

## PCL Series

### 1. General Information

1.1 LED Driver identification	PCL50W-MC-Match-1050
1.2 LED control gear type	Buit in
1.3 LED configuration	800mA— channel : Terminals 5—7 925mA— channel; Terminals 5—6 1050mA — channel ;Default ,Terminals open
1.4 Type of LED's	800mA—925mA—1050mA LED or LED module
1.5 Type of protection	IP20
1.6 Suit for Luminaires	Class I

### 2. Input (Mains) Specifications

2.1 Nominal voltage	220...240 V <sub>AC</sub>
2.2 Nominal frequency	50/60 Hz
2.3 Min. AC voltage for starting	198 V <sub>AC</sub> start-up with operating temperature
2.4 AC operation on	198...264 V <sub>AC</sub>
2.5 Min. DC voltage for starting	176V <sub>DC</sub>
2.6 DC operation on	176...276 V <sub>DC</sub>
2.7 Surge current	/
2.8 Rated input power	≤65 W, @220 – 240 V <sub>AC</sub>
2.9 Input current	<0.3 A, @220 – 240 V <sub>AC</sub>
2.10 Power factor	>0.95, @220 – 240 V <sub>AC</sub>
2.11 Input current harmonics	IEC 61000-3-2
2.12 Total harmonic distortion	≤10 %
2.13 Full-load efficiency	≥86 % (Full load, 220 – 240 V, 50 Hz)
2.14 No load power consumption	/
2.15 Leakage current	/
2.16 Number of mains fuses	1

### 3. Output (Mains) Specifications

3.1 Number of channels	1
3.2 Rated output power	23 W...55 W
3.3 Min. output voltage	27 V <sub>DC</sub>
3.4 Max. output voltage	54 V <sub>DC</sub>
3.5 Max. declared output voltage	60V <sub>DC</sub> (No load protection put output down to roughly ...2 V)
3.6 Average nominal output current	800mA—925mA—1050mA
3.7 Output current tolerance (max)	±10 %
3.8 Dimming	/
3.9 Way of dimming	/

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3.10	Dimming range	/
3.11	Open circuit proof	/
3.12	Overload protection	Yes
3.13	Short circuit protection	Yes
3.14	Max. cable length without LED module	≤1.5 m
3.15	Max. ripple current	/
3.16	Type of output	Constant Current
3.17	Overvoltage output protection	/
3.18	Number of output channels	2 output connectors (parallel connection )]
3.19	Turn-on Time	≤1.0 s

### 4. Temperatures and Life expectation

4.1	Min. allowed ambient Temp.	-20 °C
4.2	Max. allowed ambient Temp.	+50 °C
4.3	Allowed operating humidity range	5 %...90 %
4.4	Max. allowed T <sub>C</sub> Temp.	75 °C
4.5	Over temperature protection	The unit is protected against temporary overheating by automatic reduction of the output power. If t <sub>c</sub> exceed 85°C approx. the output current, duced to the lowest nominal value (800 mA);
4.6	life time	50,000h t <sub>c</sub> = 75°C, 0.3% failure rate 100,000h t <sub>c</sub> = 65°C, 0.5% failure rate
4.7	switching cycles during life time	Up to 10,000 cycles
4.8	Two or	

### 5. Immunity

5.1	Immunity against static discharge	IEC 61547
5.2	Immunity against radio frequency electric and Magnetic fields	IEC 61547
5.3	Immunity against power frequency electric and magnetic fields	IEC 61547
5.4	Immunity against transient voltage fluctuation	IEC 61547
5.5	Immunity against injected currents on AC line	IEC 61547
5.6	Immunity against surge voltage and currents (AC)	IEC 61547
5.7	Immunity against voltage dips (AC)	IEC 61547
5.8	Immunity against voltage interruptions	IEC 61547
5.9	Magnetic shielding	

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### 6. RFI Requirements

6.1 Disturbance voltages at mains terminals according to luminaries of class II (or I)	EN 55015
6.2 Radiated disturbance voltages	EN55015

### 7. Safety Requirements

7.1 Cree page distance and clearances	IEC 61347-2-13
7.2 Protection against contact with live parts	IEC 61347-2-13
7.3 Voltage at ballast terminal after 1 min	IEC 61347-2-13
7.4 Max. working voltage	IEC 61347-2-13
7.5 Humidity / insulation resistance test	IEC 61347-2-13
7.6 Humidity / high voltage test	IEC 61347-2-13
7.7 Strength against mechanical damage	/

### 8. Installation and Wiring

8.1 Terminals	Push type
8.2 Number of mains terminals	1 with 7 ports
8.3 Number of LED terminals	1 with 4 ports
8.4 Max. diameter of test contacts	1.2 mm
8.5 Cross section of wires (any lead)	0.5...1.5 mm <sup>2</sup> massive leads
8.6 Max. allowed cable capacitance	100 pF
8.7 Max. allowed cable length	1.5 m
8.8 Min. distance between LED drivers	5 cm

### 9. LED Driver Case

9.1 Case material and identification	Hardware, L280D
9.2 Case drawing Number	refer to the attached drawing
9.3 Approx. dimension	L282×W30×H21.5 mm
9.4 Mounting hole distance	L267 mm
9.5 Mounting screws	Max. M4
9.6 Ground connection via	/
9.7 Terminal covers	Yes
9.8 Class of protection	IP20
9.9 Labelling	/
9.10 Barcode identification	/

### 10. Environmental Requirements

10.1 Noise produced by driver during start	/
10.2 Noise produced by driver during operation	<30 dB at distance 1 m
10.3 Labelling of plastic case	Silkscreen
10.4 Absence of dangerous materials	Yes
10.5 After end of life to be treated as	/

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### 11. Approvals

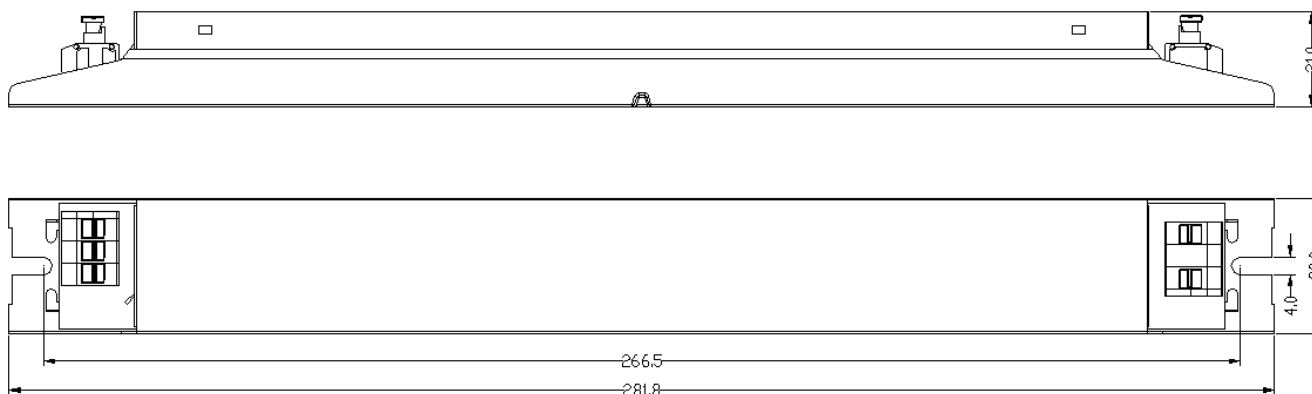
- 11.1 Approval according to CE, CB, SAA, ROHS
- 11.2 EMC approval according to EN 55015

### 12. Packaging and Transport

- 12.1 Immunity against vibration and shock /
- 12.2 Weight (g) /
- 12.3 Packing unit 30 pcs/carton

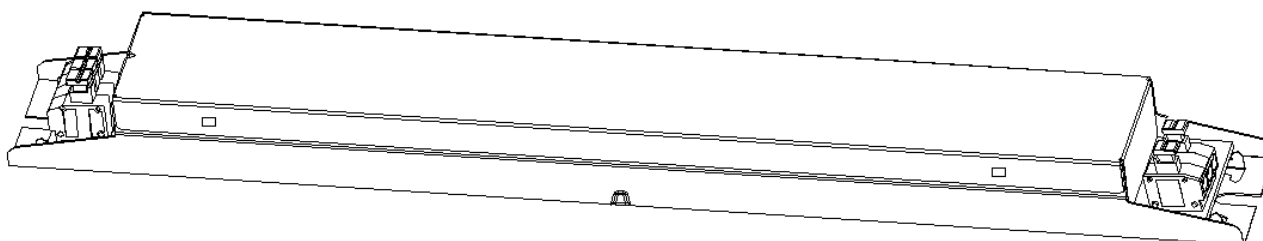
### 13. Dimension, Drawing Diagram and Label

#### 13.1 Dimension



Unit: mm  
Tolerance: ±1.0mm

#### 13.2 Drawing Diagram



#### 13.3 Label

● 1 PRI  
● 2  
○ 3  
● 4  
● 5  
● 6  
● 7

LED  
Select  
LED

PIN 5, 6, 7  
no marks led used

**Constant current LED Power Supply**

I <sub>out</sub> select	I <sub>out</sub> (mA)	P <sub>out</sub> (W)	U <sub>out</sub> (V)	U <sub>N</sub> /f <sub>N</sub>	I <sub>c</sub> (°C)	I <sub>N</sub> (A)	λ	I <sub>a</sub> (°C)
open	1050	54		220-240V	75	0.30	0.98	-20...50
5-6	925	49	27-54	0/50/60Hz		0.27	0.98	
5-7	800	41				0.24	0.97	

Connect PE to case or PIN 4

Weld Preparation  
Fusion  
RT -150

SELV-equivalent

EL LED + ● 21  
SEC - ● 22  
LED + ● 23  
LED - ● 24  
U-OUT=50V