Pacific Automation
Reliable Solutions From The World's Latest Technology

DNR SERIES

AC/DC DIN Rail: 10 - 240 Watts

Features

- Industry standard DIN RAIL mounting
- Wide range of models, 10-240 watts
- Wide output voltage adjustment
- Short circuit and OVP protection
- Harmonic correction EN61000-3-2
- EMC EN55022
- Immunity EN61000-4
- Some models suitable for Battery Charging
- DC OK signal for 24V models
- Full power to 60°C
- DC ON indicator LED all models
- Safety approval EN60950

Specifications

INPUT VOLTAGE:	90 - 264 VAC, 120 - 370 VDC 10 - 60W 110/240 VAC switch selectable 120W 110/240 VAC auto-ranging 240W
INPUT FREQUENCY:	47 - 63Hz
EFFICIENCY:	Model dependent 73-89%
HARMONICS:	EN61000-3-2 Class A
EARTH LEAKAGE:	0.8mA
OUTPUT:	See table
OUTPUT V. ADJUSTMENT:	Front panel, pot, see table
SET ACCURACY:	Initial set accuracy ±1%
MINIMUM LOAD:	No minimum load required
START UP DELAY:	Typically 1000ms
START UP RISE:	Typically 150ms
HOLD UP TIME:	Model dependant 20-30ms
LINE REGULATION:	±1%
LOAD REGULATION:	±5%
RIPPLE & NOISE:	50-100mV pk-pk 20MHz BW
OVERVOLTAGE PROTECTION:	Output clamps at 120-145% of V nom.
OVERLOAD PROTECTION:	Current limiting set at 105-145%
SHORT CIRCUIT PROTECT:	10-18W: Hiccup Mode. 30-240W: Constant Power/Constant Current
TEMP. CO-EFFICIENT:	±0.03% per °C
ISOLATION:	Input - output: 3000VAC Input - ground: 1500VAC Output - ground: 500VAC
SWITCH FREQUENCY:	100KHz typical
LED INDICATORS:	DC ON LED Green: all models DC Low LED Red: 10-18W, 120 & 240W
SIGNALS:	DC OK signal for 24V models 30-240W
MTBF:	200 Khrs per MIL-HDBK-217F, GF 40°C
OPERATING TEMP:	-10°C to 60°C at full load. Derate linearly to 70°C
COOLING:	Convection cooled
OPERATING HUMIDITY:	20-95% RH, non-condensing
SHOCK:	4G, 22ms, XYZ axis
VIBRATION:	1G, 10Hz to 500Hz, XYZ axis
EMISSIONS:	EN55022 Level B conducted
HARMONIC CURRENTS:	EN61000-3-2 ClassA
VOLTAGE FLICKER:	EN61000-3-3
ESD IMMUNITY:	EN61000-4-2 Level 3 Criterion B
RADIATED IMMUNITY:	EN 61000-4-3 Level 3 Criterion A
SURGE:	EN 61000-4-5 Level 3 Criterion B
VOLTAGE DIPS:	EN61000-4-11 30% 10ms
SAFETY:	EN90950, UL508, CE

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MODEL	Output V	Output A	Output (V Range)	Power W
DNR10US05	5V	2.0A	4.5 - 5.75V	10W
DNR10US12	12V	0.84A	10.8 - 13.8V	10W
DNR10US15	15V	0.67A	13.5 - 17.2V	10W
DNR10US24	24V	0.42A	21.6 - 28.5V	10W
DNR18US05	5V	3.0A	4.5 - 5.75V	18W
DNR18US12	12V	1.5A	10.8 - 13.8V	18W
DNR18US15	15V	1.2A	13.5 - 17.2V	18W
DNR18US24	24V	0.75A	21.6 - 28.5V	18W
DNR30US05	5V	6.0A	5.0 - 5.5V	30W
DNR30US12	12V	2.5A	12.0 - 14.0V	30W
DNR30US24	24V	1.25A	24.0 - 28.0V	30W
DNR30US48	48V	0.625A	48.0 - 55.0V	30W

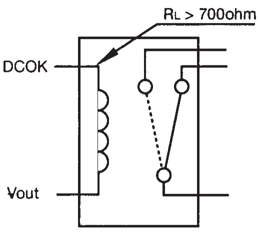
MODEL	Output V	Output A	Output (V Range)	Power W
DNR60US05	5V	10.0A	5.0 - 5.5V	60W
DNR60US12	12V	5.0A	12.0 - 14.0V	60W
DNR60US24	24V	2.5A	24.0 - 28.0V	60W
DNR60US48	48V	1.25A	48.0 - 55.0V	60W
DNR120LS12	12V	10.0A	11.4 - 14.5V	120W
DNR120LS24	24V	5.0A	23.0 - 30.0V	120W
DNR120LS48	48V	2.5A	45.0 - 55.0V	120W
DNR240PS24	24V	10.0A	23.0 - 28.0V	240W
DNR240PS48	48V	5.0A	47.0 - 56.0V	240W

Notes:
1. 240W model has built-in parallel/power share function.
2. Replace **"L"** in the 120-240W models with **"P"** for PFC input. Eg. DNR120PS12.
3. 30 - 240 watt models suitable for use as a **Battery Charger**.
4. Approved to UL1310, suitable for NEC Class 2 applications.

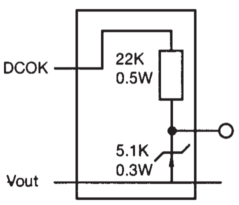
DC OK

30-60W Models

Output good = 24V
Output not good = 0V

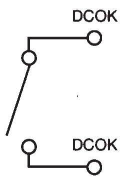


a) Relay Example



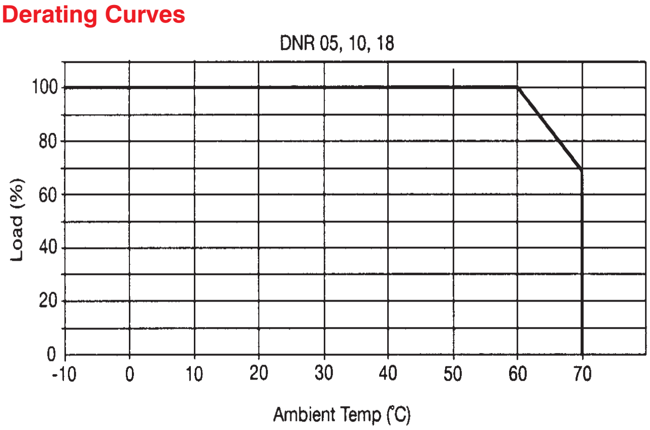
b) 5 V Signal Example
Available on 24V models, 30 - 240W only

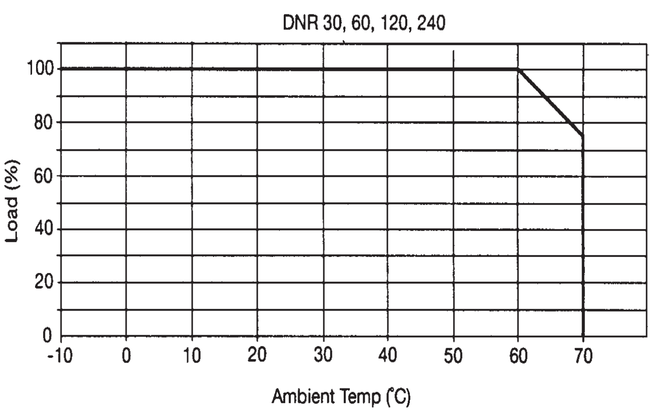
120-240W Models



Open = Output fail
Closed = Output good

Derating Curves





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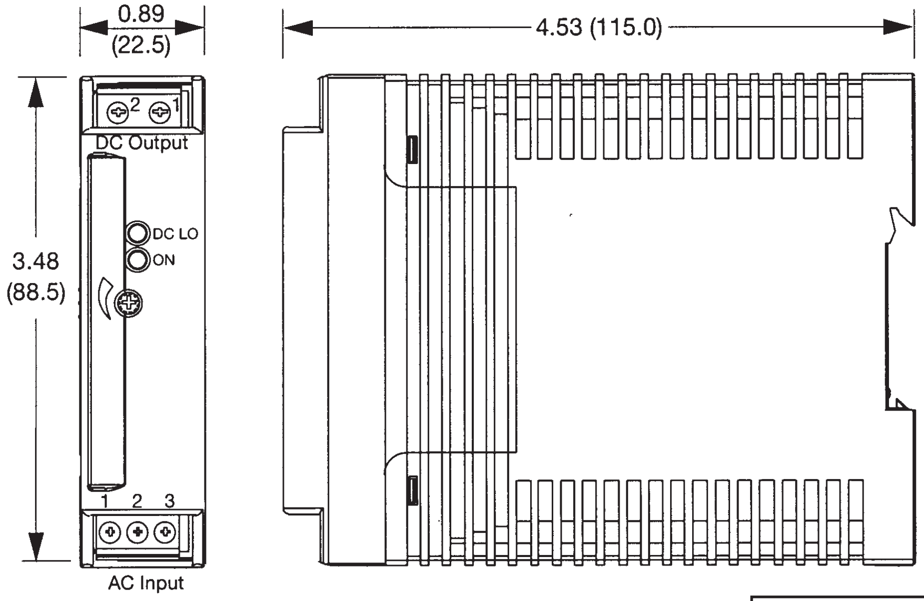
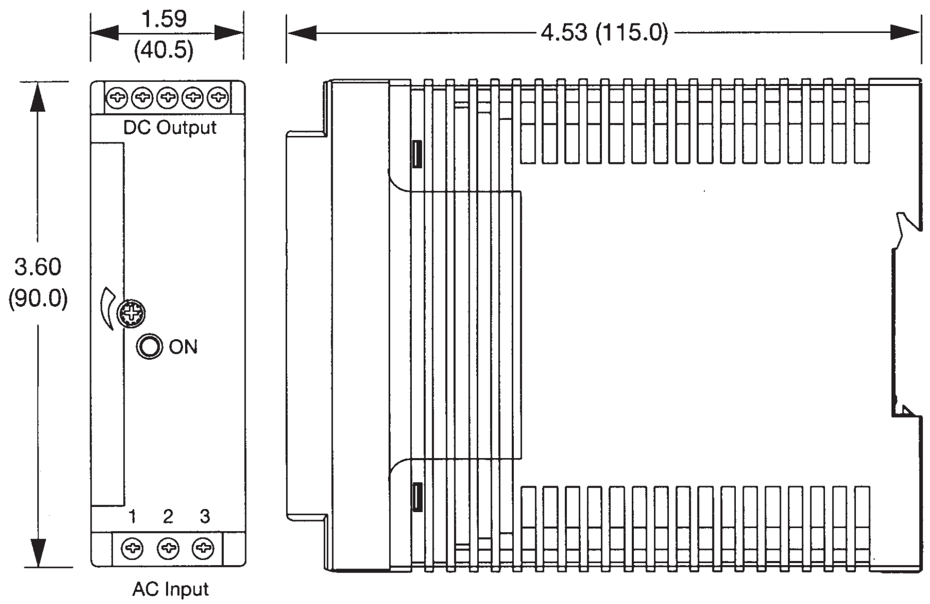
DNR10/18W



Notes:
1. All dimensions in inches (mm)
2. Weight 0.33lb (150g) approx.

DNR 10, 18 Connections		
Conn	**Pin**	**Designation**
AC Input	1 2 3	Ground Neutral Line
DC Output	1 2	Positive Negative

DNR30/60W



Notes:
1. All dimensions in inches (mm)
2. Weight 0.6lb (275g) approx.

DNR 30, 60 Connections		
Conn	**Pin**	**Designation**
AC Input	1 2 3	Ground Neutral Line
DC Output	1 2 3 4 5	DC OK* Positive Positive Negative Negative

*24V models only

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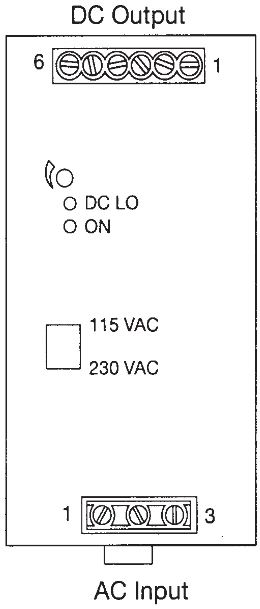
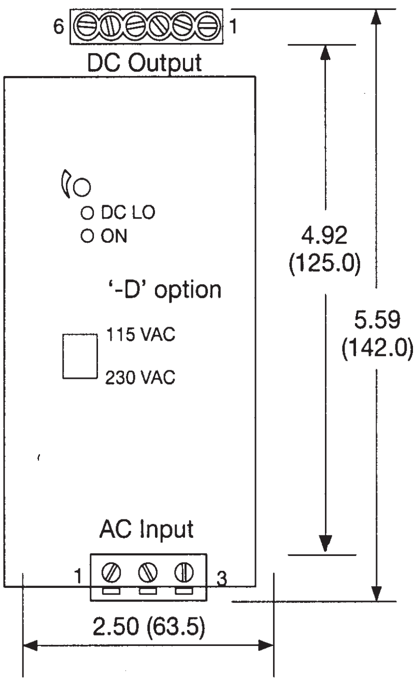
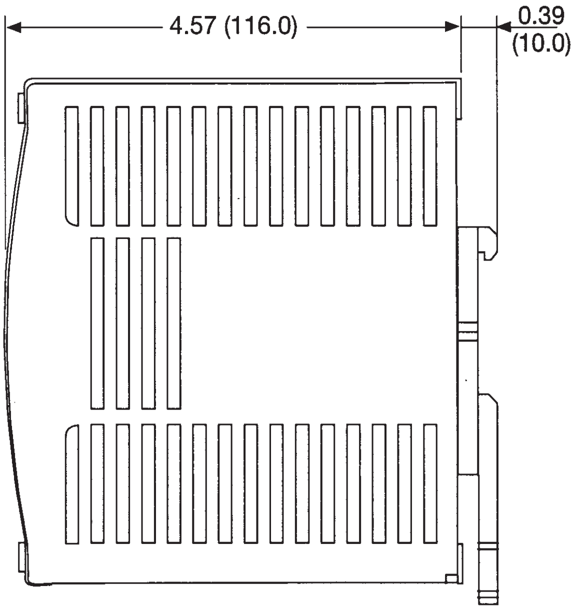
DNR120W







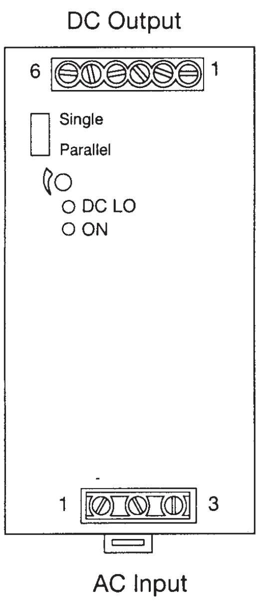
Notes:
1. All dimensions in inches (mm)
2. Weight 1.4lb (830g) approx.

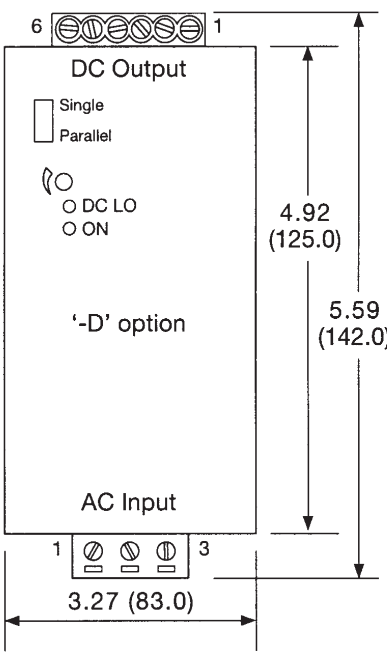
DNR 120 Connections

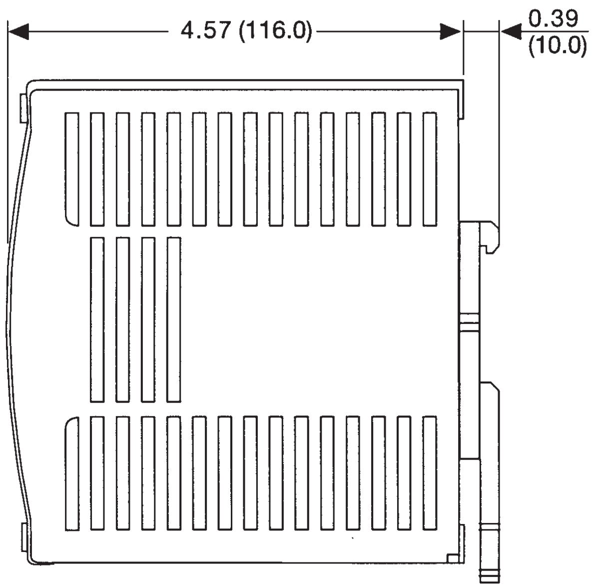
Conn	Pin	Designation
AC Input	1 2 3	Ground Line Neutral
DC Output	1 2 3 4 5 6	DC OK* DC OK* Positive Positive Negative Negative

*24V models only

DNR240W







DNR 240 Connections

Conn	Pin	Designation
AC Input	1 2 3	Ground Line Neutral
DC Output	1 2 3 4 5 6	DC OK* DC OK* Positive Positive Negative Negative

*24V models only

Notes:
1. All dimensions in inches (mm)
2. Weight 3.0lb (1360g) approx.