

# CONTRACTOR PRECISION SERIES PROFESSIONAL POWER AMPLIFIERS



PROFESSIONAL POWER AMPLIFIERS FOR FIXED INSTALLATIONS

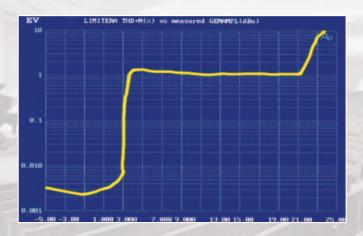


# CONTRACTOR PRECISION SERIES PROFESSIONAL POWER AMPLIFIERS

### COMPLETE PROTECTION

The extensive and complete protection system features comparator circuitry, which constantly monitors the input and output signals and activates the internal limiters whenever a nonlinear operational state is encountered. This provides reliable protection of the connected loudspeaker systems against overload and clipping as well as on-board protection against thermal and capacitive overload, short-circuit and the occurrence of HF or DC at the output.

Additionally, special circuitry prevents the output-stage transistors from being damaged by Back-EMF. During soft start, delayed switching of the power outputs is accomplished via relays and a limiter controls the initial current inrush, preventing the mains fuse from being blown during the power-on operation.



## SUPERIOR FLEXIBILITY

All models feature electronically balanced inputs that are provided via XLR-type and Phoenix connectors, which are also used to loop the signal through. Using the Input Routing switches lets you determine if the amplifiers are operated in stereo or monaural mode; "monobridged" operation is also possible.

The dB-scaled level controls are to be found on the rear panel. These potentiometers guarantee precise and reliable operation. In normal operation all CPS power amplifiers can be used to drive loads down to 2 ohms; in bridged mode the minimal load

is 4 ohms. All amps are equipped with silent running fans providing front-to-rear air circulation, guaranteeing trouble-free operation even in smaller power amplifier rack systems.



## THE CPS ORIGINAL AMPLIFIERS Exceptional Reliability and Value

The original CPS power amplifiers have provided reliable, clean power amplification in thousands of fixed audio installations worldwide. The CPS1, 2 and 2T continue to offer excellent value

for a variety of installations in churches, auditoriums, convention centers, factories, stadiums, and so forth: anywhere reliable performance is needed and space is not at a premium.



The CPS1 can deliver up to 450 watts of power at 1kHz into 4 ohms. The CPS 1 has been extremely popular in smaller venues such as houses of worship, retail spaces, and entertainment venues where background or foreground music is needed.

The CPS2 incorporates all the advanced features of the CPS1 but can deliver up to 600 watts of power at 1kHz into 4 ohms.

The CPS2T offers all the performance of the CPS2 and adds the capability of 70v/100v constant voltage operation. It also features Transformer Saturation Protection (TSP) that monitors the current demands of the 70v/100v matching transformer and can protect against overload and distortion. The exceptional reliability and performance of the CPS2T has made it the amplifier of choice for a wide variety of distributed audio installations such as convention centers, factories, warehouses, stadiums, office buildings, and so forth. Anywhere large amounts of reliable 70v amplifier power is needed, the CPS2T can meet the spec easily.



"All Contractor Precision Series amplifiers are made to meet the highest requirements of any demanding application. The mechanical construction follows the highest precision standards of the industry. Now with the addition of the Class-H series, their flexibility is unmatched!"

### THE CPS CLASS-H HIGH EFFICIENCY SERIES

With EV's new CPS Class-H series you get more of what you have come to expect from EV's original CPS power amplifiers:

- HIGHER EFFICIENCY
- MORE FLEXIBILITY
- MORE COMPACT FORMAT

These state-of the art power amplifiers offer our proven original CPS performance and reliability in a new compact, lightweight format. This is made possible by incorporating a highly efficient Class-H design, which results in substantially less heat being generated. This allows the overall size of the amplifier to be reduced substantially without sacrificing performance or reliability. In addition, new features enhance the operational flexibility in many of your installations. And all of this is coupled to our comprehensive protection package present in all EV CPS amplifiers.

### INNOVATIVE ENGINEERING MEANS EXTRA RELIABILITY

In EV's Class H design, rather than supplying the voltage for the maximum output power permanently, the permanent voltage rail is designed to cover the average music signal. If dynamic peaks require a higher output voltage, the voltage rail is switched to the maximum. This process saves nearly 50% of the power consumption in a conventional design and results in a dramatic reduction in heat output. The real test in a successful Class-H design is to make the voltage switching totally unaudible to the user. This is where EV's amplifier engineering excellence makes the difference over other so-called "switching" designs. The audio performance

of the CPS Class-H amplifiers speaks for itself. They truly set the new standard in Class-H amplifiers and meet the expectations we set in the original CPS models. All the CPS amplifiers have the ability to accept the XC crossover/filter cards. The 24dB crossover cards send by default lo-pass signal on channel A and hi-pass signal on channel B, but could be modified differently if needed. The XC5 for example is the perfect card to make a CPS2 or a CPS 2.6 or CPS2.8 to drive a standard cinema 2-way system. The XHP card with variable 12dB hi-pass filters per channel has a dedicated setting for the Sx600PI/PIX.

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#### ALL THIS ADDS UP TO EXTRA PERFORMANCE

The CPS Class H series of amplifiers deliver state-of-the art performance. All four models are capable of remote control activation with adjustable power-on delay times saving time and money in larger installs with central power distribution.

The specifications speak for themselves. Four models are available ranging from 400 watts/channel all the way up to 1100 watts per channel into 4 ohms.

EV CPS2.6

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FY CPS2.8

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CONTRACTOR PRECISION ISSUES

LET CPS2.8

CONTRACTOR PRECISION ISSUES

LET CPS2.11

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The CPS2.4 is ideal for smaller full range systems or larger mid/high frequency amplification in larger installations. The CPS2.4 is an ideal companion to the popular EVID line of premium surface mount and ceiling speaker systems.

The workhorse of the line. Its 600 watts of compact power is perfect for mid level full range installs.

At 800 watts per channel the CPS2.8 is the best values in the line. It can power a wide range of speaker cabinets either in multi-way or full range modes for a large range of fixed installation jobs.

No power amplifier on the market can offer such a high level of power performance and reliability. At 1100 watts/channel the CPS2.11 can power large stadium, theatre and auditorium type installations with ease.



#### **SPECIFICATIONS**

	C	CPS	1	CPS 2			CPS 2T			CPS 2.4			CPS 2.6			CPS 2.8			CPS 2.11			
LOAD IMPEDANCE:	2 Ω	4 Ω	8 Ω	2 Ω	4Ω	8 Ω	2 Ω	4 Ω (100V/70V)	8 Ω	2 Ω	4 Ω	8 Ω	2 Ω	4 Ω	8 Ω	2 Ω	4 Ω	8 Ω	2 Ω	4 Ω	8 Ω	
MAX. MIDBAND OUTPUT POWER THD = 1%, 1kHz, Dual Channel	650W	450W	280W	850W	600W	350W	850W	600W (590/580W)	380W	600W	400W	240W	900W	600W	350W	1100W	800W	500W	1600W	1100 W	600W	
RATED OUTPUT POWER THD = 0,1 %, 20 Hz kHz	-	350W	230W	-	500W	300W	-	500W (590/580W)	330W	-	300W	150W	-	500W	250W	-	700W	350W	-	900W	450W	
MAX. BRIDGED OUTPUT POWER THD = 1%, 1 kHz	-	1300W	900W	-	1700W	1200W		1700W	1200W	-	1240W	800W	-	1800W	1200W	-	2200W	1600W	-	3200W	2200W	
MAXIMUM RMS VOLTAGE SWING THD = 1%, 1 kHz		56 V		64 V			52 V	52 V (121V/88V)	52 V		50 V			62 V			72 V			78 V		
POWER BANDWIDTH THD = 1%, 1kHz, half power @ 4 $\Omega$	10 Hz 60 kHz																					
VOLTAGE GAIN ref. 1 kHz	32.5 dB			33.5 dB			35.0 dB (42/39 dB)			32.0 dB			32.0 dB			32.0 dB			32.0 dB			
INPUT SENSITIVITY Rated power @ 8 Ω, 1 kHz	+2.2 dBu (1.0 Vrms)			+2.2 dBu (1.0 Vrms)			0 dBu (0.775 Vrms)			+1.15 dBu (0.88 Vrms)			+3.2 dBu (1.12 Vrms)			+4.7 dBu (1.33 Vrms)			+5.8 dBu (1.51 Vrms)			
THD @ rated output power (<0.1%, CPS2T@100V)		< 0.05 %																				
IDE- SMTP 60 Hz, 7kHz	< 0.08 %			< 0.08 %			< 0.08 % (<0.1%@100V)			< 0.02 %			< 0.02 %			< 0.02 %			< 0.02 %			
DIM30 3.15 kHz, 15 kHz	<0.03%			<0.03%			<0.03% (<0,1%CPS2T@100V)			< 0.01 %			< 0.01 %			< 0.01 %			< 0.05 %			
MAXIMUM INPUT LEVEL	+22 dBu (9.76 Vrms)																					
CROSSTALK ref. 1 kHz, rated output power	< -80 dB																					
FREQUENCY RESPONSE ref. 1 kHz	15 Hz 40 kHz (±1 dB)																					
INPUT IMPEDANCE active balanced	20 kΩ																					
DAMPING FACTOR 1 kHz	> 300																					
SLEW RATE	25 V/μs			30 V/μs			30 V/μs			35 V/μs			35 V/μs			35 V/μs			35 V/μs			
SIGNAL TO NOISE RATIO (A-weighted)	>105dB				>105dB		>100dB			103,5 dB			105,5 dB			107 dB			107 dB			
POWER REQUIREMENT	240 V, 230 V, 220 V, 120 V or 100 V ; 50 60 Hz (factory configured)																					
POWER CONSUMTION	690W		870W		870W		600W		500W		660W		820W									
POWER DISSIPATION 1/8 max. output power @ 4 $\Omega$	510W	(1730B	TU/hr)	650W	(2220B	TU/hr)	650W	(2220B	TU/hr)	396W	(1350B	TU/hr)	260W	/ (885BT	U/hr)	320W	(1090B	TU/hr)	396W	(1350B	TU/hr)	
PROTECTION				Audi	o Limite	rs, High	Temper	ature, D	C, HF, B	ack-EMI	, Peak c	urrent Li	imiters, I	nrush Cı	urrent Li	miters, 1	Turn-On	delay				
COOLING									F	ront to	Rear, 3-	stage Fa	ans									
DIMENSIONS (W x H x D)					m x 132,5 mm x 386.8 mm 19" x 5.22" x 15.22")				m			483 mm x 88.1 mm x 386.8 mm (19" x 3.5" x 15.22")										
WEIGHT	15 kg (33.1 lbs)			16 kg (35.3 lbs)			22.5 kg (49.6 lbs)			13.5 kg (30.8 lbs)			15 kg (33 lbs)			16 kg (35.2 lbs)			8.15 kg (17.96 lbs)			
OPTIONAL ACCESSORY							Rear-Ra	ack Mou	ınt Kit 1	18" (D)	112933	, Filter	cards pl	ease see	below!							

Note: all measurements both channels driven into 8 Ohms unless otherwise specified.

**XC SERIES FILTER CARDS for CPS AMPLIFIERS:** All CPS amplifiers have the ability to accept XC crossover/filter cards. The 24dB crossover cards (Linkwitz-Riley) send by default lo-pass signal on channel A and hi-pass signal on channel B, but could be modified differently if needed. The XC5 for example is the perfect card to make a CPS2 or a CPS 2.6 or CPS2.8 to drive a standard cinema 2-way system (e.g. TS9040D-LX). The XHP card with variable 12dB hi-pass filters per channel has a dedicated setting for the Sx600PI/PIX.

XC5 500 Hz crossover point • XC8 800 Hz crossover point • XC8 800 Hz crossover point • XC12 1200 Hz crossover point • XHP 12dB Hi-Pass variable (80Hz-300Hz) or Sx600PI/Sx600PIX



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