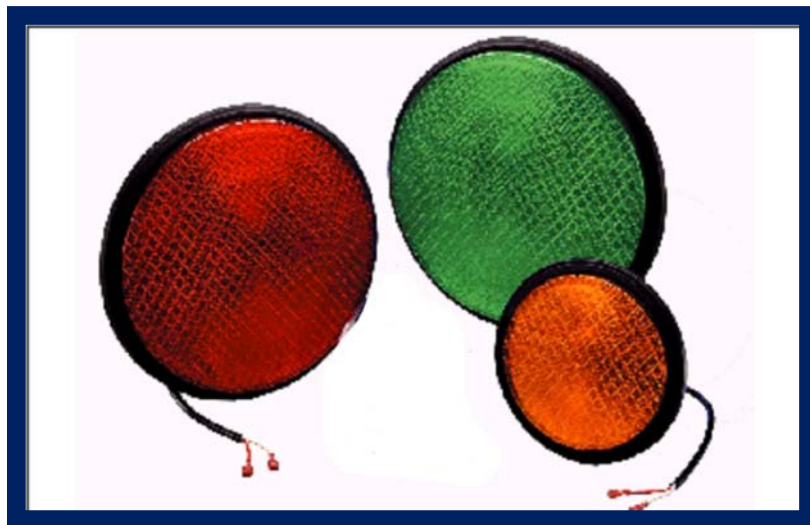


LED Traffic Signal

433 Series



120VAC

Features:

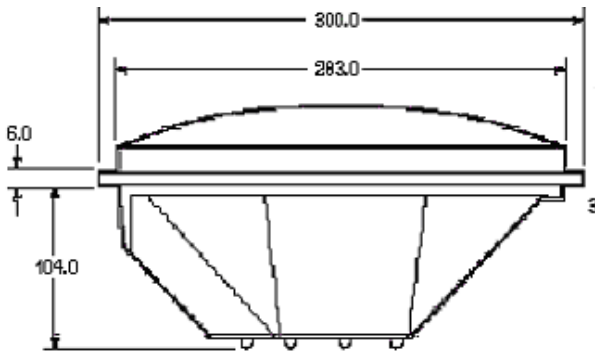
- Clustered LED's as Light Source
- Sealed for Life Unit
- Durable Materials
- Rim Dimensions Matching Existing Housings

Benefits:

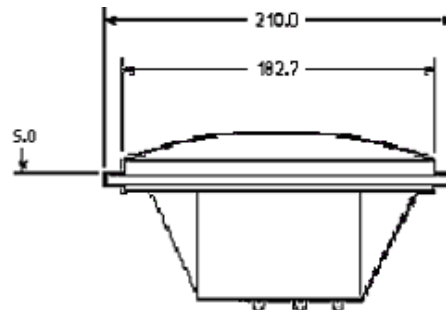
- Low Energy Consumption
- Uniform Luminance of the Front Lens
- Long and Reliable Service Life
- Easy Installation in the Door of a Signal Housing

A fully contained low wattage LED Traffic Signal Module meeting European specification EN12368 class A2/1 type W. The module is primarily intended for use as a retrofit unit for traffic signals that are currently equipped with incandescent, low voltage Krypton or Halogen light sources. The LED Traffic Signal Module comprises a high flux LED light source, Fresnel lens, and tinted or not tinted front lens. The Fresnel lens is sealed to the housing to create a dust and waterproof system. Key features of the signal are very low power consumption and a smooth, uniform appearance when illuminated. The optics and drive circuits are designed so that the failure of a single LED will neither create a dark spot, nor reduce the signal intensity.

Dimensions:



300 mm SIGNAL MODULE



210 mm SIGNAL MODULE

Optical Characteristics:

at $T_A = 25\text{ }^\circ\text{C}$ (Typical Values 210 mm Unless Otherwise Stated)

Parameter	Symbol	Red	Amber	Green	Units
Light distribution (210mm & 300mm)		A2/1 type W	A2/1 type W	A2/1 type W	
light Intensity	I_v	300	300	400	cd
Dominant Wavelength	λ_d	615-631,5	585-597	498,5-508	nm
Luminance Uniformity		>1:10	>1:10	>1:10	$L_{min}:L_{max}$
Phantom Class tinted lens		3	3	5	$I_s:I_{ph}$
Phantom Class non tinted lens		1	1	1	$I_s:I_{ph}$

Electrical Characteristics:

at $T_A = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Red	Amber	Green	Units
Power Consumption	P	12	12	12	W
Voltage ^[1]	V	120			V
Voltage Range	V	80-135			V
Minimum Power Factor		According to EN 61000-3-2			
Maximum THD		According to EN 61000-3-2			
Insulation Class		II (IEC 598-1 Section 1.2.23)			
EMC		According to EN 50276			
Transient Protection		TBD			
Controller Assembly Compatibility		TBD			

Notes:

1. Power consumption minimum values vary by controller.

Thermal Characteristics: (All Part Numbers)

Parameter	Symbol	210 mm	300 mm	Units
Operating Temperature ^[2]	T _{OP}	-40 to +60		°C
Thermal Resistance, Junction to Ambient ^[3]	R _{ΘJ-A}	2,5	2	K/W

Notes:

2.Refers to the ambient temperature range when power is applied to the module.

3.At 60 _ C based on total dissipated system power.

Mechanical Data:

Parameter	210 mm	300 mm	Units
Minimum Weight	1,53		kg
Vibrations	IEC 68-2-34		
Impact Lens	EN 60598-1 Clause 4.13.4,Class IR3		
Protection Grade	EN 60529 test 13 and 14,rating IP 65		
Relative Humidity	Up to 95%		
Flammability	V-0 (US requirement)		
Minimum Cable Length Outside of Housing	1		m
Symbols	Painted on the outer lens		
Packing	12 signals per box	6 signals per box	

Part Numbers

200mm		300mm	
143300	Red (coloured lens)	143303	Red (coloured lens)
143301	Amber (coloured lens)	143304	Amber (coloured lens)
143302	Green (coloured lens)	143305	Green (coloured lens)
143346	Red (clear lens)	143349	Red (clear lens)
143347	Amber (clear lens)	143350	Amber (clear lens)
143348	Green (clear lens)	143351	Green (clear lens)
143403	White (clear lens)	TBA	White (clear lens)

August 2007

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Subject to change