



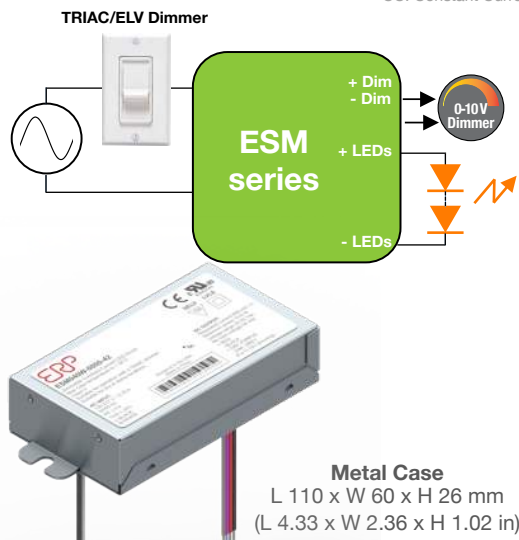
# ESM Series

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

## 10 to 60 W Constant Current LED Drivers with Tri-Mode Dimming™ (TRIAC, ELV & 0-10 V)

Input Voltage	Max. Output Power	Output Voltage	Output Current	Efficiency	Max. Case Temperature	THD	Power Factor	Dimming Method	Dimming Range	Startup Time
120 to 277 Vac maximum	60 W	8 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 Iout)	400 ms

CC: Constant Current



**Metal Case**  
L 110 x W 60 x H 26 mm  
(L 4.33 x W 2.36 x H 1.02 in)



### FEATURES

- 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
- 90°C maximum case hot spot temperature
- Class 2 power supply
- Lifetime: 50,000 hours at 70°C case hot spot temperature (some models have higher lifetime. Check lifetime curves in page 6)
- IP20-rated case with silicone-based potting
- Two 0-10V dimming profiles are available:
  - Linear 0-10 V dimming: 10V=100%, 1V=10%, 0.1V=1%.
  - Non-linear 0-10V dimming: 10V to 8.1V=100%, 1V to 0.8V=1%, <0.8V dim-to-off.
- Protections: output open load, over-current and short-circuit (hiccup), and over-temperature with auto recovery
- Conducted and radiated EMI: Compliant with FCC CFR Title 47 Part 15 Class B (120 Vac) and Class A (277 Vac)
- Complies with ENERGY STAR®, DLC (DesignLight Consortium®) and CA Title 24 technical requirements
- Worldwide safety approvals

### APPLICATIONS

- Indoor & outdoor • Recessed lighting (downlights)
- Commercial & residential lighting • Architecture Lighting
- Office Lighting

ERP Part Number	Nominal Input Voltage (Vac)	Iout (mA)	Max Output Power (W)	Output Voltage Range (Vdc)	
				Min	Max
<b>ESM020W: 12 to 20 W</b>					
ESM020W-0280-42	120 to 277	280	11.8	24	42
ESM020W-0350-42	120 to 277	350	14.7	24	42
ESM020W-0350-42-Z1 <sup>(5)</sup>	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	440	11.0	19	25
ESM020W-0440-25-SS-F1B <sup>[1]</sup>	120 to 277	440	11.0	19	25
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	8	14
<b>ESM030W: 21 to 30 W</b>					
ESM030W-0500-42	120 to 277	500	21.0	24	42
ESM030W-0550-42	120 to 277	550	23.1	24	42
ESM030W-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 <sup>(5)</sup>	120 to 277	700	29.4	24	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
<b>ESM040W: 31 to 40 W</b>					
ESM040W-0700-56	120 to 277	700	39.2	40	56
ESM040W-0800-42	120 to 277	800	33.6	24	42
ESM040W-0850-42	120 to 277	850	35.7	24	42
ESM040W-0900-42	120 to 277	900	37.8	24	42
ESM040W-0940-33-SS-F1B <sup>[4]</sup>	120 to 277	940	31.0	28	33
ESM040W-0940-43	120 to 277	940	40.4	32	43
<b>ESM050W: 41 to 50 W</b>					
ESM050W-1050-42	120 to 277	1050	44.1	24	42
ESM050W-1050-42-Z1 <sup>(5)</sup>	120 to 277	1050	44.1	24	42
ESM050W-1200-42	120 to 277	1200	50.4	24	42
ESM050W-1400-34	120 to 277	1400	47.6	23	34
<b>ESM060W: 51 to 60 W</b>					
ESM060W-1400-42	120 to 277	1400	58.8	24	42

**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.
- 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.
- 3) 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.
- 4) 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.
- 5) 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).
- 6) For additional options of output current and output voltage, contact your sales representative or send an email to: [SaveEnergy@erp-power.com](mailto:SaveEnergy@erp-power.com).

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