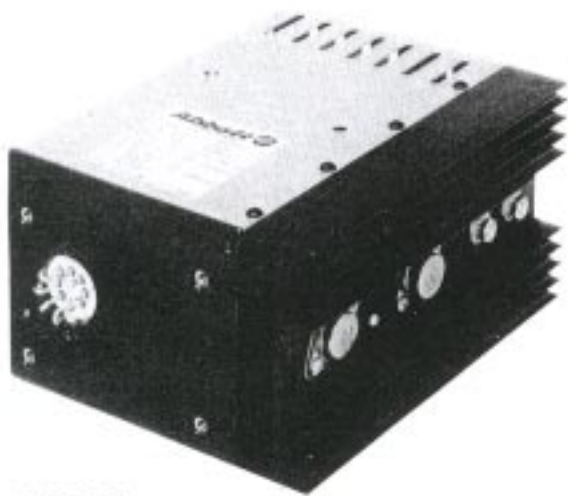


ENCLOSED HIGH QUALITY LINEAR POWER SUPPLY with SINGLE and DUAL OUTPUTS



RN5S2-5-1

- **PRECISE VOLTAGE REGULATION**
- **LOW NOISE - MEETS MIL-STD-461**
- **1.5 TO 150 WATTS, SINGLE AND DUAL OUTPUTS.**
- **RUGGED CONSTRUCTION**
- **HIGH OPERATING TEMPERATURE.** 100% rated power up to 71° C.
- **HIGH RELIABILITY.** 61,183 Hrs MTBF per Mil-HDBK-217C, 50° C ground benign.
- **115 OR 230 VAC INPUT 50-420 HZ.**
- **TWO-YEAR WARRANTY**

The RN line features precision voltage regulation for sensitive loads. The linear design does this cleanly with minimal noise. The robust mechanical design along with many protective features make this unit suitable for harsher industrial environments.

THIRTY SINGLE OUTPUT MODELS

Nominal Voltage	Maximum Current (Amps)	Case Size (see DWG)	Weight (lbs)	Model Number
5	0.3	AA	3.0	RN5S0.3
5	1.2	BB	6.0	RN5S1.2
5	2.5	CC	8.0	RN5S2.5
5	5.0	DD	13.0	RN5S5
5	10	FF	22.0	RN5S10
5	15	GG	28.0	RN5T15
5	20	JJ	33.0	RN5T20
12	0.3	AA	3.0	RN12S0.3
12	1.2	BB	6.0	RN12S1.2
12	2.5	CC	8.0	RN12S2.5
12	5.0	DD	13.0	RN12S5
12	10	FF	22.0	RN12S10
12	15	HH	31.0	RN12T15
12	20	JJ	33.0	RN12T20
15	0.3	AA	3.0	RN15S0.3
15	1.2	BB	6.0	RN15S1.2
15	2.5	CC	8.0	RN15S2.5
15	5.0	DD	13.0	RN15S5
15	10	GG	28.0	RN15T10
15	15	HH	31.0	RN15T15
24	0.3	AA	3.0	RN24S0.3
24	1.2	BB	6.0	RN24S1.2
24	2.5	CC	8.0	RN24S2.5
24	5.0	EE	13.0	RN24S5
24	10	GG	28.0	RN24T10
28	0.15	AA	3.0	RN28S0.15
28	0.6	BB	6.0	RN28S0.6
28	1.2	CC	8.0	RN28S1.2
28	2.5	DD	13.0	RN28S2.5
28	5.0	EE	20.0	RN28S5

SIX DUAL OUTPUT MODELS

Nominal Voltage	Maximum Current (Amps)	Case Size (see DWG)	Weight (lbs)	Model Number
± 12	1.2	3C	8.0	RRN12S1.2
± 12	2.5	3D	11.0	RRN12S2.5
± 12	5.0	3F	21.0	RRN12S5
± 15	1.2	3C	8.0	RRN15S1.2
± 15	2.5	3D	11.0	RRN15S2.5
± 15	5.0	3F	21.0	RRN15S5

Note: Both outputs are isolated and non-tracking so each output can be used as a separate power supply.

Note: Outputs voltages are continuously adjustable ± 5 % by means of an externally accessible screwdriver adjustment potentiometer.



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ISO 9001:2000/AS9100 Rev A



USA II



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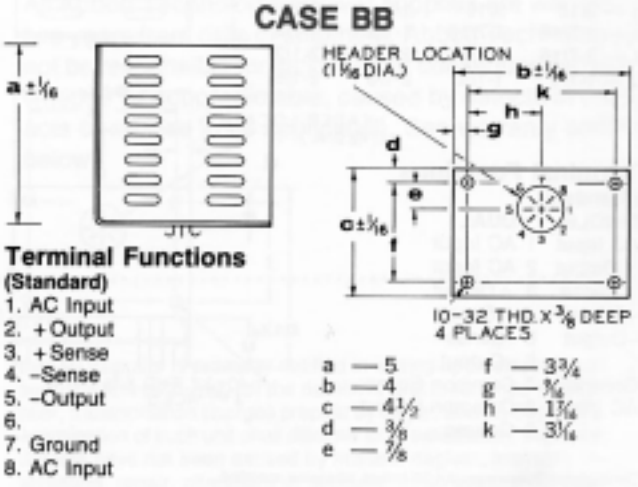
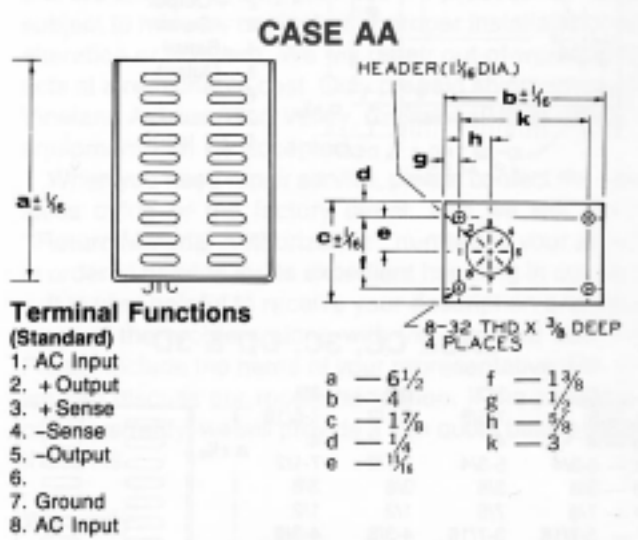
SPECIFICATIONS

- INPUT VOLTAGE RANGE:** 105 to 125 Vrms, 50 to 420 Hz single phase.
- LINE REGULATION:** 0.1% or 10mV (whichever is greater) over entire input range.
- LOAD REGULATION:** 0.1% or 10mV (whichever is greater) for change from no load to full load.
- RIPPLE:** 0.02% or 5 mV rms (whichever is greater).
- ADJUSTMENT RESOLUTION:** 30 mV maximum.
- LOAD TRANSIENT RECOVERY TIME:** Output voltage typically returns to regulation limits within 75 microseconds after a 50% step change in load current.
- TEMPERATURE RANGE:**
 Operating: - 4° F (-20° C) to +160° F (+71° C) without derating, forced air or heat sinking.
 Storage: -40° F (-20° C) to +185° F(+85° C).
- TEMPERATURE COEFFICIENT:** 0.03% per degree Celcius.
- ALTITUDE:** 10,000 feet above sea level.
- ISOLATION VOLTAGE:** 300Vdc between output terminals and chassis ground, 1.5K Vdc input to output and input to chassis.
- INSULATION RESISTANCE:** 50 Megohms between terminals and chassis ground when measured at 50Vdc.
- POLARITY:** Inputs and outputs are isolated; either positive or negative side may be grounded.
- SHORT CIRCUIT PROTECTION:** Each unit is completely protected against an overload or short circuit of any duration. The output voltage automatically restores to normal when the overload is removed.
- REMOTE ERROR SENSING:** Each unit contains a means by which the regulator circuit monitors the voltage directly at the load using extra "sensing" leads. The resulting circuit action compensates for a dc voltage drop up to 0.5 volts in the load leads.
- TURN ON / TURN OFF OVERTHOOT:**
 The output voltage overshoots during "turn on" or "turn off" typically will not exceed 0.1% of the output voltage, or 20 mV (whichever is greater).
- OUTPUT IMPEDANCE:**
 DC to 1K Hz - 0.003 R_L or 0.03 ohms max.*
 1K Hz to 10K Hz - 0.008 R_L or 0.16 ohms max.*
 10K Hz to 100K Hz - 0.015 R_L or 0.3 ohms max.*
 * whichever is greater
 R_L = rated load resistance
- RELIABILITY:** The mean time between failure (MTBF) per MIL-HDBK-217C ground benign under worst case operating conditions of full output current, max. input voltage and 50° C ambient is 61,183 hrs for RN15T15.
- MOUNTING:** Threaded inserts are provided for mounting of cases (see case drawings).

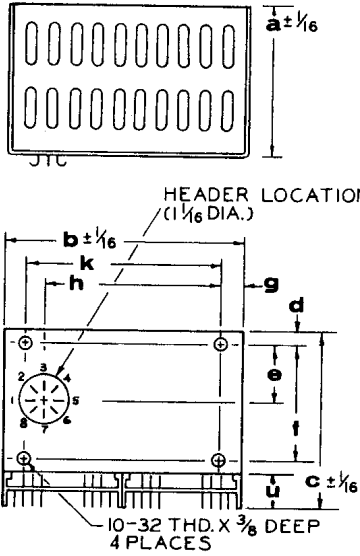
OPTIONAL FEATURES

To include optional feature desired, simply add a dash and the feature number to the end of model number. Example: Model RN5S0.15-1 designates inclusion of overvoltage protection.

Feature / Description	Feature No.
OVERVOLTAGE PROTECTION If output voltage rises 10% or 2V, whichever is greater, above the nominal setting, the overvoltage protection circuitry reduces the voltage to approximately 1 volt within 15 microseconds.	1
230 VAC OPERATION Units can be modified to operate with an input voltage of 210 to 250 Vrms, 50 to 420 Hz.	2
REMOTE VOLTAGE ADJUSTMENT Provision is made for locating an adjustment potentiometer in a remote locatin from power supply.	3



CASE EE

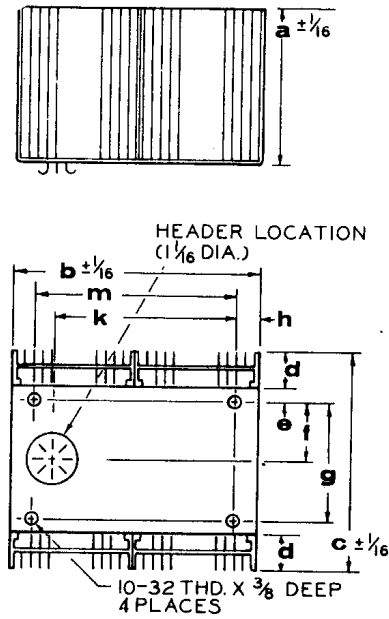


- a - 5
- b - 8
- c - 8-3/8
- d - 1/2
- e - 2-5/8
- f - 5-1/4
- g - 3/4
- h - 5-7/8
- k - 6-1/2
- u - 2-1/8

Terminal Functions (Standard)

- 1. AC Input
- 2. + Output
- 3. + Sense
- 4. -Sense
- 5. -Output
- 6.
- 7. Ground
- 8. AC Input

CASE FF & 3F

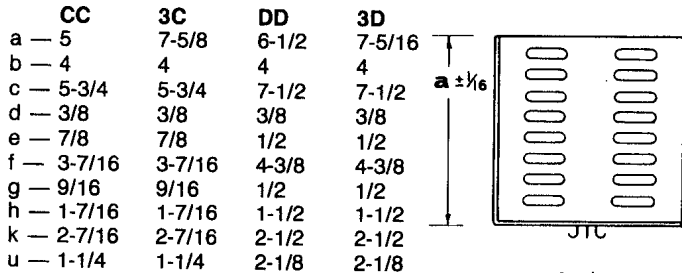


- | | |
|-----------|-----------|
| FF | 3F |
| a - 5 | 5 |
| b - 8 | 8 |
| c - 8-3/4 | 8-3/4 |
| d - 1-1/4 | 1-1/4 |
| e - 1/2 | 1/2 |
| f - 2-5/8 | 2-5/8 |
| g - 5-1/4 | 5-1/4 |
| h - 3/4 | 3/4 |
| k - 5-7/8 | 5-7/8 |
| m - 6-1/2 | 6-3/4 |

Terminal Functions (Standard)

- | | |
|---------------|-----------------|
| SINGLE | DUAL |
| AC Input | 1 AC Input |
| + Output | 2 AC Input |
| + Sense | 3 + Output |
| -Sense | 4 + Sense |
| -Output | 5 -Sense |
| | 6 -Output |
| Ground | 7 Common Sense |
| AC Input | 8 Common Output |
| | 9 Ground |

CASE CC, 3C, DD & 3D

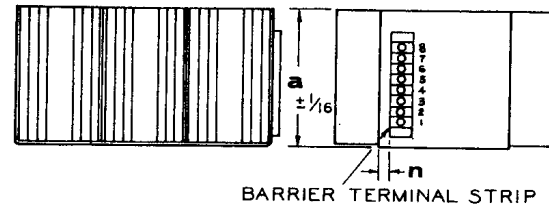


- | | | | |
|------------|-----------|-----------|-----------|
| CC | 3C | DD | 3D |
| a - 5 | 7-5/8 | 6-1/2 | 7-5/16 |
| b - 4 | 4 | 4 | 4 |
| c - 5-3/4 | 5-3/4 | 7-1/2 | 7-1/2 |
| d - 3/8 | 3/8 | 3/8 | 3/8 |
| e - 7/8 | 7/8 | 1/2 | 1/2 |
| f - 3-7/16 | 3-7/16 | 4-3/8 | 4-3/8 |
| g - 9/16 | 9/16 | 1/2 | 1/2 |
| h - 1-7/16 | 1-7/16 | 1-1/2 | 1-1/2 |
| k - 2-7/16 | 2-7/16 | 2-1/2 | 2-1/2 |
| u - 1-1/4 | 1-1/4 | 2-1/8 | 2-1/8 |

Terminal Functions (Standard)

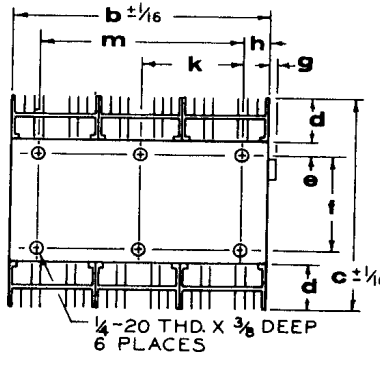
- | | |
|---------------|-----------------|
| SINGLE | DUAL |
| AC Input | 1 AC Input |
| + Output | 2 AC Input |
| + Sense | 3 + Output |
| -Sense | 4 + Sense |
| -Output | 5 -Sense |
| | 6 -Output |
| Ground | 7 Common Sense |
| AC Input | 8 Common Output |
| | 9 Ground |

CASE GG, HH, JJ



Functions (Standard)

- 1. AC Input
- 2. AC Input
- 3. + Output
- 4. + Sense
- 5. -Sense
- 6. -Output
- 7.
- 8. Ground



- | | | |
|-----------|-----------|-----------|
| GG | HH | JJ |
| a - 5 | 6-1/2 | 6-1/2 |
| b - 12 | 12 | 12 |
| c - 8 | 8 | 9-3/4 |
| d - 1-1/4 | 1-1/4 | 2-1/8 |
| e - 3/8 | 3/8 | 3/8 |
| f - 4-3/4 | 4-3/4 | 4-3/4 |
| g - 1/2 | 1/2 | 1/2 |
| h - 1-1/4 | 1-1/4 | 1-1/4 |
| k - 4-3/4 | 4-3/4 | 4-3/4 |
| m - 9-1/2 | 9-1/2 | 9-1/2 |
| n - 3/8 | 3/8 | 3/8 |



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