

### DESCRIPTION

The 3G & 3RG series of AC/DC desktop power adapters are capable of delivering 180 watts continuous DC power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320/C14 or IEC 320/C6 inlet to mate with interchangeable cord for world-wide use. All model 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
- Compliant with CEC and Energy Star efficiency level IV requirements
- No load power consumption less than 0.5W
- Average active efficiency  $\geq 85\%$
- Compliant with RoHS requirements

### INPUT SPECIFICATIONS

Input voltage :	90 to 264VAC
Input frequency :	47 to 63 Hz
Input current :	2.5A (rms) for 115VAC 1.25A (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 :	380mV 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 90% non-condensing

### 3G & 3RG SERIES



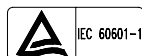
RoHS



### Safety Standard Approvals :



UL 60950  
CSA C22.2 No. 60950



TÜV EN60950-1

### GENERAL SPECIFICATIONS

Hold-up time :	5 msec minimum at 100VAC or 240VAC
Turn on delay time :	3 sec maximum at 100VAC
Power Factor :	0.95 typical
Efficiency :	87% minimum at 100VAC or 240VAC.
Line regulation :	$\pm 0.5\%$ maximum at full load
Inrush current :	120A max. @ 240VAC cold start
Withstand voltage :	3000VAC from input to output 1500VAC from input to ground
MTBF :	100,000 hours at full load at 25 $^{\circ}\text{C}$ ambient, calculated per MIL-HDBK- 217F

### EMC Performance (EN55024)

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 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

# UNIVERSAL INPUT

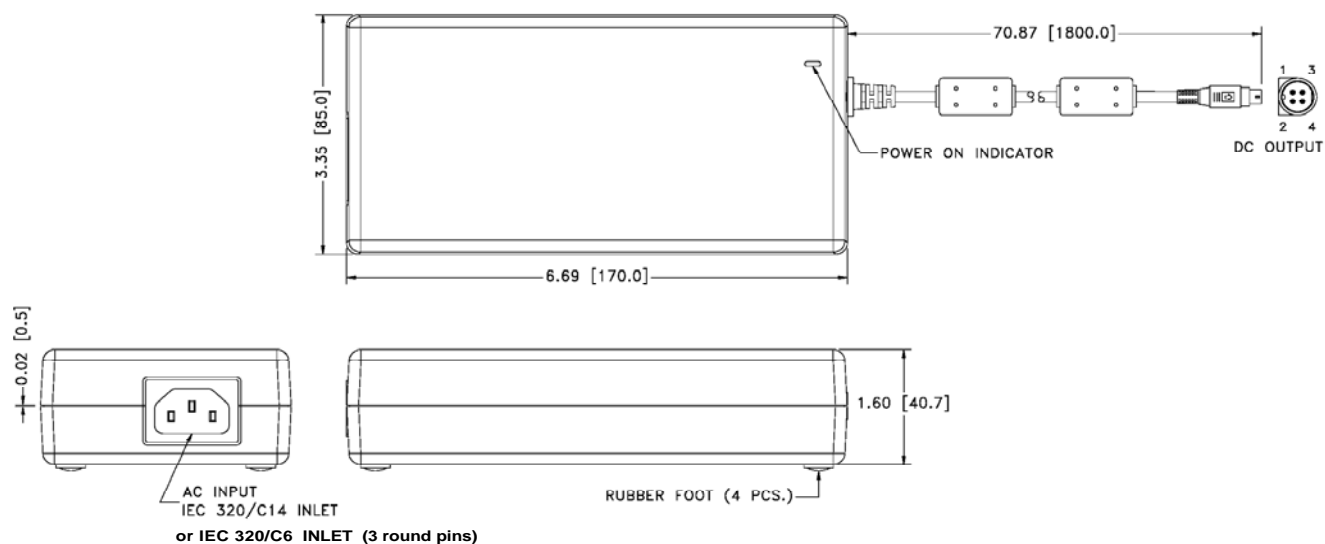
# 3G & 3RG SERIES

## OUTPUT VOLTAGE/CURRENT RATING CHART

Product No.		Output				Maximum
IEC 320/C14 Inlet	IEC 320/C6 Inlet	Vnom.	I <sub>max.</sub>	I <sub>min.</sub>	Tol.	Output Power
3G-18-180	3RG-18-180	18V	10.0A	0A	5%	180W
3G-19-180	3RG-19-180	19V	9.47A	0A	5%	180W
3G-24-180	3RG-24-180	24V	7.5A	0A	5%	180W
3G-48-180	3RG-48-180	48V	3.75A	0A	5%	180W

NOTE: Ripple and noise: Peak-to-peak with 20MHz bandwidth and 47µF tantalum capacitor in parallel with a 0.1µF 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: 860 grams approx.
4. Standard output connector is a male 4-pin power DIN plug. Please consult TRUMPower for other options.

## PIN CHART

1	2	3	4	Shell of Connector
Output +V	Output +V	Return	Return	Return & AC Ground