

## 40W 1-10V Constant Voltage LED Driver



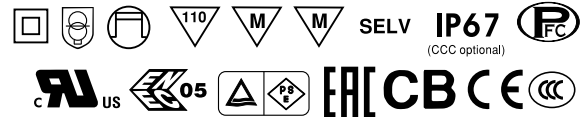
### Product Features

Built-in 3 in 1 dimming function (1~10VDC, PWM signal or resistance)

Fully encapsulated with IP67 level

Protections: Short circuit/ Overload/ Over voltage/ Over temperature

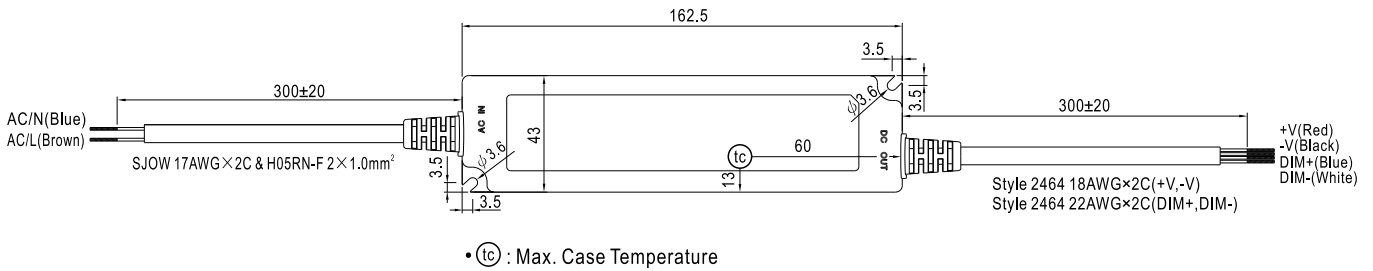
- Universal AC input (up to 305VAC) / Full Range
- Built-in active PFC function
- Fully isolated plastic case
- Isolation class II, no F.G.
- Class 2 power unit
- Suitable for dry, damp, wet location
- 5 years warranty



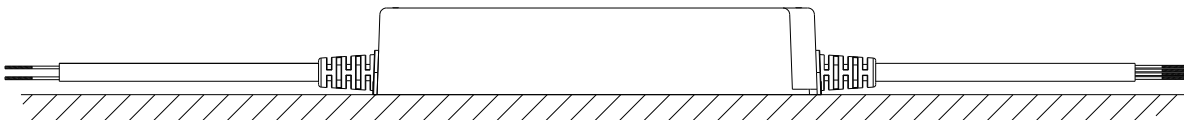
### Product Description

If you're looking for something that will power your 1-10V dimming systems, then you've come to the right place – Mean Well's 25W 1-10V Constant Voltage LED Driver is well up to the task.

### Technical Dimensions



### Recommended Mounting Direction



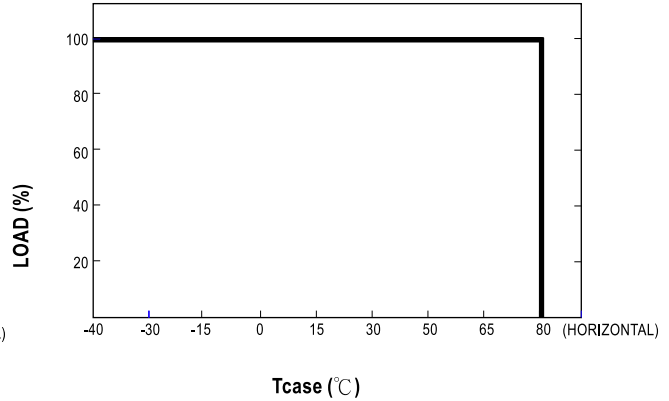
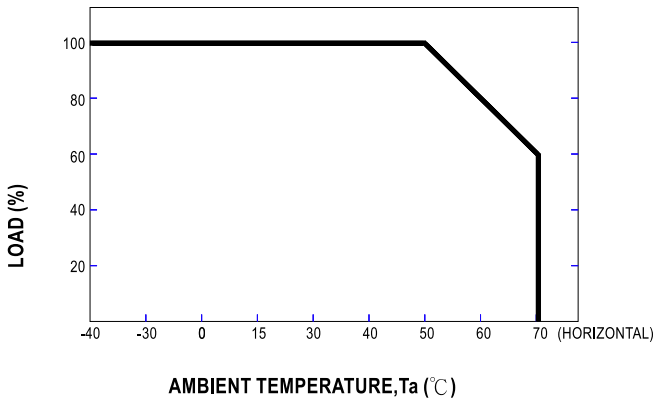
## 40W 1-10V Constant Voltage LED Driver

### Technical Specifications

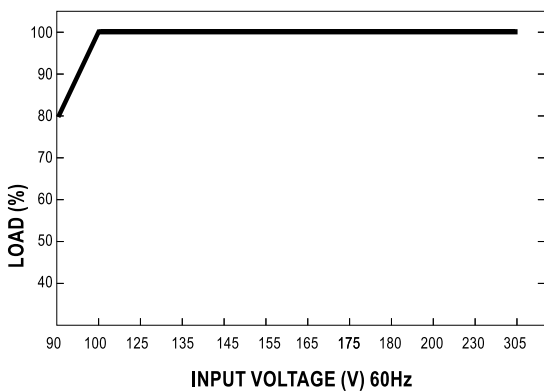
MODEL	LPF-40D-12	LPF-40D-15	LPF-40D-20	LPF-40D-24	LPF-40D-30	LPF-40D-36	LPF-40D-42	LPF-40D-48	LPF-40D-54		
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V	
	RATED CURRENT	3.34A	2.67A	2A	1.67A	1.34A	1.12A	0.96A	0.84A	0.76A	
	RATED POWER <small>Note.5</small>	40.08W	40.08W	40W	40.08W	40.2W	40.32W	40.32W	40.32W	41.04W	
	CONSTANT CURRENT REGION <small>Note.2</small>	7.2 ~ 12V	9 ~ 15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V	
	CURRENT RIPPLE	5.0% max. @rated current									
	CURRENT TOLERANCE	±5.0%									
	SETUP, RISE TIME <small>Note.6</small>	1000ms, 80ms / 115VAC					500ms, 80ms / 230VAC				
HOLD UP TIME (Typ.)	16ms/230VAC					16ms/115VAC					
INPUT	VOLTAGE RANGE <small>Note.5</small>	90 ~ 305VAC 127 ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" section)									
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR	PF ≥ 0.97/115VAC, PF ≥ 0.95/230VAC, PF ≥ 0.92/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)									
	TOTAL HARMONIC DISTORTION	THD < 20% (@load ≥ 60%/115VAC, 230VAC; @load ≥ 75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)									
	EFFICIENCY (Typ.)	84%	85%	86%	87%	88%	88%	88.5%	89%	89%	
	AC CURRENT	0.6A / 115VAC			0.3A / 230VAC		0.25A/277VAC				
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=210µs measured at 50% Ipeak) at 230VAC; Per NEMA 410									
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	12 units (circuit breaker of type B) / 20 units (circuit breaker of type C) at 230VAC									
LEAKAGE CURRENT	<0.75mA / 240VAC										
PROTECTION	OVER CURRENT	95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed									
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.									
	OVER VOLTAGE	15 ~ 17V	17.5 ~ 21V	23 ~ 27V	28 ~ 35V	34 ~ 40V	41 ~ 49V	46 ~ 54V	54 ~ 63V	59 ~ 66V	
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	WORKING TEMP.	Tcase=-40 ~ +80°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)									
	MAX. CASE TEMP.	Tcase=+80°C									
	WORKING HUMIDITY	20 ~ 95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)									
VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes										
SAFETY & EMC	SAFETY STANDARDS <small>Note.8</small>	UL8750, CSA C22.2 No. 250.0-08, ENEC EN61347-1, EN61347-2-13 independent, EN62384, EAC TP TC 004, IP67, GB19510.1, GB19510.14 approved; design refer to UL60950-1, TUV EN60950-1									
	WITHSTAND VOLTAGE	I/P-O/P: 3.75KVAC									
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION <small>Note.8</small>	Compliance to EN55015, EN61000-3-2 Class C (@load ≥ 60%); EN61000-3-3, GB17743 and GB17625.1, EAC TP TC 020									
EMC IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, light industry level (surge immunity Line-Line 2KV), EAC TP TC 020										
OTHERS	MTBF	1144.7K hrs min. Telcordia SR-332 (Bellcore); 394.9Khrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	162.5*43*32mm (L*W*H)									
	PACKING	0.45Kg; 32pcs/15.4Kg/0.93CUFT									
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.</p> <p>2. Please refer to "DRIVING METHODS OF LED MODULE".</p> <p>3. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>4. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.</p> <p>6. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.</p> <p>7. The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</p> <p>8. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch without permanently connected to the mains.</p> <p>9. This series meets the typical life expectancy of &gt;50,000 hours of operation when Tcase, particularly (Tc) point (or TMP, per DLC), is about 75°C or less.</p> <p>10. Please refer to the warranty statement on MEAN WELL's website at <a href="http://www.meanwell.com">http://www.meanwell.com</a></p> <p>11. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>12. For any application note and IP water proof function installation caution, please refer our user manual before using. <a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a></p>										

## 40W 1-10V Constant Voltage LED Driver

### Output Load vs Temperature



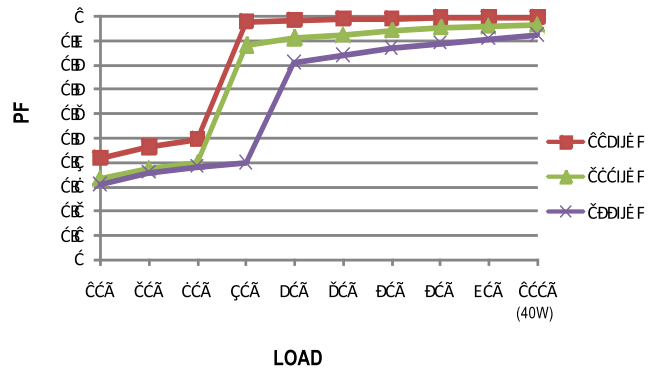
### Static Characteristic



※ De-rating is needed under low input voltage.

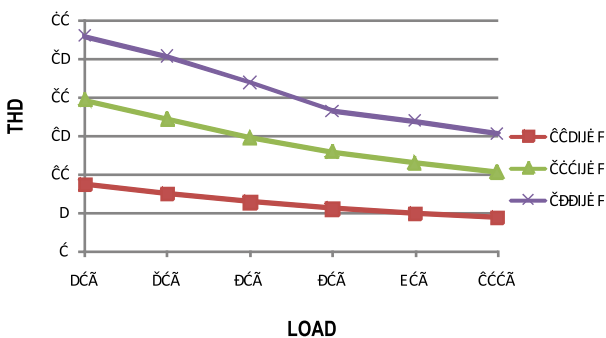
### Power Factor(PF) Characteristic

※ Tcase at 70°C



### Total Harmonic Distortion

※ 48V Model, Tcase at 70°C



### Efficiency vs Load

LPF-40D series possess superior working efficiency that up to 89% can be reached in field applications.

※ 48V Model, Tcase at 70°C

