LED Driver

LP1020-xx Series Switch-Mode LED Driver	
Total Power	20 Watts
Input Voltages	100 ~ 277 VAC
Number of Outputs	One

Product Specifications

ANZ#: Z095G, February 24, 2010

SPECIAL FEATURES

- UL1310, Class 2 and UL879 recognized
- Single output, constant current or constant voltage design
- IP66 compliant
- Suitable for dry and damp locations
- Designed for outdoor or indoor applications
- Suitable in standard electrical junction boxes
- Compact and lightweight
- Active PFC reduces power consumption

ENVIRONMENTAL

Operating temperature: -30 to 60 ° C
(De-rating : 1% per ° C from 60~70ºC)
Storage temperature: -40 to +85º C
Humidity (Non-Condensing): 5% to 95%
Cooling: Convection
Vibration Frequency: 5 to 50 Hz
MTBF: >100,000 Hours at full load and 25ºC ambient conditions (MIL-217F)
EMC : Compliant to 47CFR, Part 2, Part15 and Cispr PUB, 22 Class B

ELECTRICAL SPECIFICATIONS

Input range	100 ~ 304 VAC
Frequency	47 to 63 Hz
Power Factor	> 0.92 at full load, 115VAC
Crest Factor	1.5 max.
Inrush current	10.0 Amps maximum at 230VAC, cold start, 25º C
Input current	0.3 Amps maximum at 115VAC
Efficiency	85% typical at maximum load
EMI filtering	47CFR, Part 2, Part 15 and Cispr PUB, 22 Class B
Maximum power	20W
Current Accuracy	±1% (when applicable)
Load regulation	±3%
Leakage Current	300uA typ.
Hold up time	Half cycle minimum at 120 VAC and 80% of rated load
Protection	Over-voltage, Over current and Short circuit protection: Auto-recovery

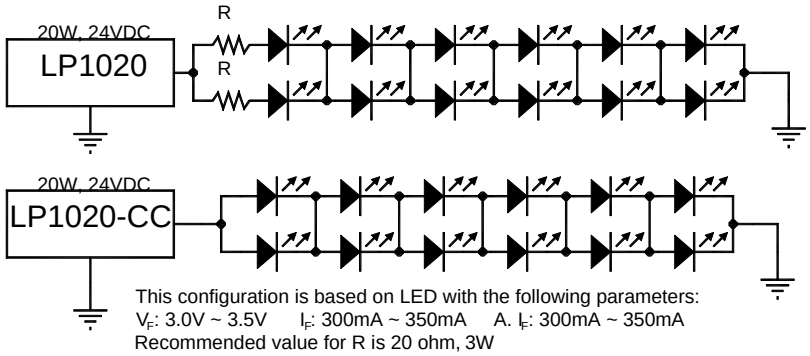
SAFETY

UL	UL1310, Class 2 and UL879 recognized
cUL	UL1310, Class 2 and UL879 recognized
CE	
	Note: 52VDC output is not cUL recognized

Model Number	Constant Voltage Mode Output			Model Number	Constant Current Mode Output		
	V (DC)	A (mA)	Watts		V (DC)	mA(Max.)	Watts
LP1020-52	52, ±5%	400	20	**LP1020-52-Cxxxx**	24~ 52	400, ±5%	20
LP1020-36	36, ±5%	550	20	**LP1020-36-Cxxxx**	18~ 36	550, ±5%	20
LP1020-24	24, ±5%	830	20	**LP1020-24-Cxxxx**	12~ 24	830, ±5%	20
LP1020-22	22, ±5%	910	20	**LP1020-22-Cxxxx**	12 ~ 22	910, ±5%	20
LP1020-18	18, ±5%	1100	20	**LP1020-18-Cxxxx**	9 ~ 18	1100, ±5%	20
LP1020-17	17, ±5%	1250	20	**LP1020-17-Cxxxx**	9 ~ 17	1250, ±5%	20
LP1020-15	15, ±5%	1330	20	**LP1020-15-Cxxxx**	9 ~ 15	1330, ±5%	20
LP1020-13	13, ±5%	1540	20	**LP1020-13-Cxxxx**	7 ~ 13	1540, ±5%	20
LP1020-12	12, ±5%	1660	20	**LP1020-12-Cxxxx**	7 ~ 12	1660, ±5%	20
LP1020-10	10, ±5%	2000	20	**LP1020-10-Cxxxx**	7 ~ 10	2000, ±5%	20

Note: The output current of Constant Current models are adjustable at factory from 50% ~ 100%.

RECOMMEND APPLICATION SCHEMATICS



This configuration is based on LED with the following parameters:
V_F: 3.0V ~ 3.5V I_F: 300mA ~ 350mA A. I_F: 300mA ~ 350mA
Recommended value for R is 20 ohm, 3W

MECHANICAL DRAWING

Model Information – Single DC output

LP1020-XX – Constant Voltage Model

XX – Available Output Voltage, refer to chart above

LP1020-XXC (YYY) – Constant Current Model

C – Stands for Constant Current Model
XX – Available Output Voltage
YYY – Available Constant Current Settings, 350mA or 700mA or 1050mA

AC input cable

AWG #20, two conductors UL PLTC type or equiv.

DC output cable

AWG #20, two conductors UL PLTC type or equiv.

