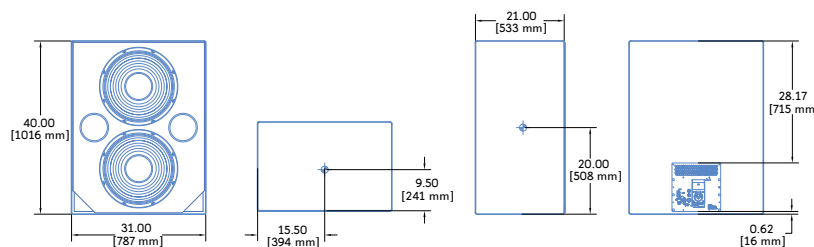


# X-800C : High-Power Cinema Subwoofer

thinking sound



<b>Dimensions</b>	31.00" w x 40.00" h x 21.00" d (787 mm x 1016 mm x 533 mm)
<b>Weight</b>	221 lbs (100.24 kg)
<b>Enclosure</b>	Premium birch plywood
<b>Finish</b>	Low-gloss black textured finish

The Meyer Sound X-800 high-power subwoofer is designed to provide very low-frequencies with ample headroom in critical applications. The X-800 Studio and X-800C Cinema versions from the EXP line of products excel in environments requiring very low distortion, extended bandwidth and extreme low frequency transients.

The X-800C is a linear, powerful self-powered subwoofer offering excellent phase coherence for smooth transitioning from screen channels to low-frequency effects (LFE). The X-800C delivers extended low frequency output down to 20 Hz with clear, punchy transients even at very high levels.

The X-800C houses two Meyer Sound long excursion, high efficiency 18-inch drivers in an optimally tuned, vented cabinet. The X-800C output rolls off well below 250 Hz, avoiding any adverse comb filtering effects that could be generated by the proximity

of other X-800C subwoofers when used in arrays.

An integral two-channel class AB/H amplifier with complementary MOSFET output stages supplies a total output of 1240 Watts (2480 Watts peak), providing the system with sufficient headroom to accommodate lowest frequencies of the most extreme digital soundtrack's.

Each amplifier channel features TruPower® limiting technology to maximize loudspeaker reliability, minimize power compression and extend component life. An Intelligent AC™ power supply affords automatic voltage selection, EMI filtering, soft current turn-on and surge suppression.

A laser-trimmed differential input with high common-mode rejection enables long line-level signal runs using shielded, twisted-pair cable. As with all Meyer Sound self-powered products, sophisticated onboard

processing includes phase and frequency response correction filters. This self-powered design not only assures consistent results but also simplifies installation in both new and existing rooms.

The X-800C subwoofer's premium birch plywood cabinet is coated with a durable textured low gloss finish. Meyer Sound's optional RMS™ remote monitoring system provides comprehensive system monitoring over a Windows-based network.

With a 30-year history of successful solutions, Meyer Sound understands the science of sound reproduction. Our self-powered loudspeakers offer unsurpassed intelligibility, power and clarity. And in conjunction with a suite of powerful integration tools, Meyer Sound is able to offer a complete, dedicated cinema sound solution that is designed to meet the demands and opportunities of the next generation of cinema sound.

## FEATURES & BENEFITS

- High peak power yields excellent transient reproduction
- Extended low frequency range down to 20 Hz

- Extremely low distortion for ultimate low-frequency clarity
- Exceptionally reliable and durable

## APPLICATIONS

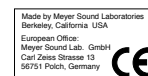
- Motion picture theaters
- Dub stages
- Production and post production facilities
- Soundtrack recording and mixing

## X-800C SPECIFICATIONS

<b>ACOUSTICAL</b>		<b>Operating Frequency Range<sup>1</sup></b>	20 Hz – 200 Hz
		<b>Frequency Response<sup>2</sup></b>	23 Hz – 160 Hz $\pm 4$ dB
		<b>Phase Response</b>	32 Hz to 175 Hz $\pm 30^\circ$
		<b>Maximum Peak SPL<sup>3</sup></b>	136 dB
		<b>Dynamic Range</b>	>110 dB
<b>COVERAGE</b>			360° (single unit); varies with number of units and configuration
<b>TRANSDUCERS</b>		<b>Low Frequency</b>	Two 18" cone drivers Nominal impedance: 8 $\Omega$ Voice coil size: 3" Power-handling capability: 600 AES W <sup>4</sup>
<b>AUDIO INPUT</b>		<b>Type</b>	Differential, electronically balanced
		<b>Maximum Common Mode Range</b>	$\pm 15$ V DC, clamped to earth for voltage transient protection
		<b>Connectors</b>	Female XLR input and male XLR loop output (integrates AC, audio and network)
		<b>Input Impedance</b>	10 k $\Omega$ differential between pin 2 and 3
		<b>Wiring</b>	Pin 1: Chassis/earth through 220 k $\Omega$ , 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal – Case: Earth ground and chassis
		<b>DC Blocking</b>	None on input; DC blocked through signal processing
		<b>CMRR</b>	>50 dB, typically 80 dB (50 Hz – 500 Hz)
		<b>RF Filter</b>	Common mode 425 kHz; Differential mode 142 kHz
		<b>TIM Filter</b>	Integral to signal processing (< 80 kHz)
		<b>Input Level</b>	Audio source must be capable of producing a minimum of +20 dB V (10 V rms, 14 V pk) into 600 $\Omega$ in order to produce maximum peak SPL over the operating bandwidth of the loudspeaker
		<b>Nominal Input Sensitivity</b>	0 dB V (1 V rms, 1.4 V pk) continuous is typically the onset of limiting for noise and music
<b>AMPLIFIER</b>		<b>Type</b>	Complementary power MOSFET output stages (class AB/H)
		<b>Output Power<sup>5</sup></b>	1240 W (2480 Watts peak)
		<b>THD, IM, TIM</b>	<0.02 %
		<b>Load Capacity</b>	8 $\Omega$ minimum impedance each channel
		<b>Cooling</b>	Forced air cooling, 2 internal fans (one low-speed and one reserve fan)
<b>AC POWER</b>		<b>Connector</b>	250 V AC NEMA L6-20 inlet or IEC 309 male inlet
		<b>Automatic Voltage Selection</b>	Automatic, two ranges, each with high-low voltage tap (uninterrupted)
		<b>Safety Agency Rated Operating Range</b>	95 V AC – 125 V AC; 208 V AC – 235 V AC; 50/60 Hz
		<b>Turn-on and Turn-off Points</b>	85 V AC – 134 V AC; 165 V AC – 264 V AC; 50/60 Hz
		<b>Current Draw:</b>	
		<b>Idle Current</b>	0.640 A rms (115 V AC); 0.320 A rms (230 V AC); 0.850 A rms (100 V AC)
		<b>Max Long-Term Continuous Current (&gt;10 sec)</b>	8 A rms (115 V AC); 4 A rms (230 V AC); 10 A rms (100 V AC)
		<b>Burst Current (&lt;1 sec)</b>	15 A rms (115 V AC); 8 A rms (230 V AC); 18 A rms (100 V AC)
		<b>Ultimate Short-Term Peak Current Draw</b>	22 A pk (115 V AC); 11 A pk (230 V AC); 25 A pk (100 V AC)
		<b>Inrush Current</b>	<7 A (115 V AC & 230 V AC); 10 A pk (100 V AC)
<b>RMS NETWORK (OPTIONAL)</b>			Equipped for two-conductor twisted-pair network, reporting all operating parameters of amplifiers to system operator's host computer.

### NOTES:

1. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
2. Free field, measured with one-third octave frequency resolution at 4 meters.
3. Measured with music at 1 meter.
4. Power handling is measured under AES standard conditions: transducer driven continuously for two hours with band-limited noise signal having a 6 dB peak-average ratio.
5. Amplifier wattage rating is based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce into the nominal load impedance. Both Channels 70 V rms (100 V pk) into 8 ohms.



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## ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered, sub-bass system. The transducers shall consist of two 18-inch cone drivers (3-inch voice coil) each rated to handle 600 AES\* watts.

The loudspeaker shall incorporate internal processing electronics and a two-channel amplifier. Each amplifier channel shall be class AB/H with complementary MOSFET output stages. Burst capability shall be 1240 watts total with nominal 8-ohm resistive load. Distortion (THD, IM, TIM) shall not exceed 0.02%. Protection circuits shall include TruPower limiting. The audio input shall be electronically balanced with a 10 k $\Omega$  impedance and accept a nominal 0 dBV (1 V rms) signal (20 dBV to produce maximum SPL). Connectors shall be XLR type male and female or VEAM all-in-one. RF filtering shall be provided, and CMRR shall be greater than 50 dB (50 – 500 Hz).

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: Operating frequency range shall be 20 Hz to 200 Hz. Phase response shall be  $\pm 30^\circ$  from 35 Hz to 120 Hz. Maximum peak SPL shall be 136 dB at 1 meter.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Powering requirements shall be nominal 100 V, 110 V or 230 V AC line current at 50 Hz or 60 Hz. UL and CE operating voltage ranges shall be 95 to 125 V AC and 208 to 235 V AC. Current draw during burst shall be 15 A rms at 115 V AC, 8 A rms at 230 V AC and 18 A rms at 100 V AC. Current inrush during soft turn-on shall not exceed 7 A at 115 V AC. AC power connectors shall be L6-20, IEC 309 male or VEAM all-in-one.

The loudspeaker shall optionally incorporate the electronics module for Meyer Sound's RMS remote monitoring system.

Loudspeaker components shall be mounted in a premium birch plywood enclosure with a durable textured finish (optional smooth medium-gloss black finish available). Dimensions shall be 31.00" wide x 40.00" high x 21.33" deep (787 mm x 1016 mm x 542 mm). Weight shall be 221 lbs (100.24 kg).

The loudspeaker shall be the Meyer Sound X-800C high-power cinema subwoofer.

*\*Driven continuously for two hours with band-limited noise signal having a 6 dB peak-average ratio.*