

TRIAC/ELV Dimmer

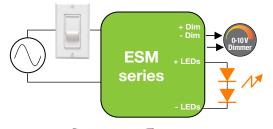
## ESM Series

ESM020 10-20 W ESM030 21-30 W ESM040 31-40 W ESM050 41-50 W ESM060 51-60 W

# Tri-Mode Dimming™ (0-10 V & TRIAC/ELV) Constant Current LED Drivers with Fast Startup Time

Input Voltage	Max. Output Power	Output Voltage	Output Current	Efficiency	Max. Case Temperature	THD	Power Factor	Dimming Method	Dimming Range	Startup Time
120 to 27 Vac nominal	60 W	19 to 56 Vdc	280 mA to 1.4 A CC	up to 87% typical	90°C (measured at the hot spot)	< 20%	> 0.9	Forward-Phase, Reverse-Phase & 0 - 10V	1 - 100% (% of lout)	300 ms typical

CC: Constant Current















L 106.5 x W 60.3 x H 25.2 mm

(L 4.19 x W 2.37 x H 0.99 in)



- Compatible with TRIAC (forward-phase or leading-edge), ELV (reverse-phase or trailing-edge) and 0-10 V dimmers
- TRIAC and ELV dimming only at 120 Vac
- Linear 0-10V dimming transfer function (10V=100%, 1V=10%, 0.1V=1%).
- Models with the "Z1" suffix exhibit a non-linear 0-10V dimming profile (10V to 9.1V=100%, 1V to 0.8V=1%, <0.8V dim-to-off).
- Lifetime: 50,000 hours min at 70°C case temperature
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac)/Class A (277 Vac) and EN55015 (CISPR 15) at 220/230/240 Vac
- Complies with ENERGY STAR®, DLC (DesignLight Consortium®) and CA Title 24 technical requirements
- IP20-rated Bottom Leads with Studs metal case with siliconebased potting.
- 90°C maximum case hot spot temperature
- · Class 2 power supply

#### APPLICATIONS

- · Recessed downlights · Residential lighting
- Commercial lighting
   Architecture Lighting

#### Max **Nominal** Output Voltage lout Output **ERP Part Number** Range (Vdc) Input Voltage (mA) Power (Vac) (W) Min Max ESM020W-0280-42 120 to 277 42 280 11.8 24 ESM020W-0350-42 120 to 277 350 14.7 24 42 ESM020W-0350-42-Z1(5) 120 to 277 350 14.7 24 42 ESM020W-0400-42 120 to 277 400 16.8 24 42 ESM020W-0440-25 120 to 277 44N 11.0 19 25 25 ESM020W-0440-25-SS-F1B<sup>[1]</sup> 120 to 277 440 11.0 19 ESM020W-0440-34-SS-F1B<sup>[2]</sup> 120 to 277 440 15.0 27 34 ESM020W-0440-34 120 to 277 440 15.0 19 34 ESM020W-1000-14 120 to 277 1000 14.0 14 ESM030W-0500-42 120 to 277 500 21.0 42 ESM030W-0550-42 120 to 277 550 23.1 24 42 FSM030W-0700-32 120 to 277 700 22 4 21 32 ESM030W-0700-42 120 to 277 700 29 4 24 42 ESM030W-0700-42-Z1(5) 120 to 277 700 29.4 42 ESM030W-0900-26 120 to 277 900 23.4 19 26 ESM030W-0940-26-SS-F1B<sup>[3]</sup> 120 to 277 940 24.4 20.5 26 ESM030W-1750-14 120 to 277 1750 24.5 8 14 ESM040W-0700-56 120 to 277 56 700 39.2 ESM040W-0800-42 120 to 277 800 33.6 24 42 FSM040W-0850-42 120 to 277 850 35.7 42 FSM040W-0900-42 120 to 277 900 37.8 24 42 120 to 277 940 31.0 33 ESM040W-0940-33-SS-F1B<sup>[4]</sup> 28 ESM040W-0940-43 120 to 277 940 ESM050W-1050-42 120 to 277 1050 44.1 24 42 120 to 277 1050 24 42 ESM050W-1050-42-Z1(5) FSM050W-1200-42 120 to 277 1200 50.4 42 24 ESM050W-1400-34 120 to 277 1400 47.6 23 34 ESM060W-1400-42 120 to 277 1400 58.8

#### Notes

- 1) The ESM020W-0440-25-SS-F1B is specifically intended to drive the Cree LMH2 850 sunset module and exhibits a customized 0-10V dimming transfer function. It will not work with any other LED or LED string.
- work with any other LED or LED string.

  2) The ESM020W-0440-34-SS-F1B is specifically intended to drive the Cree LMH2 1250 sunset module and exhibits a customized 0-10V dimming transfer function. It will not work with any other LED or LED string.
- The ESM030W-0940-26-SS-F1B is specifically intended to drive the Cree LMH2 2000 sunset module and exhibits a customized 0-10V dimming transfer function. It will not work with any other LED or LED string.
- The ESM040W-0940-33-SS-F1B is specifically intended to drive the Cree LMH2 3000 sunset module and exhibits a customized 0-10V dimming transfer function. It will not work with any other LED or LED string.
- Models with the "21" suffix exhibit a non-linear 0-10V dimming profile: (10V to 9.1V=100%, 1V to 0.8V=1%, <0.8V dim-to-off).</li>
   For additional options of output current and output voltage, contact your sales
- For additional options of output current and output voltage, contact your sales representative or send an email to: <u>SaveEnergy@erp-power.com</u>.

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## **Mouser Electronics**

**Authorized Distributor** 

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### **ERP Power:**

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