

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	Max. Output Power	Input Voltage	Output Voltage Range	Max. Output Current	Efficiency	Max. Case Temperature	THD	Power Factor	Dimensions
PLD720-SMT-24-H2(B/Z)	720W	277~460Vac	18~24V	30A	95%	90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-36-H2(B/Z)	720W	277~460Vac	27~36V	20A	95%	90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-42-H2(B/Z)	720W	277~460Vac	31~42V	17.14A	95.5%	90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-48-H2(B/Z)	720W	277~460Vac	36~48V	15A	95.5%	90°C	<20%	>0.95	260x123x54mm
PLD720-SMT-54-H2(B/Z)	720W	277~460Vac	42~54V	13.33A	96.0%	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: 277~460Vac
- 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)
- > 70,000 hours lifetime at 75°C Tcase
- > 7 years warranty at 75°C Tcase
- Min. operating temperature @ -40°C
- Safety according to EN61347-2-13
- Surge voltage rating: L-N 5.5kV, L/N-Earth 11kV
- EMC according to 55015 Class B
- Lightning, OVP, SCP, OTP & Open Circuit Protection

Electrical Specifications

Model	PLD720-SMT-24-H2(B/Z)	PLD720-SMT-36-H2(B/Z)	PLD720-SMT-42-H2(B/Z)	PLD720-SMT-48-H2(B/Z)	PLD720-SMT-54-H2(B/Z)
Output Voltage Range	18-24V	27-36V	31-42V	36-48V	42-54V
Current Programmable	Yes	Yes	Yes	Yes	Yes
Max Output Current	30A	20A	17.14A	15A	13.33A
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	720W	720W	720W	720W	720W
Max. Current Ripple	±5%	±5%	±5%	±5%	±5%
Max. Voltage Ripple	250mVp-p	250mVp-p	250mVp-p	350mVp-p	350mVp-p
Input Voltage Range	277-460Vac	277-460Vac	277-460Vac	277-460Vac	277-460Vac
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Max. Input Current	4A	4A	4A	4A	4A
Max. Input Power	810W	810W	810W	810W	810W
Power Factor	>0.95 @ 277Vac -400Vac & 80-100% full load				
Efficiency	95%	95%	95.5%	95.5%	96.0%
Max. Open Circuit Voltage	28V	39V	45V	51V	63V
THD	<20% @ 277Vac -400Vac & 80-100% full 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	EN61347-2-13				
Electromagnetic Compliance	55015 Class B				
Isolation (Primary to Secondary)	3750Vac / 10mA _{Max} / 60seconds				
Isolation (Primary to Earth)	1875Vac / 10mA _{Max} / 60seconds				
Isolation (Secondary to Earth)	1150Vac / 10mA _{Max} / 60seconds				
Case Type	Aluminum				
Dimension	260x123x54mm				
Mounting Length	271mm				
Overall Length	290mm				
Weight	3.2kg				
Life Time	>70,000 hours @ full load, 75°C T _{case}				

* Unless otherwise noted, the data are based on 25°C ambient temperature, 400Vac input voltage, and full load.