FRUMPower

120 WATT POWER ADAPTERS

DESCRIPTION

The 3RE series of AC/DC desktop power adapters are capable of delivering 120 watts of continuous output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320/C6 inlet to mate with interchangeable cord for world-wide use. All models meet CISPR 22 and FCC class B emission limits and comply with UL, CSA, IEC and CE requirements.

FEATURES

- · High efficiency
- · Low ripple & noise
- · Overvoltage protection
- Short-circuit protection
- · Overpower protection
- · Over temperature protection
- · 100% burn-in at full rated load
- · Standby consumption less than 0.5W
- · Compliant with CEC and Energy Star efficiency level IV requirements (For all models except 3RE-12-96)
- · No load power consumption less than 0.5W
- Average active efficiency ≥85%
- · Compliant with RoHS requirements

INPUT SPECIFICATIONS

90 to 260VAC Input voltage: Input frequency: 47 to 63Hz

Input current: 2.0A (rms) for 115VAC

1.0A (rms) for 230VAC

150µA max. @ 115VAC, 60Hz Earth leakage current: 250µA max. @ 230VAC, 50Hz

(Touch current)

Output voltage/current:

Total output power:

Ripple and noise:

OUTPUT SPECIFICATIONS

See rating chart See rating chart

maximum

Overvoltage protection: Set at 110-140% of its

nominal output voltage

350mV peak to peak

Overcurrent protection: All models protected to

short circuit conditions

Temperature coefficient: All outputs ±0.04%/°C

maximum

Transient response: Maximum excursion of 4%

> or better on all models, recovering to 1% of final value within 500µs after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature: 0°C to +40°C -20°C to +80°C Storage temperature:

Relative humidity: 10% to 95% non-condensing

3RE SERIES





Safety Standard Approvals:



UL 60950 3rd

CSA C22.2 No. 60950 3rd



Nemko EN60950:2000

GENERAL SPECIFICATIONS

15 msec minimum at 115VAC Hold-up time:

Turn on delay time: 2 seconds maximum Power factor: 0.98 typical at 115VAC

86% min. Efficiency:

(80% min. on 3RE-12-96, 3RE-15-105) Line regulation: ±0.5% maximum at full load Inrush current: 60 amps @ 115VAC or 90 amps

@ 230VAC, at 25°C cold start

3000VAC from input to output Withstand voltage:

1500VAC from input to ground

MTBF: 150.000 hours at full load at

25°C ambient, calculated per

MIL-HDBK- 217F

EMC Performance (EN55024)

EN55022: Class B conducted, Class B radiated FCC: Class B conducted, Class B radiated Class B conducted, Class B radiated vcci-EN61000-3-2: Harmonic distortion, Class A and D

EN61000-3-3: Line flicker

ESD, ±8KV air and ±4KV contact EN61000-4-2:

EN61000-4-3: Radiated immunity, 3V/m Fast transient/burst, ±1KV EN61000-4-4: EN61000-4-5: Surge, ±1KV diff, ±2KV com. EN61000-4-6: Conducted immunity, 3Vrms EN61000-4-8: Magnetic field immunity, 1A/m Voltage dips, 30% reduction for EN61000-4-11:

500ms and >95% reduction for 10ms

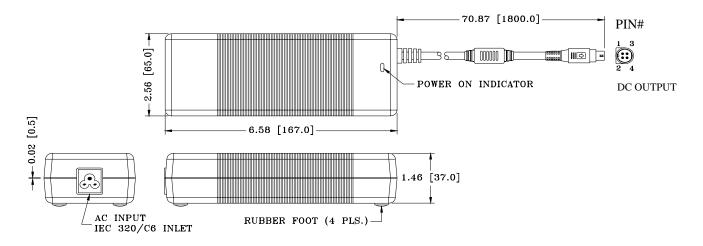
Phone: 408-988-6616 ● Fax: 408-988-6622 ● email: sales@trumpower.com ● Website: www.TRUMPower.com

OUTPUT VOLTAGE/CURRENT RATING CHART

| | | Outp | Maximum | | |
|-------------|--------------|--------------|--------------|-------------|--------------|
| Product No. | <u>Vnom.</u> | <u>lmax.</u> | <u>lmin.</u> | <u>Tol.</u> | Output Power |
| 3RE-12-96 | 12V | 8.0A | 0 A | 5% | 96W |
| 3RE-15-105 | 15V | 7.0A | 0 A | 5% | 105W |
| 3RE-18-120 | 18V | 6.67A | 0 A | 5% | 120W |
| 3RE-19-120 | 19V | 6.32A | 0 A | 5% | 120W |
| 3RE-20-120 | 20V | 6.0A | 0 A | 5% | 120W |
| 3RE-24-120 | 24V | 5.0A | 0 A | 5% | 120W |
| 3RE-30-120 | 30V | 4.0A | 0 A | 5% | 120W |
| 3RE-36-120 | 36V | 3.34A | 0 A | 5% | 120W |
| 3RE-48-120 | 48V | 2.5A | 0 A | 5% | 120W |

NOTE: Ripple and noise: Peak-to-peak with 20MHz bandwidth and 10µF tantalum capacitor in parallel with a 0.1F ceramic capacitor at rated line voltage and load ranges.

MECHANICAL SPECIFICATIONS



NOTES:

- 1. Dimensions shown in inch [mm]
- 2. Tolerance 0.02 [0.5] maximum
- 3. Weight: 621 grams approx.
- 4. Standard output connector is a 4-pin power DIN plug. Please consult TRUMPower for other connector options.

PIN CHART

| Product No. | PIN | 1 | 2 | 3 | 4 | SHELL OF CONNECTOR |
|---|--|--------|-----------|--------|-----------|--------------------------|
| 3RE-12-96 3RE-18-120 3RE-20-120 3RE-30-120 3RE-48-120 | 3RE-15-105 3RE-19-120 3RE-24-120 3RE-36-120 | Return | Output +V | Return | Output +V | DC Return & AC Ground |