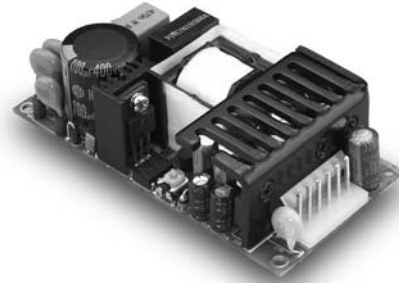


SERIES: VFM40 | DESCRIPTION: AC-DC POWER SUPPLY
FEATURES

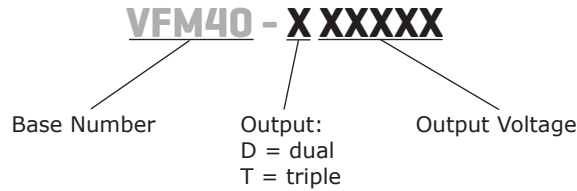
- up to 40 W continuous power
- industry standard footprint (2x4")
- universal input (90~264 Vac)
- 4,242 V isolation
- over current, over temperature, over voltage, and short circuit protections
- efficiency up to 81%



| MODEL | output voltage (Vdc) | output current | | | output power max (W) | ripple and noise ¹ max (mVp-p) | efficiency typ (%) |
|----------------|-------------------------|----------------|------------|------------|----------------------------|---|--------------------------|
| | | min (A) | typ (A) | max (A) | | | |
| VFM40-D512 | 5 (V1) | 0.4 | 3.2 | 5.0 | 40.0 | 50 | 80 |
| | 12 (V2) | 0.2 | 2.0 | 2.5 | | | |
| VFM40-D524 | 5 (V1) | 0.4 | 3.2 | 5.0 | 40.0 | 50 | 81 |
| | 24 (V2) | 0.2 | 1.0 | 1.5 | | | |
| VFM40-T5125 | 5 (V1) | 0.4 | 3.0 | 5.0 | 40.5 | 50 | 78 |
| | 12 (V2) | 0.2 | 2.0 | 2.5 | | 120 | |
| | -5 (V3) | 0 | 0.3 | 0.5 | | 50 | |
| VFM40-T512 | 5 (V1) | 0.4 | 3.0 | 5.0 | 42.6 | 50 | 78 |
| | 12 (V2) | 0.2 | 2.0 | 2.5 | | 120 | |
| | -12 (V3) | 0 | 0.3 | 0.5 | | 120 | |
| VFM40-T515 | 5 (V1) | 0.4 | 3.0 | 5.0 | 42.0 | 50 | 78 |
| | 15 (V2) | 0.2 | 1.5 | 2.3 | | 150 | |
| | -15 (V3) | 0 | 0.3 | 0.5 | | 150 | |
| VFM40-T52412 | 5 (V1) | 0.4 | 3.0 | 5.0 | 42.6 | 50 | 78 |
| | 24 (V2) | 0.2 | 1.0 | 1.5 | | 240 | |
| | -12 (V3) | 0 | 0.3 | 0.5 | | 120 | |
| VFM40-T5245 | 5 (V1) | 0.4 | 3.0 | 5.0 | 40.5 | 50 | 78 |
| | 24 (V2) | 0.2 | 1.0 | 1.5 | | 240 | |
| | -5 (V3) | 0 | 0.3 | 0.5 | | 50 | |
| VFM40-T52412-1 | 5 (V1) | 0.4 | 3.0 | 5.0 | 42.6 | 50 | 78 |
| | 24 (V2) | 0.2 | 1.0 | 1.5 | | 240 | |
| | 12 (V3) | 0 | 0.3 | 0.5 | | 120 | |
| VFM40-3512 | 3.3 (V1) | 0.4 | 5.0 | 7.0 | 30.0 | 100 | 71 |
| | 5 (V2) | 0.2 | 2.0 | 3.5 | | 100 | |
| | 12 (V3) | 0 | 0.3 | 0.5 | | 120 | |

Notes: 1. Ripple & noise are measured at 20 MHz BW with 0.1 μ F ceramic cap and a 10 μ F electrolytic capacitors on the output

PART NUMBER KEY



INPUT

| parameter | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| voltage | | 90 | | 264 | Vac |
| | | 120 | | 370 | Vdc |
| frequency | | 47 | | 440 | Hz |
| input current | 115 Vac | | | 1 | A |
| inrush current | 230 Vac | | | 60 | mA |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|----------------------|------------------------|----------------------|-----|-----|-------|
| line regulation | dual output models | V1 | | ±1 | % |
| | | V2 | | ±2 | % |
| | triple output models | V1 | | ±1 | % |
| | | V2 | | ±2 | % |
| | | V3 | | ±1 | % |
| | load regulation | dual output models | V1 | | ±3 |
| V2 | | | | ±5 | % |
| triple output models | | V1 | | ±3 | % |
| | | V2 | | ±5 | % |
| | | V3 | | ±1 | % |
| voltage accuracy | | dual output models | V1 | | ±3 |
| | V2 | | | ±4 | % |
| | triple output models | V1 | | ±3 | % |
| | | V2 | | ±4 | % |
| | | V3 | | ±3 | % |
| | hold-up time | 115 Vac at full load | | 20 | |
| adjustment range | | | 10 | | % |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|--------------------------|-------------------------------------|------------------|-----|-----|-------|
| over voltage protection | V1 | 3.3 V | 3.6 | 4.6 | Vdc |
| | | 5 V | 5.7 | 6.7 | Vdc |
| | V2 | 12, 15, and 24 V | 120 | | 140 |
| over current protection | auto recovery | | | 180 | %Io |
| short circuit protection | auto recovery upon removal of short | | | | |

SAFETY & COMPLIANCE

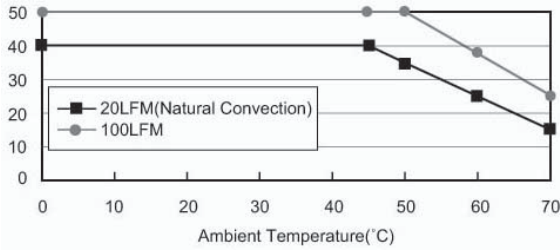
| parameter | conditions/description | min | typ | max | units |
|-------------------|--|-------|-----|-----|-------|
| isolation voltage | primary to secondary | 4,242 | | | Vac |
| safety standards | UL, TUV, CE | | | | |
| EMI/EMC | EN 61204-3 Class B, CISPR, FCC Class B | | | | |
| leakage current | | | | 3.5 | mA |
| RoHS compliant | yes | | | | |

ENVIRONMENTAL

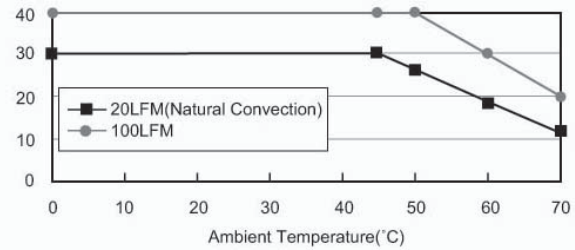
| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve | 0 | | 45 | °C |
| storage temperature | | -20 | | 85 | °C |

DERATING CURVES

All other models



VFM40-3512



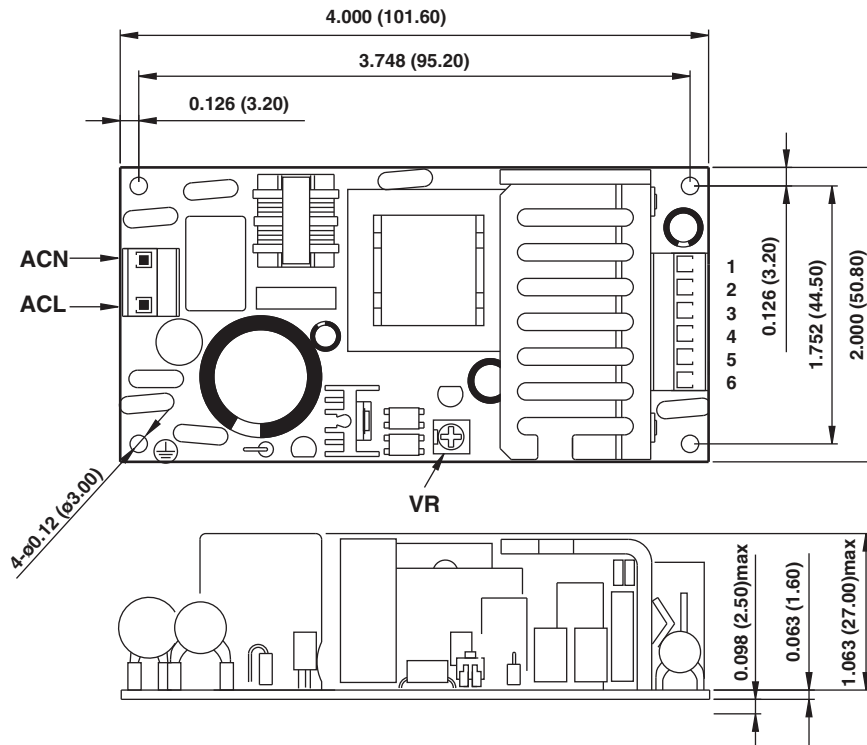
MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|------------|---------------------------------------|-----|-----|-----|-------|
| dimensions | 4 x 2 x 1.2 (101.6 x 50.8 x 30.48 mm) | | | | inch |
| weight | | | 180 | | g |

MECHANICAL DRAWING

units: inches (mm)
 tolerance: inches: x.xx = ±0.02
 mm: x.xx = ±0.5

| MATING CONNECTORS | |
|-------------------|--|
| CONNECTOR | MOLEX |
| AC input (CN1) | housing: 09-50-3031 crimp contact: 2878 |
| DC output (CN2) | housing: 09-50-3061 crimp contact: 2878 |



| PIN CONNECTIONS | |
|-----------------|----------|
| PIN | FUNCTION |
| 1 | V2 |
| 2 | V1 |
| 3 | V1 |
| 4 | COM |
| 5 | COM |
| 6 | V3 |

REVISION HISTORY

| rev. | description | date |
|------|--|------------|
| 1.0 | initial release | 01/30/2007 |
| 1.01 | updated spec template and derating curves | 08/28/2007 |
| 1.03 | new template applied, V-Infinity branding removed, safety marks/standards and mechanical drawing updated | 08/17/2012 |

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



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CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

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