

Powerland's 720W Programmable series offers digital programmable drivers with wide-range adjustable output current, together with 12V/250mA auxiliary output (optional) for smart lighting.

The output current of this series are programmable, and designed for 0(0.05)-10V/PWM/Rset/Clock/DMX (upon request) ultra-deep dimming applications. Bluetooth and ZigBee dimming are provided in B and Z versions, respectively.



Applications

- Outdoor & indoor LED lights
- LED lights with flexible current settings
- Parking lights and architecture decoration lights
- LED horticulture lights
- LED fishing lights
- Wireless dimming lights

Specifications

Model	Output Power@Input Voltage	Output Voltage Range	Max. Output Current	Efficiency	Max. Case Temperature	THD	Power Factor	Dimensions
PLD720-SMT-24-H1-X(B/Z)	720W @ 240-382Vac 530W @ 195-382Vac 430W @ 108-382Vac	18-24V	30A	Up to 97%	90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-36-H1-X(B/Z)		27-36V	20A		90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-42-H1-X(B/Z)		31-42V	17.14A		90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-48-H1-X(B/Z)	720W @ 240-382Vac 580W @ 195-382Vac 480W @ 108-382Vac	36-48V	15A		90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-54-H1-X(B/Z)		42-54V	13.33A		90°C	<20%	>0.95	260x123x54mm

* Based on 25°C ambient temperature, rated input voltage, and full load.

** Refer to the next page for detailed specifications for this series of LED drivers.

Features

- Ultra-deep dimming down to 0.5%, compatible with DMX (upon request)
- Universal input voltage: 108-382Vac
- 12V/250mA auxiliary output (optional)
- Constant current & constant voltage output
- Output current & output voltage programmable
- Compatible with 0(0.05)-10V, PWM, external resistor, clock, DMX (upon request) dimming
- Support wireless dimming (Bluetooth or ZigBee protocol)
- Support isolated 12V auxiliary power output & dimming (optional)
- > 70,000 hours lifetime at 75°C Tcase
- > 7 years warranty at 75°C Tcase
- Min. operating temperature @ -40°C
- Safety according to UL8750
- Surge voltage rating: L-N 5.5kV, L/N-Earth 11kV
- EMC according to FCC Part 15 Class A
- Lightning, OVP, SCP, OTP & Open Circuit Protection

Electrical Specifications

Model	PLD720-SMT-24-H1-X(B/Z)	PLD720-SMT-36-H1-X(B/Z)	PLD720-SMT-42-H1-X(B/Z)	PLD720-SMT-48-H1-X(B/Z)	PLD720-SMT-54-H1-X(B/Z)
Suffix	The suffix "X" can be A,B or C, to represent different input voltage range; A is for 240-382Vac, B is for 195-382Vac, C is for 108-382Vac.				
Output Voltage Range	18-24V	27-36V	31-42V	36-48V	42-54V
Current Programmable	Yes	Yes	Yes	Yes	Yes
Max Output Current	A Version: 30A B Version: 22.1A C Version: 17.92A	A Version: 20A B Version: 14.7A C Version: 11.94A	A Version: 17.14A B Version: 12.6A C Version: 10.2A	A Version: 15A B Version: 12.1A C Version: 10A	A Version: 13.33A B Version: 10.74A C Version: 8.89A
Output AUX Power Voltage (Optional)	12V	12V	12V	12V	12V
Output AUX Power Current (Optional)	0-250mA	0-250mA	0-250mA	0-250mA	0-250mA
Dimming	0(0.05)-10V, PWM, External Resistor, Clock, DMX (upon request)				
Wireless Dimming	B Version: Bluetooth; Z Version: ZigBee				
Output Power	The full load power of A version is 720W, the full load power of B version is 580W(530W), the full load power of C version is 480W(430W);				
Max. Current Ripple	± 5%	± 5%	± 5%	± 5%	± 5%
Max. Voltage Ripple	250mVp-p	250mVp-p	250mVp-p	350mVp-p	350mVp-p
Input Voltage Range	108-382Vac	108-382Vac	108-382Vac	108-382Vac	108-382Vac
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Max. Input Current	A: 3.5A / B: 3.2A / C: 5A	A: 3.5A / B: 3.2A / C: 5A	A: 3.5A / B: 3.2A / C: 5A	A: 3.5A / B: 3.5A / C: 5.5A	A: 3.5A / B: 3.5A / C: 5.5A
Max. Input Power	A: 800W / B: 590W / C: 490W	A: 800W / B: 590W / C: 490W	A: 800W / B: 590W / C: 490W	A: 800W / B: 650W / C: 550W	A: 800W / B: 650W / C: 550W
Power Factor	>0.98 @ 120Vac & 480W(430W) load, >0.96 @ 230Vac & 580W(530W) load, >0.95 @ 347Vac & 80-100% full load				
Efficiency	95.5%	96%	96.5%	97%	97%
Max. Open Circuit Voltage	28V	39V	45V	51V	63V
THD	< 20% 277-347Vac 80%-100% 720W load, < 20% 195-265Vac 80%-100% 580W(530W) load, < 20% 120-185Vac 80%-100% 480W(430W) load				
Protections	OVP, OCP, SCP, OTP & Open Circuit Protection				
Environmental Protection	UL Dry & Damp & Wet				
Working Temperature	-40-+70°C				
Max. Case Temperature	90°C				
Surge Protection	L-N 5.5kV, L/N-Earth 11kV				
ANSI Surge Type	1.2/50µs Combination Wave (w/t 2Ω)				
Agency Approbations	UL8750				
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class A				
Isolation	Primary to Secondary: 3750Vac / 10mAMax / 60seconds Primary to Earth: 1875Vac / 10mAMax / 60seconds Secondary to Earth: 1150Vac / 10mAMax / 60seconds				
Case Type	Aluminum				
Dimension	260x123x54mm				
Mounting Length	271mm				
Overall Length	290mm				
Weight	3.2kg				
Life Time	>70,000 hours @ full load, 75°C Tcase				

* Unless otherwise noted, the data are based on 25°C ambient temperature at rated input voltage, and full load.