



SERIES: VMS-81 | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

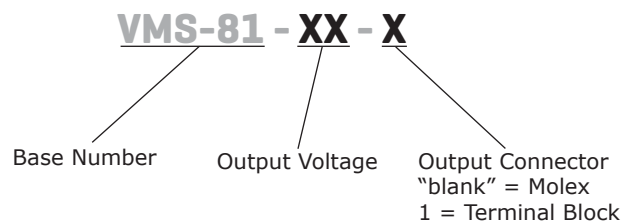
- up to 80 W continuous power
- universal input (90~260 Vac)
- single output from 5~36 V
- input to output 2MOPP
- active power factor correction
- over voltage and over current protections
- full medical safety approvals
- efficiency up to 85%



| MODEL | output voltage | output current | output power | ripple and noise ¹ | efficiency ² |
|-----------|----------------|----------------|--------------|-------------------------------|-------------------------|
| | (Vdc) | max (A) | max (W) | max (mVp-p) | typ (%) |
| VMS-81-5 | 5 | 14.0 | 70 | 50 | 74 |
| VMS-81-7 | 7 | 11.43 | 80 | 70 | 79 |
| VMS-81-9 | 9 | 8.89 | 80 | 90 | 81 |
| VMS-81-12 | 12 | 6.66 | 80 | 120 | 81 |
| VMS-81-15 | 15 | 5.33 | 80 | 150 | 81 |
| VMS-81-18 | 18 | 4.44 | 80 | 180 | 82 |
| VMS-81-24 | 24 | 3.33 | 80 | 240 | 82 |
| VMS-81-30 | 30 | 2.66 | 80 | 300 | 81 |
| VMS-81-36 | 36 | 2.22 | 80 | 360 | 81 |

Notes: 1. Measured at full load, 90 Vac, 20MHz.
2. Measured at full load, 230 Vac. Up to 85% max.

PART NUMBER KEY



INPUT

| parameter | conditions/description | min | typ | max | units |
|---------------------------|--|------|-----|------------|--------|
| voltage | | 90 | | 260 | Vac |
| frequency | | 47 | | 63 | Hz |
| input current | at 100 Vac, full load at 240 Vac, full load | | | 1.2 0.4 | A A |
| inrush current | at 115 Vac, full load, cool start at 25 °C at 230 Vac, full load, cool start at 25 °C | | | 28 56 | A A |
| leakage current | at 240 Vac/60 Hz | | | 0.1 | mA |
| power factor correction | at 240 Vac, full load | 0.95 | | 1 | |
| no load power consumption | at 230 Vac | | | 0.5 | W |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|-------------------------|------------------------|-----|------|-----|-------|
| line regulation | full load | | | ±1 | % |
| load regulation | at 230 Vac | | | ±5 | % |
| hold-up time | at 110 Vac, full load | 16 | | | ms |
| start-up time | at 100 Vac, full load | 0.3 | | 2 | s |
| temperature coefficient | | | ±0.4 | | %/°C |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|-------------------------|------------------------|-----|-----|-----|-------|
| over voltage protection | recovers automatically | 112 | | 132 | % |
| over current protection | recovers automatically | 110 | | 150 | % |

SAFETY & COMPLIANCE

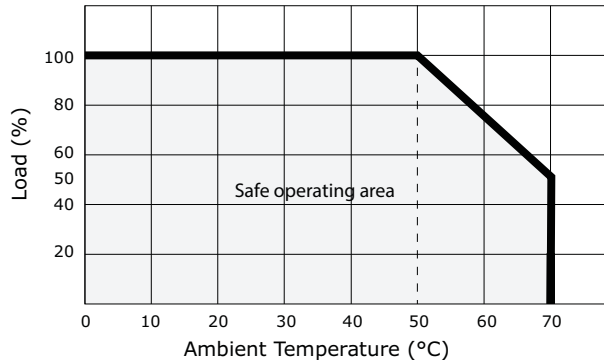
| parameter | conditions/description | min | typ | max | units |
|------------------------------|--|----------------|-----|-----|------------|
| isolation voltage | input to output (for 1 minute, 10mA) input to ground (for 1 minute, 10mA) | 6,653 2,121 | | | Vdc Vdc |
| isolation resistance | at 500 Vdc | 50 | | | MΩ |
| safety approvals | IEC 60601-1, EN 60601-1, UL 60601-1 | | | | |
| conducted emissions | EN60601-1-2/EN55011 class B | | | | |
| radiated emissions | EN60601-1-2/EN55011 class B | | | | |
| harmonics | EN61000-3-2 class D | | | | |
| ESD | IEC61000-4-2, contact ± 6kV/ air ± 8kV | | | | |
| radiated immunity | IEC61000-4-(2, 3, 4, 5, 6, 8, 11) | | | | |
| EFT/burst | IEC61000-4-4, ± 2kV | | | | |
| surge | IEC61000-4-5 line to line: ± 1kV, line to earth: ± 2kV | | | | |
| voltage dips & interruptions | IEC61000-3-3, IEC61000-4-11 | | | | |
| MTBF | MIL-HDBK-217F, at 25°C | 100,000 | | | hours |
| RoHS compliant | yes | | | | |

ENVIRONMENTAL

| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|------|-------|
| operating temperature | see derating curve | 0 | | 70 | °C |
| storage temperature | | -40 | | 85 | °C |
| operating humidity | | 0 | | 95 | % |
| storage humidity | | 0 | | 95 | % |
| operating altitude | | | | 3000 | m |

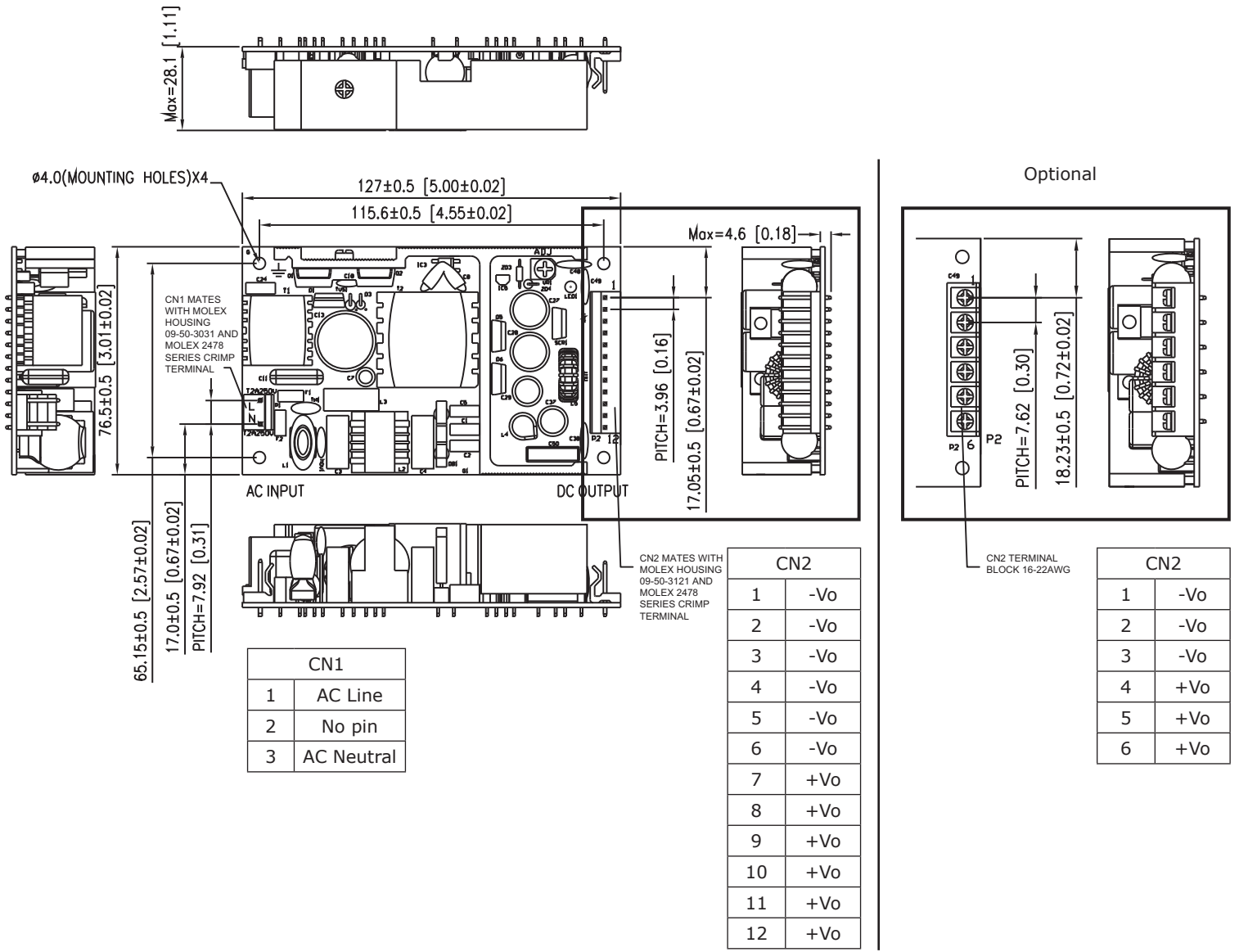
DERATING CURVES

Temperature Derating Curve



MECHANICAL DRAWING

units: mm[inches]



REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 07/19/2013 |

The revision history provided is for informational purposes only and is believed to be accurate.

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