

**Features:**

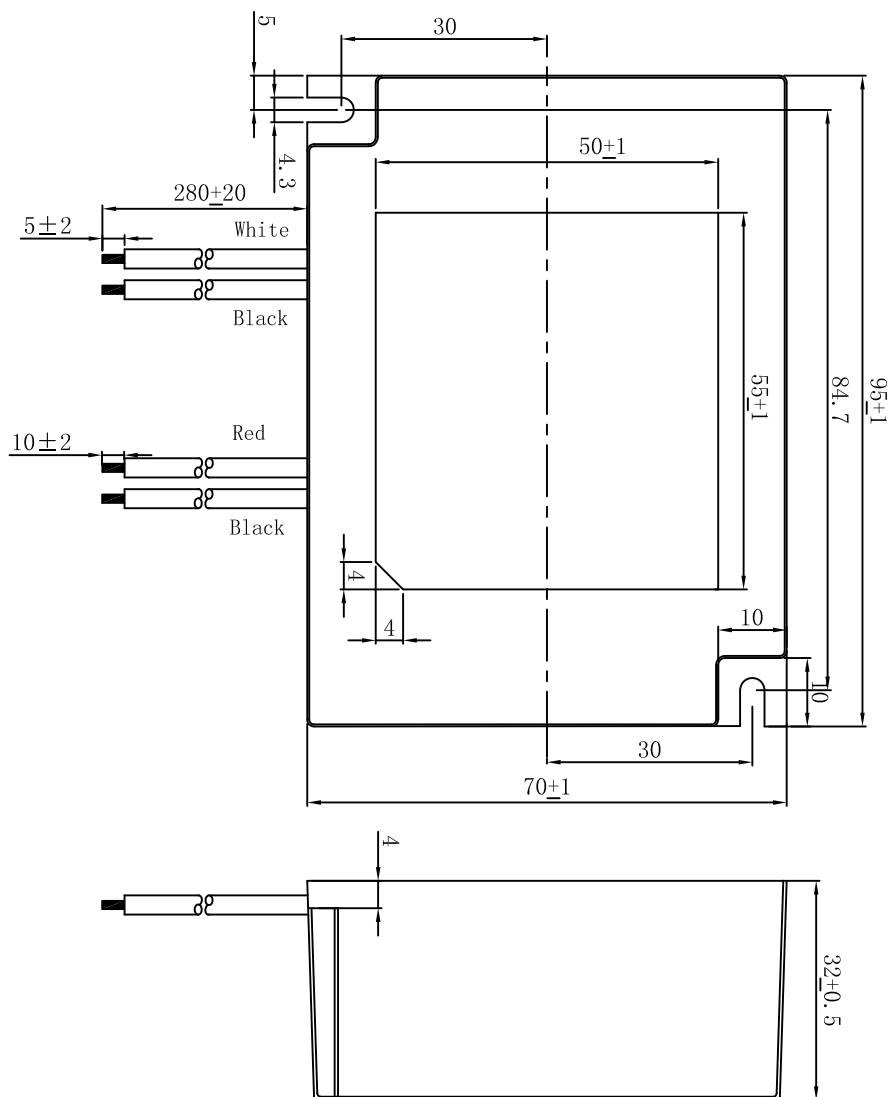
- Constant Current Design
- Universal AC input/ Full Range
- Built-in Active PFC function, PF 0.95 Typical
- High Efficiency (Up to 88%)
- Output Protections: OVP/SCP/OTP
- Lightning Protection
- Class 2 Power Unit (See Note)
- Waterproof (IP65)
- 3 Year Warranty



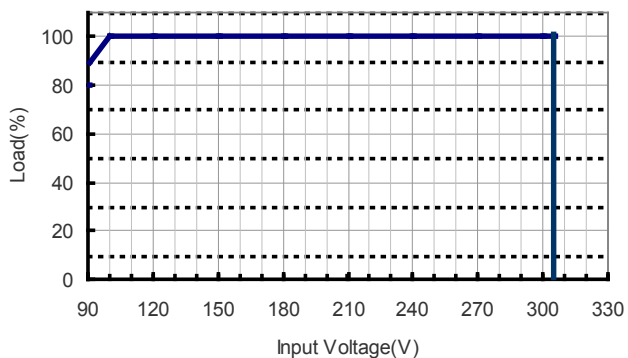
| Model                                        |        | PLC-040S035                                                                                                                                                                                                                                                                                                                                                                                                                           | PLC-040S045              | PLC-040S070              | PLC-040S105              | PLC-040S128              | PLC-040S140              | PLC-040S166              | PLC-040S222              | PLC-040S333              |
|----------------------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Output Characteristics                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                          |                          |                          |                          |                          |                          |                          |
| Rated Current <small>See Note</small>        |        | 0.35A <small>(1)</small>                                                                                                                                                                                                                                                                                                                                                                                                              | 0.45A <small>(1)</small> | 0.70A <small>(2)</small> | 1.05A <small>(3)</small> | 1.28A <small>(3)</small> | 1.40A <small>(3)</small> | 1.66A <small>(3)</small> | 2.22A <small>(3)</small> | 3.33A <small>(3)</small> |
| Voltage Range                                |        | 38~114V                                                                                                                                                                                                                                                                                                                                                                                                                               | 30~89V                   | 18~54V                   | 12~36V                   | 10~29V                   | 10~25V                   | 8~23V                    | 6~16V                    | 4~11V                    |
| Ripple and Noise (max) <small>Note 1</small> |        | ±10% Vo                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                          |                          |                          |                          |                          |                          |                          |
| Voltage Accuracy                             |        | ±5% Vo                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                          |                          |                          |                          |                          |                          |                          |
| Line Regulation                              |        | ±1% Vo                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                          |                          |                          |                          |                          |                          |                          |
| Load Regulation                              |        | ±5% 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 | >0.95                                                                                                                                                                                                                                                                                                                                                                                                                                 | >0.95                    | >0.95                    | >0.95                    | >0.95                    | >0.95                    | >0.95                    | >0.95                    | >0.95                    |
|                                              | 220VAC | >0.90                                                                                                                                                                                                                                                                                                                                                                                                                                 | >0.90                    | >0.90                    | >0.90                    | >0.90                    | >0.90                    | >0.90                    | >0.90                    | >0.90                    |
| Efficiency (Typical)                         |        | 88%                                                                                                                                                                                                                                                                                                                                                                                                                                   | 88%                      | 87%                      | 87%                      | 87%                      | 87%                      | 86%                      | 85%                      | 84%                      |
| AC Current (max)                             |        | 0.6A @ 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) <small>Note 2</small>     |        | 1.2~1.7Vo                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                          |                          |                          |                          |                          |                          |                          |
| Short Circuit (SCP)                          |        | Long-term mode, auto recovery                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                          |                          |                          |                          |                          |                          |                          |
| Environmental Characteristics                |        |                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                          |                          |                          |                          |                          |                          |                          |
| Operating Temperature                        |        | -35°C~70°C                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |
| Operating Relative Humidity                  |        | 5% RH to 95% 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                            |        | IP65                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                          |                          |                          |                          |                          |                          |                          |
| 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 78,000Hrs (25°C, 80% Load)                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                          |                          |                          |                          |                          |                          |                          |
| MTBF (MIL-HDBK-217F)                         |        | More than 492,000Hrs (25°C, 80% Load)                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                          |                          |                          |                          |                          |                          |                          |
| Dimension (LxWxH)                            |        | 95x70x32mm                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |
| 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><b>(1) Non-Class 2 output (USR &amp; CNR)</b><br><b>(2) Class 2 output (USR); Non-Class 2 output (CNR)</b><br><b>(3) Class 2 output (USR &amp; CNR)</b> |                          |                          |                          |                          |                          |                          |                          |                          |

# MECHANICAL SPECIFICATIONS

UNIT: mm



Derating Curve



Ambient Temperature vs. Load

