



LED-20W Series

Switch Mode LED Drivers with Isolation,
Constant Current, Dimming & Constant Voltage

Electrical Specifications

| | |
|----------------------|---|
| Input Voltage Range: | 100-277 Vac Nom. (90-305 V Min/Max) |
| Input Over-Voltage: | Can endure 320Vac for 48 Hrs, 350Vac for 2 Hrs |
| Frequency: | 50/60 Hz Nom. (47-63 Hz Min/Max) |
| Power Factor: | >0.90 @ full load, 100V through 277V |
| Inrush Current: | <15.0 Amps max @ 230 Vac, cold start 25°C |
| Input Current: | 0.25 Amps max at 120 Vac |
| Efficiency: | 85% typical at max load |
| Maximum Power: | 20W |
| Line Regulation: | ± 3% |
| Load Regulation: | ± 4% |
| THD: | ≤ 20% @ ≥ 70% load 100-230V, ≥ 80% load 277V |
| Leakage Current: | 300 µA Typical |
| Hold Up Time: | Half Cycle |
| Output Protection: | Over-Voltage, Over-Current, and Short Circuit Protection with Auto Recovery |

Environmental Specifications

| | |
|------------------------|--|
| Minimum Starting Temp: | -30°C |
| Storage Temperature: | -40°C to +85°C |
| Maximum Case Temp. | 90°C |
| Humidity: | 5% to 95% |
| Cooling: | Convection |
| Sound Rating: | Class A |
| Vibration Frequency: | 5 to 55 Hz/2g, 30 minutes |
| MTBF: | 488,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2 |
| Weight: | 5.8 oz (165 grams) typical |

Ordering Options:

-D: 0-10V & Resistance dimmable version comes with an extra two wires +Purple/-Gray on the output side. -D 0-10V Dimming is compatible with most quality 0-10V wall dimmers. See page 3 for additional specifications.



- Total Power: 20 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66 & NEMA4
- High Power Factor
- UL Sign Components Manual (S.A.M. Models) Models

Constant Current - Product Specifications

| Model Number | Output Current (mA ±4%) | Output Voltage Range (Vdc) | Max. Output Power (W) | Typical Efficiency |
|--------------------|-------------------------|----------------------------|-----------------------|--------------------|
| LED20W-57-C0350-XX | 350 | 19-57 | 20 | 84% |
| LED20W-48-C0350-XX | 350 | 16-48 | 16.8 | 83% |
| LED20W-43-C0460-XX | 460 | 15-43 | 20 | 83% |
| LED20W-40-C0500-XX | 500 | 14-40 | 20 | 82% |
| LED20W-36-C0550-XX | 550 | 12-36 | 20 | 82% |
| LED20W-28-C0700-XX | 700 | 10-28 | 20 | 81% |
| LED20W-24-C0700-XX | 700 | 8-24 | 16.8 | 81% |
| LED20W-24-C0830-XX | 830 | 8-24 | 20 | 81% |
| LED20W-22-C0910-XX | 910 | 7-22 | 20 | 81% |
| LED20W-18-C1100-XX | 1100 | 6-18 | 20 | 80% |
| LED20W-15-C1330-XX | 1330 | 5-15 | 20 | 80% |
| LED20W-13-C1540-XX | 1540 | 4-13 | 20 | 79% |
| LED20W-12-C1660-XX | 1660 | 4-12 | 20 | 78% |

-XX indicates dimming options are available. See options at left. Blank = fixed current output

Constant Voltage - Product Specifications

| Model Number | Output Voltage (Vdc ±5%) | Output Current Range (mA) | Max. Output Power (W) | Typical Efficiency |
|--------------|--------------------------|---------------------------|-----------------------|--------------------|
| LED20W-12 • | 12 | 415-1660 | 20 | 82% |
| LED20W-13 | 13 | 385-1540 | 20 | 82% |
| LED20W-15 | 15 | 333-1330 | 20 | 83% |
| LED20W-18 | 18 | 275-1100 | 20 | 83% |
| LED20W-22 | 22 | 228-910 | 20 | 84% |
| LED20W-24 • | 24 | 208-830 | 20 | 84% |
| LED20W-28 | 28 | 175-700 | 20 | 84% |
| LED20W-36 | 36 | 138-550 | 20 | 85% |
| LED20W-40 | 40 | 125-500 | 20 | 85% |
| LED20W-43 | 43 | 115-460 | 20 | 85% |
| LED20W-48 | 48 | 88-350 | 16.8 | 85% |
| LED20W-57 | 57 | 88-350 | 20 | 85% |

• Indicates S.A.M.



Note:

LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

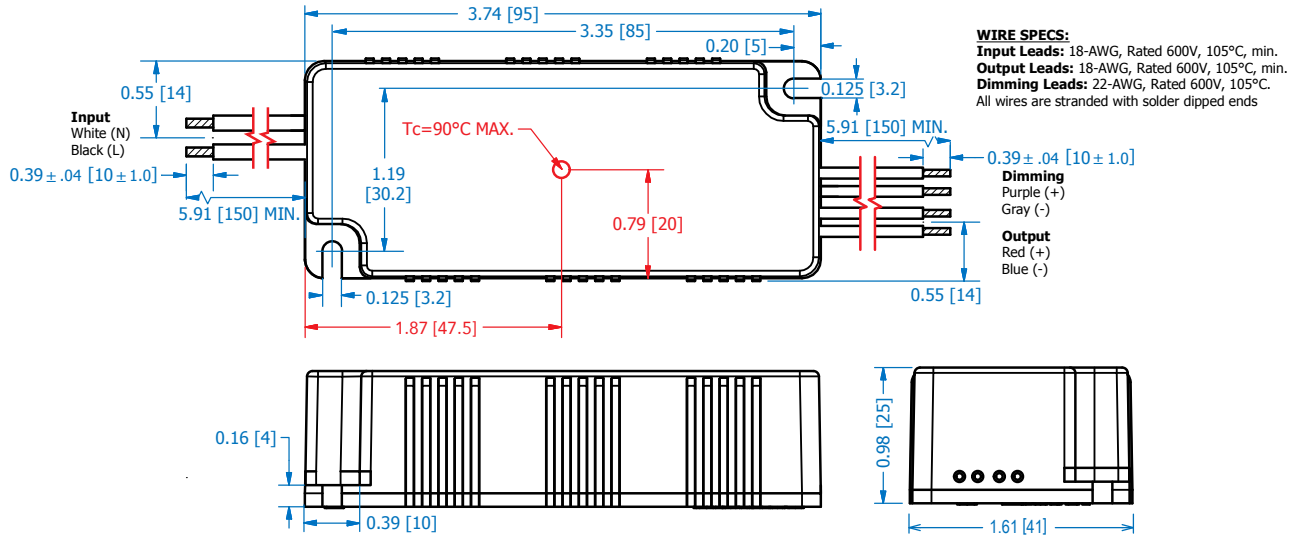
Specifications subject to change without notice.

Class 2: US/Canada

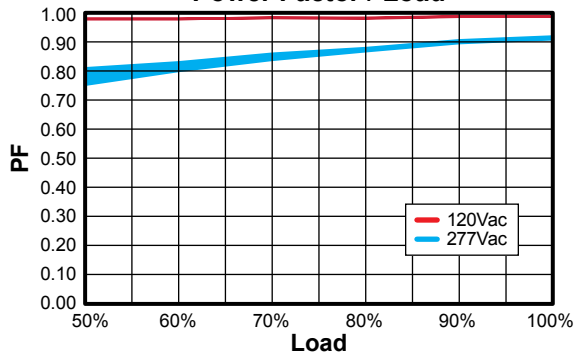
Rev 2-21-17



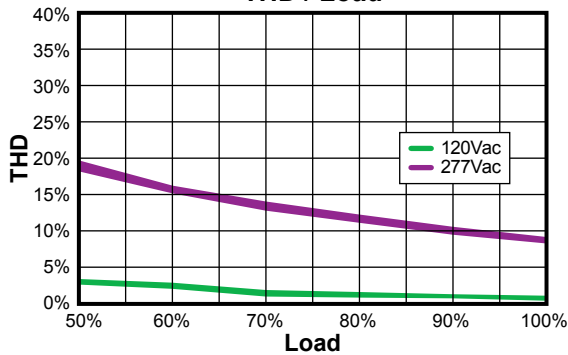
Dimensions - IN [mm]



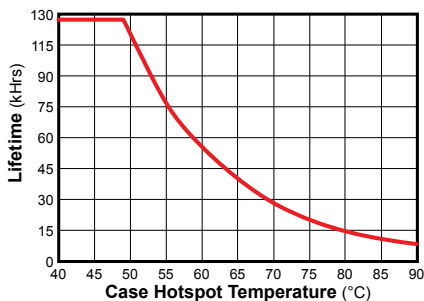
Power Factor / Load



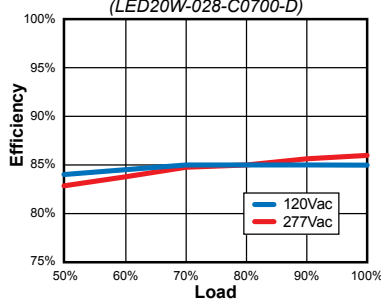
THD / Load



Lifetime / Case Temperature



Typical Efficiency / Load



| Safety Cert. | Standard |
|--------------------|----------|
| UL/CUL | UL8750 |
| CSA | 22.2 |
| CE | EN61347 |
| EMC Standard | Notes |
| EN61000-3-2 | |
| EN61000-3-3 | Class C |
| FCC, 47CFR Part 15 | Class B |

Note:

The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications as the hours of operation exceed the curve at a given temperature. Higher operating temperatures increase the chances of a failure to function. Other electrical, mechanical and environmental factors affect driver lifetime but are not represented in this calculation.

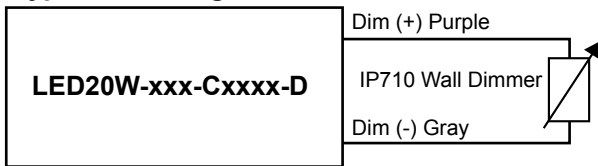
UL Conditions of Acceptability

See website for additional information

“-D” Option: 0-10VDC and Resistance Dimming

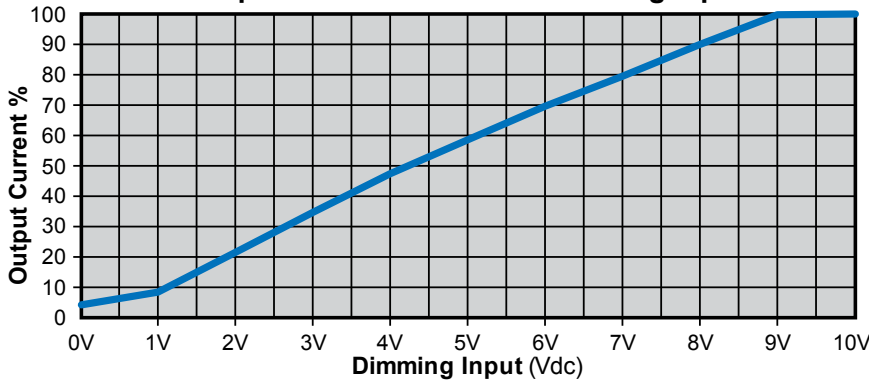
| Parameters | Minimum | Typical | Maximum |
|---|---------|---------|---------|
| Source Current out of 0-10V Purple Wire | 0mA | — | 2mA |
| Absolute Voltage Range on 0-10V (+) Purple Wire | -2.0 V | — | +15 V |
| Sink Current into 0-10V Purple Wire | 0mA | — | 1.2mA |

Typical Dimming Circuit



(Dimmer must be current-sink type control)

Output Current / 0-10VDC Dimming Input



Notes:

1. 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
2. Compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal. Recommended dimmer is Leviton IP710 or equivalent
3. 0-10V dimmable version output will be $\leq 10\%$ @ 0-1.0V
4. 0-10V dimmable version output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.