

### 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  $\geq 85\%$
- Compliant with RoHS requirements

### INPUT SPECIFICATIONS

Input voltage:	90 to 260VAC
Input frequency:	47 to 63Hz
Input current:	2.0A (rms) for 115VAC 1.0A (rms) for 230VAC
Earth leakage current: (Touch current)	150 $\mu$ A max. @ 115VAC, 60Hz 250 $\mu$ A max. @ 230VAC, 50Hz

### OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart
Total output power:	See rating chart
Ripple and noise:	350mV peak to peak maximum
Overvoltage protection:	Set at 110-140% of its nominal output voltage
Overcurrent protection:	All models protected to short circuit conditions
Temperature coefficient:	All outputs $\pm 0.04\%/^{\circ}\text{C}$ maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 $\mu$ s after a 25% step load change

### ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0 $^{\circ}\text{C}$ to +40 $^{\circ}\text{C}$
Storage temperature:	-20 $^{\circ}\text{C}$ to +80 $^{\circ}\text{C}$
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

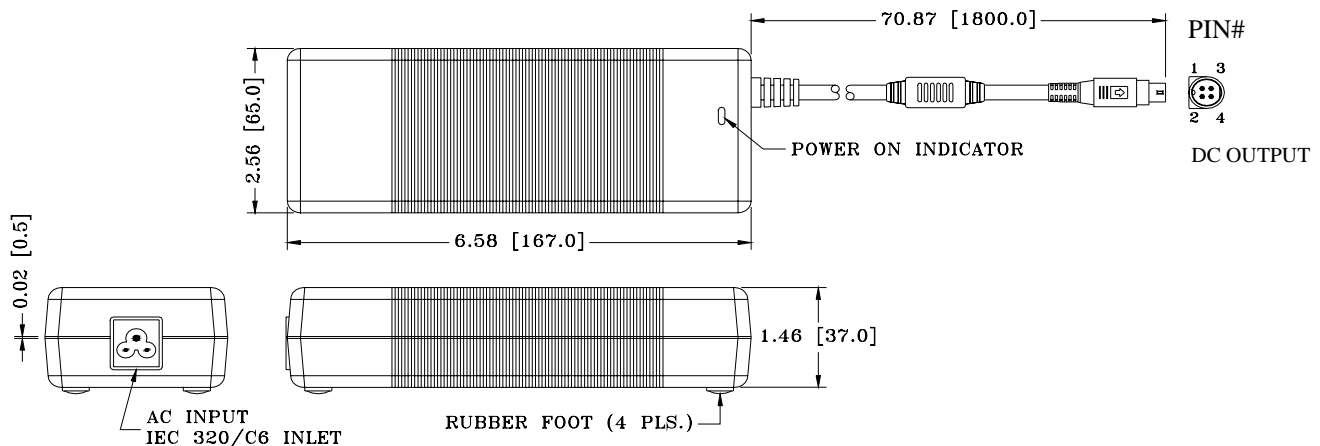
Hold-up time:	15 msec minimum at 115VAC
Turn on delay time:	2 seconds maximum
Power factor:	0.98 typical at 115VAC
Efficiency:	86% min. (80% min. on 3RE-12-96, 3RE-15-105)
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	60 amps @ 115VAC or 90 amps @ 230VAC, at 25 $^{\circ}\text{C}$ cold start
Withstand voltage:	3000VAC from input to output 1500VAC from input to ground
MTBF:	150,000 hours at full load at 25 $^{\circ}\text{C}$ ambient, calculated per MIL-HDBK- 217F
<b>EMC Performance (EN55024)</b>	
EN55022:	Class B conducted, Class B radiated
FCC:	Class B conducted, Class B radiated
VCCI:	Class B conducted, Class B radiated
EN61000-3-2:	Harmonic distortion, Class A and D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, $\pm 8\text{KV}$ air and $\pm 4\text{KV}$ contact
EN61000-4-3:	Radiated immunity, 3V/m
EN61000-4-4:	Fast transient/burst, $\pm 1\text{KV}$
EN61000-4-5:	Surge, $\pm 1\text{KV}$ diff, $\pm 2\text{KV}$ com.
EN61000-4-6:	Conducted immunity, 3Vrms
EN61000-4-8:	Magnetic field immunity, 1A/m
EN61000-4-11:	Voltage dips, 30% reduction for 500ms and $>95\%$ reduction for 10ms

## OUTPUT VOLTAGE/CURRENT RATING CHART

Product No.	Vnom.	I <sub>max.</sub>	Output	I <sub>min.</sub>	Tol.	Maximum Output Power
3RE-12-96	12V	8.0A		0A	5%	96W
3RE-15-105	15V	7.0A		0A	5%	105W
3RE-18-120	18V	6.67A		0A	5%	120W
3RE-19-120	19V	6.32A		0A	5%	120W
3RE-20-120	20V	6.0A		0A	5%	120W
3RE-24-120	24V	5.0A		0A	5%	120W
3RE-30-120	30V	4.0A		0A	5%	120W
3RE-36-120	36V	3.34A		0A	5%	120W
3RE-48-120	48V	2.5A		0A	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-15-105	Return	Output +V	Return	Output +V	DC Return & AC Ground
3RE-18-120	3RE-19-120					
3RE-20-120	3RE-24-120					
3RE-30-120	3RE-36-120					
3RE-48-120						