

# POWER SUPPLIES

## DC LIGHTWEIGHT PORTABLE POWER SUPPLIES 12V 28V



Electronic flight decks, once the sacred ground of the large corporate and wide body, are now common to every type and size of aircraft. Remaining ahead of the curve with the faster speeds of the VLJs requires private and corporate pilots to be proficient in the use of their EFIS. Practice and the need to update software are two reasons why all aircraft operators should own a reliable and compact power supply, able to be used for training, fault finding or software updates.

Powervamp's first 28 volt 40 amp power supply was produced in 1995 as a solution to the problem of training police observers on FLIR systems. Until then, training involved expensive helicopter flying hours or powering a FLIR system with battery GPUs with limited power duration.

Powervamp, with its range of power supplies from 30 to 600 amps, manufactures units for all types of aircraft from the Cessna 175 to the largest of DC aircraft such as the ATR, Embraer 145, Q400 and Saab 340.

Confirmation of Powervamp's quality and performance has been endorsed by some of the world's largest manufacturers of private, business and corporate jets who have selected Powervamp power supplies as their branded product supplied to customers for software updates and a source of DC power at remote locations. Other manufacturers too have selected Powervamp power supplies as the chosen unit for their service support teams. In every case, quality, reliability and product support are key.

### SELECTING THE CORRECT POWER SUPPLY

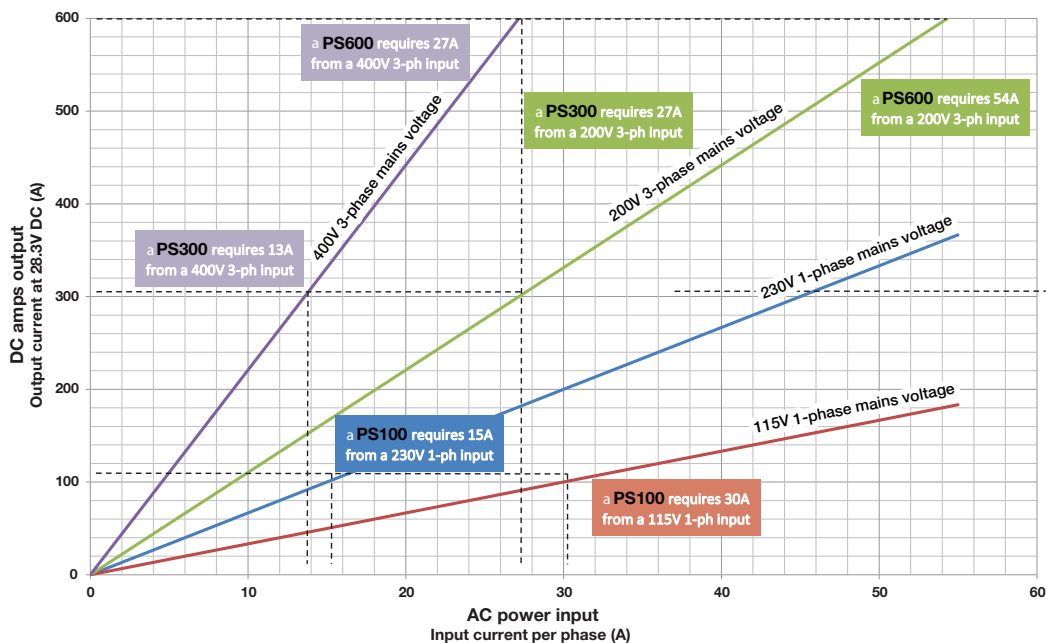
When deciding on the size of power supply, operators should consider the following.

While weight, size and cost are criteria for decision making, where aircraft loads may fluctuate, Powervamp strongly recommends a power supply with a digital voltmeter. Power demand fluctuating close to or above overload will trigger a progressive automatic voltage shutdown which can cause radio static and possible data loss. A digital voltmeter will visually alert the operator to the situation.

All Powervamp power supplies are fitted with accurate digital voltmeters. The larger units are fitted with digital ammeters to give pilots and engineers an instant reading of the load as each system is powered up.

The graph below shows the single-phase and 3-phase input amps at various voltages required for a specific DC output. Operators should be aware of possible power output limitations at 110 volts where the mains C/B rating may be insufficient to allow maximum DC output. In this situation, the anticipated output load will need to be checked against the input amperage, which must be less than the circuit breaker rating.

### MAINS POWER INPUT REQUIRED TO DELIVER MAXIMUM OUTPUT FOR EACH POWER SUPPLY



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# PS300, PS400 and PS600



These 300, 400 and 600 amp power supplies are compact, high performance, 28 volt ramp or hangar power supplies, delivering continuous power for air conditioning, air show ground power or general maintenance.

The low profile design allow the units to fit underneath fuselages, and small castor wheels and a sturdy protection frame make them ideal for tough hangar use.

Because each unit uses power supply modules connected in parallel, field servicing is simple. Modules can be rapidly removed and replaced and the failure of one module will have a minimum impact on output amps.

## SPECIFICATION

Rated power	8.4kW		
Max continuous current	PS300: 300 amps PS400: 400 amps PS600: 600 amps		
Peak current	400 amps		
AC input requirements	200–440V 3-phase 32A 50/60Hz		
Displays	Digital volts/amps		
Protection	Short circuit, current limit		
Height	Length	Width	Weight
370mm (15in)	410mm (16in)	400mm (15½in)	28kg (62lbs)



*Individual modules in parallel provide redundant operation and simple swapout/service exchange*