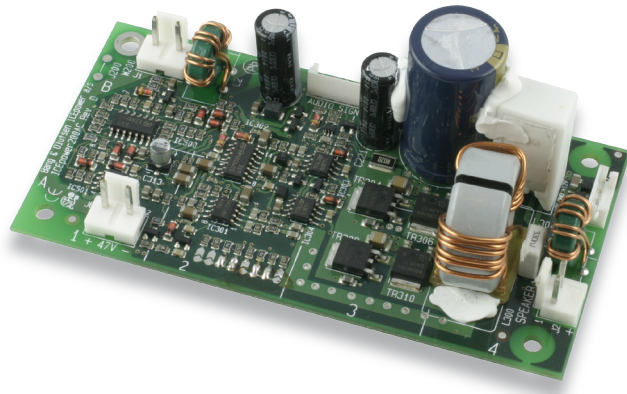


ICEpower200AC

Compact Audio Amplifier Module

200W @ 0.2% THD+N



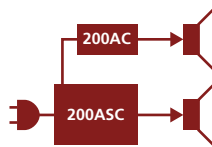
Dimensions: 10.7 x 5.5 x 3.3 cm

The ICEpower200AC is an intelligent 200W audio amplifier solution designed particularly for highly competitive consumer, professional and multimedia audio applications. The ICEpower200AC can be used separately or as a supplement to ICEpower modules with integrated power supply for compact multi-way or multi-channel solutions.

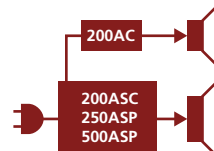
The ICEpower200AC can be powered from the ICEpower200ASC, ICEpower250ASP and ICEpower500ASP amplifiers. Each of these amplifiers are able to power up to two additional ICEpower200AC amplifier modules from the integrated power supply. The ICEpower200AC is pre-approved for safety and EMC to reduce design-in cost and shorten Time-to-Market.

Applications

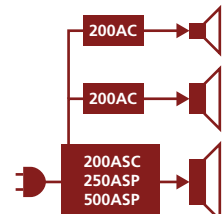
- Active speakers
- Stereo or multichannel amplifiers
- Multimedia and installation audio



Stereo



2-Way Speaker



3-Way Speaker

Key Specifications

- 200W @ 0.2% THD+N / 4Ω, 1kHz, 47V_{DC}
- Short term maximum power 290W @ 10% THD+N / 4Ω
- Full audio bandwidth (68kHz/8Ω)
- State-of-the-art audio performance
 - 110dBA dynamic range
 - THD+N = 0.008% @ 1W/100Hz
 - THD+N < 0.2%, 100mW < P_o < 200W, 4Ω
- 89 % efficiency, 100W/8Ω

Key Features

- Input signal soft clipper for enhanced sound quality with heavy loads
- Balanced audio input and balanced power output
- Thermal, under voltage and overcurrent protection features
- EMI conforms to: EN55013, FCC part 15, EN55020
- Safety conforms to: IEC 60065 7. ed (2001), UL 6500 ed. 2, CSA E60065 ed. 6.

Technical Specifications ICEpower200AC

Audio Specifications

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
THD+N	THD+N in 4Ω (AES17 measurement filter) ¹⁾	f = 100Hz, P _o = 1W	-	0.008	0.02	%
THD+N	Max. THD+N in 4Ω (AES17 measurement filter) ¹⁾	230V _{ac} / 50Hz 10Hz < f < 20kHz 100mW < P _o < 200W	-	0.2	0.3	%
V _{N,O}	Output referenced idle noise	A-weighted 10Hz < f < 20kHz	75	90	125	μV
A _v	Nominal Voltage Gain	f = 1 kHz	26.3	26.8	27.3	dB
f	Frequency response	20Hz - 20kHz, All loads	-	±0.5	±1.0	dB
f _u	Upper bandwidth limit (-3dB)	R _L = 8Ω R _L = 4Ω	-	68 50	-	kHz
f _l	Lower bandwidth limit (-3dB)	R _L = All Loads	-	3.5	-	Hz
Z _o	Abs. output impedance	f = 1kHz	-	10	20	mΩ
Z _L	Load impedance range		3	4	∞	Ω
D	Dynamic range	A-weighted at 200W@4Ω	107	110	111	dB
IMD	Intermodulation (CCIF)	f = 14kHz, 15kHz, P _o = 10W	-	0.0005	-	%
TIM	Transient intermodulation (TIM)	f ₁ = 3.15kHz square, f ₂ = 15kHz, P _o = 10W	-	0.004	-	%

Power Specifications

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V _p	Power Supply	Operation	22	47	50	V
P _o	Output power @ 1% THD+N 10Hz < f < 20kHz, R _L = 4Ω (AES17 measurement filter) ¹⁾	V _{DC} = 47V	-	230	-	W
I _{VP}	Quiescent current	V _p = 47V	-	30	-	mA
I _{VCC}	Quiescent current	V _{CC} = 12V	-	70	-	mA
I _{VSS}	Quiescent current	V _{SS} = -12V	-	20	-	mA
η	Power stage efficiency	R _L = 8Ω, P _o = 100W		89		%

1) An AES17, 20 kHz 7th order measurement filter from Audio Precision is used for measurements. The frequency 6.67kHz corresponds to the worst-case situation where both 2nd and 3rd harmonics are within the audio band.

