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BLACK MAGIC TELEPHONE RINGING GENERATOR -- SINE WAVE MODEL <NNS>

=====OPERATING CHARACTERISTICS=====

Specification		----Value----		Remark	Note
Input Voltage	(Vdc)	24	48	24 V unit operate: 18-36 V (<24 V with reduced power output) 48 V unit operate: 36-72 V (<48 V with reduced power output) Custom input voltages 12-60 available on special order	
Idle current	(mA)	110	60		
Output Voltage	(Vrms)	-----86-----		Custom output voltages avail- able on special order <sup>(1)</sup>	
Output power	(W)	20	25	Intermittent duty	
Output Frequency	(Hz)	---20±0.5---		Special order: selectable 16, 16.7, 17, 20, 25, 30, 50, 60 <sup>(1)</sup>	
Load Regulation	(%)	-----±7-----			
THD	(%)	-----<7.5-----			
Efficiency	(%)	58	63	Full load efficiency 58-75% depending on input voltage	
Shutdown at load	(Ω)	300	250	Goes into "hiccup" mode	
Operating temperature	(° C)	-10-->+60			
Storage temperature	(° C)	-10-->+85			
Hi-pot test	(600 Vac)	Input --> output Input --> heatsink Output--> heatsink			

=====NOTES=====

- (1) Part numbering system: SNvvVVFF-T where vv is input voltage; VV is rms output voltage; FF is output frequency; and -T is termination (S=screw; P=pin). For voltage selectable model (75 or 86 V) code characters 5-6 as SV; for frequency selectable model code characters 7-8 as SF.
- (2) Positive input is connected to case through a 1,000 pF capacitor.
- (3) NOT PROTECTED AGAINST REVERSE POLARITY.
- (4) Output is protected against short circuits and transient overvoltages. May require conditioning for highly inductive loads.
- (5) Output will pass d.c. (e.g. ring-trip bias) when powered.

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=====PHYSICAL CHARACTERISTICS=====

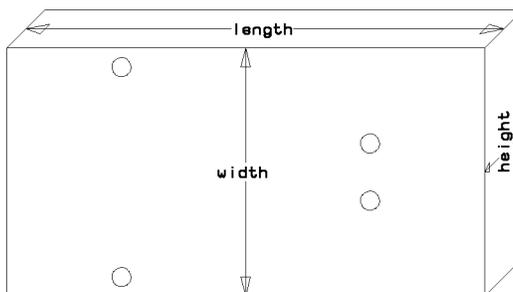
Weight: 300 grams (10.5 oz)

Dimensions:

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Dimensions mm (in)		
Height	18	(0.71)
Width	63	(2.50)
Length	115	(4.50)

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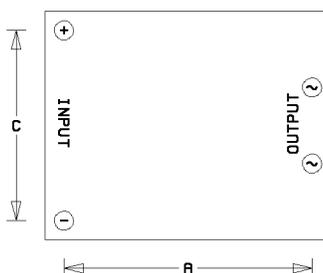
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Mounting hold i.d. is 4.0 mm (5/32 in) in exact center of unit. Caution: maximum torque to be applied to retaining screw is one-third foot-pound.

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Terminations mm (in)		
A	66.0	(2.6)
B	15.2	(0.6)
C	53.3	(2.1)

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bottom view  
(terminal side)

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Construction and Mounting

Units are silicone-encapsulated in a five-sided mild steel heatsink; all materials are UL-rated 94V-0 for flammability. Terminations are available as as 0.025" square pins (suffix p/n with -P) or 4-40 screw terminals (suffix p/n with -S). Due to their light weight, units may be held in place by any of the following methods: four pins (solder-down); screw terminals; double-sided tape; or retaining screw through center mounting hole.

As the heatsink is electrically grounded through an internal coupling capacitor, there should be no further need for electromagnetic emission control. A ground plane underneath the unit may be added if desired.

