

PrimaLuna EVO 300 Hybrid

PrimaLuna's tradition of user-tweakable tube amps continues, this time by 'tweaking' its own EVO 300 model with a solid-state output stage. Welcome, PL's first hybrid...

Review: Ken Kessler Lab: Paul Miller

OK, OK, there are those who think 'hybrid' is a dirty word. If your glass is half-empty, it signifies compromise, or – worse – indecisiveness. If you're a cynic, then it's purely a commercial choice. But if your glass is half-full, then it's a convenient solution to various problems. As PrimaLuna has only ever made all-valve amplifiers, the company's first hybrid needs some explaining. More to the point, at £6198, the PrimaLuna EVO 300 Hybrid – clearly related to the all-tube EVO 300 [HFN Mar '21] – is its costliest product.

I knew Herman van den Dungen long before he launched PrimaLuna in 2003, when he was mainly a high-end distributor, so I know that his rationale for producing an integrated amp with a tube front-end and FET output is driven by this experience. His secret weapon is designer Jan de Groot, who has been working with FETs for over a quarter-century. But now Herman has decided to address, for example, demands for copious power, and has chosen FETs as a far more efficient way of pumping out in excess of 100W/ch than via valves [see PM's Lab Report, p65].

FLOYD, NOT PINK

Herman explained that he's dealing with a mixed bag of issues, one of which is how to use the name 'Floyd' as a separate line or division within PrimaLuna. He hastened to tell me that it's his love for Pink Floyd which led to using it, which is no different than Steve Jobs coming up with 'Apple' because he adored the Beatles.

As for beefy FETs, Herman – as a veteran distributor – knows that the marketplace is full of absurdly hungry or difficult speakers, which benefit from excess power and the promise of limitless headroom. So, before even getting to the SQ section [p63], I can tell you that the EVO 300 Hybrid managed

RIGHT: Underneath the EVO 300 Hybrid reveals the bases [bottom] and L/R PSUs [top] for its two input and four 12AU7 driver triodes. The 500VA PSU transformer and Exicon MOSFET-based power amp (on heatsinks) are situated topside

to drive my Wilson Sasha DAWs [HFN Mar '19] and – yes – LS3/5As [HFN Dec '18 and Jul '19] with far greater aplomb than did the EVO 300, and that amp is no slouch. Perhaps I was tipped off by its size and weight that the EVO 300 Hybrid was not gonna be 'all show and no go', with its 385x405mm (wxd) footprint and a heft of 25kg. Yeah, I'm a tyre-kicker, too.

In contemporary fashion, the EVO 300 Hybrid features an all-tube preamp section containing, in this instance, six hand-selected 12AU7s (two for input duties and four as drivers). It provides five line-level inputs, a home theatre bypass, tape and sub outputs and a mono/stereo switch, but

only one set of speaker terminals, where the all-tube EVO 300, by necessity, offers a choice of 4 and 8ohm transformer taps.

BOLT-ON PHONO

The amp will also accommodate an optional £150 MM phono board, pictured on p65 but not fitted to my review sample. Without wishing to underestimate the add-on MM stage, anyone dropping six big ones on an integrated amp is likely to have a pretty good cartridge, probably an MC, so I would start with one of the circa-£500 phono stages from MoFi [HFN Mar '20] or Pro-Ject [HFN Jul '20], which also offer good adjustability.

'The drums panned across a cavernous soundstage'



LEFT: The EVO chassis has rotaries for motorised volume and input selection. Three 12AU7 double-triodes are used per channel in the preamp stage while the MOSFET power amp is 'hidden' inside the amplifier's rear enclosure

As for the rest, this is familiar PrimaLuna territory with an on/off rocker on the left and another on the right to mute the speakers if you're using headphones and want the main speakers off. At least PrimaLuna gives you the choice, as opposed to headphone outputs which automatically mute the output.

On the front panel, to the right of the rotary for the five line inputs and AV throughput, is the single-ended 6.35mm headphone socket, conveniently near the aforementioned speaker-off rocker. On the far left is the (motorised) level control, and a nicely-machined remote is supplied, too [pictured, p65]. Add to it PrimaLuna's rugged enclosure for the main PSU and MOSFET heatsinks, the blue/black chassis finish contrasting with the silver fascia (or black, if you wish), and you have a

handsome, confidence-inspiring amplifier ready to fight it out with the big boys.

FINELY FET-TLED

And fight it out it does. Although I am known for a predilection toward valves – tell a lie: I *always* prefer valves – van den Dungen and de Groot and the rest of the PrimaLuna team have voiced this with a pin-point focus on achieving the best of the two technologies. To answer the most obvious question, yes, this sounds like an EVO 300 on steroids, but it tempers that amplifier's all-tube warmth with a detectable but not intrusive whiff of added incisory precision and detail retrieval.

It didn't strike me as quieter or more transparent, so I had to listen closely to hear which of the FETs' virtues enhanced the basic all-tube EVO 300's presentation.

HYBRID HISTORY

Back in the mists of time, *all* amplifiers were tube amps but the first *hybrid* designs – a mix of tubes and transistors – appeared in the early '60s typically involving small-signal transistors driving big bottle output stages. Robust power transistors had yet to be created but once they arrived, in volume and at an agreeable price, then fully-transistorised amplifiers stormed into the ascendant, dominating the audio scene from the late '60s to the present day. Nevertheless audiophiles love a niche, so just as SET triode amps will always have their fervent clique so too has a larger body of enthusiasts sought to combine the sweet sound of tubes with the speaker-driving grunt of a beefy transistor output.

Designer Bascom H King set the ball rolling with his HCA (Hybrid Class A) amplifier in 1979, his combination of industrial-grade triode tubes driving a fan-cooled transistor output stage claimed a rated 150W/8ohm. And with power MOSFETs making their own mark on the high-end hi-fi scene in the early 1980s, the marriage of a high voltage triode line stage driving a high-current FET output achieved a synergy all its own. Not all modern tube/tranny hybrids use traditional FET power amps – some even mix triodes with Class D outputs [see PS Audio's M1200, HFN Jan '21] – but it remains a popular combination, as evidenced here by the collaboration of PrimaLuna with parent company Durob's Floyd Design. Tube/transistor hybrid amps are certainly gaining increased traction with fellow audiophiles – in the last couple of years we've featured the Vinnie Rossi L2i-SE [HFN Jul '20], the Supravox Vouvray [HFN Dec '20], the Copland CSA100 and CSA150 [HFN Aug '20/Jun '21] and BAT VK-3500 [HFN Sept '21]. PM

It was revealed immediately through Dennis Wilson's distinctive drumming on the 'basic track' take of 'Susie Cincinnati' from The Beach Boys' *Feel Flows* [Universal/Capitol/Brother 02508 80218 CD box set]. The drums are panned across the soundstage, displaying a papery dryness which made me think of old Crickets' recordings, and my Wilson DAWs certainly were called upon to shift a load of air.

Through that track, the EVO 300 Hybrid exhibited a facility for two separate, arguably unconnected types of smooth transitions. In the physical sense, the left-right panning of the sound was flawless, while the other transition, from loud-to-soft, was equally consistent. These contribute to a sense of wholeness, which hit home with The Beach Boys' signature high-ish vocals hovering above the percussion and the rich bass. Nothing sounded disparate, as if to belie any fear that hybrid amps have a split personality.

From the same box set, I couldn't resist my all-time fave 'liquidity' test track, 'Don't Go Near The Water'. There are sounds obviously designed to suggest the presence of H₂O, and The Beach Boys achieved this with the facility of Disney's animators in *Pinocchio*. Let's not mince words: the EVO 300 Hybrid, again dispelling fears of hi-fi hybridisation, has a seamlessness which calls to mind that audio unicorn – the perfect full-range, crossover-less driver.

A QUESTION OF VOICE

What this translates to, for those who approach the EVO 300 Hybrid predisposed more toward valves than solid-state (the ideal customer for this amplifier with be resolutely neutral about both technologies), is proof that there are tubes under the lid. I have no problem with all-tranny/FET amps, which always struck me as more tube-like than other solid-state types, so hybrids certainly inspired no

LAB REPORT

PRIMALUNA EVO 300 HYBRID



ABOVE: The EVO 300 Hybrid offers five line inputs, an HT bypass, tape out and sub/mono line outs with single 4mm speaker outputs configurable for stereo or (bridged) mono operation. Optional MM phono module also shown here

trepidation, but I was beginning to suspect that Herman had overruled Jan in the voicing of this amp – the tube front-end most assuredly *is not* overwhelmed by the FET output.

Going all-analogue, I left CD for open-reel, opting for the exquisitely recorded Dixie Rebels' eponymous album [Command RS4T-801]. If you recognise the label, then you'll know we're in the presence of an early audiophile recording of extreme left-right stage extension, better to demonstrate stereo back when JFK was still a senator and The Beatles had yet to play in Hamburg.

MARDI GRAS

It's got everything you want to test a system, including punchy trumpets, sinewy clarinet, and deliciously sleazy, brothel-band drumming – the whole New Orleans shtick. What lifts it to the level of hi-fi showstopper demo tape are smooth, extended bass such as no LP can manage, the attack of the brass, and that disconcerting space in the middle that makes speaker listening seem like headphone usage.



It takes a while to get used to the cavernous extremities of the sound picture, until you realise that there's loads of atmospheric sound in the middle. The EVO 300 Hybrid

LEFT: PrimaLuna's system remote offers transport controls for its CD players, input select, volume and mute for its amplifiers (plus ultralinear/triode switching for its pure tube models)

handled this air with such incredible gracefulness and delicacy that I played the tape through another, all-tube set-up, followed by a hybrid pairing of valve preamp feeding a solid-state D'Agostino Momentum power amp [*HFN* Jul '11], to reassure myself that I wasn't going soft. The EVO 300 Hybrid nestled somewhere in the middle, with slightly less warmth than the all-tube playback, especially the astounding drum solos in 'Panama', but also with audibly less impact than via the Momentum. But at, what, six times the price?

As for my ultimate vocals test track – Lou Rawls' 'At Last' from the album of the same name [Blue Note CDP 7 91937 2] – the trial of reproducing two contrasting vocals, with textures so dissimilar that they can't even share opposing corners in a Venn diagram, was child's play for the EVO 300 Hybrid. Amusingly, it was as if (and I know this is even less likely than saying 'the little notes go down the little wires, etc') the tubes were dealing with Lou, while the power FETs were taking care of Dianne Reeves. I may be imagining it, but it works for me. ☺

HI-FI NEWS VERDICT

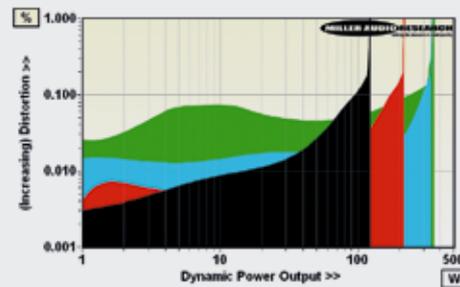
In a sector packed with superb integrated amps, including others which marry tubes and transistors, PrimaLuna's EVO 300 Hybrid strikes a magical balance that will either confuse or delight you. If you're expecting an irreconcilable sonic conflict in a hybrid, this will baffle you. But if you're open-minded, it proves that you can have your cake, eat it, and have enough cash left over for a good bottle of wine.

Sound Quality: 87%

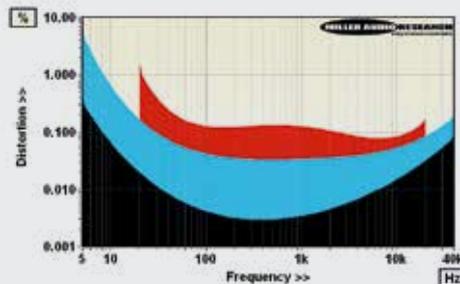


Combining a triode line stage with a FET output need not mean 'triode/pentode amp' levels of distortion but PrimaLuna has jumped hoops to ensure the 'colour' of the EVO 300 Hybrid is as close to that of the all-tube EVO 300 [*HFN* Mar '21] as possible. Let's compare the Hybrid with the EL34-equipped EVO 300 (still a current model); gain is +37.4dB versus 37.1dB and the A-wtd S/N is 88.5dB versus 88.0dB (re. 0dBW). These are very close matches, but when it comes to power the Hybrid wins hands down with 2x120W/8ohm and 2x205W/4ohm vs. 2x50W (8 or 4ohm) for the all-tube EVO 300. It's necessarily gutsier under dynamic conditions too, with 123W, 217W, 340W and 360W into 8, 4, 2 and 1ohm loads at <1% THD [see Graph 1, below] vs. 69W, 69W, 80W and 64W at <2% THD for the EVO 300.

Distortion is not 'solid-state' low in the EVO with a minimum of 0.03%/1kHz increasing to 0.08%/20kHz and 0.16% at a bass frequency of 20Hz [all at 10W/8ohm – blue trace, Graph 2]. Nevertheless while the harmonic complement is similar, the EVO 300 with its EL34s is higher still at 0.17-2.9% (20Hz-20kHz) in ultralinear mode. The EVO 300's moderate 2.9-3.7ohm output impedance (via 8 and 4ohm taps) also has a far greater impact on system frequency response than the Hybrid's 0.053-0.15ohm. In practice then, the Hybrid's +0.0/-0.4dB response will be a far more reliable indicator of its tonal balance than the +0.2dB/-0.35dB (all re. 20Hz-20kHz) measured for the EVO 300 into a non-reactive 8ohm load. Not only does the Hybrid have an advantage in bass control but also, for example, if the HF impedance of your chosen speaker dips then the EVO 300 will sound less bright and/or potentially less well informed. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 19.0A



ABOVE: Distortion vs. frequency at 1W/8ohm (black, 5Hz-40kHz), 10W (blue) and 70W (red, 20Hz-20kHz)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	120W / 205W
Dynamic power (<1% THD, 8/4/2/1ohm)	123W / 217W / 340W / 360W
Output impedance (20Hz-20kHz)	0.053-0.15ohm
Freq. response (20Hz-20kHz/100kHz)	-0.4dB to -0.4dB / -5.55dB
Input sensitivity (for 0dBW/100W)	38mV / 390mV
A-wtd S/N ratio (re. 0dBW/100W)	88.5dB / 108.6dB
Distortion (20Hz-20kHz, 10W)	0.16-0.033%
Power consumption (Idle/Rated o/p)	99W / 405W
Dimensions (WHD) / Weight	385x205x405mm / 25kg