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GPU Power Supply & Starting Unit Model 3328

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These ground power units are designed to perform starting, powering up aircraft systems and maintenance functions. When connected to AC power, the depleted batteries can be charged in a matter of hours with the built in power supply/battery charger.

The **3328** contains a full 28 volt battery pack for starting and a large power supply to provide a continuous current at 28.5 Volts DC for maintenance . This mobile GPU with 175 amp power supply will satisfy the ground power requirements of most business jets including on board air conditioning.

We also custom manufacture Start Pac® units in various combinations of batteries and power supplies to meet the customers' exact requirements.

START PAC® MODEL 3328 SPECIFICATIONS AND INFORMATION

The Model 3328 GPU is a combination battery pack and power supply.

Batteries

52 Amp Hours at 10 hour rate

28.5 Volt DC-30.5 Volts at rest
Sealed cells non-hazardous
Valve regulated high amperage output lead acid
2800 Peak amps

Power supply / charger

105 or 175 Amps DC continuous output at 28.5 Volts
Battery recharge time is 2 hours
AC input - 220 Volts ONLY

Limitations

250 Amps maximum continuous DC load
Note - When using more than 105 or 175 Amps, the batteries will make up the difference until they become depleted.

The following dimensions apply to each of the 3300s:
38"x21"x20" Handle Height 48".

Features

The GPU is rated at 2800 peak starting amps. When plugged into a 220 single-phase AC power, the built-in power supply will provide 105 or 175 amps continuous 28.5 Volts DC current. The GPU is a full 28.5-Volt unit and will give faster, cooler starts on all turbine starting engines. The power supply is large enough to power aircraft on-board air conditioning systems continuously. The 3328 weighs 185 lbs./83.92 kilos and is pulled by hand or tug.

Always recharge the GPU battery packs soon after use until the green light appears. Once charged, it is not necessary to leave unit plugged in. If heater is installed, turn unit off but leave plugged in.

Avoid discharging the batteries completely as damage to the cells can result.

Always recharge batteries soon after use.

***** There are approximately 30 110 volt and 30 220 volt NEMA plugs in use. *****

**Also, customers have various receptacle at their hangars and MRO facilities
and may require specific AC cord length to meet their requirements.**

Due to these facts, we do not automatically provide AC power cords.

**If you provide the NEMA plug number and specify the AC power cord length
you require we will build a cord to be shipped with your unit for a small fee.**

BATTERY DISCONNECT: When operating the continuous power supply at 105 or 175 amps and below, activate the battery disconnect. Since the 28.5 batteries actually read 30.5 Volts at rest, leaving the battery disconnect connected will deplete the batteries nearly 50% before their voltage reaches 28.5 Volts. Thus in this situation only one half of the battery capacity will be available for engine starting. By keeping the batteries separated from the continuous power supply, you will have full battery capacity for engine starts. If you need more than 105 or 175 continuous amps, then use the battery disconnect and the batteries will make up any amperage needed.

NOTE - PLEASE USE #12 OR LARGER AC EXTENSION CORD

Call Jim at Rotorcraft Enterprises- 702 982-7089 with any questions. We can help you locate the product(s) that you need, such as portable starting units manufactured with [lithium batteries](#), and our other new products.

START PAC MODEL 3328 USERS GUIDE

The Model 3328 is comprised of two basic parts, a power supply and a battery pack. The power supply is used to power up the aircraft's electrical system such as radios, GPS, lights, etc. when connected to an AC source and the switch is on.

To get electrical power to the aircraft, the power cable must be plugged into the back of the Start Pac® and then the other end plugged into the aircraft.

First, when electrical power (DC 28 volt power supplies) is needed on the aircraft, unplug the disconnect connector on the side of the Start Pac®, this isolates the batteries and the power supply will provide all of the required power to the aircraft when the switch is turned on. This procedure saves the battery pack for starting.

Second, when starting power is needed to start the engine, plug the disconnect connector in the side of the Start Pac® and this will connect the battery pack for starting. The Start Pac® does not need to be connected to the AC source for starting if so desired.

Always recharge the battery pack as soon as possible by connecting to the AC source to the Start Pac® and turning the switch on.

All Start Pacs are designed to be user friendly and virtually require no maintenance. This model is comprised of two basically different units:

1. When plugged into 220 single-phase AC power, the built in power supply will provide 105 or 175 Amps continuous 28.5 Volts DC current.

2. The second is full 28 Volt, 52 AH batteries. These batteries will provide superior-starting power for all electrically started aircraft. In addition, when AC power is not available, the batteries will give excellent check out time in a remote location.

PLEASE NOTE: There is a manual battery disconnect that isolates the batteries from the power cable that goes to the aircraft. Since the batteries are at a higher potential (30.5 Volts) versus the power supply (28.5 Volts), if the disconnect is left plugged in, one would deplete the batteries about 50% until their voltage reached 28.5 Volts. Therefore, when using the Start Pac® with loads under 105 or 175 Amps, pull the disconnect to save the batteries for starting or other purposes.

WARNING: Use disconnect jumper in the side receptacle only, never in rear receptacle.

CAUTION: Always plug in the disconnect when starting, as the power supply alone will not meet starting loads. When charging depleted batteries, the power supply will quickly recharge the batteries to about 60% if the disconnect is plugged in. Then the topping charger, whether the disconnect is plugged in or not, will complete the charging process.

CAUTION: Do not leave the Start Pac® plugged into the aircraft with the battery disconnect in and leave unattended as the topping charger, to fully charge the batteries, cuts off at 34.5 Volts. This high a voltage is not recommended.

To maintain the batteries in the Start Pac®, recharge as soon as possible after use. The built in chargers will fully recharge the batteries (in approximately 8 hours), then drop to a float mode to maintain the charge at 100%, but never overcharge. Try to avoid deep discharges as the batteries can go into a reversal state, which will make the unit unusable. TRY TO AVOID DEEP DISCHARGES. Model 3328 has a 250 Amp maximum DC load. When charging this unit, the charge light will be yellow. As the unit reaches full charge, the light will become a steady green.

NOTE-Please use #12 or larger AC Extension Cord

Batteries have no memory effect and can be recharged at anytime.
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