (Note 4) 2000VAC or 2828/DC Output-PE (Note 4) 1500VAC or 2121/DC Output-PE (Note 4) 1500VAC or 2121/DC Operating Temperature -30°C480°C Temperature Coefficient ±0.05%/°C Humidburg Operation 5000m Humidburg 20°90% RH <tr< td=""><td></td><td colspan="2">Minimum Load</td><td colspan="4">0%</td></tr<>		Minimum Load		0%				
Ripple & Noise (max.) (Note 1) 160mV 1% Vout Efficiency (at 230VAC) 90% 90% 91% Hold-up Time (at 115 VAC) (Note 2) 8 ms min. Protection level 1 (nominal) : Auto recovery, Hiccup mode Protection Protection level 1 (nominal) : Auto recovery, Hiccup mode Protection level 1 (inominal) : Auto recovery Over Voltage Protection Protection level 1 (inominal) : Auto recovery Protection level 1 (inominal) : Auto recovery Protection level 1 (nominal) : Auto recovery Protection level 1 (inominal) : Continuous, Auto recovery Protection level 1 (inominal) : Continuous, Auto recovery Short Circuit Protection Protection level 1 (nominal) : Continuous, Auto recovery Protection level 1 (inominal) : Continuous, Auto recovery Isolation Input-Output (Note 4) 4000VAC or 5556VDC 4000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 212IVDC 4000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 212IVDC 4000VAC or 556VDC Imput-Output Vote 4) 10.05%/°C (with derating) 51orage Temperature Storage Temperature -30°C+80°C 4000VAC or 2828VDC 4000VAC or 2828VDC Protection level 1 (minal) 1500VAC or 212IVDC 4000VAC or 50°C		Maximum Capacitive Lo	bad	4,000µF	1.000uF	330uF		
Efficiency (af 230VAC) 90% 91% Hold-up Time (at 115 VAC) (Note 2) 8 ms min. Protection level 1 (nominal) : Auto recovery, Hiccup mode Over Power Protection Protection level 2 (instantaneous high current) : Latch Protection level 1 (nominal) : Auto recovery Protection level 2 (instantaneous high voltage) : Latch Over Voltage Protection Protection level 1 (nominal) : Continuous, Auto recovery Protection level 1 (nominal) : Continuous, Auto recovery Protection level 1 (nominal) : Continuous, Auto recovery Short Circuit Protection Auto recovery Protection level 2 (instantaneous high current) : Latch Input-SE (Note 4) 2000VAC or 5256VDC Input-SE (Note 4) Isolation Input-PE (Note 4) 1500VAC or 2828VDC Output-PE (Note 4) 1500VAC or 212IVDC -30°C480°C MIBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Immidity Immidity 20°SVR H -30°C480°C MIBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) IEC60068-2-27 Vibration IEC60068-2-27 Immineach along X, Y, Z axes) Shock IEC60068-2-27 Shones (L X W x H) 315 x 2.35 x 1.5 Inches (80.0 x 59.		Ripple & Noise (max.) (Note 1)		160mV	1% Vout			
Hold-up Time (at 115 VAC) (Note 2) 8 ms min. Protection level 1 (nominal) : Auto recovery, Hiccup mode Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Over Voltage Protection Protection level 2 (instantaneous high current) : Latch Over Voltage Protection Auto recovery Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high current) : Latch Isolation Input-Output (Note 4) 4000VAC or 5565VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 212IVDC Operating Temperature -30°C+80°C (with derating) Storage Temperature -30°C+80°C Aftrude During Operation 50000 Humidity 20°90% RH MBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC40068-2-267 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Conducted EMI (Note 5) EN55032 Class I Class M EMC Radiated EMI (Note 5) EN55032		Efficiency (at 230VAC	C)	90%	90%	91%		
Protection Protection level 1 (nominal) : Auto recovery, Hiccup mode Protection Protection level 2 (instantaneous high current) : Latch Protection Protection level 2 (instantaneous high voltage) : Latch Over Voltage Protection Protection level 2 (instantaneous high voltage) : Latch Over Temperature Protection Auto recovery Short Circuit Protection Protection level 2 (instantaneous high voltage) : Latch Input-Output (Note 4) 4000VAC or 5656VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 2828VDC Output-PE (Note 4) 1500VAC or 212IVDC Imperature Coefficient 40.05%/°C Altitude During Operation 5000m Humidity 20 ^o 70% RH Vibration IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Conducted EMI (Note 5) ENS5032 Class I Class B / Class I EMC <td< td=""><td></td><td>Hold-up Time (at 115 VA</td><td>C) (Note 2)</td><td>8 ms min.</td><td></td><td></td></td<>		Hold-up Time (at 115 VA	C) (Note 2)	8 ms min.				
Over Power Protection Protection level 2 (instantaneous high current) : Latch Protection level 2 (instantaneous high voltage) : Latch Protection level 2 (instantaneous high voltage) : Latch Over Voltage Protection Auto recovery Protection level 2 (instantaneous high voltage) : Latch Over Temperature Protection Auto recovery Short Circuit Protection Protection level 2 (instantaneous high voltage) : Latch Isolation Input-Output (Note 4) 4000VAC or 5656VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 2121VDC Operating Temperature -30°C+80°C Storage Temperature -30°C+80°C Altitude During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-27 Dimensions (Lx W x H) 5.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 208 g Coolucted EMI (Note 5) EN5032 Class B EMC Radiated EMI (Note 5) EN55032 Class B		Over Power Protection Over Voltage Protection		Protection level 1 (nominal) : Auto recovery, Hiccup mode				
Protection Protection level 1 (nominal): Auto recovery Over Voltage Protection Auto recovery Protection level 2 (instantaneous high voltage): Latch Over Temperature Protection Auto recovery Short Circuit Protection Protection level 2 (instantaneous high voltage): Latch Isolation Input-Output (Note 4) 4000VAC or 5656VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 2121VDC Output-PE (Note 4) 005%/°C Athitde During Operation 500°C+80°C (with derating) Storage Temperature -30°C+80°C (with derating) Storage Temperature -30°C+80°C (MIL-HDBK-217F, Notice 1) Imput-During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60008-2-6 (10° 500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z oxes) Shock IEC60008-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Physical Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety App				Protection level 2 (instantaneous high current) : Latch				
Over Voltage Protection Protection level 2 (instantaneous high voltage) : Latch Protection level 2 (instantaneous high voltage) : Latch Auto recovery Protection level 2 (instantaneous high voltage) : Latch Protection level 2 (instantaneous high voltage) : Latch Isolation Input-Output (Note 4) Protection level 2 (instantaneous high current) : Latch Isolation Input-PE (Note 4) 2000VAC or 5656VDC Input-PE (Note 4) 1500VAC or 212IVDC Output-PE (Note 4) 500°C+80°C (with derating) Storage Temperature -50°C+80°C Storage Temperature -50°C+80°C Altitude During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-67 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Physical Safety Approval Environ ENS5032 Class B Radiated EMI (Note 5) ENS5032 Class B / Class II Class A				Protection level 1 (nominal) : Auto recovery				
Protection Overt Temperature Protection Auto recovery Short Circuit Protection Protection level 1 (nominal) : Continuous, Auto recovery Isolation Protection level 2 (instantaneous high current) : Latch Isolation Input-Output (Note 4) 4000VAC or 5656VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 2121VDC Output-PE (Note 4) 50°C+80°C (with derating) Storage Temperature -50°C+80°C Altitude During Operation 5000m Humidity 20°50% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10°500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-7 Dimensions (L x W x H) 315 x 2.53 t.15 Inches Safety Approval Veright 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC EMS EN55032 Class B				Protection level 2 (instantaneous high voltage) : Latch				
Bit Protection level 1 (nominal) : Continuous, Auto recovery Short Circuit Protection Protection level 2 (instantaneous high current) : Latch Input-PE (Note 4) 4000VAC or 5656VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 2121VDC Output-PE (Note 4) 50°C+80°C Storage Temperature -50°C+80°C Altitude During Operation 5000m Humidity 20°9% RH MTBF >250,000 h e 25°C (WIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10° 500Hz, 2G 10min. /lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC EMS ENS5032 Class B / Class B / Class A	Protection	Overt Temperature Protection		Auto recovery				
Short Circuit Protection Protection level 2 (instantaneous high current): Latch Input-Output (Note 4) 4000VAC or 5656VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 2121VDC Output-PE (Note 4) 50°C+80°C (with derating) Storage Temperature -30°C+80°C Altitude During Operation ±0.05%/°C Altitude During Operation ±0.05%/°C Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-26 (10° 500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock Physical Dimensions (L x W x H) Safety Approval Approval UL / IEC / EN 62368 Conducted EMI (Note 5) EN55032 Class I Class B / Class I EMC Radiated EMI (Note 5) EN55032 Class I				Protection level 1 (nominal) : Continuous Auto recovery				
Input-Output (Note 4) 4000VAC or 5656VDC Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 212IVDC Output-PE (Note 4) 1500VAC or 212IVDC Operating Temperature -30°C+80°C (with derating) Storage Temperature -30°C+80°C Altitude During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10°500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Veight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 Conducted EMI (Note 5) ENS5032 Class B / Class B / Class A EMC Radiated EMI (Note 5) ENS5032 Class I Class B / Class A		Short Circuit Protection	1	Protection level 2 (instantaneous high current) · Latch				
Isolation Input-PE (Note 4) 2000VAC or 2828VDC Output-PE (Note 4) 1500VAC or 2121VDC Operating Temperature -30°C+80°C (with derating) Storage Temperature -30°C+80°C Temperature Coefficient ±0.05%/°C Altitude During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10°500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN KeMC ENS5032 Class B Radiated EMI (Note 5) ENS5032 Class B / Class II EMS ENS5035		Input-Output (Note 4)		4000VAC or 5656VDC				
Isolation Output-PE (Note 4) ISOUVAC or 2121VDC Operating Temperature -30°C+80°C (with derating) Storage Temperature -30°C+80°C Temperature Coefficient ±0.05%/°C Altitude During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10°500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC ENSO32 Class B Class J Class J Class A		Input-PE (Note 4)		2000VAC or 2828VDC				
Environment Operating Temperature -30°C+80°C (with derating) Storage Temperature -30°C+80°C Temperature Coefficient ±0.05%/°C Altitude During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10°500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC ENS5032 Class B Radiated EMI (Note 5) EMS EN55035 EN55032 Class B / Class II Class A	Isolation	Output-PE (Note 4)		1500VAC or 2121VDC				
Environment Storage Temperature -30°C+80°C Temperature Coefficient ±0.05%/°C Altitude During Operation 5000m Humidity 20°90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10°500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC EMS EN55032 Class B / Class II Class A				-30°C+80°C (with de	-30°C+80°C (with derating)			
Environment Temperature Coefficient ±0.05%/°C Altitude During Operation 5000m Humidity 20~90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval EMC ENS5032 Class B Radiated EMI (Note 5) ENS5032 Class B / Class II Class A		Storage Temperature		-30°C+80°C				
Altitude During Operation 5000m Humidity 20 [°] 90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10 [°] 500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-7 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC Radiated EMI (Note 5) EN55032 Class B EMS EN55032 Class I Class I Class A		Temperature Coefficient		±0.05%/°C				
Humidity 20 [°] 90% RH MTBF >250,000 h e 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10 [°] 500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-7 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC Radiated EMI (Note 5) EN55032 Class B EMS EN55032 Class B / Class I Class A		Altitude During Operation		5000m				
MTBF >250,000 h @ 25°C (MIL-HDBK-217F, Notice 1) Vibration IEC60068-2-6 (10° 500Hz, 2G 10min./lcycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC Radiated EMI (Note 5) EN55032 Class B / Class I Class A EMS EN55035		Humidity		20 [~] 90% RH				
Vibration IEC60068-2-6 (10 [°] 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 EMC Radiated EMI (Note 5) EN55032 Class B EMS EN55035 Class B / Class II	Environment	MTBF		>250,000 h @ 25°C (MIL-HDBK-217F, Notice 1)				
Image: data data data data data data data dat		Vibration		IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z				
Shock IEC60068-2-27 Dimensions (L x W x H) 3.15 x 2.35 x 1.5 Inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm Physical Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 Conducted EMI (Note 5) EN55032 Class B Radiated EMI (Note 5) EN55032 Class I Class B / Class II EMC EMS EN55035				axes)				
Physical Dimensions (L × W × H) 3.15 × 2.35 × 1.5 Inches (80.0 × 59.7 × 38.0 mm) Tolerance 0.5 mm Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 Conducted EMI (Note 5) EN55032 Class B Radiated EMI (Note 5) EN55032 Class I Class B / Class II EMC EMS EN55035		Shock		IEC60068-2-27				
Weight 280 g Cooling Method Natural Convection / Conduction Cooling / 10CFM FAN Safety Approval UL / IEC / EN 62368 Conducted EMI (Note 5) EN55032 Class B Radiated EMI (Note 5) EN55032 Class I Class B / Class II EMC EMS EN55035		Dimensions (L x W x H)		5.15 x 2.55 x 1.5 inches (80.0 x 59.7 x 38.0 mm) Tolerance 0.5 mm				
Cooling Method Natural Convection / Conduction Cooling / IUCFM FAN Safety Approval UL / IEC / EN 62368 Conducted EMI (Note 5) EN55032 Class B Radiated EMI (Note 5) EN55032 Class B / Class I Class A EMC EMS EN55035	Physical	Weight		280 g				
EMC Approval OL/IEC/EN 02300 EMS EN5032 Class B EMS EN5032 Class B / Class A EN5035 Class B / Class A EN5035	Cafet.	Cooling Method						
EMC EMS	Satery Approval		UL / IEU / EN 02008 EN55032 Class B					
EMC EMS EN55035		Radiated EMI (Note 5)		EN55032 Class B / Class II Class A				
	EMC	EMS		EN55035	EN55035			

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.





ELECTRICAL SPECIFICATION - HD130U SERIES

NOTE

- 1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- 2. Hold-up Time measured at 90% Vout.
- 3. Please check the derating curve for more details.
- 4. Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Digital Power power supply.
- 5. Please secure the power supply unit to your metal case by using the four screw holes in the corners for either Class I or Class II equipment
- 6. The size of the suggested aluminum plate is shown as below. And for optimizing thermal performance, the aluminum plate must have an even and smooth surface (or coated with thermal grease), and HD130 series must be firmly mounted at the center of the aluminum plate. 300 x 300 x 3.0 mm



7. CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.

8. The ambient temperature derating of 3.5 /1000m with fanless models and of 5 /1000m with fan models for operating altitude higher.

DERATING



If input voltage is lower than 100VAC, please refer to the output derating V.S. input voltage curve for details





MECHANICAL DIMENSIONS – HD130U SERIES





(CASE) (CASE)

Tolerance ±0.5 mm

A= For fixture to chassis only A=M3x0.5P B=For fixture to pcb/chassis only B=M3x0.5P

ASSEMBLY INSTRUCTIONS U Case T=2.5mm Customer is advised to screw into the threads no more than 2.5mm



Brands		Alex		JST		
PIN#	Single	Mating Housing	Terminal	Mating Housing	Terminal	
1	AC IN (N)				-3N SVH-41T-P1.1	
2	NO PIN	9396-3	96T series	VHR-3N		
3	AC IN (L)					
4~5	+DC OUT	0707 7	0/7		SVH-41T-P1.1	
6~7	-DC OUT	9090-0	YOI Series	VHR-4N		
8	PE	_	_	-	_	





ELECTRICAL SPECIFICATION - HD130E SERIES

Model No.		HD130E-112	HD130E-124	HD130E-148	
Max Output Wattage (with	10CFM FAN) (W)	130 W			
Max Output Wattage (Cond	duction Cooling) (Note 6)	130 W			
		105 W (100 VAC) /	110 W (100 VAC) /	115 W (100 VAC) /	
Max Output Wattage (Natu	ral Convection)	19 W (230 VAC)	120 W (230 VAC)	125 W (230 VAC)	
	Voltage (Note 3)	90-264 VAC	90-264 VAC		
100	Frequency (Hz)	47-63 Hz			
	Current (Full load)	< 2.0 A max. (115 VAC) / < 1.0 A max. (230 VAC)			
	Inrush Current (<2ms)	< 50 A max. (115 VAC)	< 50 A max (15 VAC) / < 85 A max (230 VAC)		
Input	Power Factor (at 230 VAC)	PEso 9 at Full Load			
	No Load	< 0.3W (115 / 230 VAC)			
	Voltage (V.DC.)	12V	24V	48V	
	Voltage Adj Range (V.DC.)	±10% Output Voltage			
	Voltage Accuracy	±2%			
	Current (with 10CFM FAN) (A) (max.)	10.833	5.417	2.708	
	Current (Conduction Cooling) (A) (max.)	10.333	5.417	2.708	
	Current at 100 VAC	8.75	4.583	2.396	
	(Natural Convection) (A) (max.) at 230 VAC	9.917	5	2.604	
	Line Regulation	±1%			
Output	Load Regulation (10–100%)	±1%			
	Minimum Load	0%	1		
	Maximum Capacitive Load	4,000µF	1,000µF	330µF	
	Ripple & Noise (max.) (Note 1)	160mV	1% Vout	1	
	Etticiency (at 230VAC)	90%	90%	91%	
	Hold-up Time (at 115 VAC) (Note 2)	8 ms min.			
	Our Drug Drug to still	Protection level 1 (nom	inal) : Auto recovery, Hic	cup mode	
	Over Power Protection	Protection level 2 (inst	Protection level 2 (instantaneous high current) : Latch		
		Protection level 1 (nom	inal) : Auto recovery		
	Over Voltage Protection	Protection level 2 (instantaneous high voltage) : Latch			
Protection	Overt Temperature Protection	Auto recovery			
		Protection level 1 (nominal) : Continuous, Auto recovery			
	Short Circuit Protection	Protection level 2 (instantaneous high current) : Latch			
	Input-Output (Note 4)	4000VAC or 5656VDC			
Isolation	Input-PE (Note 4)	2000VAC or 2828VDC			
isolution	Output-PE (Note 4)	1500VAC or 2121VDC			
	Operating Temperature	-30°C+80°C (with deratina)			
	Storage Temperature	-30°C+80°C			
	Temperature Coefficient	±0.05%/°C			
	Altitude During Operation	5000m			
	Humidity	20~90% RH			
Environment	MTBF	>250,000 h @ 25°C (MIL-HDBK-217F, Notice 1)			
	Vibration	IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z			
		axes)			
	Shock	IEC60068-2-27			
	Dimensions (L x W x H)	3.15 x 2.35 x 1.7 Inches (80.0 x 59.7 x 43.2 mm) Tolerance 0.5 mm			
Physical	Weight	292 g			
i nyaioui	Cooling Method	Natural Convection / Conduction Cooling / 10CFM FAN			
Safety	Approval	UL / IEC / EN 62368			
	Conducted EMI (Note 5)	EN55032 Class B			
EMC	Radiated EMI (Note 5)	EN55032 Class I Class B / Class II Class A			
-	EMS	EN55035	EN55035		

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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Digital Power Flexible Power Solutions

ELECTRICAL SPECIFICATION - HD130E SERIES

NOTE

- 1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- 2. Hold-up Time measured at 90% Vout.
- 3. Please check the derating curve for more details.
- 4. Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Digital Power power supply.
- 5. Please secure the power supply unit to your metal case by using the four screw holes in the corners for either Class I or Class II equipment
- 6. The size of the suggested aluminum plate is shown as below. And for optimizing thermal performance, the aluminum plate must have an even and smooth surface (or coated with thermal grease), and HD130 series must be firmly mounted at the center of the aluminum plate.



300 x 300 x 3.0 mm

DERATING

7. CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.

8. The ambient temperature derating of 3.5 /1000m with fanless models and of 5 /1000m with fan models for operating altitude higher.



If input voltage is lower than 100VAC, please refer to the output derating V.S. input voltage curve for details

MECHANICAL DIMENSIONS - HD130E SERIES



3

4~5

6~7

8

AC IN (L)

+DC OUT

-DC OUT

PE

9396-4

96T series

VHR-4N

Digital Power Corporation

COOLISYS COMPANY

dP Digital

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Powe

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SVH-41T-P1.1

HD130 Series¹¹