

TECHNICAL DATA SHEET

APOJET S FL 90 - 180

Advanced Solid State Aircraft GPU* (flat design)

- **Maximum Power**
- **Best Efficiency**
- **No Mains Disturbance**
- **Galvanic Isolation**

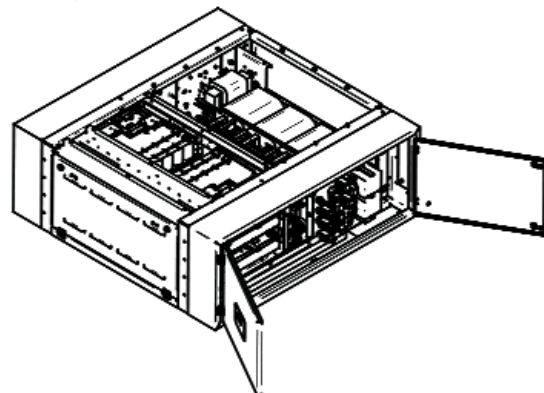
The APOJET S FL static frequency converter is designed to generate 400Hz power for air-crafts as a decentralised ground power system mounted under the cabin of the passenger boarding bridge or on a trailer (mobile version). Using the latest state-of-the-art technology and newest trends in the power electronics field and digital control, the APOJET S FL offers the best solution for aircraft ground power supply systems without any mains disturbance.



Rating 90 to 180KVA

- flat design
- regulated rectifier with IGBT's (THD at input current < 5%)
- one or two output contactors
- fully-controlled inverter with IGBT's
- pulse-width modulation
- special earth leakage protection
- stable operating performance due to microprocessor control
- low output distortion factor
- constant output voltage even with non-linear loads
- interface for remote control and centralized control/indication, PC or modem connection

* Ground Power Unit



Nothing protects quite like Piller

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Converter Type	AJS FL 90	AJS FL 120	AJS FL 150	AJS FL 180
Total efficiency*	> 89%	> 92%	> 92%	> 92%
Weight approx.	850kg / 1874lbs	870kg / 1918lbs	930kg / 2050lbs	980kg / 2161lbs
Dimensions (w x d x h) mm /IN	1600 x 1630 x 600 / 63 x 64.2 x 23.6			
Ingress protection	IP 54 / NEMA 3R (outdoor)			
Ambient temperature °C / °F	0 to +40 / +32 to 104 indoor, (-20 to +40 / 0 to +104 outdoor)			
Humidity	max. 95% without condensation			
Cable entry	input bottom or side right back corner			
	output bottom or side right front corner			
Paint finish	RAL 7032 (other colors on request)			
Paint treatment	phosphatized, primed and powder sprayed			

Input Data

Nominal input current				
@ 400V, 50Hz	116A	164A	206A	246A
@ 480V, 60Hz	97A	137A	172A	205A
Nominal voltage, 3 phase	400V ± 10% / 480V ± 10%			
Nominal frequency	50Hz ± 5% / 60Hz ± 5%			
Harmonic content at mains current*	< 5%			
Power factor*	~1			

Output Data

Nominal output current	260A	346A	433A	520A
Output power at p.f. 0.8	90KVA	120KVA	150KVA	180KVA
Nominal frequency	400Hz ± 0.1%			
Nominal voltage 3ph, 4 wires	200/115V			
Voltage adjustment range	± 5 %			
Automatic line drop compensation	+ 12% with activated remote voltage sensing or I-Boost©			
Voltage characteristics	- steady state ± 1% - dynamic ≤ ± 15% acc. to MIL-Std. 704 E, fig 4			
Harmonic content L - L	< 3% at linear, balanced load, p.f. 0.8			
Recovery time	≤ 200ms			
Wave form	sinusoidal			
Phase angle	120° ± 1.5°			

* at nominal power

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