



ZORANTECH
卓然照明

20W constant current waterproof led driver



■ Features

- Constant Current (C.C.) output
- Built-in active PFC function, High efficiency up to 88%
- Input voltage/Full range(up to 305VAC)
- Protections:Short circuit/Over current/Over load/Over temperature
- Transformer copper wire is F class, Temperature up to 155°C
- THD≤15%(Bipolar), 5 years warranty
- Customizable dimming:0/1-10V or DALI or PWM
- Noise free, flicker free
- OEM & ODM, no MOQ, Support customization

■ Applications

- LED outdoor lighting
- LED landscape light
- LED architectural light
- LED street light
- LED flood light
- LED wall washer light
- LED high light
- LED underground light
- LED tunel light
- LED garden lights
- LED line light
- LED stage lights
- LED Spot light

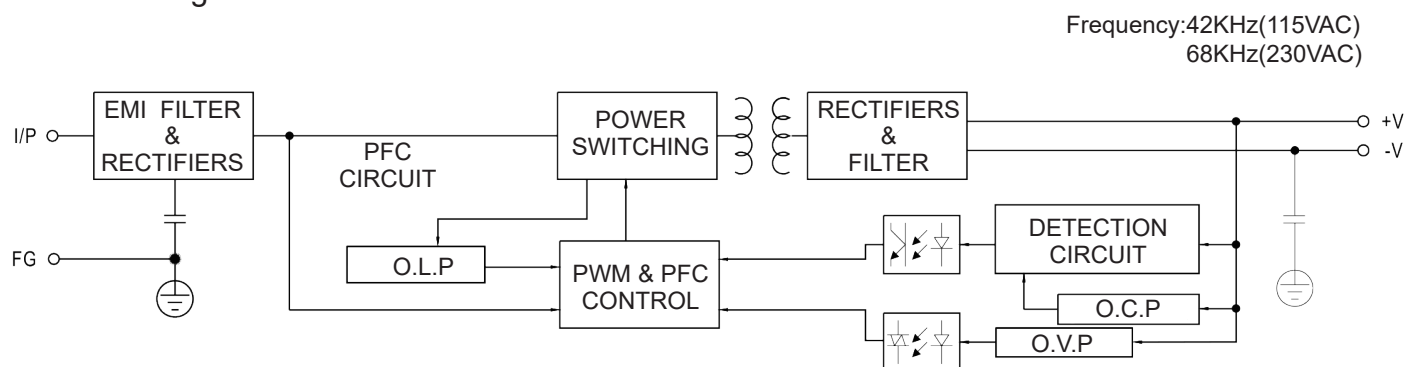
■ Description

The constant current waterproof series produced by Zoran Technology is an AC-to-DC driver.operates from 90~305VAC and offers models with different rated voltage ranging ~between 20V and 200V. Thanks to the high efficiency up to 88%, with the fanless design, the entire series is able to operate for -40~ +80℃ case temperature under free air convection.Dimming and other functions can be customized.

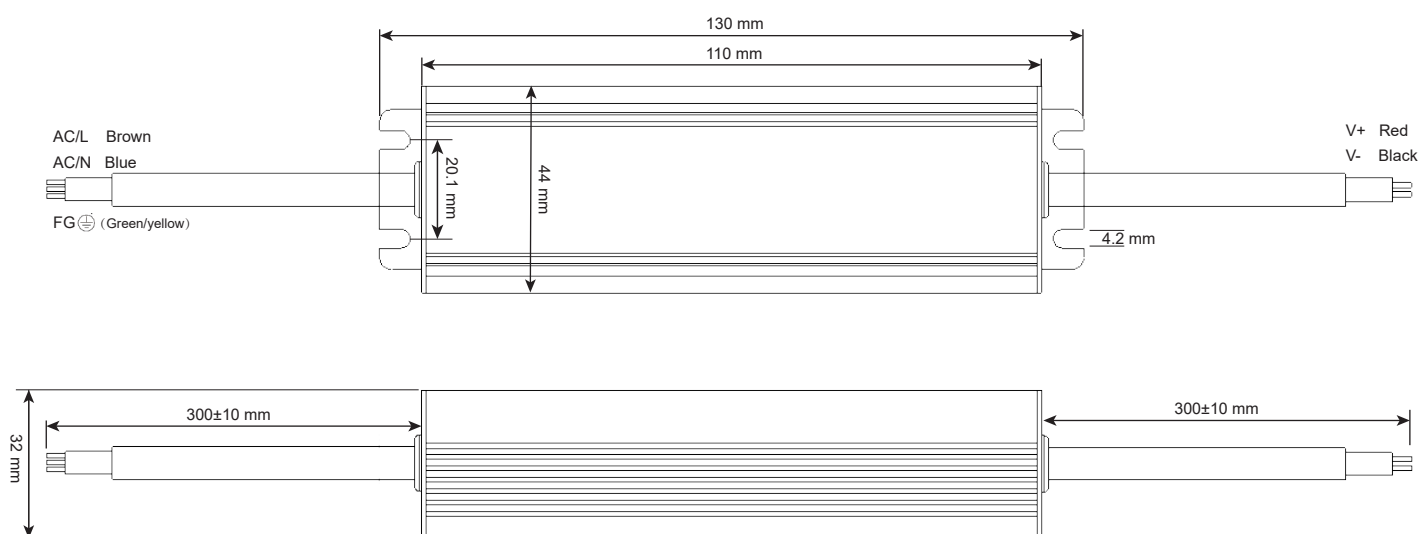
■ Electrical Specification

MODEL		ZR-HCM20NB-20W	ZR-HCM30NB-20W	ZR-HCM42NB-20W	ZR-HCM50NB-20W	ZR-HCM60NB-20W
Output	Output Voltage Note.1	12-20 VDC	15-30 VDC	27-42 VDC	36-50 VDC	45-60 VDC
	Output Current Note.2	1000 mA	670 mA	480 mA	400 mA	350 mA
	Rated Power	20 W	20.1 W	20.2 W	20 W	21 W
	Current Tolerance Note.4	±3%	±3%	±3%	±3%	±3%
	Auxiliary output(customizable)	12VDC	12VDC	12VDC	12VDC	12VDC
	Setup,Rise Time Note.6	500ms,100ms/115VAC 500ms,100ms/230VAC				
	Hold Up Time (Typ.)	10ms/115VAC 230VAC				
Input	Rate Voltage Note.5	90~265VAC or 100-277VAC				
	Frequency Rance	48-62Hz				
	Power Factor	PF≥0.98/115VAC PF≥0.96/230VAC PF≥0.95/265VAC at full load				
	THD	THD≤15%(Bipolar)				
	Full load Efficiency	≥85%	≥85%	≥86%	≥86%	≥87%
	AC Current (Typ.)	0.2A/115VAC 0.1A/230VAC 0.09A/265VAC				
	No-load power consumption	≤1.0W				
Protection	Over Current	95-108%				
		Protection type:Constant current limiting,recovers automatically after fault condition is removed				
	Over Load	≤120% Recovers automatically after fault condition is removed				
	Short Circuit	Hiccup Mode,Recovers automatically after fault condition is removed				
	Over Temperature	Shut down O/P voltage,re-power on to recover				
Environmen	Working Temperature	-40~+80 ℃ (Refer to “Derating curve”)				
	Max Case Temperature	+90 ℃				
	Working Humidity	20-95%RH non-condensing				
	Storage TEMP. Humidity	-40~+80 ℃ 10-95%RH				
	TEMP. Coefficient	±0.03%/℃ (0-50 ℃)				
Safety & EMC	Safe Standards	U8750,CSA C22.2 No.250.13-12;ENEC AS/NZS IEC EN61347-1;AS/NZS IEC EN61347-2-13 independent EN62348;GB19510.14 IP65 or IP67				
	Withstand Voltage	I/P-O/P:3.75KVAC I/P-FG:2.0KVAC O/P-FG:1.0KVAC				
	Isolation Resistance	I/P-O/P,I/P-FG,O/P-FG:100M ohms/500VDC/25 ℃ /70%RH				
	EMC Emission	Compliance to EN55015,EN61000-3-2 Class C(≥60% load);EN61000-3-3;GB17743;GB17625.1				
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11;EN61547 heavy industry level(surge 4KV)				
Others	Dimension (L*W*H)	130*44*32 mm				
	Weight	400g				
	Packing	30pcs/13kg/ctn				
Note	1.All parameters Not specially mentioned are measured at 230VAC input, rated load and 25 ℃ of ambient temperature. 2.Ripple&Noise are measured at 20MHz of bandwidth by using a 12”twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3.Tolerance: includes set up tolerance, line regulation and load regulation. 4.The power supply 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 manufactures must re-qualify EMC Directive on the complete installation again. 5.Please refer to the product warranty on Zoran Technology website http://www.zorantech.com . 6.If you need other special parameters, please contact our customer service for consultation!					

Block Diagram

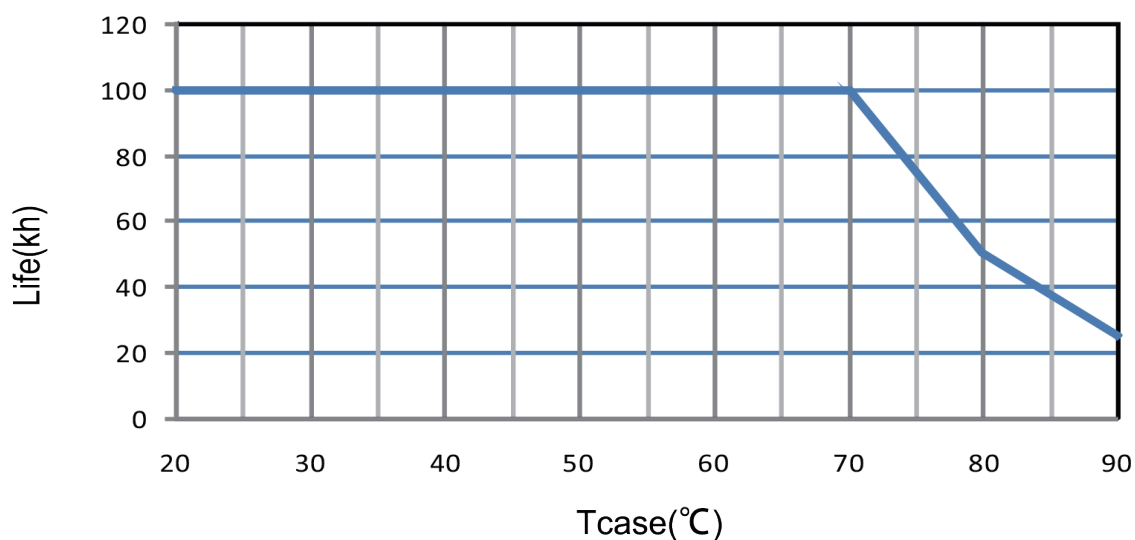


Mechanical Specification

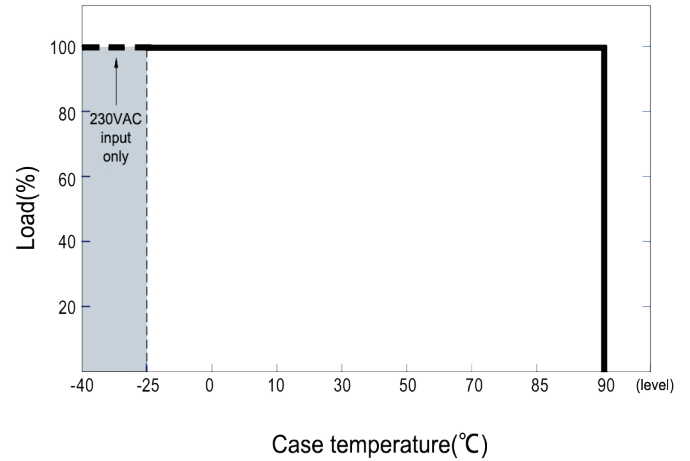
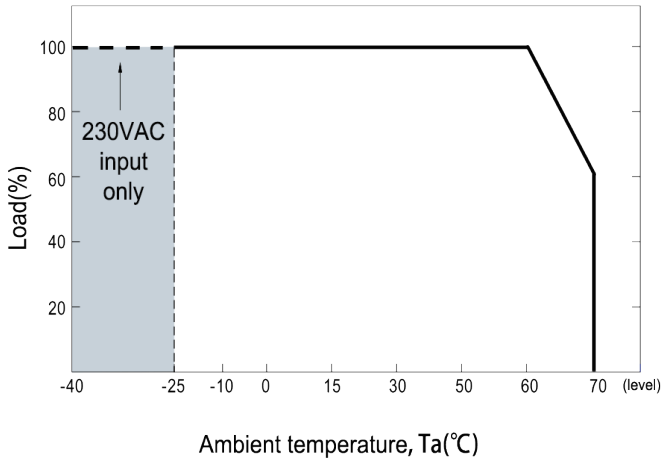


- ※ The yellow-green wire at the input is the ground (FG), the brown wire is the AC phase wire(L), and blue wire is the AC neutral wire (N);
- ※ The red wire at the output is the positive output voltage(V+) and black wire is the negative output voltage(V-);
- ※ In addition, the length and thickness of the input and output lines can be customized according to customer requirements. Please contact Zoran Customer Service for details;

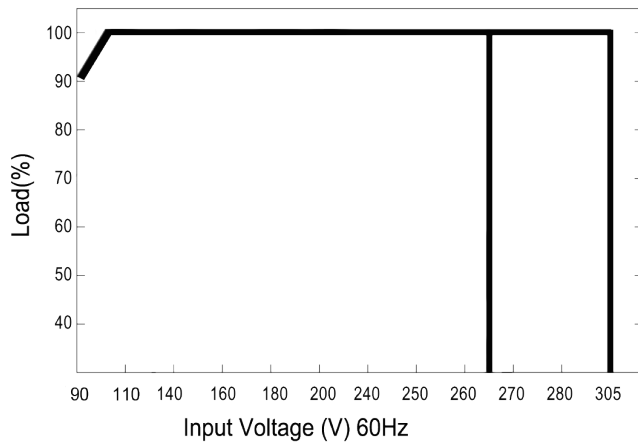
Life



Output load VS Temperature



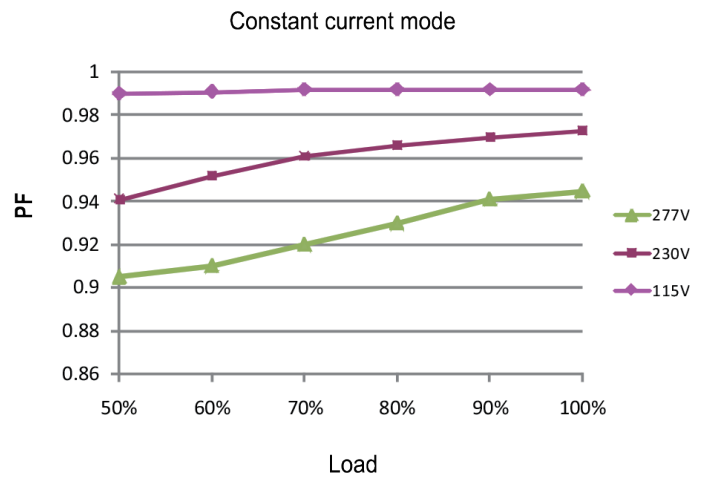
Static characteristic curve



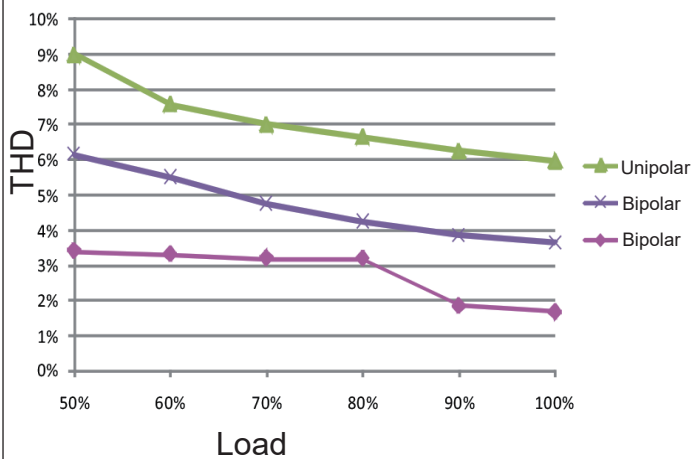
※ Derating output at low input voltage

PF characteristic curve

※ Tcase at 80°C



THD characteristic curve



Efficiency VS Load

