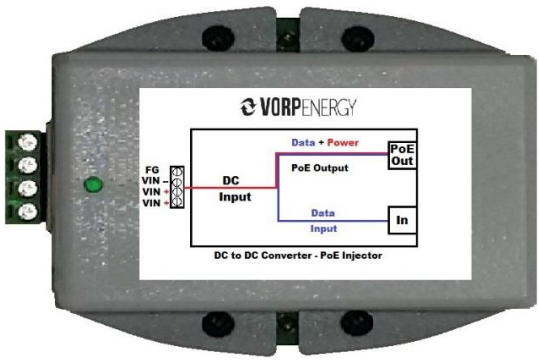


Features -	VE-DC/DC-2448-HP	VE-DC/DC-2448P
Input Voltage 9-36VDC		
PoE Output Voltage 56 VDC		
IEE 802.3af/at		
Industrial High Temperature Operation		
Integrated 10/100/1000 Gigabit PoE Inserters		
Short Circuit, Over Current, and Reverse/Over Voltage Protection		

Description -

The VE-DCDC Gigabit Series of DC to DC converters offered by Vorp Energy are a low cost and high efficiency solution for those requiring IEEE802.3af and IEEE802.3at or Passive Power over Ethernet from a 12VDC or 24VDC or 48VDC voltage source like a battery system or vehicle. They have an integrated POE injector to apply the power and data output to the CAT5 Ethernet cable. The output voltage is regulated and protected. They have two isolated inputs for connecting 2 power sources, like a primary and backup power source. A metal enclosure model is available for industrial applications.

They accept gigabit data-in to a shielded RJ45 Jack and provide gigabit data-out and PoE power on the shielded RJ45 output jack. They work by supplying power on Ethernet pins 4,5(V+) and 7,8(V-). They have various protections for surge, short circuit and overload. The units have power outputs up to 50W.

Part Numbers -	
VE-DC/DC-1248-HP	10-15VDC IN 56VDC PoE OUT, 35W DC to DC Converter/POE Inserter (Non-Passive)
VE-DC/DC-1248P	10-15VDC IN 56VDC PoE OUT, 35W DC to DC Converter/POE Inserter (Passive)
VE-DC/DC-2448-HP	18-36VDC IN 56VDC PoE OUT, 35W DC to DC Converter/POE Inserter (Non-Passive)
VE-DC/DC-2448P	18-36VDC IN 56VDC PoE OUT, 35W DC to DC Converter/POE Inserter (Passive)

RJ-45 Input (Data Only)			RJ-45 Output (Data & Power)	
Pin	Symbol	Description	Symbol	Description
1	BI_DA+	Data Pair A+	BI_DA+	Data Pair A+
2	BI_DA-	Data Pair A-	BI_DA-	Data Pair A-
3	BI_DB+	Data Pair B+	BI_DB+	Data Pair B+
4	BI_DC+	Data Pair C+	+Vdc + BI_DC+	power(+)+Data Pair C+
5	BI_DC-	Data Pair C-	+Vdc + BI_DC-	power(+)+Data Pair C-
6	BI_DB-	Data Pair B-	BI_DB-	Data Pair B-
7	BI_DD+	Data Pair D+	-Vdc + BI_DD+	power(-)+Data Pair D+
8	BI_DD-	Data Pair D-	-Vdc + BI_DD-	power(-)+Data Pair D-

Specifications -	VE-DC/DC-1248-HP	VE-DC/DC-1248P	VE-DC/DC 2448-HP	VE-DC/DC 2448P
DC Input Voltage	10VDC – 15VDC	10VDC – 15VDC	18VDC – 36VDC	18VDC – 36VDC
DC Input Connector	Removable Screw Type Compression Wire Terminal (12 AWG Max)			
DC Output Voltage	56V (802.3af/at) Non-Passive	56V (802.3at) (Passive)	56V (802.3af/at) Non-Passive	56V (802.3at) (Passive)
Data in & Data/POE Output Connector	RJ45 (Shielded)			
Output Current (max)	0.625A	0.9A	1.5A	1.5A
Output Power (max)	35W	35W	35W	35W
Self-Consumption Power	1W			
Efficiency (min)	75%			
Line Regulation	1%			
Load Regulation	5%			
Ripple	1%			
Noise	1%			
EMC Standards	FCC Class B EN55022 Class B			
Safety Standards	UL1950, CSA 22.2 & TUV EN60950			
Operating Temp	-30 to +60°C (-22 to +140°F)			
Operating Humidity	5% - 90%			
Storage Temp	-40 to +80°C (-40 to +176°F)			
Dimensions (LxWxH)	125 x 75 x 38mm (4.9 x 3 x 1.5")			
Weight	300g (10.6oz)			
Warranty	1 Year			

Surge – Lightning Protection -

Operating Voltage	Data 5V
Clamping Voltage	Data 16.5V (@ I PP = 5A, tp = 8/20μs, I/O pin to GND)
Peak Pulse Current	20A (tp = 8/20μs)
Pin Protected	4 Pin Protected (signal pairs)
Max. Shut Capacitance	<3pF (VR = 0V, f = 1MHz, I/O pin to GND) <1.5 pF (VR = 0V, f = 1MHz, Between I/O pins)
IEC COMPATIBILITY (EN61000-4_)	IEC6100- 4.2 (ESD) ±15kV (air), ±8kV (contact) IEC6100-4.4 (EFT 40A (5/50ns) IEC6100-4.5 (Lightning) 20A (8/20μs)

Example Application



- FG Frame Ground
Do Not connect to VIN-
- VIN- DC (-) Voltage In
- VIN+ DC (+) Voltage In
Isolated Input #1
- VIN+ DC (+) Voltage In
Isolated Input #2



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