



Exclara Product Brief

EXM418

14.3 Watt Dimmable LED Driver

Product Overview

The EXM418 is a power factor corrected LED Driver optimized in size and performance for low power ballast applications. A key attribute is that it can be used with standard leading and trailing edge phase dimmers making it suitable for all indoor lighting applications. It is among the industry's smallest design employing these features. Its Patent Pending design offers truly reliable operation with all standard dimmers with dimming resolution down to 7% of full scale output.

Features
• Output power = 14.3 W
• Efficiency, 80%
• High Power Factor – typically 0.95
• Fits PAR38 bulb

Key Electrical Characteristics

(Ta = -20°C – 70°C. Typical values are at Ta = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Input voltage ⁵	V_{IN}		110		132	VAC
Input Frequency	$freq_{IN}$		47		63	Hz
Power Factor	PF	$V_{IN} = 120VAC$ at rated load (PF per EN6100-3-2 Class C)		0.95		W/VA
Total Harmonic Distortion	THD	$V_{IN} = 120VAC$ at rated load (Per EN6100-3-2 Class C)	12	15	18	%
Input Current	I_{IN}	$V_{IN} = 120VAC$			0.160	A
Total Power output	P_{OUT}				14	W
Efficiency		I_o at rated load, $V_{IN} = 120VAC$		80		%
Output Voltage Range	V_o	At rated load current – Adjusted at Exclara	17		22	V
Output Current ³	I_o			650		mA
Analog Dimming Resolution ³		% of rated output current	7		100	%



Notes:

1. Contact Exclara for other output current set-points.
2. Current regulation is guaranteed between 115VAC ~132VAC.

Key Environmental Characteristics

Parameter	Value
Storage Temperature	-40°C – 85°C
Ambient Temperature (Max) T _c	70°C
MTBF	<td>
Operational Life	45K hours @ 40°C
Humidity	5% - 95% non-condensing
Sound	Class A
Vibration	IEC60068-2-64; IEC60068-2-6
ROHS Compliant	Yes

Safety¹

Parameter	Value
Safety	UL8750, UL 1310

Notes:

1. As assembled into complete product. Actual performance depends on fixture design.
2. UL Recognized Component