

## GPSO15 open frame series

### Features:

- Universal input voltage
- Low leakage current
- Over voltage protections
- Over load protections
- Short circuit
- Simple constant current (Option)
- Meet Energy star IV
- Two years limited warranty

### SAFETY AGENCY APPROVALS:

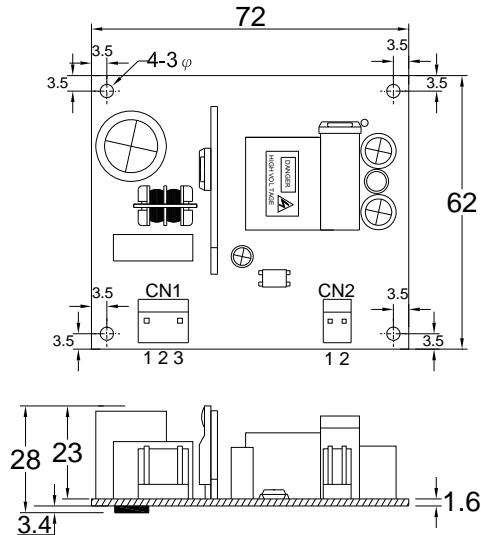


### Application: General power

| Specifications:                | GPSO15 series:  |
|--------------------------------|---|
| Input voltage                  | 100~240VAC  |
| Input frequency                | 50~60Hz (Limits:47~63Hz)  |
| Input current                  | 0.5A Max.   |
| Safety ground leakage current  | 0.25mA Max. @240VAC/50Hz  |
| Output voltage                 | See rating chart  |
| Output current                 | See rating chart  |
| Output power range             | See rating chart  |
| Ripple                         | 1% peak to peak maximum. See rating Chart   |
| Over voltage protection        | Yes, Protected by Zener diode   |
| Over current protection        | Yes. Auto-recovery<br>Standard Series: Rated output current>110% for primary-referenced direct drive<br>(Constant current series: Rated output current 80~200% for secondary-referenced direct drive) |
| Short circuit protection       | Yes. Hiccup mode ; Auto- recovery   |
| Temperature coefficient        | All output $\pm 0.04\%/^{\circ}\text{C}$ maximum  |
| Transient response             | Maximum excursion of 4% or better on all models.<br>Recovering to 1% of final value within 500uS after a 25% step load change   |
| Operating temperature          | 0 $^{\circ}\text{C}$ ~+40 $^{\circ}\text{C}$ . See derating curve   |
| Storage temperature            | -40 $^{\circ}\text{C}$ ~+85 $^{\circ}\text{C}$  |
| Relative humidity              | 5% to 95% non-condensing  |
| Derating                       | Derated from 100% at + 40 $^{\circ}\text{C}$ linearly to 70% at 50 $^{\circ}\text{C}$   |
| Avg. Efficiency                | See rating chart  |
| Setup up / Hold up / Rise time | Typical: 3000mS / 16mS / 50mS at full load.   |
| Line regulation                | $\pm 1\%$ maximum for any input voltage change between input voltage range  |
| Load regulation                | Typical $\pm 5\%$ variations from minimum to maximum output current. Or see rating chart  |
| Insulation resistance          | 50Mohn minimum from input to ground   |
| Inrush current                 | 20 AMPS@115 VAC ; 40AMPS @ 230VAC at 25 $^{\circ}\text{C}$ cold start   |
| Withstand voltage              | 4242VDC from input to output  |
| Mean time between failure      | 100,000 hours minimum at full load at 25 $^{\circ}\text{C}$ ambient   |
| EMI requirements               | CE  |
| Safety requirements            | Reference design: (A)UL60950-1;CSA C22.2 (B)EN60950-1 ; IEC60950-1  |
| Warranty                       | 2 years   |
| Dimension(mm)                  | 72x62x28  |
| Weight(g)                      | 70  |

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## Mechanical Specification



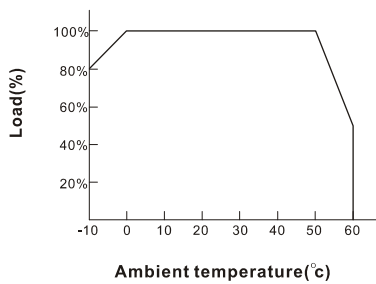
AC input connector (CN1): Molex5273 series or equivalent

| Pin number | Assignment | Mating Housing             | Terminal                   |
|------------|------------|----------------------------|----------------------------|
| 1          | AC-L       | Molex5058<br>or equivalent | Molex2478<br>or equivalent |
| 2          | NC         |                            |                            |
| 3          | AC-N       |                            |                            |

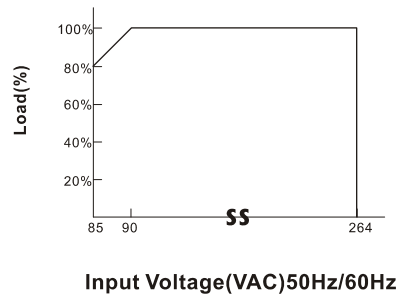
DC output connector (CN2): Molex5273 series or equivalent

| Pin number | Assignment | Mating Housing             | Terminal                   |
|------------|------------|----------------------------|----------------------------|
| 1          | -V         | Molex5195<br>or equivalent | Molex5194<br>or equivalent |
| 2          | +V         |                            |                            |

### Output Derating



### Static Characteristics



| Model name | Output Voltage(VDC) | Output Current (A) | Max .Output Power (W) | Ripple(mV) Max. | Line Regulation (%) | Load Regulation (%) | Avg. EFF (%)<br>25,50,75,100% load |
|------------|---------------------|--------------------|-----------------------|-----------------|---------------------|---------------------|------------------------------------|
| GPSO15-1   | 5~6                 | 2.40~2.00          | 12                    | 50              | 1                   | 3                   | 71                                 |
| GPSO15-2   | 8~11                | 1.80~1.36          | 15                    | 80              | 1                   | 2                   | 75                                 |
| GPSO15-3   | 11~13               | 1.36~1.15          | 15                    | 80              | 1                   | 2                   | 78                                 |
| GPSO15-4   | 13~16               | 1.15~0.94          | 15                    | 100             | 1                   | 2                   | 78                                 |
| GPSO15-5   | 16~21               | 0.94~0.72          | 15                    | 120             | 1                   | 2                   | 78                                 |
| GPSO15-6   | 21~27               | 0.72~0.55          | 15                    | 150             | 1                   | 2                   | 80                                 |
| GPSO15-7   | 27~33               | 0.55~0.45          | 15                    | 240             | 1                   | 2                   | 80                                 |
| GPSO15-8   | 33~48               | 0.45~0.31          | 15                    | 240             | 1                   | 2                   | 80                                 |