



NetWave 108 Series Electronic Power Source

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MAIN FEATURES

- **Wide Power Bandwidth: DC - 5 kHz**
- **Output Power up to 108 kVA AC / 150 kW DC**
- **Output up to 3x690 VAC (p-p), ±1120 VDC**
- **High Inrush Current Capability**
- **Power-recovery up to nominal power (optional)**
- **Built-in Signal Waveform Generator**
- **Standard Test Routines for IEC/EN, Aircraft, MIL-STD, DO-160 and EV testing**
- **Multi Source options available (upgradable)**

EDITING, DOCUMENTING AND MANAGING YOUR WAVEFORMS AND STANDARD TESTS

net.control is the all-in-one software platform to easily and conveniently control the NetWave Series. By means of net.control the user can program any kind of waveforms either composed from segments or points and download them into the NetWave. Enhanced graphic tools are at hand to adjust the waveform according to individual requirements. net.control provides a library of an extensive compilation of predefined segments as well as tens of thousands of standard test routines as per EMC and avionics standards. net.control is also handling any waveform recorded by other method (e.g. captured by an oscilloscope) or imported as Excel or CSV files. All waveforms can be downloaded into the NetWave. net.control offers an enhanced reporting tool to generate test and measuring reports and can be used under Windows (7 / 8 / 10 / 11).



Available Options & Accessories

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Opt-3 NWB | built-in measurement board with power analyzer functionality (3 x voltage and 3 x current), recommended for Aerospace applications (i.e. DO-160, MIL STD 461 etc.) |
| Opt-3 DC-EVR | Enhanced voltage range für DC, doubles the DC output voltage (max. 1120 VDC) (included in NetWave 108.5) |
| Opt-3 Parallel 90/108 | Parallels all three phases to one. The common 1-phase output is on a separate terminal block for EUT connection (included in NetWave 108.5) |
| Opt -3 Recovery 90/108 | adds a recovery module to the NetWave which allows full sink capabilities with power recover to the grid (included in NetWave 108.5) |
| Opt-3 MS 90/108 | Multi-source option to connect three NetWaves for a high power three-phase system (requires parallel option in each NetWave) |
| Opt-3 CS290/108 | Cascade source option to connection two NetWaves in series for high voltage system (requires parallel option in each NetWave) |
| F-Box | Lowpass filter for smoothing the DC vottage for very low ripple applications, i.e. MIL-HDBK-704 HDC 103 & LDC 103, serveral models available |
| L-Box | 50 µH decoupling coils with integrated 10 uF capacitor for MIL-STD-704 LDC, several modesl available |
| DPA 503N | Digital power analyzer for harmonics and flicker measurements according IEC 61000-3-2, -12, -3-3, -11 and other standards |
| AIF 503N | Artificial flicker impedacce for flicker measurements according IEC 61000-3-3 and -11, with Zref and Zetest, several models available from 16 to 75A |
| AMP 200N2 | LF Signalgenerator & Amplifier, DC to 250 kHz, (500 kHz), max. 1000 W, output voltage max. 160 Vp-p, 50 Vrms |

Technical Specifications

| | NetWave 108.5 |
|---------------------|-----------------------------------------------------------------------------------------------------|
| Output Power AC | 108 kVA |
| Output Current AC | max. 100 A cont. (at 300 V), 150 A for 3 s, 500 A repetitive peak, max. 450 A (Opt-3 Parallel) |
| Output Power DC | 150 kW |
| Output Voltage DC | max. ± 560 V, ± 1120 VDC (Opt-3 DC-EVR) |
| Output Current DC | max. 100 A cont. (at 345 V), 150 A for 3 s, 500 A repetitive peak, max. 450 A (Opt-3 Parallel) |
| Number of Lines | 3 |
| Bandwidth | 5 kHz |
| Ripple | <50 V: 110 mV; >50 V: <200 mVrms + 0.02% of set value, |
| THD @ 50/60Hz, max. | 0.5 % |
| Voltage Accuracy | DC: ± 0.2 % of set value ± 0.15 % of full scale, AC: add ± 0.1 % of set frequency /1000 |
| Phase Resolution | 1 ° |
| Frequency Accuracy | 100 ppm |
| Slew Rate max. | 8000 V/ms |

General Specifications

| | NetWave 108.5 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compensation / Sense | internal / external sense, max. compensation 15% |
| Display and Controls | 2-Line LCD display, LED indicators, operating keys |
| Operating Modes | Source AC: PLL synchronization with other voltage sources Trigger channel: extended trigger functions Segment Step: Ramping of voltage and/or frequency in constant time windows Extern mode: Control of the NetWave by an external control signal Simple mode: Optimized control for integration of the NetWave into existing automation environment (i.e. Matlab) |
| Safety | Emergency stop, external relay control, interlock |
| Protection | Over current, over voltage, over temperature, low voltage, current limiter |
| Com. Interface | GPIB, Ethernet, USB (Type A), Frame Bus |
| Trigger Modes | Input: 2x trigger, 2x DUT monitor; Output: 2x Trigger |
| Output Connectors | Screw terminal, 6 mm lab plugs |
| AC Supply | -400: 3 x 400 V, 252 A cont. / 381 A for 3 s, per phase -480: 3 x 480 V, 210 A cont. / 318 A for 3 s, per phase 3PH + PE (no neutral) 45 - 65 Hz |
| Supply Connector | Screw Terminal |
| Dimensions | 1785 x 1210 x 755 |
| Net Weight | 2000 kg |
| Operating Environment | 5°C - 35°C, 10% - 90% non-condensing, 86 kPa (860 mbar) to 106 kPa (1 060 mbar) |