

150 Watt Enclosed Switching Power Supply with PFC

PMK150E series



3.17"W x 5.5"L x 1.6"H

- 150 Watts Output Power
- Single and Dual Outputs
- Universal 90-264VAC Input
- 5VDC to 48VDC Outputs
- 4242VDC Input to Output Isolation
- Active Power Factor Correction



| Model Number | Output Voltage | Output Amps (max) | Line Regulation (max) | Ripple & Noise |
|----------------------|----------------|-------------------|-----------------------|-----------------|
| SINGLE OUTPUT | | | | |
| PMK150S-5E | 5 VDC | 30 | ±1% | 150mV pk-pk |
| PMK150S-12E | 12 VDC | 12.5 | ±1% | 150mV pk-pk |
| PMK150S-15E | 15 VDC | 10 | ±1% | 150mV pk-pk |
| PMK150S-24E | 24 VDC | 6.3 | ±1% | 150mV pk-pk |
| PMK150S-48E | 48 VDC | 3.2 | ±1% | 250mV pk-pk |
| DUAL OUTPUT | | | | |
| PMK150D-AE | 5/12 VDC | 15/7 | ±0.5/1% | 50/100mV pk-pk |
| PMK150D-BE | 5/24 VDC | 15/3.5 | ±0.5/2% | 50/200mV pk-pk |
| PMK150D-CE | 12/24 VDC | 7/3.5 | ±1/2% | 100/200mV pk-pk |
| PMK150D-DE | 12/48 VDC | 7/1.5 | ±1/4% | 100/400mV pk-pk |

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INPUT SPECIFICATIONS

| | |
|------------------------------------|--------------------------------|
| Input Voltage Range | 90-264 VAC (100-240VAC nom.) |
| Frequency Range | 47-63 Hz |
| Power Factor Correction | 0.96 min. at nom. Input |
| Inrush Current, typ at cold start: | 30A @ 115VAC 60A @ 230VAC * |
| Leakage Current | <3.5mA @ 264VAC, 50Hz |

OUTPUT SPECIFICATIONS

| | |
|-------------------------------|--|
| Voltage and Current (Note 6) | See Selection Chart |
| Line Regulation (Note 8) | See Selection Chart |
| Load Regulation (20%-FL) | Singles: $\pm 1\%$, max. |
| Cross Regulation (note 7) | Duals: $\pm 3/5\%$ |
| Preset Accuracy (Note 9) | $\pm 1\%$, typ |
| Ripple/Noise (Notes 1, 3, 10) | See Selection Chart |
| Over Voltage Protection | 130% max. of nom. input Auto Recover after fault condition is removed * |
| Over Current Protection | 150% max. of FL at nom. input |
| Short Circuit Protection | Auto Recover after fault condition is removed * |
| Hold Up Time | 20mS, typ (Nom I/P, FL) |

GENERAL SPECIFICATIONS

| | |
|--------------------|---|
| Isolation (Note 4) | I/P-O/P: 4242VDC |
| | I/P-Ground: 2828VDC |
| | O/P-Ground: 707VDC |
| Efficiency | 75%, min. at nom. input |
| Safety UL/cUL: | UL60950-1 2nd ed./ C22.2 60950-1 2nd ed. |
| | CB: IEC60950-1 2nd ed. |

ENVIRONMENTAL SPECIFICATIONS

| | |
|---------------------|------------------------------------|
| Oper. Temperature | -10 to +70°C (See Derate Curve) |
| Storage Temperature | -25 to +85°C * |
| Relative Humidity | 0% to +95%, non-cond * |
| EMC | EN55011 Class B |
| MTBF | 270,000 Hrs Mil Std 217, 25°C |

PHYSICAL SPECIFICATIONS

| | |
|--------------|---------------------|
| Size | 3.17" x 5.5" x 1.6" |
| Construction | Enclosed |
| Weight | 1.3 lb, (590g) |

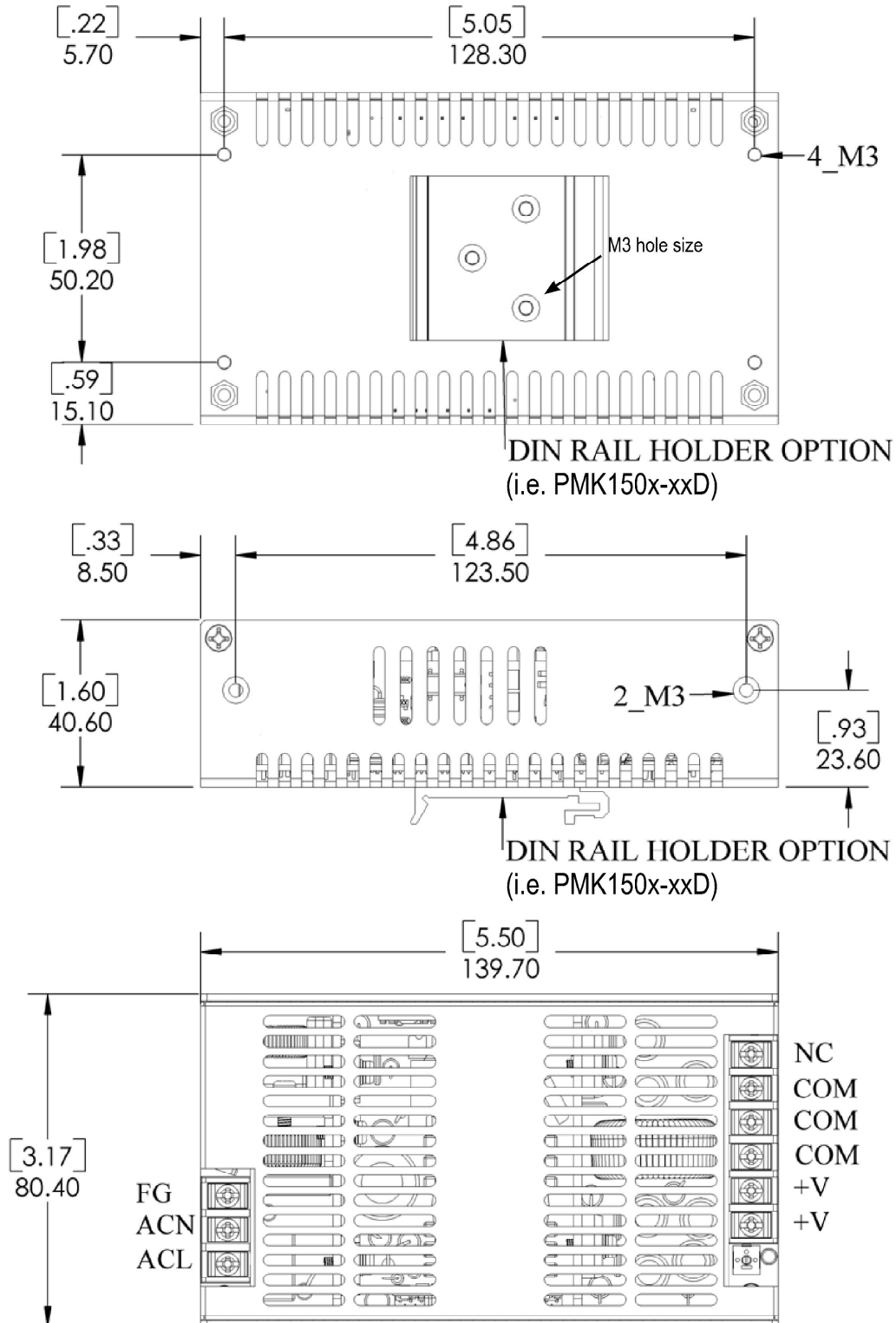
NOTES

1. All measurements should be made directly at the terminals of the power supply
2. All specifications typical @ 25°C, unless otherwise noted, at nominal line and load.
3. Ripple and noise dependent upon output voltage as specified per particular model.
4. Isolation for up to 1 minute duration.
5. Specified for free air convection cooling.
6. Minimum load is not required for proper operation.
7. Load Regulation is measured by change $\pm 40\%$ of measured output load from 60% full load, with the other output set to 60% full load.
8. Line Regulation measured from 90-264VAC. 100VAC minimum required for full load start.
9. Preset Accuracy measured at nominal load, 120VAC input.
10. O/P Noise measured directly at the pins/terminals at nominal load, 0.1uF bypass and 47uF electrolytic, pk-pk @ 20MHz bandwidth.

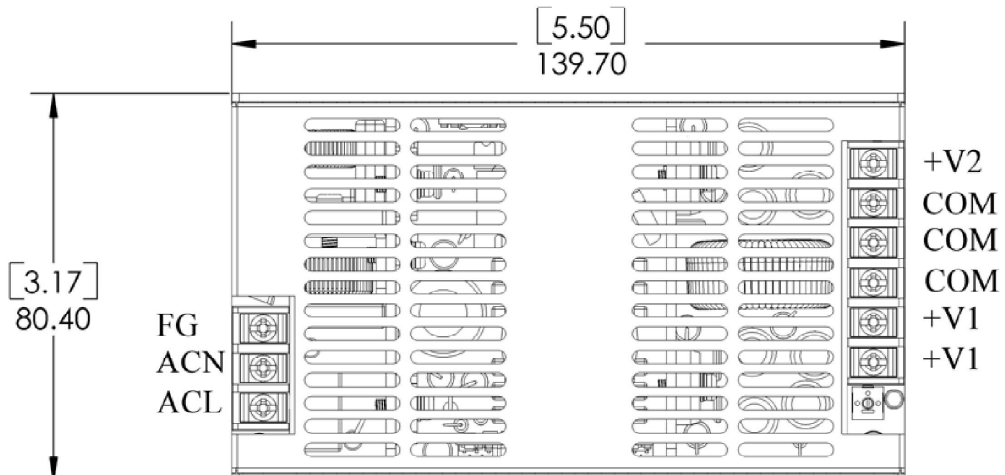
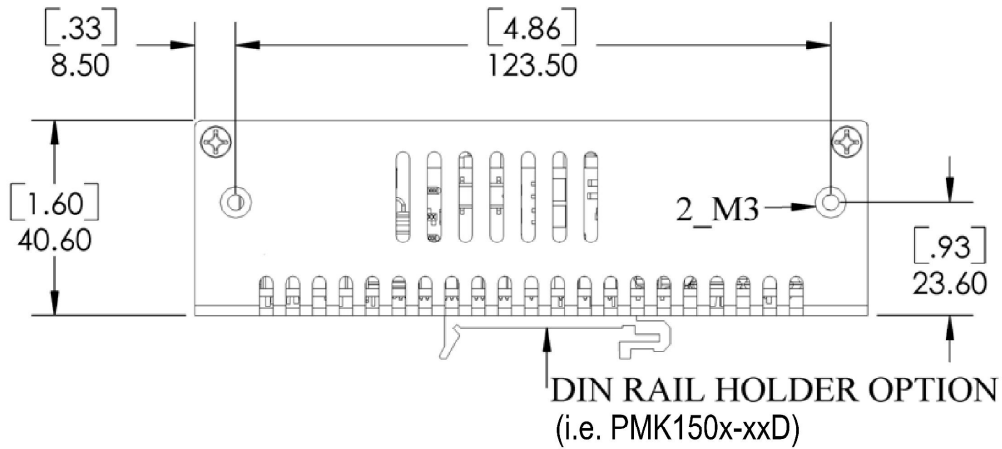
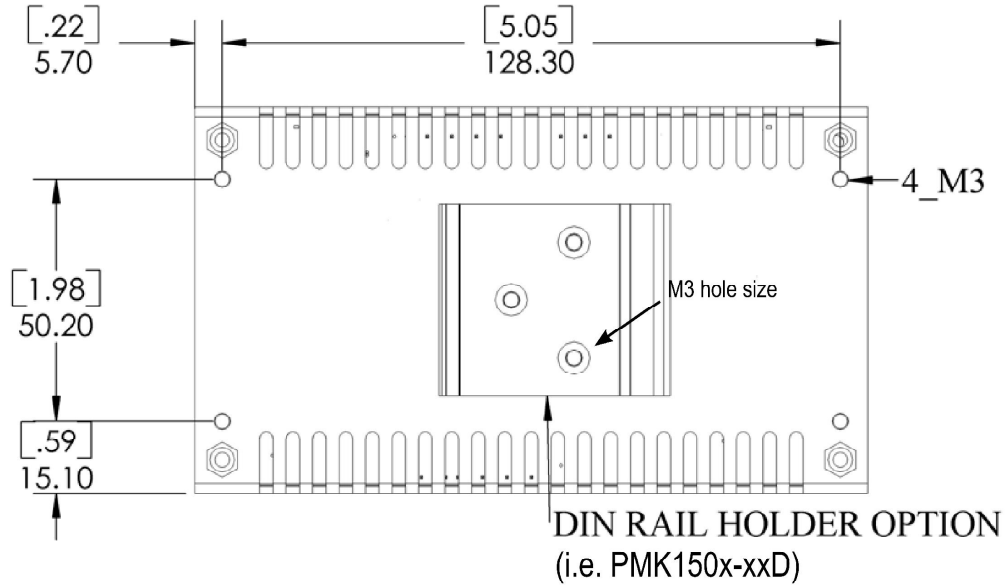
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

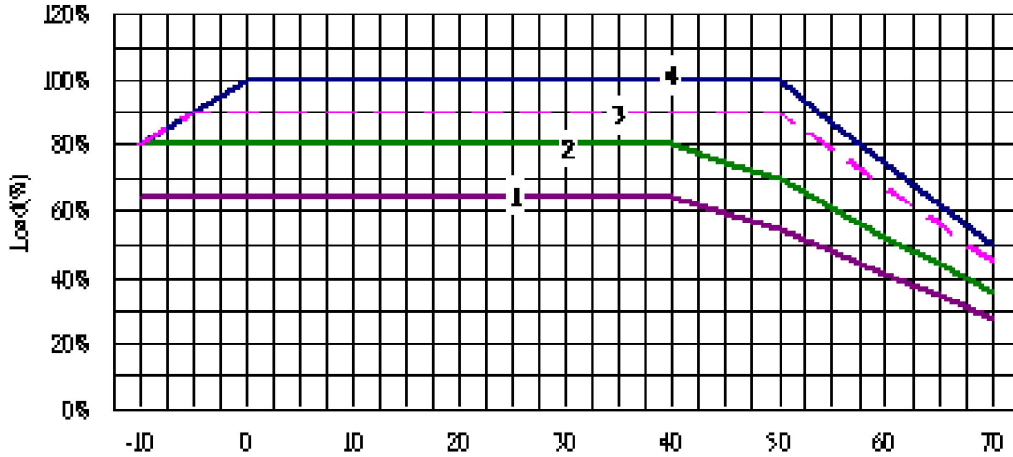
MECHANICAL DIMENSIONS - SINGLE OUTPUT



MECHANICAL DIMENSIONS - DUAL OUTPUT

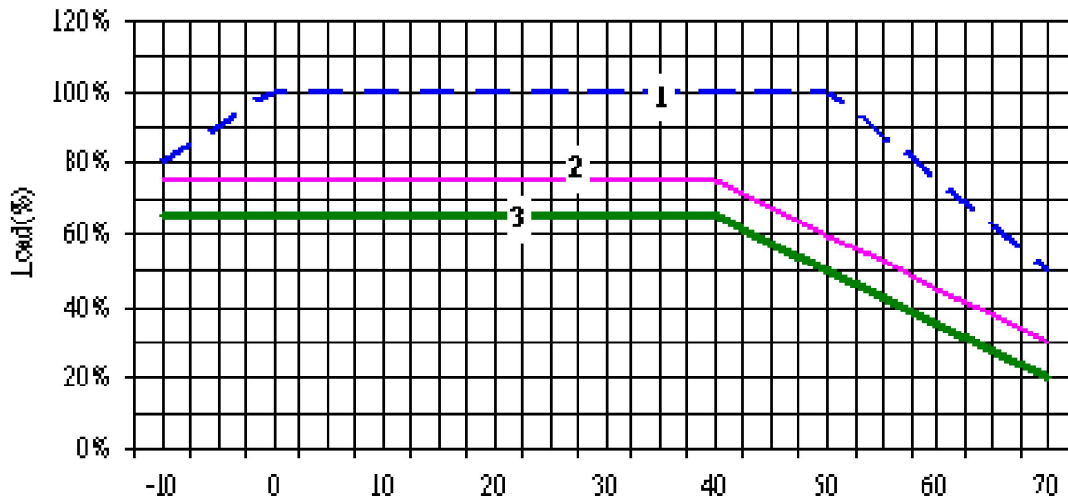


OUTPUT DERATING CURVE - SINGLE OUTPUT



1. 5V convection
2. 12V, 15V, 24V, 48V convection
3. 5V Forced air cooling 10CFM
4. 12V, 15V, 24V, 48V Forced air cooling 10CFM

OUTPUT DERATING CURVE - DUAL OUTPUT



1. Forced air colling 10 CFM
2. Free air convection
- Open Frame, U-Channel
3. Free air convection
- Enclosed