

## CLC Series



GREEN XP POWER

## Specification

## Input

Input Voltage	<ul style="list-style-type: none"> <li>85-264 VAC (120-370 VDC), Derate output power linearly to 90% from 90 VAC to 85 VAC</li> </ul>
Input Frequency	<ul style="list-style-type: none"> <li>47-63 Hz</li> </ul>
Input Current	<ul style="list-style-type: none"> <li>2.3 A typical at 115 VAC, full load</li> <li>1.1 A typical at 230 VAC, full load</li> </ul>
Inrush Current	<ul style="list-style-type: none"> <li>40 A max at 230 VAC, cold start 25 °C</li> </ul>
Power Factor	<ul style="list-style-type: none"> <li>EN61000-3-2, class A</li> </ul>
No Load Input Power	<ul style="list-style-type: none"> <li>&lt;0.5 W</li> </ul>
Earth Leakage Current	<ul style="list-style-type: none"> <li>80/160 µA typical 115/230 VAC 50 Hz</li> <li>300 µA at 264 VAC/60 Hz max.</li> </ul>
Input Protection	<ul style="list-style-type: none"> <li>Internal T5 A/250 V fuse in line</li> </ul>

## Output

Output Voltage	<ul style="list-style-type: none"> <li>12-48 VDC (see tables)</li> </ul>
Output Voltage Trim	<ul style="list-style-type: none"> <li>±10%</li> </ul>
Initial Set Accuracy	<ul style="list-style-type: none"> <li>±1%</li> </ul>
Minimum Load	<ul style="list-style-type: none"> <li>No minimum load required</li> </ul>
Start Up Delay	<ul style="list-style-type: none"> <li>1 s typical</li> </ul>
Start Up Rise Time	<ul style="list-style-type: none"> <li>50 ms</li> </ul>
Hold Up Time	<ul style="list-style-type: none"> <li>16 ms min at 230 VAC</li> </ul>
Drift	<ul style="list-style-type: none"> <li>±0.2% after 20 min warm up</li> </ul>
Line Regulation	<ul style="list-style-type: none"> <li>±0.5% max</li> </ul>
Load Regulation	<ul style="list-style-type: none"> <li>±1%</li> </ul>
Over/Undershoot	<ul style="list-style-type: none"> <li>5% typical</li> </ul>
Transient Response	<ul style="list-style-type: none"> <li>4% max. deviation, recovery to within 1% in 500 µs for a 50-75-50% load change</li> </ul>
Ripple & Noise	<ul style="list-style-type: none"> <li>1% pk-pk V1, 20 MHz bandwidth</li> </ul>
Overvoltage Protection	<ul style="list-style-type: none"> <li>115-140% Vnom, recycle input to reset</li> </ul>
Overload Protection	<ul style="list-style-type: none"> <li>110-150%</li> </ul>
Short Circuit Protection	<ul style="list-style-type: none"> <li>Continuous trip and restart (hiccup mode)</li> </ul>
Temperature Coefficient	<ul style="list-style-type: none"> <li>0.05%/°C</li> </ul>

- 125 W Forced-cooled Rating
- Low Profile 1.25"
- Industry Standard 2"x 4" & 3"x 5" Package Sizes
- 12 V Fan Supply
- Optional ORing Diode
- <0.5 W No Load Input Power
- 3 Year Warranty

## General

Efficiency	<ul style="list-style-type: none"> <li>88% typical</li> </ul>
Isolation	<ul style="list-style-type: none"> <li>3000 VAC Input to Output, 1500 VAC Input to Ground, 500 VDC Output to Ground</li> </ul>
Switching Frequency	<ul style="list-style-type: none"> <li>65 KHz typical</li> </ul>
MTBF	<ul style="list-style-type: none"> <li>1,245 KHrs to Telecordia SR-332 at 25 °C, GB</li> </ul>

## Environmental

Operating Temperature	<ul style="list-style-type: none"> <li>0 °C to +70 °C derate linearly from +50 °C at 2.5%/°C to 50% load at +70 °C.</li> </ul>
Cooling	<ul style="list-style-type: none"> <li>Forced cooled, 10 CFM</li> </ul>
Operating Humidity	<ul style="list-style-type: none"> <li>95% RH, non-condensing</li> </ul>
Storage Temperature	<ul style="list-style-type: none"> <li>-40 °C to +85 °C</li> </ul>
Operating Altitude	<ul style="list-style-type: none"> <li>3000 m</li> </ul>
Shock	<ul style="list-style-type: none"> <li>30 g pk, half sine, 6 axes</li> </ul>
Vibration	<ul style="list-style-type: none"> <li>2 g rms, 5 Hz to 500 kHz, 3 axes</li> </ul>

## EMC &amp; Safety

Low Voltage PSU EMC Emissions	<ul style="list-style-type: none"> <li>EN61204-3, high severity level as below</li> <li>EN55032 level B conducted</li> <li>EN55032 level A radiated</li> </ul>
Harmonic Currents	<ul style="list-style-type: none"> <li>EN61000-3-2, class A</li> </ul>
Voltage Flicker	<ul style="list-style-type: none"> <li>EN61000-3-3</li> </ul>
Radiated Immunity	<ul style="list-style-type: none"> <li>EN61000-4-3, level 3 Perf Criteria A</li> </ul>
EFT/Burst	<ul style="list-style-type: none"> <li>EN61000-4-4, level 3 Perf Criteria A</li> </ul>
Surge	<ul style="list-style-type: none"> <li>EN61000-4-5, installation class 3 Perf Criteria A</li> </ul>
Conducted Immunity	<ul style="list-style-type: none"> <li>EN61000-4-6, level 3 Perf Criteria A</li> </ul>
Dips & Interruptions	<ul style="list-style-type: none"> <li>EN61000-4-11, 30% 10 ms, 60% 100 ms, 100% 5000 ms, Perf Criteria A, B, B</li> </ul>
Safety Approvals	<ul style="list-style-type: none"> <li>IEC60950-1:2005 Ed 2 / IEC62368-1:2014 UL 62368-1 &amp; CAN/CSA C22.2 No. 62368-1-14</li> <li>EN62368-1:2014/A11:2017, UKCA meets all applicable directives &amp; legislation.</li> </ul>
Equipment Protection Class	<ul style="list-style-type: none"> <li>Class I</li> </ul>

**Models and Ratings**

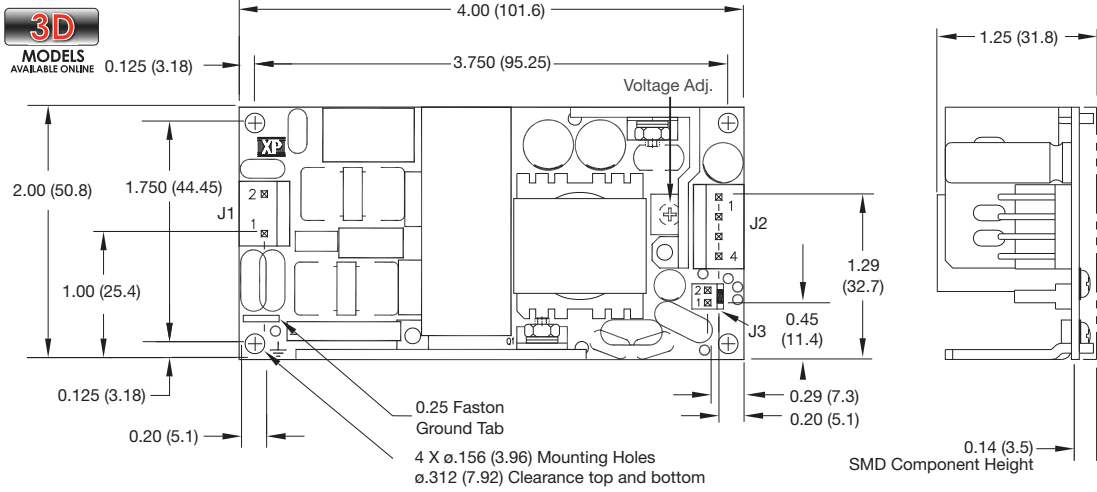
Output Power		Output Voltage V1	Output Current	Fan Supply V2	Model Number
10 CFM	Convection				
125 W	55 W	12.0 VDC	10.4 A	12 V / 0.5 A	CLC125US12
125 W	55 W	24.0 VDC	5.2 A	12 V / 0.5 A	CLC125US24
125 W	55 W	48.0 VDC	2.6 A	12 V / 0.5 A	CLC125US48
125 W	55 W	12.0 VDC	10.4 A	12 V / 0.5 A	CLC125US12-3x5 <sup>(1)</sup>
125 W	55 W	24.0 VDC	5.2 A	12 V / 0.5 A	CLC125US24-3x5 <sup>(1)</sup>
125 W	55 W	48.0 VDC	2.6 A	12 V / 0.5 A	CLC125US48-3x5 <sup>(1)</sup>
125 W	55 W	12.0 VDC	10.4 A	12 V / 0.5 A	CLC125US12D-3x5 <sup>(1)</sup>
125 W	55 W	24.0 VDC	5.2 A	12 V / 0.5 A	CLC125US24D-3x5 <sup>(1)</sup>
125 W	55 W	48.0 VDC	2.6 A	12 V / 0.5 A	CLC125US48D-3x5 <sup>(1)</sup>

**Notes**

1. The 3 x 5 models share the same specification as the other models except the PCB size is increased to 3" x 5" from 2" x 4". The 'D' models have an integral output ORing diode.

**Mechanical Details**

**CLC125**



**Input Connector J1**  
Molex PN 09-65-2038

Pin 1	Line
Pin 2	Neutral

J1 mates with Molex housing p/n 09-50-1031, and Molex series 5194 crimp terminals

**Output Connector J2**  
Molex PN 09-65-2048

Pin 1	+V1
Pin 2	+V1
Pin 3	RTN
Pin 2	RTN

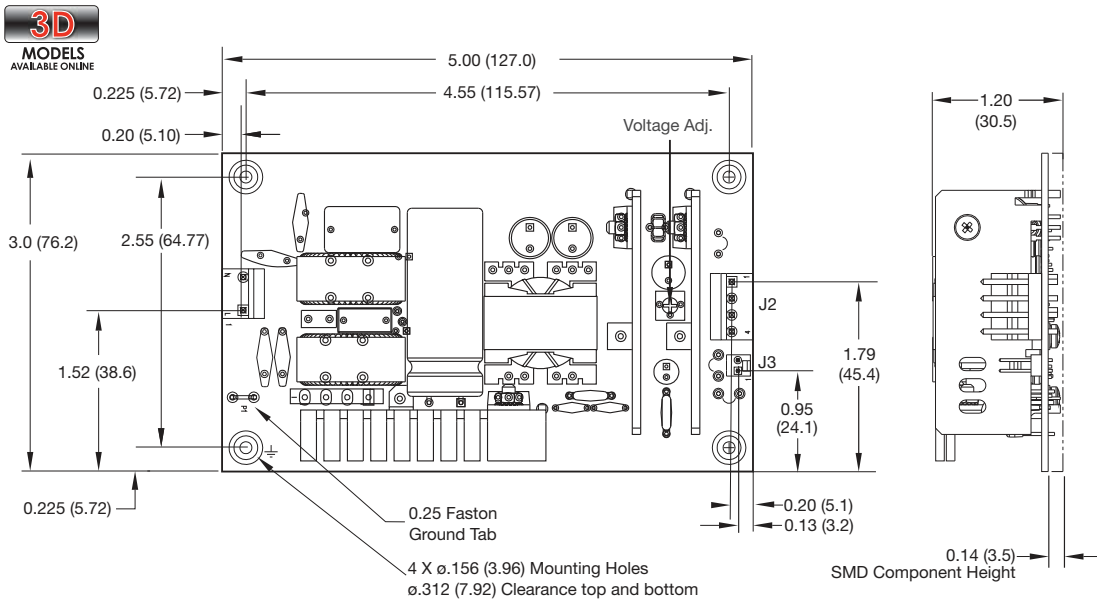
J2 mates with Molex housing p/n 09-50-1041 and Molex series 5194 crimp terminals

**Fan Supply Connector J3**  
Molex PN 22-04-1021

Pin 1	Fan+
Pin 2	Fan-

J3 mates with Molex housing p/n 22-01-1024 and Molex series 5103 crimp terminals

**CLC125 3x5 & CLC125 D 3x5**



**Input Connector J1**  
Molex PN 09-65-2038

Pin 1	Line
Pin 2	Neutral

J1 mates with Molex housing p/n 09-50-1031, and Molex series 5194 crimp terminals

**Output Connector J2**  
Molex PN 09-65-2048

Pin 1	+V1
Pin 2	+V1
Pin 3	RTN
Pin 2	RTN

J2 mates with Molex housing p/n 09-50-1041 and Molex series 5194 crimp terminals

**Fan Supply Connector J3**  
Molex PN 22-04-1021

Pin 1	Fan+
Pin 2	Fan-

J3 mates with Molex housing p/n 22-01-1024 and Molex series 5103 crimp terminals

**Notes**

1. All dimensions in inches (mm).  
2. Weight 0.386 lbs (175 g)

3. Tolerance .xx = ±0.02 (0.50); .xxx = ±0.01 (0.25)