

AERO-JOLT™ 28 V PORTABLE GPU

A lithium-driven, BMS-protected portable ground power unit for general aviation. Fully regulated 28 V DC output, up to 1600 A peak, with the stamina for multiple consecutive starts of piston, turboprop, turboshaft, small fanjet, and APU engines.

28 V
REGULATED**1600 A**
PEAK**900 A**
CONTINUOUS**19 AH**
LiFePO₄**3-6**
STARTS / CHARGE

01 OUTPUT & ELECTRICAL PERFORMANCE

DC OUTPUT

Nominal Output Voltage	28 V DC, fully regulated
Continuous Output Current (15 s)	900 A maximum
Peak Output Current	1600 A (safety cut-off threshold)
Sustained Draw Limit	200 A — auto cut-off after 20 s
Standby Endurance	~60 minutes at 10–15 A standby load
Output Connector	Standard 3-pin aircraft external power plug, integrated lead
Output Regulation	Closed-loop, BMS-managed

02 BATTERY SYSTEM

ENERGY STORAGE

Cell Chemistry	Lithium iron phosphate (LiFePO ₄), Nanophosphate®
Cell Type	26650 cylindrical (Lithium Werks ANR26650M1B class)
Pack Configuration	8-series stack, internally regulated
Pack Capacity	19 Ah (approx. 500 Wh)
Nominal Cell Voltage	3.3 V (3.6 V max charge)
Cycle Life (pack-level)	1000+ cycles to 80% capacity retention
Cell Thermal-Runaway Onset	≥ 210 °C, low-energy, non-propagating
Starts per Charge	3–6 (engine type, ambient temperature dependent)

03 CHARGING PERFORMANCE

AC INPUT

AC Input Voltage	110 V / 240 V universal (supplied deep-cycle charger)
Charge Rate	5 A nominal
DC Charge Circuit Rating	5–6 A at 24 V
Charge Time — After One Start	~ 30 minutes
Charge Time — Depleted to Full	~ 6 hours
Charging Temperature Range	0 °C to 60 °C (32 °F to 140 °F)
Storage SOC (Recommended)	~ 60% for long-term storage

04 MECHANICAL

Dimensions (L × W × H)	48 × 18 × 16 cm (18.9 × 7.1 × 6.3 in)
Weight	7.6 kg (16.75 lb)
Case Material	Filled engineering plastic, shock-resistant
Handle	Fixed ergonomic grab handle
User Interface	Capacitive color touchscreen
External Indicators	Status LED chevrons; integrated flashlight
Charging Port	Side-mounted DC barrel inlet

05 OPERATING ENVIRONMENT

Operating Temperature	−20 °C to 60 °C (−4 °F to 140 °F)
Storage Temperature	10 °C to 30 °C (50 °F to 85 °F) recommended
Auto Shut-Off	10 minutes inactivity
Humidity	Non-condensing
Ingress Protection	Shock-resistant; not water- or dust-rated
Mounting / Orientation	Portable, upright operation
Service Life Target	7+ years with routine charge cycling

06 SAFETY & PROTECTION FEATURES

BMS-MANAGED

- Automatic Peak-Voltage Cut-Off**
Disables output if pack or cell voltage exceeds the safe envelope.
- Reverse-Polarity Protection**
Blocks output if connector orientation is incorrect.
- Sustained-Draw Limit**
Output cut after 20 s above 200 A to protect cells and starter.
- Cell-Level BMS Monitoring**
Continuous monitoring of individual cell-group voltages.
- Automatic Temperature Lockout**
Disables output above 60 °C or below −20 °C.
- Over-Current Safety Trip**
Hardware cut-off if pack current exceeds 1600 A.
- Automatic Idle Shut-Down**
Powers the unit off after 10 minutes of inactivity.
- On-Board Event Log**
Records charge cycles, exceedances, and fault history for service.

07 STANDARDS & CERTIFICATIONS

PACK & CELL

UL 1973 Stationary battery systems	UL 9540 Energy storage systems & equipment	UL 9540A Thermal runaway propagation	UN 38.3 Lithium battery transport
UL 1642 Lithium battery cells	IEC 62133-2 Secondary cells & batteries	RoHS Restricted substances	REACH EU chemical safety

UL 1973 / 9540 / 9540A and IEC 62133-2 conformance applies to cell-level certifications referenced from the Lithium Werks 26650 data sheet (ANR26650M1B). Pack-level conformance is per Air Mount Technic test reports; copies available on request.

08 COMPATIBILITY & APPLICATIONS

Engine Types Supported: piston, turboprop, turboshaft, small fan jet, and APU starts.

Secondary Uses: avionics troubleshooting, full FMS database loads, extended pre-flight power for cockpit configuration.

Aircraft Interface: any aircraft accepting a standard 3-pin 28 V DC external power receptacle.

09 ORDERING INFORMATION

MODEL / PART NO.

Aero-Jolt AJ-2026

INCLUDES

Aero-Jolt unit, 110/240 V universal AC deep-cycle charger, 1.5 m extension umbilical cord, operating manual, shock-proof carrying case

MANUFACTURER

Air Mount Technic Co., Ltd. — 168/1 Moo 12, Bueng Kham Phroi, Lumlukka, Pathum Thani 12150, Thailand

WARRANTY

2-year limited (parts & labor)

SERVICE REGIONS

USA · Europe · Asia · Australia

CONTACT

+66 (0) 61-131-1301 · info@airmount-technic.com · aero-jolt.com