

# PowerLight

*With an unequalled reputation for sound quality and reliability, the PowerLight Series is a range of advanced-technology professional audio amplifiers designed for touring professionals. PowerLights feature QSC's exclusive PowerWave™ technology for extraordinary audio performance, reliability and reduced weight. Thirteen models offer a range of power from 200 to 4,500 watts per channel, allowing you to choose the right power for even the largest of systems. Power Factor Correction (PFC) on the PowerLight 6.0 and PowerLight 9.0 lowers current draw by over 40%, making them the most efficient amplifiers available.*



**POWERWAVE™** With PowerWave™ technology, PowerLight amplifiers take your sound to a whole new level. Not only does it give you tighter bass and clean transparent highs, PowerWave also cuts waste heat and boosts reliability. PowerWave is a revolutionary switching power supply technology that provides ample current to the audio power circuitry by charging the supply rails 230,000 times a second through an ultra-low impedance circuit. So unlike amplifiers that use conventional supplies, the audio signal is never starved prematurely and remains crisp and clean.

PowerLight Series amplifiers also boast a set of useful features. Individually selectable clip limiters lower distortion and protect speakers, and a standby mode allows remote AC control.

The PowerLight Series also includes unique models for maximum flexibility when building your systems. Bi-amp models (1.5<sup>X</sup>, 1.6<sup>HVX</sup> & 3.8<sup>X</sup>) provide a large channel and smaller channel to match the power requirements of woofers and high-frequency drivers. High-voltage models (1.0<sup>HV</sup>, 1.6<sup>HVX</sup>, & 2.0<sup>HV</sup>) are optimized for maximum power at 4 ohms, saving rack space and cost. A mono-block (2.4<sup>MB</sup>) provides up to 2400 watts at 2 ohms for single channel applications such as subwoofers.

- **3 year warranty plus optional 3 year extended service contract!**

Model	Watts per channel		
	8Ω	4Ω	2Ω*
1.0	200	325	500
1.0 <sup>HV</sup>	300	500	nr
1.4	300	500	700
1.5 <sup>X</sup> Ch-1	450	700	1000
Ch-2	200	325	500
1.6 <sup>HVX</sup> Ch-1	725	1100	nr
Ch-2	275	500	nr
1.8	400	650	900
2.0 <sup>HV</sup>	650	1000	nr
2.4 <sup>MB</sup> Mono	1000	1550	2400
3.4	725	1150	1700
3.8 <sup>X</sup> Ch-1	900	1400	2400
Ch-2	450	800	1400
4.0	900	1400	2000
6.0 <sup>PFC</sup>	1500	2500	3150
9.0 <sup>PFC</sup>	1800	3200	4500

20 Hz–20 kHz, 0.1% THD \*1 kHz, 1% THD  
nr = not rated

## PowerLight Features

- PowerWave™ switching technology—for improved audio performance
- High efficiency, Class H linear output circuit lowers AC current consumption and cooling requirements by 40% or more (on selected models)
- PFC on PL 6.0 & 9.0 improves audio performance & lowers AC current requirements
- “HV” models are optimized to provide maximum power at 8 and 4 ohms
- “X” models feature dual power points for bi-amp applications
- PL 2.4<sup>MB</sup> mono-block delivers 2400 watts while operating on a 15 amp breaker
- Data Port for remote computer control
- User defeatable clip limiter reduces distortion, protects speakers
- Advanced thermal management system for superior cooling
- Detented gain controls with 2 dB steps for easy resetting
- Comprehensive LED status arrays
- Variable speed fan for quiet operation
- Remote AC power control
- DC, subsonic audio, and thermal overload protection
- Neutrik “Combo” (XLR & 1/4”) and barrier balanced input connectors



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POWERLIGHT SPECIFICATIONS		PL 1.0	PL 1.0 <sup>HV</sup>	PL 1.4	PL 1.5 <sup>X</sup>	PL 1.6 <sup>HVX</sup>	PL 1.8	PL 2.0 <sup>HV</sup>	PL 2.4 <sup>MB</sup>	PL 3.4	PL 3.8 <sup>X</sup>	PL 4.0	PL 6.0 <sup>PFC</sup>	PL 9.0 <sup>PFC</sup>
Stereo Mode (both channels driven)		Continuous Average Output Power		Ch1 Ch2 Ch1 Ch2		Mono		Ch1 Ch2		Ch1 Ch2				
8 ohms FTC 0.1% THD 20 Hz-20 kHz		200W	300W	300W	450W	200W	725W	275W	1000W	725W	900W	450W	1500W	1800W*
8 ohms EIA 1.0% THD 1 kHz		210W	325W	325W	•	•	450W	•	1050W	750W	•	1000W	1625W	1950W
4 ohms FTC 0.1% THD 20 Hz-20 kHz		325W	500W	500W	700W	325W	1100W	500W	1550W	1150W	1400W	800W	2500W	3200W*
4 ohms EIA 1.0% THD 1 kHz		•	•	•	•	•	•	•	700W	1000W	1700W	1225W	2650W	3400W
2 ohms EIA 1.0% THD 1 kHz		500W	•	700W	1000W	500W	nr	nr	2400W	1700W	2400W	1400W	3150W	4500W
Bridge Mono Mode		Continuous Average Output Power												
8 ohms FTC 0.1% THD 20 Hz-20 kHz		650W	1000W	1000W	•	•	1300W	2000W	•	2300W	•	2800W	5000W	6400W
4 ohms EIA 1.0% THD 1 kHz		1000W	nr	1400W	•	•	1800W	nr	•	3400W	•	4000W	6300W	9000W
Distortion (SMPTE-IM)		< 0.05%	< 0.05%	< 0.05%	< 0.05%	< 0.05%	< 0.05%	< 0.05%	< 0.05%	< 0.05%	< 0.01%	< 0.05%	< 0.02%	< 0.02%
THD (Typical): 4 to 8 ohms; 20 Hz-20 kHz; 10 dB below rated power; 1.0 kHz and below, full rated power		0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.06%	0.15%
Damping Factor (1 kHz and below)		> 350	> 350	> 350	> 350	> 350	> 350	> 500	> 500	> 500	> 500	> 500	> 2000	> 2000
Signal to Noise (20 Hz-20 kHz)		108 dB	108 dB	108 dB	108 dB	108 dB	108 dB	108 dB	108 dB	108 dB	105 dB	105 dB	107 dB	107 dB
Input Sensitivity @ 8 ohms (in Vrms)		1.00	1.00	0.96	1.12	1.00	1.12	1.00	1.11	0.96	1.08	1.24	2.70	3.00
Voltage Gain (in dB)		40x (32)	50x (34)	50x (34)	50x (34)	40x (32)	63x (36)	60x (34)	80x (38)	80x (38)	80x (38)	49x (34)	40x (32)	40x (32)
Output Circuitry		AB	AB	H (2-Step)	2-Step	AB	2-Step	AB	H (2-Step)	H (3-Step)	H (3-Step)	H (3-Step)	H (4-Step)	H (4-Step)
Cooling (Variable speed fans, rear-to-front air flow)		Single Fan	Single Fan	Single Fan	Single Fan	Single Fan	Single Fan	Single Fan	Dual Fans	Dual Fans	Dual Fans	Single Fan	Four Fans	Four Fans
Height (1 RU = 1.75" (4.45cm))		2 RU	2 RU	2 RU	2 RU	2 RU	2 RU	2 RU	3 RU	3 RU	3 RU	3 RU	3 RU	3 RU
Weight (net)		18 lbs (8.2 kg)	18 lbs (8.2 kg)	18 lbs (8.2 kg)	18 lbs (8.2 kg)	18 lbs (8.2 kg)	18 lbs (8.2 kg)	18 lbs (8.2 kg)	18 lbs (8.2 kg)	30 lbs (13.6 kg)	30 lbs (13.6 kg)	30 lbs (13.6 kg)	59 lbs (27 kg)	59 lbs (27 kg)
120v Current Consumption (1/18 Power Pink Noise @ 4 ohms) Multiply current by 0.5 for 230v units		6.0 A	7.6 A	5.5 A	6.4 A	8.5 A	6.25 A	11.5 A	6.9 A	9.6 A	6.9 A	11.5 A	16 A	19 A

**All models**

Connectors (each channel)	Input: Neutrik <sup>®</sup> XLR + 1/4" TRS input and Barrier strip (eurostyle detachable headers on PL 6.0 and 9.0 only) Output: "Touch-proof" binding posts (PL 6.0 and 9.0 include Neutrik Speakon and 60A rated binding post)
Frequency Response	20 Hz-20 kHz, ± 0.15 dB / 2 Hz-50 kHz, +0, -3 dB (6.0 & 9.0 only) 5 Hz -60 kHz, +0, -3 dB (2.0 <sup>HV</sup> , 3.4 & 4.0 only) 8 Hz-100 kHz, +0, -3 dB (all other models)
Input Impedance	10 kΩ unbalanced, 20 kΩ balanced
Amplifier Protection	Full short circuit, open circuit, thermal, ultrasonic and RF protection. Stable into reactive or mismatched loads.
Controls	Front: AC switch, Ch. 1 and Ch. 2 gain knobs, Ch. 1 and Ch. 2 clip limiter switches Rear: Parallel/Stereo/Bridge switch, Remote AC Control terminal strip
Load Protection	On/off muting, DC-fault power supply shutdown
Indicators	PROT: Red LED (each channel) CLIP: Red LED STANDBY: Yellow LED LEVEL -10 dB: Yellow LED PWR-ON: Green LED LEVEL -20 dB: Yellow LED SIGNAL: Green LED
Power Requirements	120, 230 Vac, 50-60 Hz
Power Connectors	30 amp twist lock (PL 3.8 <sup>X</sup> , PL 4.0, PL 6.0PFC & PL 9.0PFC) 15 amp edison (all other models) Export versions have removable IEC connectors
Width / Height	19.0" (48.3 cm) rack mounting (all models) 17.9" (45.5 cm) deep behind front mounting rails (all models) Overall Depth on PL 6.0 and PL 9.0 (19.5")



\* @ 0.2% THD nr = not rated