

IRIS LED DRIVER/DIMMER™ BY POWER VECTOR

The IRIS Driver Dimmer provides the ultimate configuration flexibility.

SIMPLE, EFFICIENT, VERSATILE

- 86 watts; 80% efficiency
- Unique dimming technology (patent pending)
- Superior low level dimming
- Ideal for 350 mA to 1050 mA High Brightness LEDs
- Class 2 outputs
- USITT DMX512A compatible
- Up to 8 configurable output channels
- DMX loop through via RJ45 side mount or top mount options
- On board DIP switch option

APPLICATIONS

This compact solution is ideal for solid state applications in...

- Architectural
- Entertainment
- Transportation
- Signage

Any application requiring multi channel dimming or color mixing.

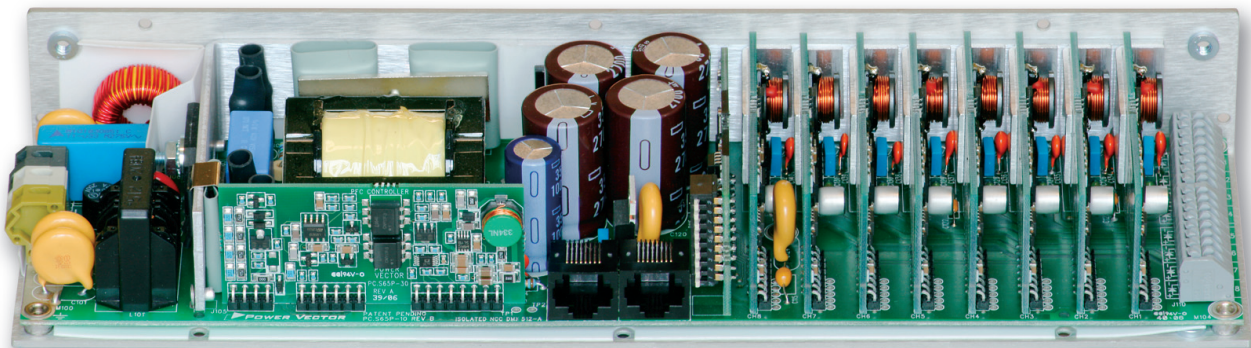


**THREE IN ONE
LED DRIVER/DIMMER**

POWER ISOLATION

DMX INTERFACE

CURRENT DRIVERS



Table#1: Output Configuration Options

Maximum Number of Output Channels	Output Driver Current Per Channel	Options	Model Number
8	350 mA	RJ45 Top Mount DMX Interface	65-AAAAAAAA-03
6	500 mA	RJ45 Top Mount DMX Interface	65-BBBBBB-03
4	700 mA	RJ45 Top Mount DMX Interface	65-CCCC-03
3	1050 mA	RJ45 Top Mount DMX Interface	65-EEE-03

Figure #1: DMX Address Versus Slot/Output Connector

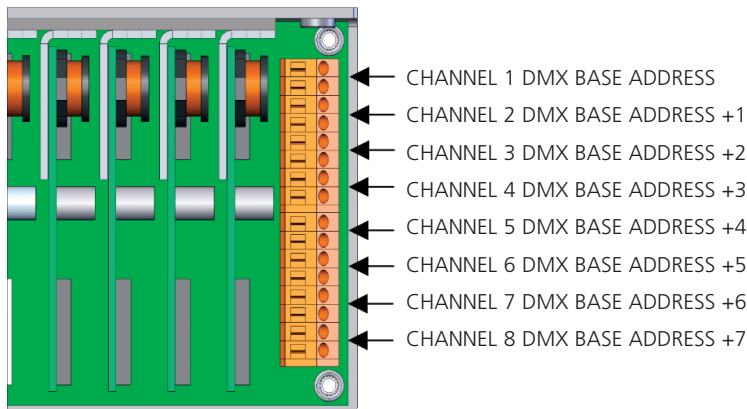
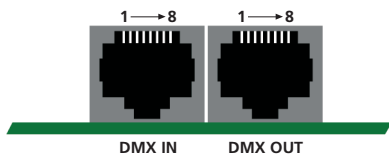


Figure #2: RJ45 Connector DMX Pinouts



Pin (Wire) #	Wire Color	DMX512 Function
1	white/orange	Data 1+
2	orange	Data 1-
3	white/green	Data 2+ (optional)
4	green	Data 2- (optional)
5	blue	Not assigned
6	white/blue	Not assigned
7	white/brown	Data link common (common reference) for data 1 (0 V)
8	brown	Data link common (common reference) for data 2 (0 V)

Note 1: Pin Numbering and color in accordance with ANSI/TIA/EIA-568 scheme T568B

Note 2: Pin 8 should be wired as signal common even if pins 3 and 4 are NOT wired so that both conductors 7 and 8 are at equal potential

Note 3: Driver/Dimmer utilizes pins 1,2 and 7 only

Warning: Accidental Connection to non-DMX equipment may result in damage to equipment. Pins 4 and 5 may carry voltages outside the EIA-485 range in telecom applications (e.g. telephone ringing). Pins 4 and 7 may carry voltages outside the EIA-485 range in other applications

Input Specifications			
Rated Input Voltage And Frequency	100-240 47-63	Vac Hz	
Input Voltage Range Input Frequency Range	90 to 265 47 to 63	Vac Hz	
Rated Input Current	@ 115 Vac @ 240 Vac rated load	1 0.5	Arms Arms
Inrush Surge Current	@ 230 Vac peak 1/2 sinewave	2	A pk max
Power Factor	@ 115 or 240 Vac, rated load per EN61000-3-2	0.9	WVA min
Input Current Total	@ 115 Vac	12	% max
Harmonic Distortion	@240 Vac rated load	15	% max

Output Specifications			
Rated Output Power	@ 60 °C ambient	86	W max
Output Voltage Dynamic Range	Under load conditions	6.06 to 27.0	Vdc
Output Current	excluding dimming current pulse	1.42	l _{pk} /l _{avg}
Crest Factor			max
Efficiency	60% 100% of rated load	75 82	% % typical
Load Regulation	For all output configurations	3	% max
Turn on delay	Time required for stabilization of all outputs	500	ms max
Output Channel Configuration Options (Table #1)	Maximum of 8 output channels. Maximum output voltage of 27 Vdc Maximum power of all channels not to exceed 86 W.	0.35 to 1.5	A
		9.45 to 40.5	W
Output Current Set Point Tolerance			+/-10 mA of set point current

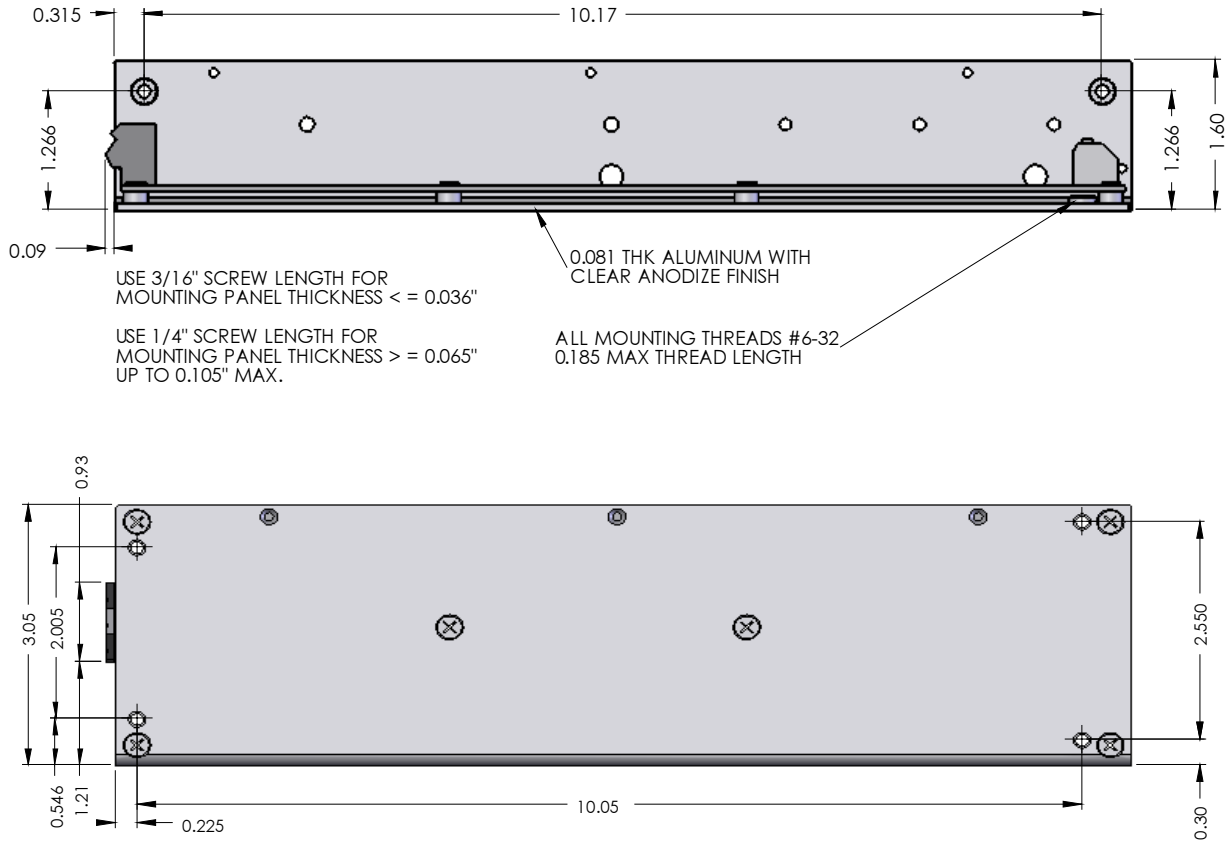
Environmental Specifications	
Operating Ambient Temperature	-20 °C to +60 °C
Cold Start Temperature	-20 °C
Storage Ambient Temperature	-40 °C to 80 °C
Cooling	Convection
MTBF	70,000 hours 4 channel configuration @ +40 °C, per MIL217F

Protection	
Output Protection	Over voltage, over current, short circuit protection
Over Temperature Protection	If ambient temperature reaches approximately 70°C, the outputs will throttle down to a 4% dimming level until ambient temperature drops. If the ambient temperature reaches approximately 80°C, the unit will shut down. Cycling of the AC input and reduction in ambient temperature is required to restart.
Output Interconnection Protection	Shutdown of module. Requires recycling of AC input to restart

Safety and EMC Specifications		
Standards	UL60950-1 & CSA 22.2 60950-1-03 class 2 outputs	
Leakage Current	@115 Vac, 60 Hz @230 Vac, 50 Hz	0.5 mA 1 mA
Isolation Dielectric Strength	Input/Output-reinforced Input/Chassis-basic	4300 Vdc 2500 Vdc
Conducted & Radiated Emissions	EN55022 FCC Title 47, Part 15	Class A Class A
Electrostatic Discharge Immunity	EN61000-4-2	
Radiated RFI Immunity	EN61000-4-3	
Electrical Fast Transient/Burst Immunity	EN61000-4-4	
Immunity to conducted disturbances	EN61000-4-6	
Power Frequency Magnetic Field	EN61000-4-8	
Voltage Dips, Short Interruptions & Voltage Variations	EN61000-4-11	

Interface Specifications		
Control Method	DMX512-A	
DMX Receiver Isolation	Isolated from earth ground	
DMX Connection Method	RJ45 connector Loop through capability	
Protection against ESD	Input and DMX lines EN61000-4-2	8kV air 4kV contact
Loss of Data Power Interruption	Will save last known state to memory	
Start Codes	Will only respond to NULL START code	

Mechanical Specifications



Input and Output Connector Details:

Input Connector	Output Connector
Wago push wire connection	Wago push wire connection
254 Series	250 Series
12 AWG to 18 AWG solid wire rated 75°C minimum	16 AWG to 20 AWG solid wire rated 75°C minimum

DISCLAIMER: POWER VECTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. POWER VECTOR DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.