

ESM Series

10-20 W ESM020 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 lout)	400 ms	

CC: Constant Current















TRIAC/ELV Dimmer

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)

Metal Case

- · 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	Input Voltage (Vac)	lout (mA)	Output Power	Range (Vdc)						
		(140)		(W)	Min	Max					
		SM020W: 12 to	20 W								
	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 ⁽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	440	11.0	19	25					
	ESM020W-0440-25-SS-F1B ^[1]	120 to 277	440	11.0	19	25					
	ESM020W-0440-34-SS-F1B ^[2]	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					
		ESM030W: 21 to 30 W									
	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 ⁽⁵⁾	120 to 277	700	29.4	24	42					
	ESM030W-0900-26	120 to 277	900	23.4	19	26					
	ESM030W-0940-26-SS-F1B ^[3]	120 to 277	940	24.4	20.5	26					
	ESM030W-1750-14	120 to 277	1750	24.5	8	14					
		SM040W: 31 to									
	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 ^[4]	120 to 277	940	31.0	28	33					
	ESM040W-0940-43	120 to 277	940	40.4	32	43					
		SM050W: 41 to									
	ESM050W-1050-42	120 to 277	1050	44.1	24	42					
	ESM050W-1050-42-Z1 ⁽⁵⁾	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					
		SM060W: 51 to									
	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
- sunset module and exhibits a customized or 100 dimension of the Cree LMH2 1250 work with any other LED or LED string.

 2) The ESM/020W-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 no 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-pov

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