GPU

F-Range

GPU Units
30, 45, 60, 90 & 120kVA

Magnus Power GPU units were designed with Power factor correction to guarantee a Perfect sinusoidal input current from 25% to 150% load and a low THD (<3%)

Magnus Power ensure high quality, efficient and secure electrical power supplies.

Solid-state Ground Power.

Standard Features

Robust mechanical design

- Integrated galvanic isolation (output as standard)
- High fault-clearing capability - short circuit clearance
- Designed to withstand environmental conditions (temperature, altitude, humidity)
- Selectable Ingress Protection (up to IP54)

Energy Efficiency

- Up to 97% efficiency using state of the art semiconductor technology (IGBT)
- High Efficiency and low noise
- Power Factor Correction
- 4 Quadrant Operation (Regenerative loads)
- Double Conversion with Sinewave Output

Footprint

- Small footprint.
- Front access for maintenance

Interface and Communication

- Monitoring and Display controlled by Microprocessor
- Monitoring by Web and SNMP (NetAgent) (Optional)

Low THDi

- Low input harmonics (< 3 % THDi), to comply with the strictest regulations

Specific Requirements and Custom Made Options Other Features

- Optional input voltages Selectable Ingress Protection (up to IP54)
- Isolated Neutral with earth fault detection

Other Features

- Long product lifetime with minimal servicing required
- Systems installed worldwide over several years
- Mobile solutions
- MTBF 60000Hrs

Input	
4 Wire or 3 wire	
3 Phase 400V/415V AC	-10%+10%*
50Hz and 60Hz	±5%*
Input Current Harmonics	<3% at Full load (Sinusoidal)
Output	
3 Phase 200V/400V/415V/ AC (50.0 Hz/60.0 Hz/400 Hz)	±1%*
1 Phase 230V/240V/ AC (50.0 Hz/60.0 Hz/400 Hz)	±1%*
Overall Efficiency	90% - 95%
Max. Crest Factor	3:1
Rectifier:	
4 Quadrant Operation	
Efficiency	40Hz to 400Hz 94% to 97%
Overload Capacity	120% Continuous
DC Voltage walk in	5 Seconds to Maximum
Overall Current Limit	120%
Inverter:	
Static regulation 0 - 100% load	±1%
Dynamic regulation 100% load application/removal Transient Recovery	5%, recovering to 1% within 40 millisecond

Total harmonic distortion	Better than 3% (Linear Load)
Overload capacity	120% @ 60s, 150% @ 5s, 200%@ 2s
Frequency stability 50.0 Hz, 60Hz and 400hz	±0.01% Crystal Controlled
Load power factor	0 -1
Efficiency	94% - 97%
Short circuit proof by electric current limiting and shutdown	
Environmental Conditions:	
Temperature range at sea level	-40°c – 52°c
Humidity:	
Recommended	40% – 60%
Extreme	90%
Noise Level	< 65 dBA at 1 Meter
Altitude	up to 2500M
Communications:	
Ethernet Connection	Optional with Netagent
CAN (With Remote Panel)	Optional

Unit	Magnus Power GPU F- Range Solid State 400Hz Ground Power Units
Sizes Available	30kVa - 45kVa - 60kVa - 90kVa - 120kVa
Main Characteristics:	High frequency IGBT Technology Double Conversion with Sinewave Output Galvanic Isolation of Inverter via Inverter Transformer Power Factor Correction 4 Quadrant Operation Sinusoidal Input Current (low THD) Monitoring and Display controlled by Microprocessor Front Access for maintenance Monitoring by Web and SNMP (NetAgent) High Efficiency and low noise Robust design for aeronautical applications CE MARK
Norms and Standards	* DFS400 Specification for 400 Hz aircraft power * ISO 6858 Aircraft ground support electric supplies * BS 2G 219 General requirements for ground support equipment * MIL-STD-704 Aircraft electric power characteristics * SAE ARP 5015 Ground equipment 400 Hz ground power performance requirement * EN62040-1-1 General & safety requirement * EN61558-2-6 General & safety requirement * EN61000-6-4 Electromagnetic compatibility - Generic emission standard * EN61000-6-2 Generic immunity standard

* Magnus Power F-Type GPU as Tested and Certifield by TUV.
This is a preliminary data sheet Model & Specification subject to change without notice.

MAGNUS POWER
Global Power Supply Specialists

Magnus Power
Vision House 41 Brunel Road
Churchfields Industrial Estate
St. Leonards on Sea
East Sussex TN38 9RT

Tel: +44 (0)1424 853013
+44 (0)1424 853464

Fax: +44 (0)1424 852268

Email: magnuspower.sales@akersolutions.com

www.magnuspower.co.uk