

## Special Features

55 W LED Driver with microprocessor based controls  
Built-in firmware  
Active LED Board Over Temperature protection  
Crepuscular sensor input  
Proximity sensor input  
Designed for IP65 Rated enclosures  
Active Power Factor Correction  
RoHS-6 Compliant (Directive 2002/95/EC)



## Applications

Solid State Lighting

Street Lighting  
Urban Lighting  
Industrial Lighting  
Wide Area Outdoor Lighting

## Input Specification

Input Voltage	110 Vac, 230 Vac (90 to 264 Vac), Single Phase
Input Frequency	50 Hz, 60 Hz (47 to 63Hz)
Input Current	< 1 A at 90 Vac
Active Power Factor Corrector	> 0.9 at full load
Inrush current	<37A at 230 Vac (<18.5 A at 110 Vac) at 22°C ambient temperature and at cold start
Leakage current	< 3.5 mA at 264 Vac, 60 Hz
Hold up time	> 20 ms at 230 Vac, 50 Hz, full load

## Output Specification

Max Output Power	55 W
Max Differential Output Voltage	150 Vdc
Maximum Output Current ( $I_{MAX}$ )	350mA
$I_{MAX}$ adjustment	through in factory fine calibration; In-field adjustment possible (ask to the factory for details)
Output current response	0% or 50% or 100% of $I_{MAX}$ depending on the state of the external sensors (see table 1)
Ripple current	< 35%
Efficiency	> 80% at 90 Vac
Efficiency	> 85% at 230 Vac
Isolation	Output is NOT isolated from mains input



## External Sensor Inputs

Crepuscular Input Signal			Proximity Input Signal			LED Driver Response
Function Description	Logic Level	Threshold	Function Description	Logic Level	Threshold	
Day	0	<1.5Vdc (*)	Presence NOT detected	0	<1.5Vdc (*)	Always OFF (PWM with duty cycle 0%: the LED Board is OFF)
			Presence detected	1	>3.5Vdc (*) or FLOATING	
Night	1	>3.5Vdc (*) or FLOATING	Presence NOT detected	0	<1.5Vdc (*)	PWM with duty cycle 50% (The output current and the light intensity are 50% of the maximum value)
			Presence detected	1	>3.5Vdc (*) or FLOATING	PWM with duty cycle 100% (The output current and the light intensity are 100% of the maximum value)

(\*) Thresholds according to TTL levels

Table 1: LED Driver response to crepuscular and proximity input signals

## Protection

Input Protection  
LEDs board temp reading  
and control capability

Internal Fuse, 4A

Temperature sensor input from LEDs board and current PWM regulation through microprocessor;  
in case of the NTC is NOT connected, the Output current is regulated at the maximum value ( $I_{MAX}$ )

Output Protection

Internal Fuse, 4A

## Environmental

Ambient Operating Temperature  
Storage Temperature  
Relative Humidity

-20°C to 60°C  
-40°C to +85°C  
10% to 95% not condensing (Operating), 5% to 95% not condensing (Storage)

Altitude  
Cooling

3000 m (Operating), 7500 m (Storage)  
Natural Convection. Board compatible with IP65 rated enclosure

### Eu and RoW

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## EMC Compliance

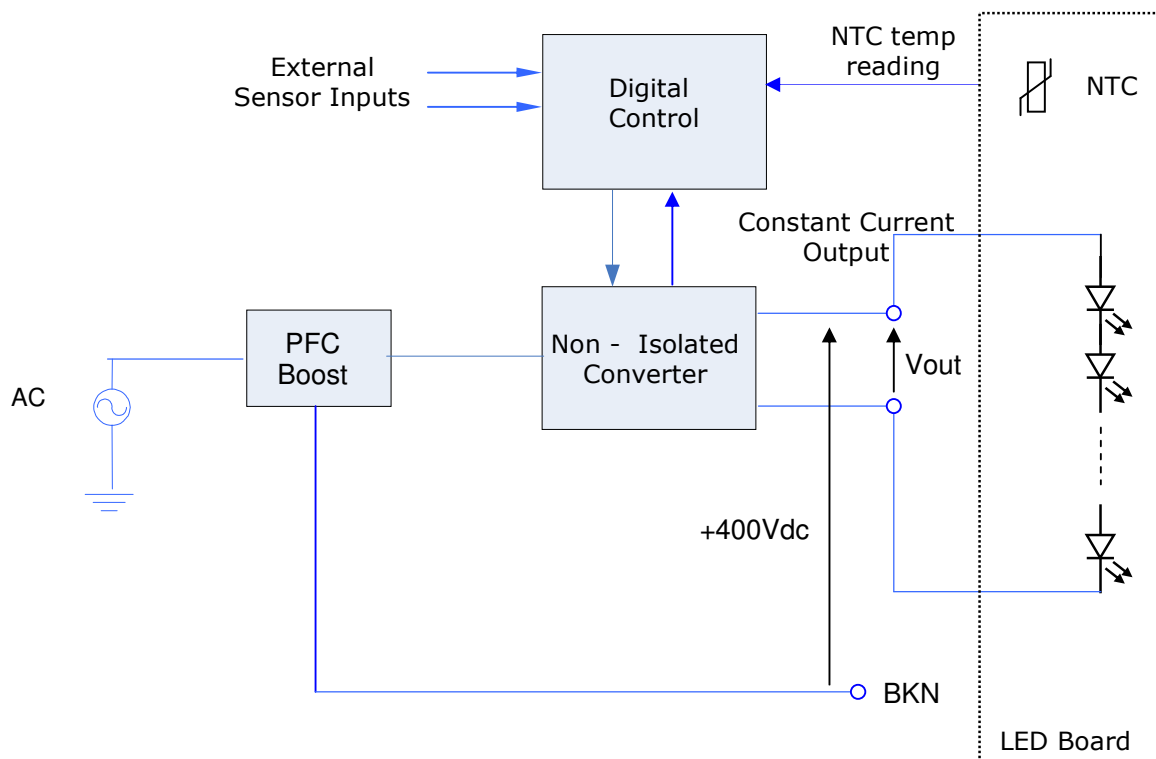
Designed to meet:

Emission	
Conducted Emission	EN55015
Conducted Emission Harmonic	EN61000-3-2
Fluctuation and Flickers	EN61000-3-3
Susceptibility	
ESD	EN61000-4-2
Burst	EN61000-4-4
Surges	EN61000-4-5
Voltage Dips and PLD	EN61000-4-11

## Safety

Designed to meet: EN60950

## Block Diagram



**Warning**

If NO load is connected to the output connector,  $V_{OUT}$  reaches 400Vdc.

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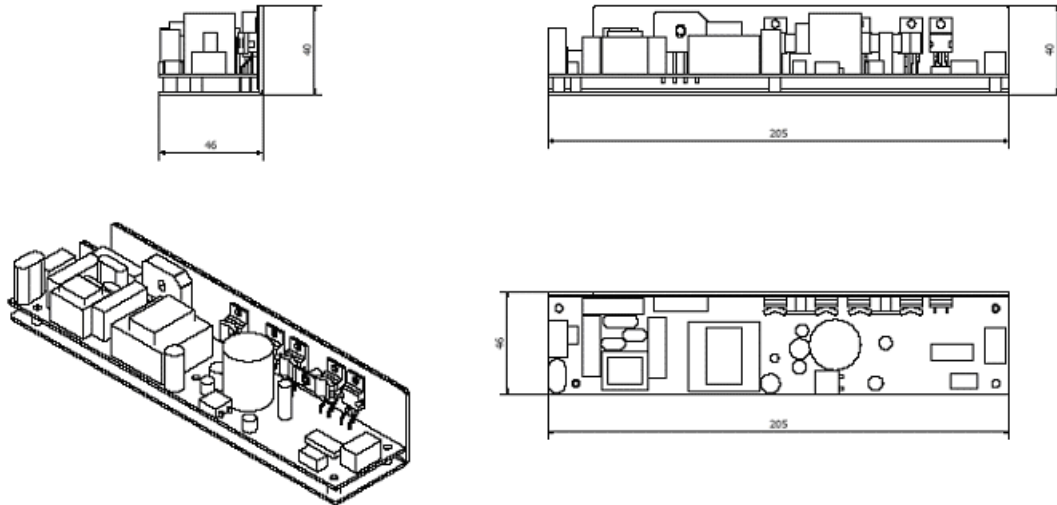
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## Physical Specification

Case Open frame PCB on aluminium L bracket  
Dimensions (HxWxD) 40 mm x 46 mm x 205 mm = 1.57 in x 1.81 in x 8.07 in  
Weight 0.29 kg = 0.64 lb

### Outline Drawing



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