- Remote monitoring and configuration
- Extremely compact, large scale integration
- Motherboard construction completely eliminates hard wiring

PSC VODEC VA300/CAGE-M is a 6 unit high standard 19 inch rack mount low profile assembly designed to carry up to eight amplifier modules. The unit comprises of a robust extruded lightweight alloy frame enclosure and motherboard "back plane" printed circuit card equipped with eight slots.

The back plane is fitted with eight gold plated indirect edge connectors, one per slot, which eliminate troublesome hard wired connection looms and allow rapid plug in/out amplifier capability to assure speed of service. The back plane carries an on board non volatile processing sub-system that enables amplifier eight to substitute any one of the other seven VA300/CAGE-M slots in the event of on-line amplifier trouble.

Configuration also allows slot four to support hot-standby amplifier execution. In this case amplifier number 4 is a hot-standby for amplifier 1 to 3 whilst amplifier number 8 is a hot-standby for slot 5 to 7or 1 to 7. Hot-standby amplifier can be assigned for

- Every seven "on line" amplifiers
- Every three "online" amplifiers
- Single hot-standby can support all "on line" amplifiers up to maximum of sixty four.

An auxiliary supervisory group fault report output is available to extend VA300/CAGE-M Amplifier module warnings to the host Public Address management hardware.

Each slot is allocated zone selection rotary switches, which enables the engineer to quickly and conveniently pre determine broadcast area assignment for each respective amplifier. Connection to/from the VA300/CAGE-M is via locking plug and socket insulation displacement flat ribbon cables which facilitate rapid complete removal of the frame from the rack system in the event of maintenance requirement.

VA300/CAGE-M is fitted with a display window that provides the engineer with an immediate and convenient indication of critical conditions within the VA300/CAGE-M sub-system. Status information includes DC supplies and associated proactive devices, fan control/condition, hot-standby amplifier and fault report supervisory. VA300/CAGE-M configuration requires no special tools or PC connection and data is retained indefinitely with or without power supply applied. VA300/CAGE-M allows the engineer to issue tick tone on an amplifier by amplifier basis.

Technical data

Supply input	DC 48 V unregulated
Output	DC 6 A max. per slot
Input	eight 100 V (70 V) line output
Fan control	fan initiate and supervisory for one off VA300 / FAN module
Ambient noise sense (ANS)	eight ANS microphone input (one per amplifier slot)
Host management	22.5 kHz supervisory control (for automatic amplifier testing) group fault reporting, cage to host. Fan from host (i.e. fan initiated when alarm tones are broadcast)
Dimensions (width x height x depth)	483 mm x 267 mm x 245 mm (19.02 inch x 10.51 inch x 9.65 inch) (19" rack mount, 6 units)
Colour	natural anodised alloy
Weight	without amplifier 3.44 kg (7.6 lbs)
Temperature range	0 °C to +50 °C (+32 °F to +122 °F)
Humidity	max. 80 % non condensing
Standards	BS-EN 60945; BS-EN 61010-1; DNV Certified

Remote monitoring

The VA300/CAGE-M is enhanced to capture and report detailed operational information in real-time and when connected to M Class infrastructure all this information is available to a remote server, which logs and displays data as required. The VA300/CAGE-M gathers data from any VA300+M Amplifiers which are connected to it and routes that back to the M Class server.

Optional capability to allow amplifier broadcast zone assignment from the M Class server is provided. Assignments are non-volatile and the server is not required to be on line for normal operations. Additionally on board rotary switches are provided as either fail-safe or permanent override broadcast area configurators.

The remote monitoring and configuration options do not impact on life safety critical path functions in any way and PA/GA functions will continue as normal in the absence of M Class infrastructure.

The VA300/CAGE-M is fully backward compatible with original P3 VA300+ amplifiers and may be used in non M Class systems.

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