DATA SHEET AMPLIFIED LOUDSPEAKER CONTROLLERS (ALC) 2-CHANNEL AND 4-CHANNEL UNITS WITH DSP AND DANTE®



Biamp's line of Amplified Loudspeaker Controllers (ALC) offers factory-optimized DSP processing, protective limiting and amplification, as well as signal routing, zone switching, and remote monitoring for virtually any application using our Community loudspeakers. Standard Ethernet communication protocols allow for fast system design, system control, and remote system monitoring. Analog and Dante[®] inputs included in each model are assignable per channel in static or failover/backup configuration, supporting quick and easy integration into any new or existing system.

Carefully chosen to precisely match the needs of all Community loudspeakers, three models of Amplified Loudspeaker Controllers are available: **ALC-404D** (4 channels x 400W), **ALC-1604D** (4 channels x 1600W) and **ALC-3202D** (2 channels x 3200W). Bridged channel pairs support driving loads down to 4 ohms at double the power of a single channel, providing additional flexibility for real-world system applications.

Biamp-authored loudspeaker presets include equalization, high pass filters, and multi-stage limiters tailored to each model, ensuring consistent sound quality and full loudspeaker protection in every application. Additionally, each Community loudspeaker preset includes loudspeaker power and impedance information, allowing the system configuration software to display the total power and impedance of multiple parallel-wired loudspeakers, further reducing the time and effort required to match complete loudspeaker systems with the appropriate ALC models and output channel configurations.

ALCs reduce complexity and increase overall system value in every installation. Their compact size, packing either 2 or 4 channels into 1 RU, reduces rack costs and minimizes space requirements. The industry-leading integrated DSP reduces the need for external outboard equipment, drastically reducing installation effort and expense. Extremely high operational efficiency greatly reduces power consumption, resulting in the lowest thermal dissipation ratings in the industry, and minimizes the need for external cooling devices. Additionally, each channel is capable of directly driving 70V/100V distributed loudspeakers, low impedance loudspeakers from 2 ohms, or any mixed configuration of low and high impedance output loads, making ALCs extremely flexible and capable in a wide range of applications.

In-depth control and monitoring is accomplished via ArmoníaPlus® system manager software. Assigning loudspeakers to ALC output channels is a simple, visual, drag-and-drop process. Loudspeaker groups and zones can also be created quickly by simply clicking on the images of the loudspeakers to be grouped together. Tailoring the sound and managing the system can be done at a remote, decentralized location. All ALC models can also be trusted in mission critical applications, such as fire alarm systems, thanks to the cleverly engineered power supply that allows reliable operation even when connected to a UPS. In addition, the per-channel, user-assignable fault-indicating GPIO connectors on the rear panel may be integrated with third-party monitoring and emergency notification systems.

biamp.

FEATURES

- Output power optimized to match the needs of Community loudspeakers from Biamp
- Drive low impedance, 70V or 100V loudspeakers on any channel
- Fast and easy access to complete Community loudspeaker library
- 1024 Tap FIR Linear Phase DSP loudspeaker processing
- Factory-optimized multi-stage loudspeaker protection limiters
- Power Sharing technology allows asymmetric output loading

- Biamp's loudspeaker presets allow software to automatically calculate and display power needs and headroom for each ALC output channel
- Easily configured system control for small-to-medium venues
- Third-party plug-ins for large venue control
- Quickly create and manage loudspeaker groups / zones and signal routing
- IEC 60849 compliant monitoring and reporting via software and hardware
- 4-year warranty

APPLICATIONS

- Main systems, Central or Distributed, Subwoofers, hi-Z/lo-Z Applications
- Emergency Notification Systems
- Theaters, Restaurants, and Bars
- Houses of Worship
- Gyms and Fitness Centers
- Sports Fields

- Stadiums
- Lecture Halls
- Amusement Parks
- Shops and Stores
- Convention or Business Centers
- Cruise Ships

ALC TECHNICAL SPECIFICATIONS

CHANNELS		ALC-404D	ALC-1604D	ALC-3202D			
Output Channels		4 Hi-Z or Lo-Z (bridgeable per ch. pair)		2 Hi-Z or Lo-Z (bridgeable per ch. pair)			
Input Channels Analog Dante		4	4	2 2			
AUDIO		ALC-404D	ALC-1604D	ALC-3202D			
	Gain						
Input Sens @8Ω	26 dB	2.48 V _{rms}	4.91 V _{rms}	5.03 V _{rms}			
Input Sens @8Ω	29 dB	1.76 V _{rms}	3.48 V _{rms}	3.56 V _{rms}			
Input Sens $@8\Omega$	32 dB	1.24 V _{rms}	2.46 V _{rms}	2.52 V _{rms}			
Input Sens @8Ω	35 dB	0.88 V _{rms}	1.74 V _{rms}	1.79 V _{rms}			
Signal-to-Noise Ratio 20 Hz- 20 kHz @ 8Ω		>104 dB(A)	>110 dB(A)	>111 dB(A)			
Maximum Input Level		20 dBu					
Frequency Response		20 Hz - 20 kHz ±0.5 dB, 1 W @ 8Ω					
Crosstalk (1 kHz)		-70 dB					
Input Impedance		20 k Ω balanced					
THD+N (from 0.1 W to Full Power)		< 0.1% (typical < 0.05%)					
IMD (from 0.1 W to Full Power)		< 0.05%					
Slew Rate		> 50 V/ $\mu s @ 8\Omega$, input filter bypassed					
Damping Factor		> 500 @ 8Ω, 20 Hz - 100 Hz					
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		128 MB (RAM) plus 512 MB flash for presets					
Delay	Delay		2 s (input) + 100 ms (output) for signal 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	Damping Control		Active DampingControl™ and LiveImpedance™ measurement				

*The power figure is calculated by driving all channels loaded symmetrically; uneven loads allow higher performance achievement

Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.

ArmoníaPlus^{*} is a registered trademark of Powersoft S.p.A. Tandem[™], TruePower[™], DampingControl[™], and LiveImpedance[™] are trademarked by Powersoft S.p.A. Dante^{*} is a registered trademark of Audinate Pty Ltd.

Max output jower per channel @ 40400 W140 ∪ W2400 WMax output jower @ 40 (Bridged)800 W800 W20 ∪ W400 WMax output jower @ Hi-Z 100 V400 W160 ∪ W3200 WMax output jower @ Hi-Z 102 V400 W160 ∪ W3200 WMax output jower @ Hi-Z 102 V400 W160 ∪ W3200 WMax output jower @ Hi-Z 102 V400 W120 V400 WMax output jower @ Hi-Z 102 V400 W120 V400 WMax output jower @ Hi-Z 102 V400 W120 V400 WMax output jower @ Hi-Z 102 V300 V80 V142 VMax output jower @ Hi-Z 102 V330 A34.580 AMax output jower @ Hi-Z 102 V330 A31.131.3Max output jower @ Hi-Z 102 V331.031.332.5Max output jower @ Hi-Z 102 V22182.5780Max output jower @ Hi-Z 102 V221121700Max output jower @ Hi-Z 102 V22132.8780Max output jower @ Hi-Z 102 V22132.8790Max output j	Max output power per channel @ 8 Ω		400 W	1250 W	1250 W		
Name Name <t< td=""><td colspan="2">Max output power per channel @ 4Ω</td><td>400 W</td><td>1400 W</td><td>2400 W</td></t<>	Max output power per channel @ 4Ω		400 W	1400 W	2400 W		
$ \begin{array}{ $	Max output power per channel @ 2 Ω		400 W	1600 W	3200 W		
$ \frac{1}{1.6 \times 0.101 \times $	Max output power @ 4Ω (Bridged)			800 W	3200 W	6400 W	
distributed line 100 M 1600 M 3200 M Max output power @ Hi-Z 70V distributed line 100 M 1600 M 3200 M Max bared Power (@ Hi-Z 70V distributed line 100 M 400 M 1600 M 6400 M Max bared Power (@ Hi-Z 70V Max bared Power (@ Hi-Z 70V Max bared Power (@ Hi-Z 70V Max bared Power (@ 100 tuput Voltage @80 B0 V_{peak} 45 A_{peak} 80 A_{peak} POWER THERMAL ALC-400D ALC-100 M 120 M ALC-3202D POWER THERMAL ALC-400D ALC-100 M 131.1 31.3 32.5 Power (W) 31.1 31.3 32.5 Thermal Loss (BTU/h) 106 107 M 111 18 Power (W) 227 823 780 Current Draw (A_{rm}) 2.1 7.7 O 613 Thermal Loss (BTU/h) 261 760 G 613 Thermal Loss (BTU/h) 261 760 G 613 Thermal Loss (BTU/h) 107 108 M 112 Power (W) 251 840 C 755 Power (W) 251 840 C 755 Thermal Loss (BTU/h) 107 108 M 112 19 Power (W) 251 840 C 755 Current Draw (A_{rm}) 1.4 4.3 S 3.9 Thermal Loss (BTU/h) 107 108 M 112 Nominal Voltage ($\pm 10\%$) 100-240 V \oplus 50-60Hz Operating Voltage ($\pm 10\%$) 100-240 V \oplus 50-60Hz Ambient Relative Humidity 0° 45° C; 32° -113° F Ambient Relative Humidity 0° 45° C; 0° -45° C; 32° -113° F Remote Interface Au	Ma	ax outpu	t power @ 8 Ω (Bridged)	800 W	2800 W	4800 W	
distributed line 400 w 1800 w 3200 w Max Shared Power (all channels) 1200 W 4800 w 6400 W Max Unclipped Output Voltage @80 80 V_{peak} 142 V_{peak} 80 A_{peak} Maximum Output Current 33 A_{peak} 45 A_{peak} 80 A_{peak} POWER & THERMAL ALC-404D ALC-1604D ALC-3202D Idle Current Draw (A_{rms}) 0.45 0.47 0.31 Thermal Loss (BTU/h) 106 107 111 Thermal Loss (BTU/h) 221 823 780 Current Draw (A_{rms}) 2.1 7.7 7.0 Thermal Loss (BTU/h) 261 760 613 Thermal Loss (BTU/h) 107 108 112 Idle Current Draw (A_{rms}) 0.25 0.27 0.30 Thermal Loss (BTU/h) 107 108 112 Power (W) 251 840 755 Current Draw (A_{rms}) 1.4 4.3 3.9 Thermal Loss (BTU/h) 344 818 528 Power Supply Universal regulated switch mode with PEC SRM Nominal Voltage (± 10%) 100-240 V \otimes 50-60Hz $Operating Voltage (± 10%) 100-240 V \otimes 50-60HzOperating Vo$			400 W	1600 W	3200 W		
$\begin{split} \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			400 W	1600 W	3200 W		
Maximum Output Current33 Å praxk45 Å pravk80 Å pravkPOWER & THERMALALC-404DALC-164DALC-3202DPower (W)31.131.332.5Current Draw (A rms)0.450.470.311/8 PowerPower (W)227823780Current Draw (A rms)2.17.77.0Thermal Loss (BTU/h)2617606131/8 PowerCurrent Draw (A rms)0.250.270.301/8 PowerCurrent Draw (A rms)0.250.270.301/8 PowerPower (W)2518407551/8 PowerCurrent Draw (A rms)1.44.33.91/8 PowerPower (W)2518407551/8 PowerCurrent Draw (A rms)1.44.33.91/8 PowerCurrent Draw (A rms)1.44.33.91/8 PowerCurrent Draw (A rms)1.44.33.91/8 PowerCurrent Draw (A rms)1.44.33.91/8 PowerCurrent Draw (A rms)1.44.33.91/78 PowerCurrent Draw (A rms)1.001001001/9 PowerUniversal regulated switch mode with PFC, SRM528Nominal Voltage (± 10%)100-240 V @ 50-60Hz60-264 VOperating VoltageCurrent Drawer (with reduced power below 90 V)Ambient Relative Humidity0-95% (non-condensing)AC Mains ConnectorAuto-sensing Fast Ethernet (IE	Max Shared Power (all channels)		1200 W	4800 W	6400 W		
$\begin{array}{ c c c } $\operatorname{POWER} & \operatorname{THERMAL} & \operatorname{ALC-404D} & \operatorname{ALC-3202D} \\ $\operatorname{ALC-3202D} \\ $\operatorname{POWer}(W) & 31.1 & 31.3 & 32.5 \\ $\operatorname{Current} \operatorname{Draw}(A_{rms}) & 0.45 & 0.47 & 0.31 \\ \hline \mbox{Thermal Loss}(BTU/h) & 106 & 107 & 111 \\ \hline \mbox{Thermal Loss}(BTU/h) & 106 & 107 & 111 \\ \hline \mbox{Power} & 0.42 & 0.45 & 0.47 & 0.31 \\ \hline \mbox{Thermal Loss}(BTU/h) & 106 & 107 & 101 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 2.1 & 7.7 & 7.0 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 2.1 & 7.7 & 7.0 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 2.1 & 7.7 & 7.0 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 0.25 & 0.27 & 0.30 \\ \hline \mbox{Thermal Loss}(BTU/h) & 107 & 108 & 112 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Power} & 0.421 & 840 & 755 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Power} \mbox{Current} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Power} \mbox{Current} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Power} \mbox{Supported} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Current} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Power} \mbox{Supported} \mbox{Draw}(A_{rms}) & 1.4 & 4.3 & 3.9 \\ \hline \mbox{Power} \mbox{Supported} \mbox{Thermal Loss}(BTU/h) & 344 & 818 & 528 \\ \hline \mbox{Power} \mbox{Supported} \mbox{Thermal Loss}(BTU/h) & 100 - 24 V \oplus 50 - 60Hz \\ \hline \mbox{Operating} \mbox{Voltage} \mbox{$thread traw}(A_{rms}) \mbox$	Max Unclipped Output Voltage $@8\Omega$		$80 V_{peak}$	142 V _{peak}	142 V _{peak}		
$ \begin{array}{ c c c c } & \begin{tabular}{ c c } & \$	Ma	aximum	Output Current	33 A _{peak}	45 A _{peak}	80 A _{peak}	
$ \begin{array}{ c c c } \label{eq:current Draw (A_{rms})} & 0.45 & 0.47 & 0.31 \\ \hline Thermal Loss (BTU/h) & 106 & 107 & 111 \\ \hline Thermal Loss (BTU/h) & 227 & 823 & 780 \\ \hline 1/8 & Power (W) & 221 & 7.7 & 7.0 \\ \hline (e 4 \Omega) & Thermal Loss (BTU/h) & 261 & 760 & 613 \\ \hline Thermal Loss (BTU/h) & 261 & 760 & 613 \\ \hline Thermal Loss (BTU/h) & 31.5 & 31.6 & 32.8 \\ \hline (urrent Draw (A_{rms})) & 0.25 & 0.27 & 0.30 \\ \hline Thermal Loss (BTU/h) & 107 & 108 & 112 \\ \hline (urrent Draw (A_{rms})) & 1.4 & 4.3 & 3.9 \\ \hline (urrent Draw (A_{rms})) & 1.4 & 4.3 & 1.7 & (urrent Draw (A_{rms})) \\ \hline (urrent Draw (A_{rms})) & 1.4 & 4.3 & 1.7 & (urrent Draw (A_{rms})) \\ \hline (urrent Draw (A_{rms})) & 1.4 & 1.4 & 1.4 & 1$	P	OWER	& THERMAL	ALC-404D	ALC-1604D	ALC-3202D	
$\begin{array}{ c c c } \hline \begin{tabular}{ c c } \hline \begin$			Power (W)	31.1	31.3	32.5	
		Idle	Current Draw (A _{rms})	0.45	0.47	0.31	
	5 <		Thermal Loss (BTU/h)	106	107	111	
$\begin{array}{ c c c } \hline \begin{tabular}{ c c } \hline \begin$	<u>@</u> 11	1/0	Power (W)	227	823	780	
Image: Second	0	,	Current Draw (A _{rms})	2.1	7.7	7.0	
$ \begin{array}{ c c c } \hline \mbox{lumbbraic} \mbox{lumbbraic} \mbox{lumbbraic} \mbox{lumbbraic} \mbox{lumbbraic} \mbox{lumbbraic} \mbox{lumbraic} lu$		@ 4Ω	Thermal Loss (BTU/h)	261	760	613	
$\begin{tabular}{ c c c c } \hline \begin{tabular}{ c c c } \hline \begin{tabular}{ c c c } \hline \begin{tabular}{ c c } \hline tabu$			Power (W)	31.5	31.6	32.8	
(a)1/8 Power (@ 4\Omega AQPower (W)1.44.33.9Thermal Loss (BTU/h)344818528Power SupplyUniversal regulated switch mode with PFC, SRMNominal Voltage (\pm 10%)100-240 V @ 50-60HzOperating Voltage $60-264 V$ (with reduced power below 90 V)Ambient Operating Temperature $0^{\circ} - 45^{\circ} C$; $32^{\circ} - 113^{\circ} F$ Ambient Relative Humidity $0-95\%$ (non-condensing)AC Mains ConnectorIEC C20 inlet (20 A max) Region-specific power cord providedNETWORKINGStandards ComplianceStandards ComplianceAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Supported TopologiesStarPHYSICAL $1.75'' \times 19.0'' \times 14.7''$ (44 \times 483 \times 373 mm)WeightALC-404D ALC-1604DShipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)	@ 230 V	Idle	Current Draw (A _{rms})	0.25	0.27	0.30	
(a)1/8 Power (@ 4\Omega AQPower (W)1.44.33.9Thermal Loss (BTU/h)344818528Power SupplyUniversal regulated switch mode with PFC, SRMNominal Voltage (\pm 10%)100-240 V @ 50-60HzOperating Voltage $60-264 V$ (with reduced power below 90 V)Ambient Operating Temperature $0^{\circ} - 45^{\circ} C$; $32^{\circ} - 113^{\circ} F$ Ambient Relative Humidity $0-95\%$ (non-condensing)AC Mains ConnectorIEC C20 inlet (20 A max) Region-specific power cord providedNETWORKINGStandards ComplianceStandards ComplianceAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Supported TopologiesStarPHYSICAL $1.75'' \times 19.0'' \times 14.7''$ (44 \times 483 \times 373 mm)WeightALC-404D ALC-1604DShipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)			Thermal Loss (BTU/h)	107	108	112	
$\begin{array}{ c c c } \hline Power \\ \hline @ 4\Omega & \hline \ Thermal Loss (BTU/h) & 1.4 & 4.3 & 3.9 \\ \hline \ Thermal Loss (BTU/h) & 344 & 818 & 528 \\ \hline \ Power Supply & Universal regulated switch mode with PFC, SRM \\ \hline \ Nominal Voltage (\pm 10%) & 100-240 V @ 50-60Hz \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$		1/9	Power (W)	251	840	755	
Thermal Loss (BTU/h)344818528Power SupplyUniversal regulated switch mode with PFC, SRMNominal Voltage (± 10%)100-240 V @ 50-60HzOperating Voltage60-264 V (with reduced power below 90 V)Ambient Operating Temperature0° - 45° C; 32° - 113° FAmbient Relative Humidity0-95% (non-condensing)AC Mains ConnectorIEC C20 inlet (20 A max) Region-specific power cord providedNETWORKINGAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Supported TopologiesStarRemote InterfaceArmoniaPlus* System ManagerPHYSICAL1.75" x 19.0" x 14.7" (44 x 483 x 373 mm)WeightALC-404D ALC-1604DShipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)		,	Current Draw (A _{rms})	1.4	4.3	3.9	
Power Supplywith PFC, SRMNominal Voltage (± 10%)100-240 V @ 50-60HzOperating Voltage60-264 VOperating Voltage60-264 VAmbient Operating Temperature0° - 45° C; 32° - 113° FAmbient Relative Humidity0-95% (non-condensing)AC Mains ConnectorIEC C20 inlet (20 A max) Region-specific power cord providedNETWORKINGStandards ComplianceAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Supported TopologiesStarPHYSICAL1.75" x 19.0" x 14.7" (44 x 483 x 373 mm)WeightALC-404D ALC-1604DShipping Weight 25 Ibs (11.3 kg) 26 Ibs (11.8 kg)		@ 4Ω	Thermal Loss (BTU/h)	344	818	528	
Operating Voltage60-264 V (with reduced power below 90 V)Ambient Operating Temperature0° - 45° C; 32° - 113° FAmbient Relative Humidity0-95% (non-condensing)AC Mains ConnectorIEC C20 inlet (20 A max) Region-specific power cord providedNETWORKINGIEC C20 inlet (20 A max) Region-specific power cord providedStandards ComplianceAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Supported TopologiesStarPHYSICAL1.75″ x 19.0″ x 14.7″ (44 x 483 x 373 mm)WeightALC-404D ALC-1604DShipping Weight 25 Ibs (11.3 kg) 26 Ibs (11.8 kg)	Power Supply						
Operating Voltage(with reduced power below 90 V)Ambient Operating Temperature0° - 45° C; 32° - 113° FAmbient Relative Humidity0-95% (non-condensing)AC Mains ConnectorIEC C20 inlet (20 A max) Region-specific power cord providedAC Mains ConnectorAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Standards ComplianceAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Supported TopologiesStarPHYSICAL1.75″ x 19.0″ x 14.7″ (44 x 483 x 373 mm)WeightALC-404D ALC-1604DShipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)	No	ominal V	oltage (± 10%)	100-240 V @ 50-60Hz			
Ambient Relative Humidity 0-95% (non-condensing) AC Mains Connector IEC C20 inlet (20 A max) Region-specific power cord provided NETWORKING Region-specific power cord provided Standards Compliance Auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s) Supported Topologies Star Remote Interface ArmoníaPlus* System Manager PHYSICAL 1.75″ x 19.0″ x 14.7″ (44 x 483 x 373 mm) Weight Unit Weight ALC-404D ALC-1604D Shipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)	Operating Voltage						
AC Mains Connector IEC C20 inlet (20 A max) Region-specific power cord provided NETWORKING Standards Compliance Auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s) Supported Topologies Star Remote Interface ArmoniaPlus* System Manager PHYSICAL 1.75" x 19.0" x 14.7" (44 x 483 x 373 mm) Dimensions H x W x D 1.75" x 19.0" x 14.7" (44 x 683 x 373 mm) Weight Unit Weight ALC-404D ALC-1604D Shipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)	Ar	nbient C	Operating Temperature	0° - 45° C; 32° - 113° F			
AC Mains Connector Region-specific power cord provided NETWORKING Standards Compliance Auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s) Supported Topologies Star Remote Interface ArmoniaPlus* System Manager PHYSICAL Dimensions H x W x D 1.75″ x 19.0″ x 14.7″ (44 x 483 x 373 mm) Weight ALC-404D ALC-1604D 17.3 lbs (7.3 kg) 25 lbs (11.3 kg) 26 lbs (11.8 kg)	Ar	nbient F	elative Humidity	0-95% (non-condensing)			
Standards ComplianceAuto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)Supported TopologiesStarRemote InterfaceArmoniaPlus* System ManagerPHYSICAL1.75" x 19.0" x 14.7" (44 x 483 x 373 mm)Dimensions H x W x D1.75" x 19.0" x 14.7" (44 x 483 x 373 mm)WeightUnit Weight ALC-404D ALC-1604DShipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)	AC Mains Connector		Region-specific power cord				
Standards Compliance (IEEE 802.3u, 100 Mbit/s) Supported Topologies Star Remote Interface ArmoniaPlus* System Manager PHYSICAL 1.75" x 19.0" x 14.7" (44 x 483 x 373 mm) Dimensions H x W x D 1.75" x 19.0" x 14.7" (44 x 483 x 373 mm) Weight Unit Weight ALC-404D ALC-1604D Shipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)	N	ETWO	RKING				
Remote InterfaceArmoniaPlus* System ManagerPHYSICAL1.75" x 19.0" x 14.7" (44 x 483 x 373 mm)Dimensions H x W x D1.75" x 19.0" x 14.7" (44 x 483 x 373 mm)WeightUnit Weight ALC-404D ALC-1604DShipping Weight 25 lbs (11.3 kg) 26 lbs (11.8 kg)	Standards Compliance		0				
Dimensions H x W x D 1.75" x 19.0" x 14.7" (44 x 483 x 373 mm) Weight Unit Weight Shipping Weight ALC-404D 16.2 lbs (7.3 kg) 25 lbs (11.3 kg) ALC-1604D 17.3 lbs (7.8 kg) 26 lbs (11.8 kg)	Supported Topologies		Star				
Dimensions H x W x D 1.75" x 19.0" x 14.7" (44 x 483 x 373 mm) Weight Unit Weight Shipping Weight ALC-404D 16.2 lbs (7.3 kg) 25 lbs (11.3 kg) ALC-1604D 17.3 lbs (7.8 kg) 26 lbs (11.8 kg)	Remote Interface			ArmoníaPlus® System Manager			
Dimensions H X W X D (44 x 483 x 373 mm) Weight Unit Weight Shipping Weight ALC-404D 16.2 lbs (7.3 kg) 25 lbs (11.3 kg) ALC-1604D 17.3 lbs (7.8 kg) 26 lbs (11.8 kg)	Pŀ	HYSICA					
ALC-404D 16.2 lbs (7.3 kg) 25 lbs (11.3 kg) ALC-1604D 17.3 lbs (7.8 kg) 26 lbs (11.8 kg)	Dimensions H x W x D						
	ALC-404D			16.2 lbs (7	.3 kg) 25	bs (11.3 kg)	

ALC-404D

ALC-1604D

ALC-3202D

OUTPUT STAGE*

biamp.

A: 9300 S.W. Gemini Drive Beaverton, OR 97008 USA

+1 503.641.7287

TECHNICAL DRAWING / DIMENSIONS / WEIGHTS

HxWxD

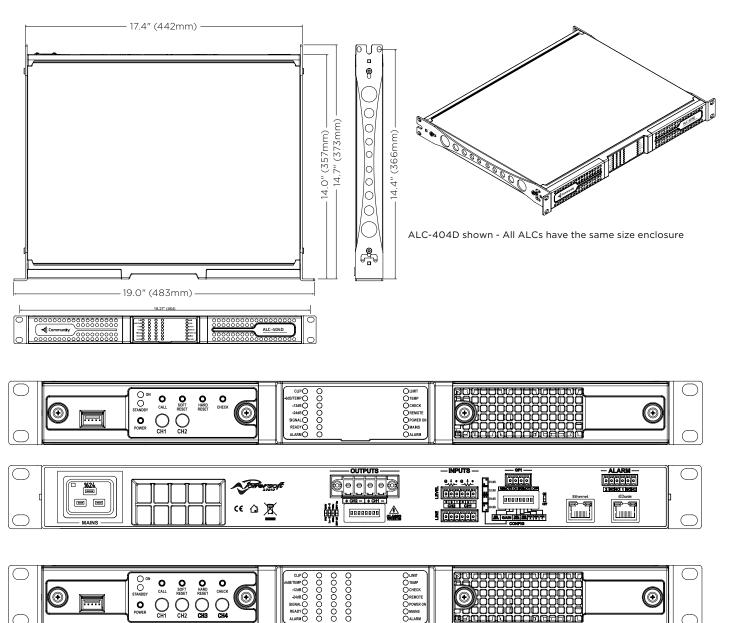
1.75" x 19.0" x 14.7" (44 x 483 x 373 mm)

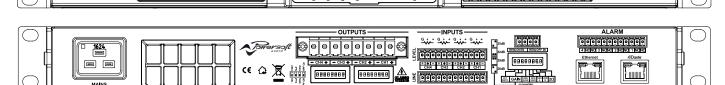
Unit Weight

ALC-404D: 16.2 lbs (7.3 kg) ALC-1604D: 17.3 lbs (7.8 kg) ALC-3202D: 17.2 lbs (7.8 kg)

Shipping weight

ALC-404D: 25 lbs (11.3 kg) ALC-1604D: 26 lbs (11.8 kg) ALC-3202D: 25 lbs (11.3 kg)





4-Channel front (without covers) and back panels