



Features:

- Front panel health status LED
- Voltage free contacts for under voltage indication
- Overvoltage protection
- Eurocard format 8HP wide
- Designed for redundancy operation
- MTBF > 1.5 Million Hrs

Input / Output

- Input 100-240Vac 100W
- Output 12, 24, 36, 48, 50Vdc Versions
- 3.3kV Isolation

Description

The ART range of Eurocard style power supplies are designed around the reliable MTM power modules. They are a universal compact power supply with a wide input range for worldwide application and allow an efficient cost saving solution for different tasks where medium ranged power is needed. They are prepared for applications in Class 1/ Class2 and comply to the Low Voltage Directive as well as to current EN Standards and CE Conformity.

Further features are rugged design, SMD technology, 100% burn in tested and routine tested in our factory prior to shipping. This series of power supply offers constant output, is short circuit and surge protected, provides voltage free contacts for health status, LED indication, needs no ground load and is designed for areas where the ambient environment is not controlled.

Optionally available with custom pin out arrangements.

Part Numbers

| Part Number | Voltage Output (DC) | Current (A) |
|-------------|---------------------|-------------|
| 3786 1000-A | 12V | 8 |
| 3786 1000-B | 24V | 4 |
| 3786 1000-C | 36V | 3 |
| 3786 1000-D | 48V | 2 |
| 3786 1000-E | 50V | 2 |

Technical Input / Output Data

| Parameter | Conditions | Data |
|-------------------------------------|---|---|
| Input Voltage Range | EN 60 950-1 / UL 60 950-1 | 100—240Vac |
| Input Frequency | | 50/60Hz |
| Switching Frequency | | Ca. 70kHz |
| Output Voltage Accuracy | $U_{in} = 230Vac$ | $U_{out} \text{ nom} +2\%$ |
| Over Voltage Protection | | $U_{out} \text{ nom} +20\% \text{ typ}$ |
| Ripple | $U_{in} = \text{min}$, BW: 1Mhz | $\leq 1\% U_{out}$ |
| Noise | $U_{in} = \text{min}$, BW: 20Mhz | $\leq 2\% U_{out}$ |
| Line Regulation | $U_{in} = \text{min}/\text{max}$ | $\leq 1\%$ |
| Load Regulation | $I_{out} = 10..90..10\%$ | $\leq 1\%$ |
| Short Circuit Current | | 105..150% I_{nom} |
| Transient Response Time | $I_{out} = 10..90..10\%$ | $\leq 5 \text{ ms}$ |
| Temperature Coefficient | $T_A = -25..+70 \text{ }^\circ\text{C}$ | 0.01% / K |
| Overload Protection / Short Circuit | | Constant Current |
| Derating | $T_A > 50..70 \text{ }^\circ\text{C}$ | 2.5% / K max |
| Front Panel LED | Output voltage $> 95\% V_{nom}$ $< 95\% V_{nom}$ | Green Red |
| Status Relay | Output voltage $> 95\% V_{nom}$ $< 95\% V_{nom}$ | Closed Open |

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General Specifications

| Parameter | Conditions | Data |
|----------------------------|---------------------------|------------------------|
| Isolation (prim/sec) | | 3.3kVac |
| Isolation Resistance | | > 1GΩ |
| Leakage Current (prim/sec) | Uin = 230Vac, freq = 50Hz | < 200uA |
| MTBF | SN 29500, TA = +40° C | > 1.5 Million Hrs |
| Hold-up Time | Uin = 230Vac | ≥ 50msec |
| Ambient Temperature | | -25..+70 ° C |
| Surface Temperature | Surface center of module | 96 ° C max |
| Connector Type | | DIN41612 H-Type 15 way |
| Cooling | | Free Convection |
| Weight | | 840 g |

Standards

| Parameter | Standard | Data |
|-----------------------------------|----------------------------|---------------------|
| Harmonics | EN 61 000-3-2 | Class A |
| EMI/RFI | EN 61 000-6-3 EN 55 011 | Class B |
| Immunity | EN 61 000-6-2 | |
| ESD | EN 61 000-4-2 | Air discharge: 15kV |
| HF-Fields | EN 61 000-4-3 | 10 V/m |
| Burst | EN 61 000-4-4 | Symmetric: 2kV |
| Surge | EN 61 000-4-5 | Symmetric: 1kV |
| HF-Fields, Conducted disturbances | EN 61 000-4-6 | 10 Veff |
| Power Quality Test | EN 61 000-4-11 | |

Connections

| Model Output | 4Z | 6D | 8Z | 10D | 12Z | 14D | 16Z | 18D | 20Z | 22D | 24Z | 26D | 28Z | 30D | 32Z |
|--------------|-------|----|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|-----|
| 12V | Vout+ | | Vout- | | | | | NO | COM | NC | | | ACin | ACin | |
| 24V | Vout+ | | | | | Vout- | | NO | COM | NC | | | ACin | ACin | |
| 36V | Vout+ | | | | Vout- | | | NO | COM | NC | | | ACin | ACin | |
| 48V | Vout+ | | | Vout- | | | | NO | COM | NC | | | ACin | ACin | |
| 50V | Vout+ | | | Vout- | | | | NO | COM | NC | | | ACin | ACin | |

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