

# N-DR 290

DR Range: 9 kHz - 400 MHz / 290 W CW



## Prana N-DR 290

- Class A solid state
- Broadband (instantaneous single band): 9 kHz –400 MHz
- Frequency extension between 4 kHz and 9 kHz upon request
- Typical output power : 290 W CW
- Linear output power (1 dB compression) guaranteed with harmonics <-20 dBc:
  - P1dB > 140 W and H<-20 dBc at 9 kHz
  - P1dB > 180 W and H<-20 dBc from 10 kHz to 20 kHz
  - P1dB > 200 W and H<-20 dBc from 20 kHz to 300 MHz
  - P1dB > 140 W and H<-20 dBc from 300 MHz to 400 MHz
- Air cooling: self contained fans
- Can operate in full mismatch conditions without damage
- Reliable, efficient and robust
- 19" Rack
- 3 years standard warranty

## Maintenance

- Amplifier designed for minimal maintenance
  - Easy access to all parts
  - Modular design
  - Repairs with minimum adjustments
- Rapid diagnostic
- Minimal downtime
- Contract for preventive and corrective maintenance available

## Applications

- EMC tests
- RF tests and instrumentation
- Radiocommunication
- Measurement and research laboratories

## Versions

- N-DR 290 S : standard amplifier
- N-DR 290 D amplifier with:
  - Multicolor LCD display with touch panel
  - Digital control
  - IEEE 488 GPIB, Ethernet, USB, RS232 Communications
  - Temperature controlled fans
  - Safety interlock
- N-DR 290 SC : N-DR 290 S with
  - Integrated dual directional coupler
- N-DR290 DC : N-DR 290 D with :
  - Integrated dual directional coupler
  - Display of instantaneous incident and reflected power

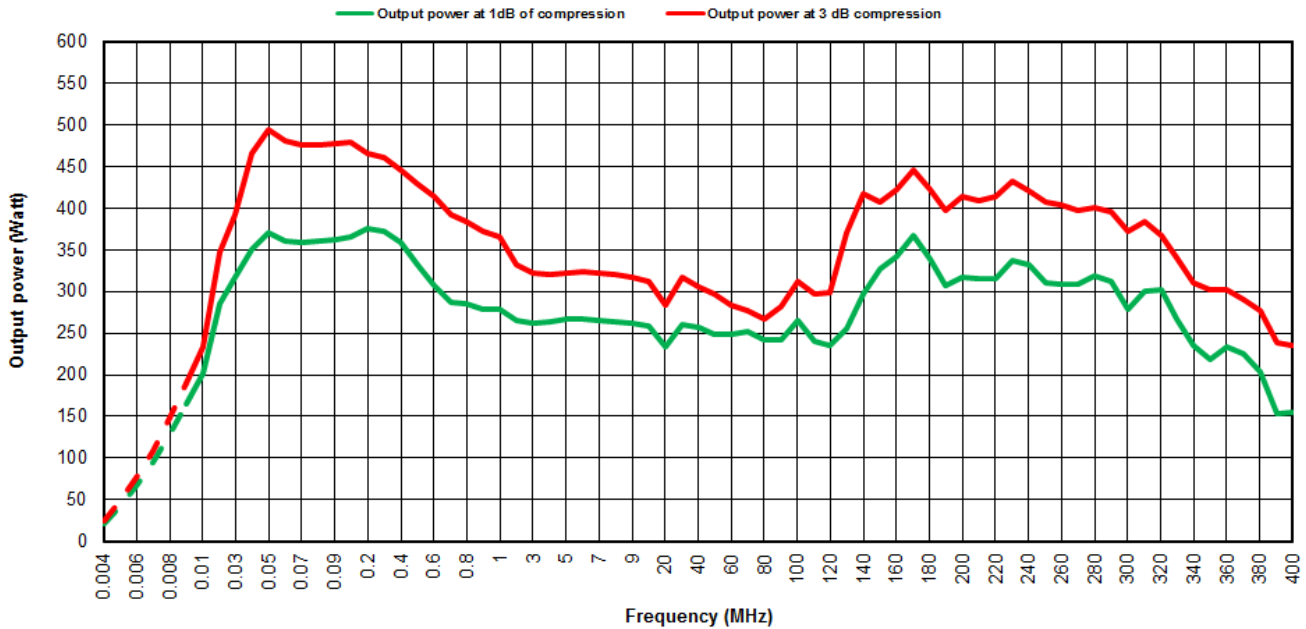
## DR Range

- N-DR 75 => 75 W CW
- N-DR 140 => 140 W CW
- N-DR 290 => 290 W CW
- N-DR 540 => 540 W CW
- N-DR 1100 => 1100 W CW
- N-DR 1800 => 1800 W CW
- N-DR 3200 => 3200 W CW

## Extra

- External coupler
- Supply and integration inside a cabinet
- Bulk Current Injection + Calibration JIG
- RF Power cable
- Switching unit

N-DR29010JUN2020 - Electrical and Mechanical Specifications subject to change without notice.



## Specifications

Frequency bandwidth	9 kHz - 400 MHz
Typical output power	290 W
Power at 3 dB compression minimum	180W at 9kHz / 200W 10-20kHz / 250W 20kHz-300MHz / 190W 300-400MHz
Power at 1 dB compression minimum	140W at 9kHz / 180W 10-20kHz / 200W 20kHz-300MHz / 140W 300-400MHz
Harmonics distortion	H2,H3 < -20 dBc for the output power at 1 dB compression limit
Class type	Class A
Gain	53 dB
Linear power gain flatness	± 2.5 dB max
Mismatch tolerance	infinite without damage
Input impedance	50 ohms / VSWR: 2:1max
Output impedance	50 ohms / VSWR: 2:1max
Input power	+10 dBm max.
RF input connector	Type N fem. (front or rear panel) – other connector type on request
RF output connector	Type N fem. (front or rear panel) – other connector type on request
Ambient operating temperature	0 °C / + 35 °C
Room temperature storage	-20 °C / +70 °C
Cooling	Forced air with fan speed control (for D version): 60 l/sec max. (self contained fans)
Power voltage	90-250 VAC, 47-63 Hz, single phase
Rated current	12.2 A at 110 VAC / 5.8 A at 230 VAC
Dimensions	640 x 450 x 178 mm (4U) / 25.2 x 17.7 x 7 in (4U)
Weight	28 kg / 62 lb

## N-DR 290 D version :

Safety interlock	Connector type BNC
Digital control	Transistors, power supplies, temperatures and fans
Communication interfaces	Ethernet, USB, GPIB, RS232
Color LCD display with touch screen	Status, faults, (direct and reverse instantaneous power for DC version)

## N-DR 290 SC and N-DR 290 DC versions :

Integrated bidirectional power coupler	Coupling factor 40 dB typ. (SC version) / 49 dB typ. (DC version)
Power coupling connector	Type N fem. (front or rear panel)
Estimated output power losses due to the coupler	0.3 dB