POWER SOURCE

DALI Dimmable LED Driver with PWM Output

DDV-20 series

Features:

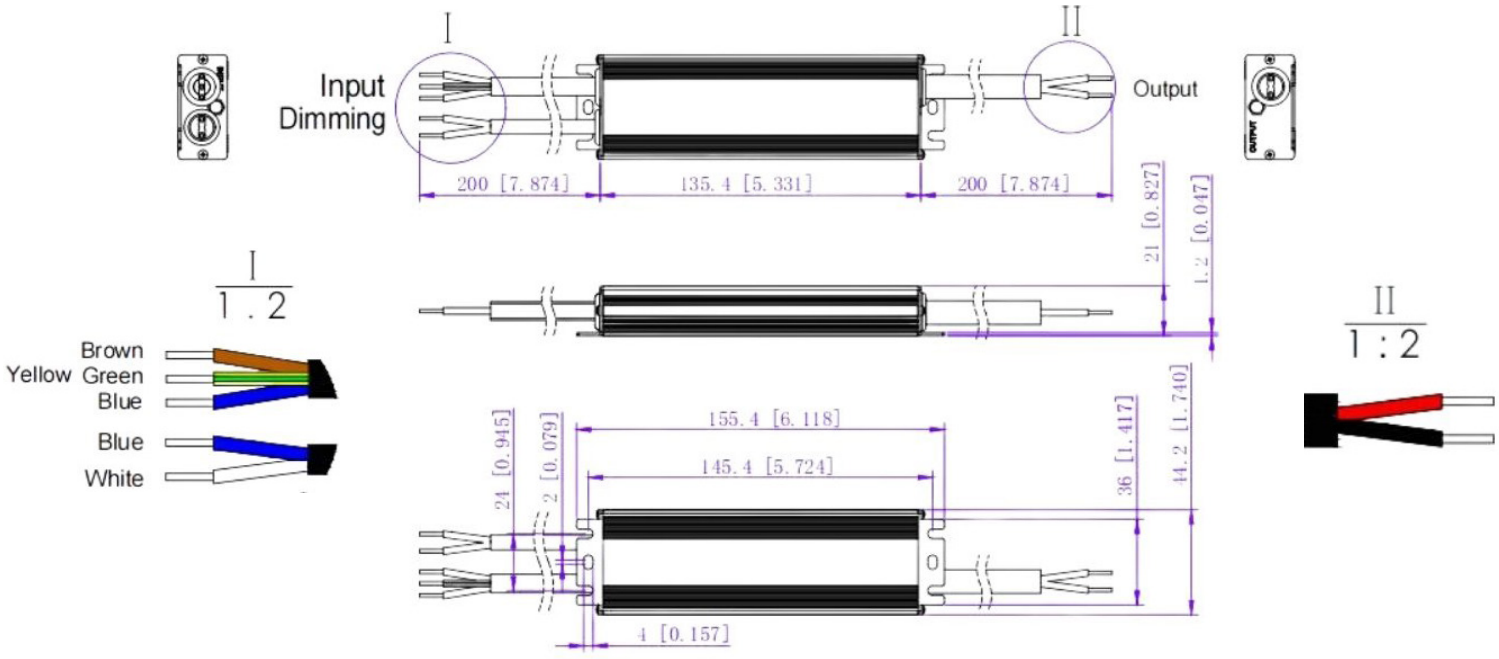
- AC Input Range: 200~240VAC
- Constant Voltage with PWM Output
- Protections: Short Circuit, Over Load, Over Temperature
- Class I Power Supply
- IP66 design for outdoor installation
- Factory fitted flex and AU Plug
- DALI Protocol IEC 62386

Model		DDV-20-24
Output	DC Voltage (V)	24V
	Voltage Tolerance	±3%
	Voltage Regulation	≤0.5%
	Rated Current	0.416A
	Rated Power	20W
	Load Regulation	≤2%
	Voltage Ripple	160mVp-p
	Overshoot voltage	<1% (full load), <2% (no load)
Input	Voltage Range	100~277VAC
	Frequency Range	47~63Hz
	Power Factor @ Full load	>0.99@120VAC >0.95@230VAC >0.92@277 VAC
	THD (Typ.) @ Full load	≤10%@120VAC ≤10%@230VAC ≤10%@277VAC
	Efficiency @ full load	>84.0%@120VAC >83.0%@230VAC >83.0%@277VAC
	AC Current (Max.)	0.12mA
	Inrush Current	1.94A,35us @50%Ipeak 120VAC 3.76A,36us @50%Ipeak 230VAC 4.52A,34us @50%Ipeak 277VAC
	Leakage Current	<0.5mA
Protection	Short circuit	Hiccup mode, automatically recovers after fault condition is removed
	Over loading	≤120%, Hiccup mode, recover automatically after fault condition is removed
	Over Temperature	When the ambient temperature exceeds 50°C ±5°C, the output is turned off
Environment	Working TEMP.	-40 ~ +50°C (refer to de-rating curve)
	Working humidity	20-95%RH, non-condensing
	Storage TEMP., humidity	-40~+80°C,10-95%RH non-condensing
	TEMP. coefficient	±0.03%/°C (0~50°C)
	Vibration	10~500Hz, 5G 10min./1 cycle,period for 60min. each along X,Y,Z axes
Safety & EMC	Safety standards	EN61347-1 EN61347-2-13
	Withstand voltage	I/P-O/P:3.75KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC (EU) I/P-O/P:1.88KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC (US)
	Isolation resistance	I/P-O/P:100MΩ / 500VDC / 25°C / 70%RH
	EMC immunity	EN61000-4-2,3,4,5,6,11; EN61547
	EMC emissions	EN55015; EN61000-3-2,3
Others	Net. weight	0.45kg
	Size	155.4*44.2*21mm (L*W*H)
	Packing	350*245*205mm outside carton 30PCS /CTN
Notes	1. Unless otherwise specified, all specifications are measured at 120V input, rated load, and 25°C ambient temperature. 2. In the case of low input voltage, derated output should be used to ensure a long service life. 3. Regarding LED driver load types where the driver meets the harmonic emissions requirements of ANSI C82.77-10.	

MCB Recommendation

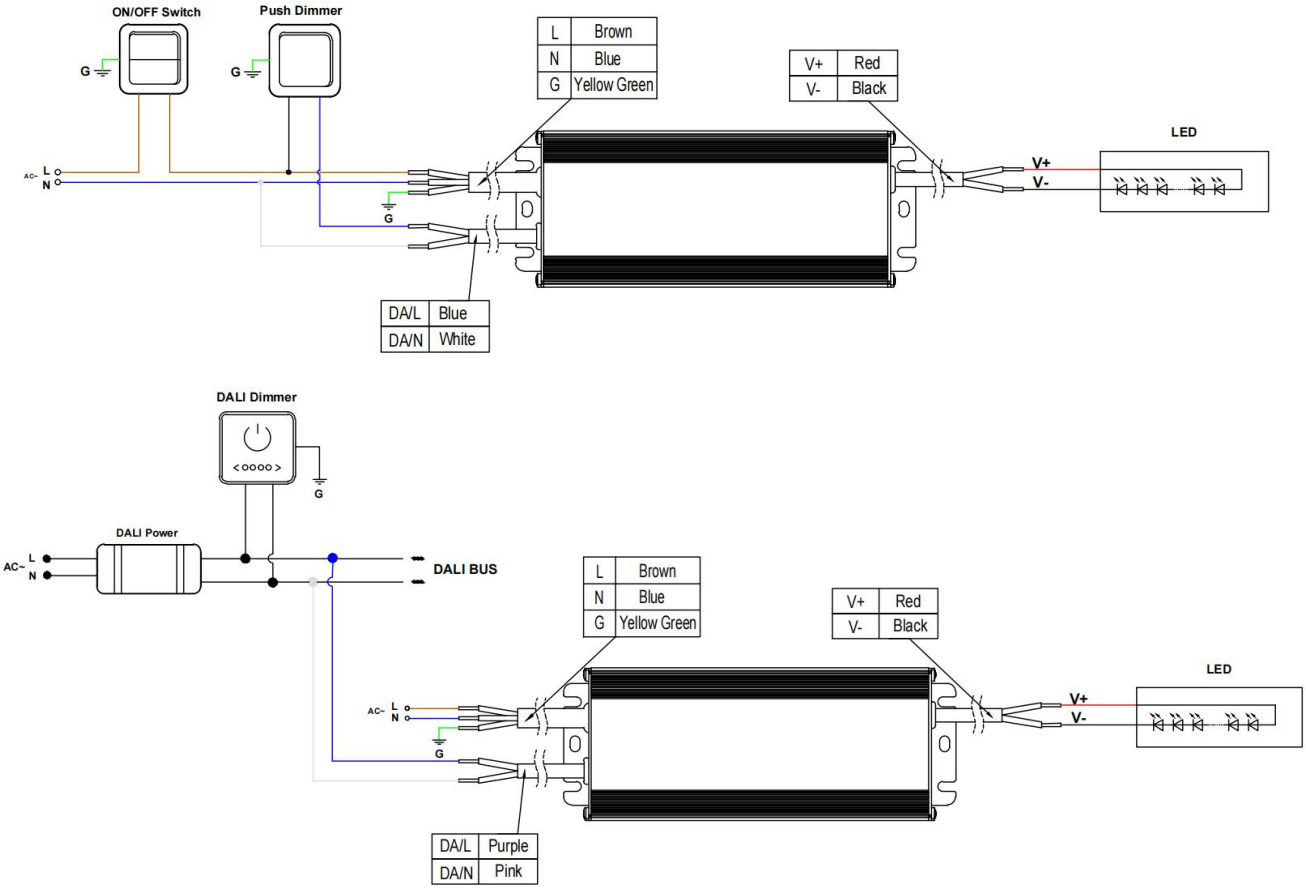
When the input voltage is 120VAC,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The Number of LED Driver
C Type	10A	40
	13A	52
	16A	64
	20A	80
When the input voltage is 230VAC,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The Number of LED Driver
C Type	10A	73
	13A	94
	16A	116
	20A	145
When the input voltage is 277Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The Number of LED Driver
C Type	10A	85
	13A	110
	16A	135
	20A	169

Mechanical Specifications

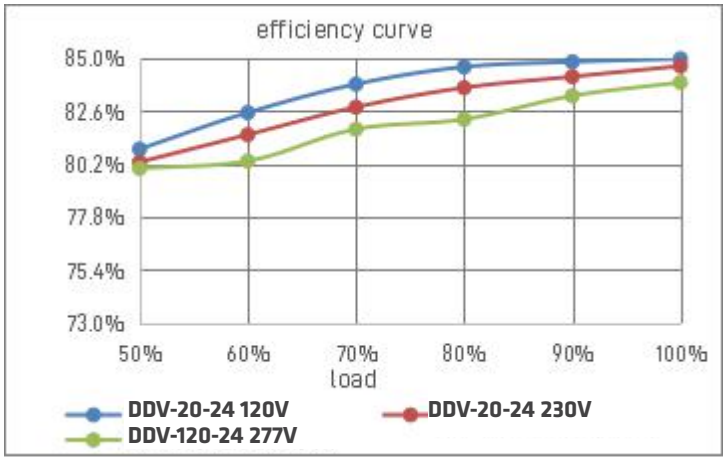


- Input: 1m AU Flex and Plug.
- Output: Rubber Cable 2*10.75mm^{2,} Red: (V Positive), Black: (V-Negative)
- Dimming: Rubber Cable 2*1.00mm^{2,} Blue: DA/L, White DA/N (Non-

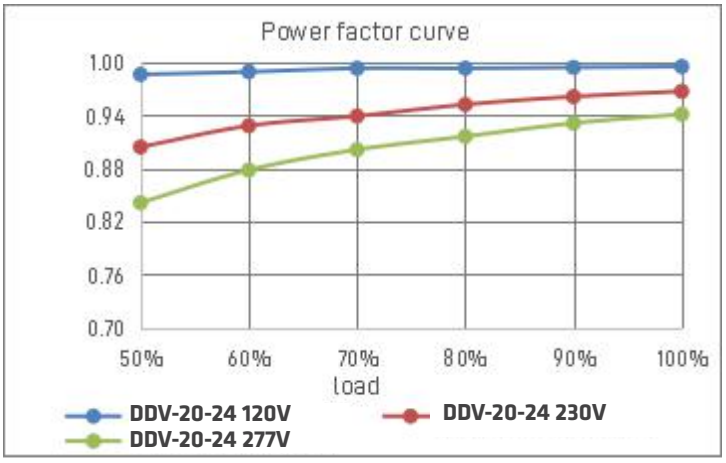
Connection Diagram



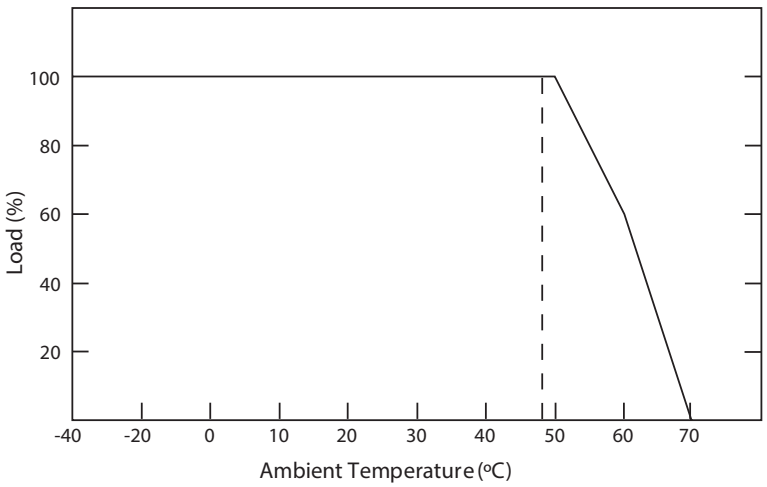
Efficiency Curve



Power Factor Curve



Derating Curve



- If being used in higher ambient temperatures, ensure the load on the LED driver is de-rated in accordance with this chart. Failure to do so could lead to a failure, which is not covered by the warranty

1) Refer to Power Source Installation Manual.
2) Do Not Cover.
3) This LED driver should be installed by a qualified electrician.
4) Please make sure the LED driver is installed with adequate ventilation around it to allow for heat dissipation.
5) Ensure that all wiring is correct before testing in order to avoid damage to the LED driver, or the LEDs.