Radio Frequency Generators

NEUROTHERM NT1100

ABOUT

The **Neurotherm NT1100** is a radio frequency (RF) lesion generator used for ablation and neuromodulation in chronic pain procedures. It operates through software control and offers several treatment modes to match different clinical approaches. The unit includes a large touchscreen running Windows CE for simple operation and record handling. It is also the only generator that works with Neurotherm's newest dual and multi-electrode setups for more complex procedures.

FEATURES

- **Treatment Modes:** Offers Thermal Lesion, Pulsed RF, and Pulse Dose options for various pain management techniques.
- **Pulse Dose Function:** Sends a set number of full-voltage pulses and pauses automatically if temperature limits are reached.
- **Electrode Support:** Can run two or three probes in an interlaced pattern to handle several treatment points or create larger treatment fields.
- **Data Tools:** Includes built-in acquisition software, USB ports for exporting procedure logs, and an option for a remote mimic screen via CAT5 cable.
- **Sensory Stimulation:** Provides biphasic square wave stimulation with selectable frequencies and pulse widths for nerve localization.
- **Monitoring & Safeguards:** Shows impedance, temperature, RF voltage, and current, with lockouts to prevent accidental activation.
- **Touchscreen Control Panel:** Uses a touchscreen with anti-glare coating to view temperature/time curves and manage all functions of the generator.

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SPECIFICATIONS

DIMENSIONS

Width: 15.75 in (400 mm)

Height: 11.81 in (300 mm)

Depth: 16.34 in (415 mm)

Weight: 28 lbs (12.5 kg)

POWER

Input Voltage: User-selectable 110V 60Hz (USA/Canada) or 230V 50Hz (Europe)

Fuse Rating: 2 Amp (110V) / 1 Amp (230V) on live and neutral

Power Consumption: 150 Watts

Safety Class: Class 2 (Double Insulated, not earth-referenced)

RF OUTPUT

Frequency: 480 KHz ± 5% Sinusoidal

Maximum Power: 30 Watts ± 5% into 200 ohms

Output Control: Continuously variable; Auto Mode with temperature ramp-up at 8°C/sec

Modes: Thermal Lesion, Pulsed RF, Pulse Dose

STIMULATION OUTPUT

Signal: Biphasic square wave

Voltage Range: 0-5V ±3% (Motor), 0-3V ±5% (Sensory Default), 0-0.5V ±10%

Current Range: 0-10mA ±5%, 0-6mA ±5%, 0-1mA ±5% (50-2000 ohm load)

Pulse Rates: Motor: 2 or 5 Hz; Sensory: 10, 20, 50, 75, 100, 150, 180, 200 Hz

Pulse Widths: 0.1, 0.2, 0.5, 1.0 mS

MONITORING & CONTROLS

Impedance Measurement: 50-2000 Ω (±5% accuracy) at 53 KHz

Temperature Range: 50-90°C for Thermal Lesion; 42-65°C for Pulsed RF

Timer Range: 30 seconds to 20 minutes, depending on mode

Display: Real-time graphical temperature vs. time curve, numerical readouts for all parameters.

ENVIRONMENTAL CONDITIONS

Operating: 10°C to 40°C, 10% to 80% Relative Humidity

Storage: 10°C to 60°C, 10% to 80% RH, 520-760 mmHg

Transport: -10°C to 70°C, 0-95% RH (non-condensing), 140-760 mmHg