

**Features:**

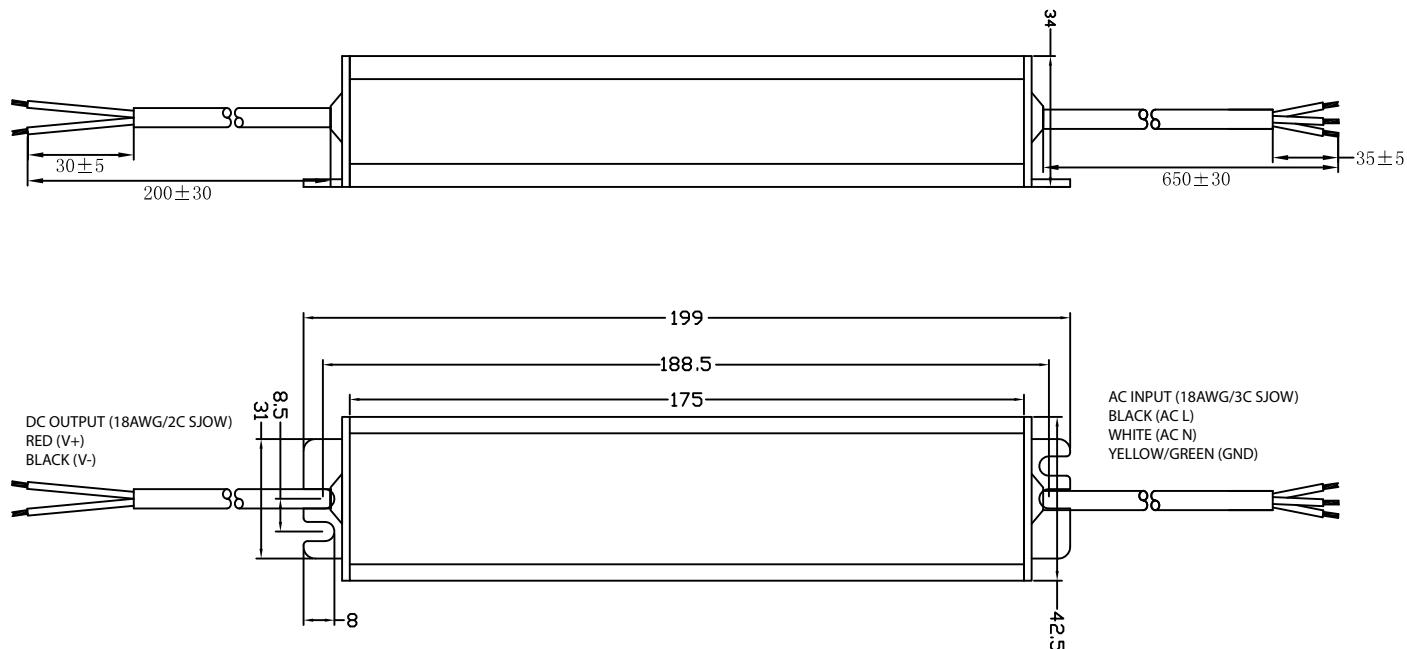
- Constant Current Design
- Universal AC input/ Full Range
- Built-in Active PFC function, PF 0.98 Typical
- High Efficiency (Up to 89%)
- Output Protections: OVP/SCP/OTP
- Lightning Protection
- Class 2 Power Unit (See Note)
- Waterproof (IP67)
- 5 Year Warranty



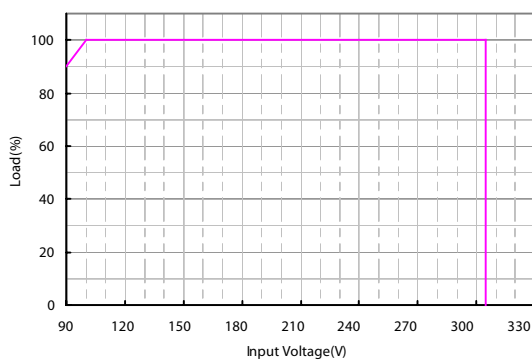
| Model                            |        | PLC-050S035                                                                                                                                                                                                                                                                                                                                                                                              | PLC-050S045  | PLC-050S070  | PLC-050S110  | PLC-050S140  | PLC-050S175  | PLC-050S210  | PLC-050S280  | PLC-050S330  | PLC-050S420  |
|----------------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Output Characteristics           |        |                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |              |              |              |              |              |              |
| Rated Current     See Note       |        | 0.35A    (1)                                                                                                                                                                                                                                                                                                                                                                                             | 0.45A    (1) | 0.70A    (1) | 1.10A    (2) | 1.40A    (3) | 1.75A    (3) | 2.10A    (3) | 2.80A    (3) | 3.30A    (1) | 4.20A    (1) |
| Voltage Range                    |        | 47~142V                                                                                                                                                                                                                                                                                                                                                                                                  | 37~110V      | 24~72V       | 16~48V       | 12~36V       | 10~29V       | 8~24V        | 6~18V        | 5~15V        | 4~12V        |
| Ripple and Noise (max)    Note 1 |        | ±10% Vo                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |              |              |              |              |              |              |              |
| Voltage Accuracy                 |        | ±5% Vo                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |              |              |              |              |              |              |
| Line Regulation                  |        | ±1% Vo                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |              |              |              |              |              |              |
| Load Regulation                  |        | ±3% Vo                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |              |              |              |              |              |              |
| Rise Time                        |        | 20mS Max @ Rated Load                                                                                                                                                                                                                                                                                                                                                                                    |              |              |              |              |              |              |              |              |              |
| Hold-up Time (Typ.)              |        | 8.5mS Min (110VAC input, full load),    10mS Min (220VAC input, full load)                                                                                                                                                                                                                                                                                                                               |              |              |              |              |              |              |              |              |              |
| Input Characteristics            |        |                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |              |              |              |              |              |              |
| Voltage Range                    |        | 90VAC~305VAC                                                                                                                                                                                                                                                                                                                                                                                             |              |              |              |              |              |              |              |              |              |
| Frequency Range                  |        | 47Hz-63Hz                                                                                                                                                                                                                                                                                                                                                                                                |              |              |              |              |              |              |              |              |              |
| Power Factor<br>(Typical)        | 110VAC | >0.98                                                                                                                                                                                                                                                                                                                                                                                                    | >0.98        | >0.98        | >0.98        | >0.98        | >0.98        | >0.98        | >0.98        | >0.98        | >0.98        |
|                                  | 220VAC | >0.92                                                                                                                                                                                                                                                                                                                                                                                                    | >0.92        | >0.92        | >0.92        | >0.92        | >0.92        | >0.92        | >0.92        | >0.92        | >0.92        |
| Efficiency (Typical)             |        | 89%                                                                                                                                                                                                                                                                                                                                                                                                      | 88%          | 87%          | 87%          | 87%          | 87%          | 86%          | 84%          | 84%          | 83%          |
| AC Current (max)                 |        | 0.8A @ 100-277VAC Input Full Load                                                                                                                                                                                                                                                                                                                                                                        |              |              |              |              |              |              |              |              |              |
| Inrush Current (max)             |        | 65A @ 230VAC,    25°C                                                                                                                                                                                                                                                                                                                                                                                    |              |              |              |              |              |              |              |              |              |
| Leakage Current                  |        | 0.5mA max @ 277VAC                                                                                                                                                                                                                                                                                                                                                                                       |              |              |              |              |              |              |              |              |              |
| Protection                       |        |                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |              |              |              |              |              |              |
| Over Temperature (OTP)           |        | 110°C (Temperature of internal components); shut down, auto recover after the temperature decreases                                                                                                                                                                                                                                                                                                      |              |              |              |              |              |              |              |              |              |
| Over Voltage (OVP)     Note 2    |        | 1.2~1.4Vo                                                                                                                                                                                                                                                                                                                                                                                                |              |              |              |              |              |              |              |              |              |
| Short Circuit (SCP)              |        | Long-term mode, auto recovery                                                                                                                                                                                                                                                                                                                                                                            |              |              |              |              |              |              |              |              |              |
| Environmental Characteristics    |        |                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |              |              |              |              |              |              |
| Operating Temperature            |        | -35°C~70°C                                                                                                                                                                                                                                                                                                                                                                                               |              |              |              |              |              |              |              |              |              |
| Operating Relative Humidity      |        | 10% RH to 100% RH                                                                                                                                                                                                                                                                                                                                                                                        |              |              |              |              |              |              |              |              |              |
| Storage Temperature              |        | -40°C~85°C, 5% to 100% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                 |              |              |              |              |              |              |              |              |              |
| Vibration                        |        | 10 to 300Hz sweep at constant acceleration of 1.0G(Breadth: 3.5mm) for 1 Hour for each of the perpendicular axes X, Y, Z                                                                                                                                                                                                                                                                                 |              |              |              |              |              |              |              |              |              |
| Waterproof Rating                |        | IP67                                                                                                                                                                                                                                                                                                                                                                                                     |              |              |              |              |              |              |              |              |              |
| Safety Standards                 |        | UL8750, Compliance to UL1012 UL935, IEC61347                                                                                                                                                                                                                                                                                                                                                             |              |              |              |              |              |              |              |              |              |
| Withstand Voltage                |        | L/N-GND: 4kV, L-N: 2kV                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |              |              |              |              |              |              |
| Isolation Resistance             |        | I/P-O/P: >100M Ohms / 500VDC / 25°C / 70% RH                                                                                                                                                                                                                                                                                                                                                             |              |              |              |              |              |              |              |              |              |
| EMC Emission                     |        | Compliance to EN55022(CISPR22) Class B, EN61000-3-2 Class A, EN61000-3-3                                                                                                                                                                                                                                                                                                                                 |              |              |              |              |              |              |              |              |              |
| EMC Immunity                     |        | Compliance to EN61000-3-2, 3    EN61000-4-2, 3, 4, 5, 6, 8, 11,    EN61547                                                                                                                                                                                                                                                                                                                               |              |              |              |              |              |              |              |              |              |
| Characteristics                  |        |                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |              |              |              |              |              |              |
| Life Time                        |        | More than 50,000Hrs (25°C, 80% Load)                                                                                                                                                                                                                                                                                                                                                                     |              |              |              |              |              |              |              |              |              |
| MTBF (MIL-HDBK-217F)             |        | More than 490,000Hrs (25°C, 80% Load)                                                                                                                                                                                                                                                                                                                                                                    |              |              |              |              |              |              |              |              |              |
| Dimension (LxWxH)                |        | 199x42.5x34mm                                                                                                                                                                                                                                                                                                                                                                                            |              |              |              |              |              |              |              |              |              |
| Note                             |        | 1. Ripple & Noise: Measured by 20 MHz bandwidth oscilloscope and the output paralleled with a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor.<br>2. Latch Mode: The power supply shall return to normal operation only after the power is turned on again<br><br>(1) Non-Class 2 output (USR & CNR)<br>(2) Class 2 output (USR); Non-Class 2 output (CNR)<br>(3) Class 2 output (USR & CNR) |              |              |              |              |              |              |              |              |              |

**MECHANICAL SPECIFICATIONS**

UNIT: mm



Derating Curve

100V<sub>ac</sub>277V<sub>ac</sub>

Ambient Temperature vs. Load

