

DC/AC Ring Generator Product Series

HG3

HG15

HG30

HG40

HG75



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Ring Generator

Model number	Vin	Power	Out	Efficiency	Package Type	Package Style	L*W*H(mm)	Features	Page
HG3-24RNG	24V	3W	75VAC/40mA, 25Hz	60%	1.96''*2.56''	Screw fasten	65.0*50.0*8.5	Pin length:8.0mm	75
HG3-48RNG	48V	3W	75VAC/40mA, 25Hz	58%	1.96''*2.56''	Screw fasten	65.0*50.0*8.5	Pin length:8.0mm	75
HG15-24RNG	24V	15W	75VAC/200mA, 25Hz	83%	2.6''*3.1''	Screw fasten	78.7*66.0*15.2	Pin length:8.0mm	77
HG15-48RNG	48V	15W	75VAC/200mA, 25Hz	84%	2.6''*3.1''	Screw fasten	78.7*66.0*15.2	Pin length:8.0mm	77
HG30-48RNG	48V	30W	75VAC/400mA, 25Hz	85%	3.94''*3.94''	Screw fasten	100.0*100.0*12.7	Pin length:6.0mm	79
HG30-48RNGN	48V	30W	75VAC/400mA, 25Hz	85%	3.94''*3.94''	Screw fasten	100.0*100.0*12.7	Negative logic/Pin length:6.0mm	79
AV30-48RNG	48V	30W	75VAC/400mA, 25Hz	85%	3.94''*3.94''	Screw fasten	100.0*100.0*12.7	Pin length:6.0mm	79
HG40-48RNG/95	48V	40W	95VAC/420mA, 25Hz	85%	3.94''*3.94''	Screw fasten	100.0*100.0*16.0	Pin length:7.5mm	81
HG75-48RNG	48V	75W	75VAC/1A, 25Hz	85%	3.94''*3.94''	Screw fasten	100.0*100.0*16.0	Pin length:7.5mm	83

. 2004 New Products

HG3-RNG Ring Generator Series

Features

- Package: 2.56" X 2.0" X 0.33"
(65.0X50.0X8.5mm³)
- 3 watts of output power
- 2:1 input range: 18-36Vdc, 36-72Vdc
- Isolated sine wave output with 25Hz frequency
- Low THD
- Remote control function and trim function
- Overcurrent Protection

Environmental

- Operating case temperature range:
-20°C to 55°C
- Storage temperature range:
-40°C to 105°C
- MTBF: > 0.2 million hrs

Safety

UL

UL60950

Electrical Specifications

Input

Input Range	18 to 36 Vdc
	36 to 72 Vdc

Output

Voltage Setpoint Accuracy	± 5Vac max.
Voltage Adjust	65 to 85 Vac
Line Regulation	2%Vo max.
Load Regulation	2%Vo max.
THD	5% max.

Control

Control Voltage	
Positive logic	
High=on	18Vmin. for 24Vin 36Vmin. for 48Vin
Low=off	15Vmax. for 24Vin 30Vmax. for 48Vin
Control Current	1 mA max.



Input Voltage	Output Voltage	Output Current	Frequency	Efficiency	Model Number
24V	75V	40mA	25Hz	60%	HG3-24RNG
48V	75V	40mA	25Hz	58%	HG3-48RNG

Technical drawing of a mechanical part, showing front and side views with dimensions and tolerances.

Front View Dimensions:

- Overall width: 65.0 (2.56)
- Overall height: 50.0 (1.97)
- Distance from left face to center of hole 1: 20.32 (0.801)
- Distance from left face to center of hole 2: 15.24 (0.600)
- Distance from left face to center of hole 3: 15.24 (0.600)
- Distance from left face to center of hole 4: 55.88 (2.20)
- Distance from left face to center of hole 5: 55.88 (2.20)
- Distance from left face to center of hole 6: 55.88 (2.20)
- Distance from right face to center of hole 4: 15.24 (0.600)
- Distance from right face to center of hole 5: 7.62 (0.300)
- Distance from right face to center of hole 6: 7.62 (0.300)

Side View Dimensions:

- Overall width: 6-Ø 1 (0.04)
- Overall height: 9.0 (0.35)

TOLERANCES: X.Xmm=+/-0.5mm
X.XXmm=+/-0.25mm

1. +Vin
2. -Vin
3. CNT
4. Vo1
5. Vo2
6. Trim

8.0mm

Notes: 1. "Bottom view" means the logo face to viewer.

2. The detail and recommended hole pattern layout is available in the Application Manual.

HG15-RNG Ring Generator Series

Features

- Package: 3.1" X 2.6" X 0.6"
(78.7X66.0X15.2mm³)
- 15 watts of output power
- 2:1 input range: 18-36Vdc, 36-72Vdc
- Isolated sine wave output with
25Hz frequency
- Low THD
- Remote control function and trim function
- Overcurrent Protection

Environmental

- Operating case temperature range:
-25°C to 70°C
- Storage temperature range:
-40°C to 105°C
- MTBF: > 0.2 million hrs

Safety

UL

UL60950

Electrical Specifications

Input

Input Range	18 to 36 Vdc
	36 to 72 Vdc

Output

Voltage Setpoint Accuracy	± 5Vac max.
Voltage Adjust	65 to 85 Vac
Line Regulation	2%Vo max.
Load Regulation	2%Vo max.
THD	5% max.

Control

Control Voltage	
Positive logic	
High=on	18min for 24Vin 36min for 48Vin
Low=off	15V max. for 24Vin 30V max. for 48Vin
Control Current	1 mA max.

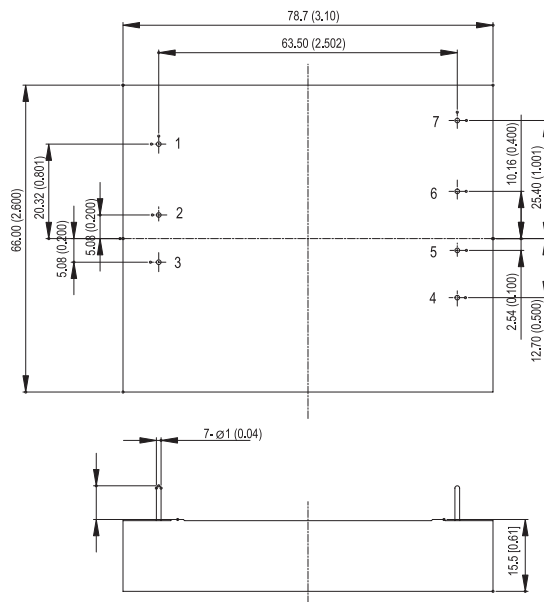


Ordering Information

Input Voltage	Output Voltage	Output Current	Frequency	Efficiency	Model Number
24V	75Vac	200mA	25Hz	83%	HG15-24RNG
48V	75Vac	200mA	25Hz	84%	HG15-48RNG

Dimensions

Top view



TOLERANCES: X.Xmm=+/-0.5mm
X.XXmm=+/-0.25mm

Notes: 1. "Top view" means the logo face to viewer.

2. The detail and recommended hole pattern layout is available in the Application Manual.

Pin Assignments

1. CNT
2. + Vin
3. -Vin
4. Vo2
5. Vo1
6. Trim
7. Case

Pin Length

8.0mm

HG30-RNG Ring Generator Series

Features

- Package: 3.94" X 3.94" X 0.50"
(100.0X100.0X12.7mm³)
- 30 watts of output power
- 2:1 input range:
18-36Vdc and 36-72Vdc
- Isolated sine wave output with
25Hz frequency
- Low THD
- Remote control function
- Overcurrent Protection

Environmental

- Operating case temperature range:
-25°C to 70°C
- Storage temperature:
-40°C to 105°C
- MTBF: > 1.2 million hrs

Safety

UL

UL60950

Electrical Specifications

Input

Input Range	18 to 36 Vdc
	36 to 72 Vdc

Output

Voltage Setpoint Accuracy	± 5Vac max.
Line Regulation	1%Vo max.
Load Regulation	2%Vo max.
THD	5% max.

Control

Control Voltage	
Positive logic	
High=on	18Vmin. for 24Vin 36Vmin. for 48Vin
Low=off	13Vmax. for 24Vin 30Vmax. for 48Vin
Control Current	1 mA max.

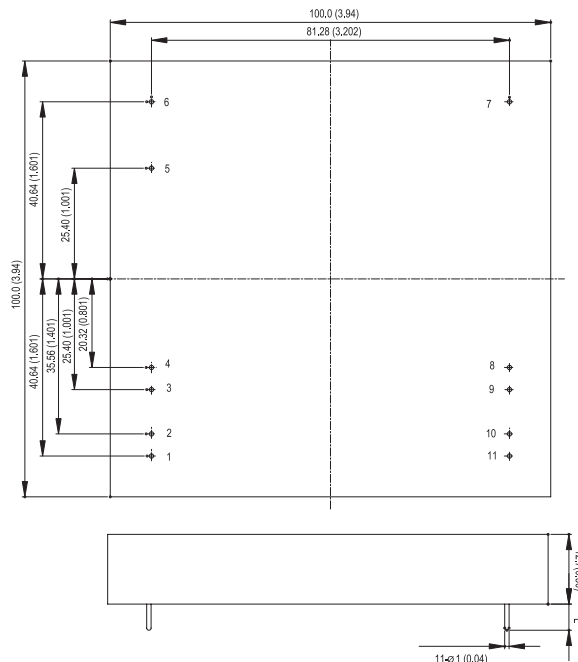


Ordering Information

Input Voltage	Output Voltage	Output Current	Frequency	Efficiency	Model Number
24V	75Vac	400mA	25Hz	86%	HG30-24RNG
48V	75Vac	400mA	25Hz	86%	HG30-48RNG

Dimensions

Top view



TOLERANCES: X.Xmm=±0.5mm
X.XXmm=±0.25mm

Pin Assignments

1. +Vin	7. NC
2. +Vin	8. Vo1
3. -Vin	9. Vo1
4. -Vin	10. Vo2
5. Case	11. Vo2
6. CNT	

Pin Length

6.0mm

Notes: 1. "Top view" means the logo face to viewer.

2. The detail and recommended hole pattern layout is available in the Application Manual.

HG40-RNG Ring Generator Product

Features

- Package: 3.94" X 3.94" X 0.63"
(100.0X100.0X16.0mm³)
- 40 watts of output power
- 2:1 input range: 36-75Vdc
- Isolated sine wave output with
25Hz frequency
- Low THD
- Remote control function
- Overcurrent Protection

Environmental

- Operating case temperature range:
-25°C to 70°C
- Storage temperature:
-40°C to 105°C
- MTBF: > 1.2 million hrs

Safety

UL UL60950

Electrical Specifications

Input

Input Range 36 to 75 Vdc

Output

Voltage Setpoint Accuracy ± 5Vac max.
Line Regulation 1%Vo max.
Load Regulation 2%Vo max.
THD 5% max.

Control

Control Voltage
Positive logic
 High=on 36Vmin. for 48Vin
 Low=off 30Vmax. for 48Vin
Control Current 1 mA max.

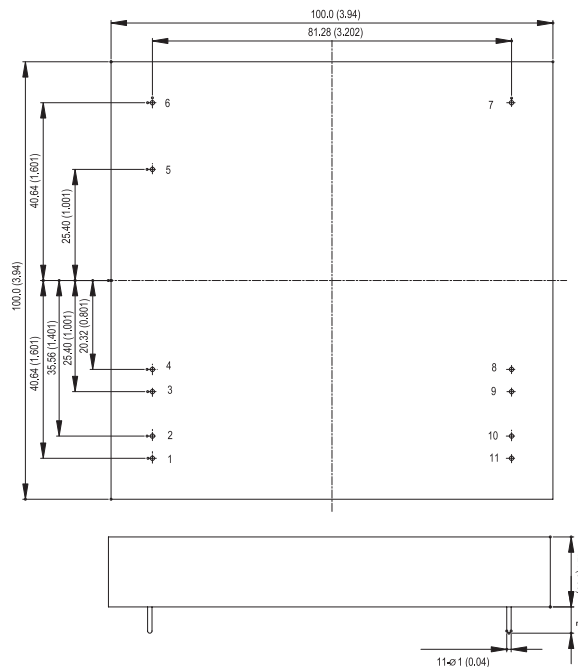


Ordering Information

Input Voltage	Output Voltage	Output Current	Frequency	Efficiency	Model Number
48V	95Vac	420mA	25Hz	85%	HG40-48RNG/95

Dimensions

Top view



TOLERANCES: X.Xmm=±0.5mm
X.XXmm=±0.25mm

Pin Assignments

1. +Vin	7. NC
2. +Vin	8. Vo1
3. -Vin	9. Vo1
4. -Vin	10. Vo2
5. Case	11. Vo2
6. CNT	

Pin Length

7.5mm

Notes: 1. "Top view" means the logo face to viewer.

2. The detail and recommended hole pattern layout is available in the Application Manual.

HG75-RNG Ring Generator Product

Features

- Package: 3.94" X 3.94" X 0.63"
(100.0X100.0X16.0mm³)
- 75 watts of output power
- 2:1 input range: 36-75Vdc
- Isolated sine wave output with
25Hz frequency
- Low THD
- Remote control function
- Overcurrent Protection

Environmental

- Operating case temperature range:
-40°C to 70°C
- Storage temperature:
-40°C to 105°C
- MTBF: > 1.2 million hrs

Safety

UL

UL60950

Electrical Specifications

Input

Input Range 36 to 75 Vdc

Output

Voltage Setpoint Accuracy ± 8 Vac max.

Line Regulation 1%Vo max.

Load Regulation 2%Vo max.

THD 5% max.

Control

Control Voltage

Positive logic

High=on 36Vmin.

Low=off 30Vmax.

Control Current 1 mA max.

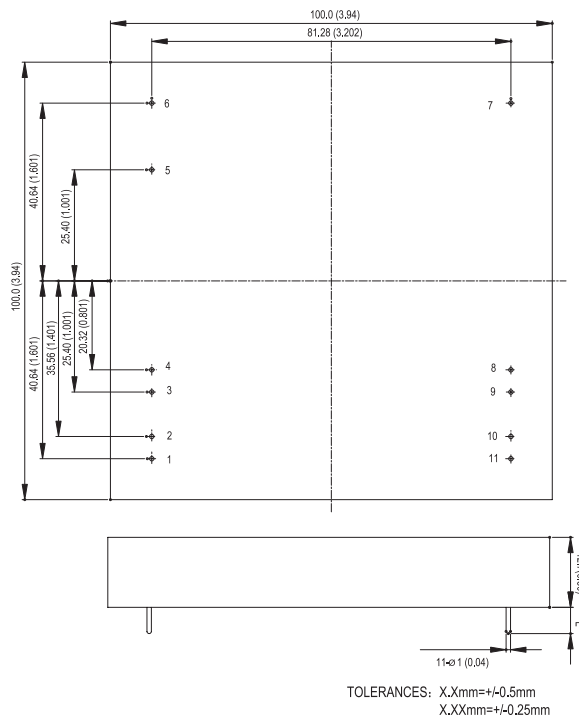


Ordering Information

Input Voltage	Output Voltage	Output Current	Frequency	Efficiency	Model Number
48V	75Vac	1A	25Hz	85%	HG75-48RNG

Dimensions

Top view



- Notes: 1. "Top view" means the logo face to viewer.
2. The detail and recommended hole pattern layout is available in the Application Manual.

Pin Assignments

1. +Vin	7. NC
2. +Vin	8. Vo1
3. -Vin	9. Vo1
4. -Vin	10. Vo2
5. Case	11. Vo2
6. CNT	

Pin Length

7.5mm