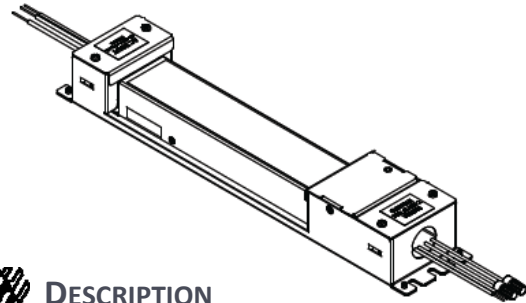




KEY FEATURES

- 120-277 V_{AC} Input
- Constant Voltage Output
- 0-10 Dimming with PWM output
- UL Listed
 - UL 8750
 - Class 2 LED power supply
 - Dry and damp locations
- Very High Efficiency 90% typical above 50% load
- Low THD (<20% from 50-100% load)
- AC Input and DC Output wiring compartments
- Long life
- 5 year warranty
- Wide temperature range (-40°C to 90°C case)
- RoHS Compliant



DESCRIPTION

The T-BAR ECO DC power supply provides a single 24V constant voltage output with PWM dimming from a 0-10V input. Junction boxes are provided for both AC Input and DC Output connections.

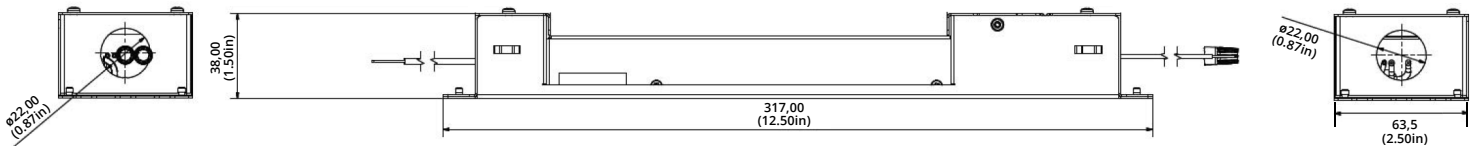
MODEL CODING AND OUTPUT RATINGS

Model Number	Rating
Base Model Number	<i>Pout Max</i> (W) <i>Vout</i> (VDC) <i>Iout Max</i> (mA)
TBECODC-DIM/PS-HP-100W-UNV	100 24 4000 ¹

Note 1: This PSU meets NEC Class 2 requirement

MECHANICAL DETAILS

- Ingress Protection: IP20
 Weight: 0.80 kg (1.75 lbs)
 Volume: 199.1 cm³ (11.85 in³)
 Dimensions: 317 x 63.5 x 38.0mm (12.50 x 2.50 x 1.50in)
 I/O Connections: AC Input and DC output connections are made inside the wiring junction boxes



SAFETY AGENCIES APPROVALS

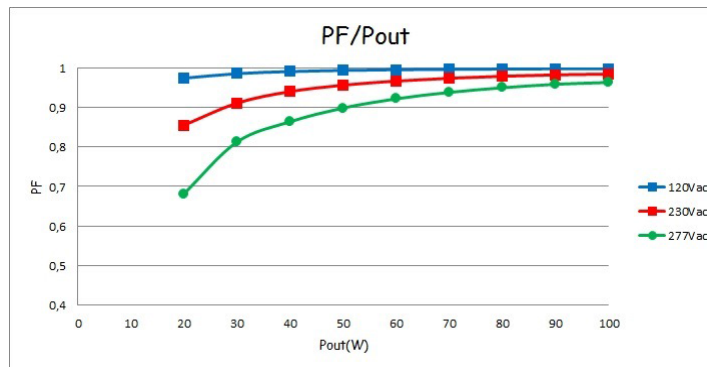
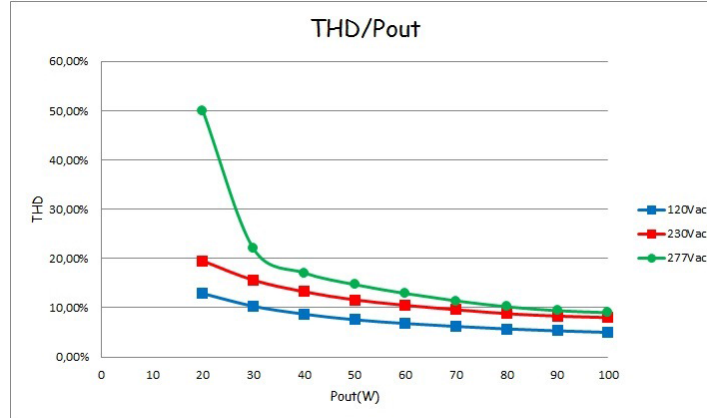
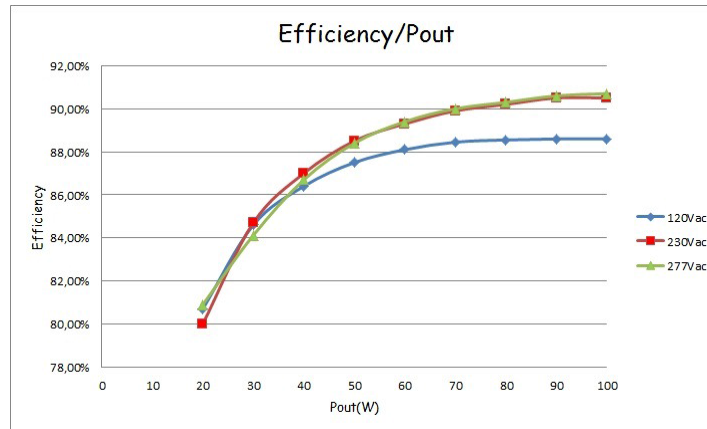
Certification Body	Safety Standards	Details
	UL Listed ANSI / UL8750, CSA C22.2 No.250, UL and CSA approval as Class 2 output UL 2043: Fire Test for Heat and Visible Smoke Release for Discrete Products and their Accessories Installed in Air Handling Spaces UL2577: Suspended Ceiling Grid Low Voltage Lighting Systems LED Driver suitable for dry and damp location	

Efficiency and PFC performance

EFFICIENCY AND PFC PERFORMANCE

Gelo power Supply shows good efficiency and power fact or performance even when operating at low loads. Following are the characteristic plots. Typical efficiency value is 90%, while the PF is >0.9 from 20% max load at 120Vac, 30% max load at 230Vac, 60% max load at 277Vac. They are performed connecting the Gelo power supply to an active load in resistance mode.

RGLD100-24

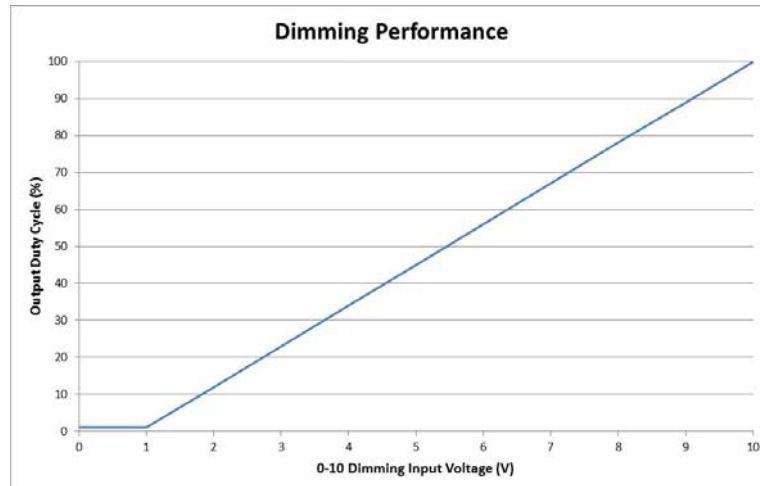


INPUT SPECIFICATIONS

Specification	Test Conditions / Notes	Min.	Nominal	Max.	Units
AC Input Voltage	120-250V _{AC} for Europe; 120-277V _{AC} for USA and Canada	90	120-277	305	V _{AC}
Input Frequency		47	50/60	63	Hz
Input Current	120V _{AC} Rated Load	-	-	0.95	A
	230V _{AC} Rated Load	-	-	0.48	
	277V _{AC} Rated Load	-	-	0.40	
Inrush Current	120V _{AC}	-	-	20.8	A _{pk}
	230V _{AC}	-	-	40.6	
	277V _{AC}	-	-	47.3	
Inrush Current	120V _{AC}	-	-	16.2	A _{pk} /200μs
	230V _{AC}	-	-	29.8	
	277V _{AC}	-	-	37.6	
THD	120V _{AC} Rated Load	5	-	7	%
	230V _{AC} Rated Load	8	-	11	
	277V _{AC} Rated Load	10	-	14	
Efficiency	120V _{AC} Rated Load	88	-	89	%
	230V _{AC} Rated Load	90	-	91	
	277V _{AC} Rated Load	90	-	91	
No Load Power Consumption	120V _{AC}	-	-	4.2	W
	230V _{AC}	-	-	3.5	
	277V _{AC}	-	-	3.5	
Power Factor	120V _{AC} Rated Load	0.98	-	0.99	
	230V _{AC} Rated Load	0.96	-	0.98	
	277V _{AC} Rated Load	0.94	-	0.95	
Harmonic Current	Complies with EN-61000-3-2, Class C load >25W.				

OUTPUT SPECIFICATIONS

Specification	Test Conditions / Notes	Min.	Nom.	Max.	Units
Output Power Rating	Power limiting	-	-	100	W
Output Voltage		-	24	-	V _{DC}
Output Current		-	-	4000	mA
Ripple Voltage	Measured (V _{out_Pk-pk} /RMS)	-	-	1	%
Output Voltage Regulation		-	-	±3	%V _{out}
Start-up time		-	-	500	ms
Output Current in Dimming	Duty Cycle vs 0-10V dim input – See graph	1	-	100	%
Maximum 0-10 sourcing current		-	-	500	uA
Isolation DC Output – 0-10 Input		-	100	-	V _{DC}



PROTECTION FEATURES

Specification	Test Conditions / Notes	Min.	Nominal	Max.	Units
Output Over Current	Shut-down, auto Recovery		4.1		A
Output Short-Circuit	Shut-down, auto Recovery	-	-	-	-
Over-Temperature Top Case	Shut-down, auto Recovery		90		°C
Isolation Primary-to-Secondary	Reinforced/double Insulation meets IEC/EN61347-2-13 Class II				

ENVIRONMENTAL SPECIFICATIONS

Specification	Test Conditions / Notes	Min	Nom	Max	Units
Top Case Temperature Range	Refer to the Top Case measurement point	-40	-	90	°C
Ambient Temperature Range		-40		50	°C
Storage Temperature		-40		85	°C
Operating Relative Humidity	Non-condensing	5		95	%
Surface Temperature	Exposed surfaces temperature under all operating conditions	-		90	°C
Cooling	Convection cooled				
Shock EN 60068-2-27	Operating: Half sine, 30 g, 18 ms, 3 axes, 6x each (3 positive and 3 negative). Non-Operating: Half sine, 50 g, 11 ms, 3 axes, 6x each (3 positive and 3 negative).				
Vibration EN 60068-2-64	Operating: 5 – 500Hz, 1gRMS (0.02 g ² /Hz), 3 axes, 30 min. Non-Operating: 5 – 500Hz, 2.46gRMS (0.0122 g ² /Hz), 3 axes, 30 min.				
Vibration EN 60068-2-6	Operating Sine, 10 – 500Hz, 1g, 3 axes, 1 oct/min., 60 min.				
MTBF	Full Load, 40°C Ambient, 80% Duty cycle, Telcordia SR-332 Issue 2	-	500k	-	Hours
Useful Life	Nominal V _{AC} , 40°C Ambient.	-	44k	-	Hours

ELECTROMAGNETIC COMPATIBILITY (EMC) – EMISSIONS

Phenomenon	Conditions / Notes	Standard	Performance Class
Conducted Emission	Test at 120/277V _{AC}	EN55032	Class A
Conducted and Radiated Emission	Test at 120/277V _{AC}	FCC CFR47- part 15/subpart B	Class A
Harmonic Current Emissions		EN61000-3-2	Class C
Voltage Changes, Fluctuation and Flicker		EN61000-3-3	

ELECTROMAGNETIC COMPATIBILITY (EMC) – IMMUNITY

Phenomenon	Conditions / Notes	Standard	Note
Equipment for general lighting purposes -EMC Immunity Req.		EN 61547	
ESD (Electrostatic Discharge)		EN 61000-4-2	
Radiated Radio-Frequency electromagnetic field		EN 61000-4-3	
Electric Fast Transient / Burst	±1kV L-L	EN 61000-4-4	
Surge	Level ±4.0kV L-N/L-GND	EN 61000-4-5	
Conducted disturbances induced by Radio-Frequency fields		EN 61000-4-6	
Voltage Dips, short interruptions and Voltage Variations		EN 61000-4-11	
Non repetitive damped oscillatory transient, Ring wave	2.5kV	ANSI C.62.41	Category A