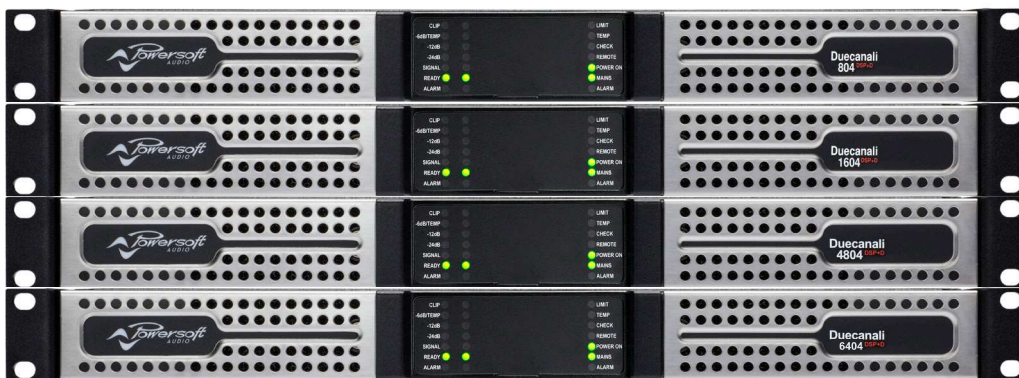


Duecanali DSP+D Series

2-Channel Fixed Installation Amplifier Platform with DSP and Dante™



○ TOURING

✓ INSTALLATION



ArmoníaPlus
System Manager

Excellent sound quality and ample output power result from Powersoft's unique approach to Class D amplification, making the Duecanali DSP+D Series ideal for the main system in any venue where performance is priority.

The Duecanali DSP+D is versatile in use and easy to set up. The front panel LED display provides real-time status feedback, while all the amplifier's configuration, monitoring and control parameters are accessible via the software ArmoníaPlus.

The Duecanali Series heralds Powersoft's renowned efficiency, saving valuable energy, therefore keeping both operational cost and carbon footprint at a minimum.

This state of the art amplifier platform shines with outstandingly low

power consumption and heat dissipation, with direct positive effects on investment – not to mention the benefits for the environment and aiding to support a more eco-friendly planet.

A fully integrated state-of-the-art DSP yields extensive system management functionality. In addition to sound shaping and limiter functions in unique Powersoft style, the DSP hardware and ArmoníaPlus software enable compliance with IEC 60849 for the crucial requirements of sound systems for emergency purposes.

The Duecanali DSP+D is designed to work with lo-Z (from 2 Ω) and with 70V/100V distributed lines: any mixed configuration of low and high impedance output loads can be

realized, making the Duecanali DSP+D suitable for all applications in installed sound reinforcement systems.

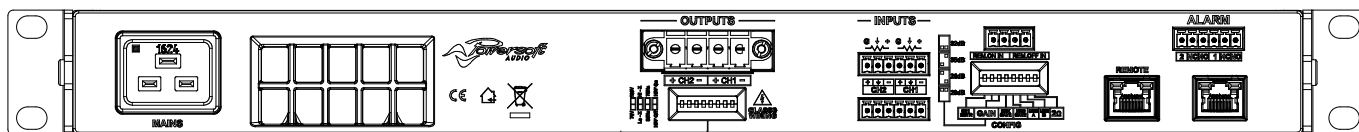
DSP+D versions of the Duecanali series extends system performance with the support of Dante™ digital audio networking architecture and the on board high-end signal processing.

- ▶ Small to Medium-scale venues
- ▶ Main systems, central or distributed, subwoofers, hi-Z/lo-Z
- ▶ Emergency systems (IEC 60849)
- ▶ Stadiums, arenas
- ▶ Theaters, concert halls
- ▶ Houses of worship
- ▶ Convention centers
- ▶ Amusement parks, themed entertainment
- ▶ Cruise ships



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Specifications

| Channel Handling | | |
|---------------------------|---|--------------------------|
| Number of output channels | 2 Hi-Z or Lo-Z (bridgeable per ch. pair) | Phoenix PC 5/4-STF1-7,62 |
| Number of input channels | | |
| Analog | 2 | Phoenix MC 1,5/6-ST-3,81 |
| Dante™** | 2 | 1 x RJ45 |

| Audio | 804 | 1604 | 4804 | 6404 | |
|---|--|------|------|------|------------------|
| Input sensitivity @ 8 Ω with 26 dB Gain | 2.84 | 4.08 | 5.03 | 5.76 | V _{rms} |
| Input sensitivity @ 8 Ω with 29 dB Gain | 2.01 | 2.89 | 3.56 | 4.08 | V _{rms} |
| Input sensitivity @ 8 Ω with 32 dB Gain | 1.42 | 2.04 | 2.52 | 2.88 | V _{rms} |
| Input sensitivity @ 8 Ω with 35 dB Gain | 1.01 | 1.45 | 1.79 | 2.05 | V _{rms} |
| SNR (20 Hz - 20 kHz @ 8 Ω) | >106 | >109 | >111 | >112 | dB(A) |
| Max input level | 20 dBu | | | | |
| Frequency Response | 20 Hz - 20 kHz ±1.0 dB, 1 W @ 8 Ω | | | | |
| Crosstalk (1 kHz) | typical -70 dB | | | | |
| Input impedance | 20 kΩ balanced | | | | |
| THD+N (from 0.1 W to Half Power) | < 0.1% (typical < 0.05%) | | | | |
| SMPTE IMD (from 0.1 W to Half Power) | < 0.1% (typical < 0.05%) | | | | |
| Slew Rate | > 50 V/μs @ 8 Ω, input filter bypassed | | | | |
| Output impedance at 100 Hz | 26 mΩ | | | | |

| DSP | |
|-----------------------|--|
| AD converters | 24 Bit Tandem™ @ 48 kHz 125 dB-A Dynamic Range - 0.005 % THD+N |
| DA converters | 24 Bit Tandem™ @ 48 kHz 117 dB-A Dynamic Range - 0.003 % THD+N |
| Sample rate converter | 24 Bit @ 44.1 kHz to 192 kHz 140 dB Dynamic Range - 0.0001 % THD+N |
| Internal precision | 32 bit floating point |
| Latency | 2.5 ms fixed latency architecture |
| Memory/Presets | 49 amplifier snapshots, virtually unlimited speaker presets |
| Delay | 2 s (input) + 100 ms (output) for time alignment |
| Equalizer | Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass |
| Crossover | linear phase (FIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR) |
| Limiters | TruePower™, RMS voltage, RMS current, Peak limiter |
| Damping control | Active DampingControl™ and LiveImpedance™ measurement |

| Output Stage | 804 | 1604 | 4804 | 6404 | |
|--|---------------------|----------------------|----------------------|----------------------|---|
| per channel @ 8 Ω (symmetrical)* | 400 | 800 | 1250 | 1800 | W |
| per channel @ 4 Ω (symmetrical)* | 400 | 800 | 2400 | 3200 | W |
| per channel @ 2 Ω (symmetrical)* | 500 | 1000 | 3000 | 4600 | W |
| @ 4 Ω Bridged (symmetrical)* | 1000 | 2000 | 6000 | 9200 | W |
| @ 8 Ω Bridged (symmetrical)* | 800 | 1600 | 4800 | 6400 | W |
| @ Hi-Z distributed line 100 V (symmetrical)* | 400 | 800 | 2400 | 4000 | W |
| @ Hi-Z distributed line 70 V (symmetrical)* | 400 | 800 | 2400 | 3200 | W |
| per channel @ 8 Ω (asymmetrical)** | 800 | 1300 | 1300 | 1900 | W |
| per channel @ 4 Ω (asymmetrical)** | 800 | 1600 | 2600 | 3600 | W |
| per channel @ 2 Ω (asymmetrical)** | 1000 | 1600 | 4300 | 6000 | W |
| @ Hi-Z distributed line 100 V (asymmetrical)** | 800 | 1600 | 4000 | 5500 | W |
| @ Hi-Z distributed line 70 V (asymmetrical)** | 800 | 1600 | 3000 | 3000 | W |
| Maximum unclipped output voltage @ 8 Ω | 80V _{peak} | 115V _{peak} | 142V _{peak} | 175V _{peak} | |
| Maximum output current | 39A _{peak} | 45A _{peak} | 80A _{peak} | 110A _{peak} | |

*: All channels driven with the same burst power
 **: Maximum power-sharing capacity per channel

| | | Power & Thermal | 804 | 1604 | 4804 | 6404 | |
|---------|----------------|-----------------|------|------|------|------|------------------|
| @ 115 V | Idle | Power | 23.0 | 23.0 | 32.5 | 33 | W |
| | | Current Draw | 0.34 | 0.34 | 0.31 | 0.53 | A _{rms} |
| | | Thermal Loss | 78 | 78 | 111 | 112 | BTU/h |
| | 1/8 Power @ 4Ω | Power | 148 | 267 | 780 | 1073 | W |
| | | Current Draw | 1.4 | 2.5 | 7.0 | 10 | A _{rms} |
| | | Thermal Loss | 162 | 229 | 613 | 931 | BTU/h |
| @ 230 V | Idle | Power | 22.5 | 23.3 | 32.8 | 33 | W |
| | | Current Draw | 0.21 | 0.21 | 0.30 | 0.37 | A _{rms} |
| | | Thermal Loss | 77 | 79 | 112 | 114 | BTU/h |
| | 1/8 Power @ 4Ω | Power | 147 | 274 | 755 | 1068 | W |
| | | Current Draw | 0.9 | 1.5 | 3.9 | 5.3 | A _{rms} |
| | | Thermal Loss | 161 | 251 | 528 | 913 | BTU/h |

| | |
|------------------------|---|
| Power supply | Universal regulated switch mode with PFC, SRM |
| Nominal voltage (±10%) | 100-240 VAC @ 50-60Hz |
| Operating Voltage | 90-264 VAC |
| AC Mains connector | IEC C20 inlet (20 A max) region-specific power cord provided |

Typical use case power consumption is expected to be at least 20% lower (likely more than 50% lower)

| Networking | |
|----------------------|--|
| Standards compliance | auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s) |
| Supported topologies | Star |
| Remote interface | ArmoniaPlus™ |
| Construction | |
| Dimensions | 483 x 44.5 x 358 mm 19.0 x 1.75 x 14.1 in |
| Weight | 7 Kg (15 lb) |

Data subject to change without notice.

