avro GSE
Best on Ground

Ground Power Unit
Electric Frequency Converter

GP90E 480 V Input

Features & Benefits

- No-break power transfer
- Over/under voltage protection (input/output)
- Over/under frequency protection
- Overload protection
- Overheating protection
- Short-circuit protection
- Neutral verification
- Asymmetric load verification
- Lockable doors with interlock functionality
- Tropical package for high humidity environments (10-100%)



WHY AVRO

- 36-month warranty, effective from the date of delivery.
- Customized business relationship
- AAA maintenance program
- Stock locations in the United States and Canada

AIRCRAFT GROUND SUPPORT EQUIPMENT

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GROUND POWER UNIT

Electric Frequency Converter

GP90E
480 V Input

Output Parameters	
Rated output power (at PF=1)	90 kVA
Qty of output	1
Rated output voltage line/phase	3 x 115/200 V
Output voltage adjustment range	15%
Output voltage frequency	400 Hz
Frequency stabilization accuracy	± 0.001 Hz
Output voltage regulation accuracy for balanced load for 40% unbalanced load	 ± 0.5% ± 0.5%
Total harmonic content THDU line-to-line (neutral) for linear load line-to-line (neutral) for non-linear load	 ≤ 2% ≤ 2%
Maximum single harmonic distortion linear load non-linear load	 ≤ 1.5 ≤ 2
Voltage modulation	≤ 0.5%
Phase symmetry, electrical degree for balanced load for 30% unbalanced load	 120 ± 1% 120 ± 2%
Power factor	From 0.8 to 0.95 leading
Range of load change	0 – 100%
Voltage setting time at 100 % load connection at output voltage deviation not more than 8%	≤ 2 ms
Crest factor	1.414 ± 0.04
Permissible overload, % within 600 s within 60 s within 30 s within 10 s within 2 s	 125 150 200 300 400

Input Parameters	
Supply main rated voltage	3×480 V, PE
Supply main voltage permitted deviation	± 15% or according to customers spec
Supply nominal frequency	60 Hz
Supply main rated frequency	± 8 Hz
Overall Efficiency at 30-100 % load	≥ 0.95
Power factor	> 0.97
Line Current Distortion at nominal load THDI	≤ 5%
Power interruption	Up to 50 ms

Miscellaneous	
Ingress protection (converter module)	IP55
Maximum/ Minimal ambient temperature	plus 50°C/ minus 50°C
Audible noise	55dB at 1 meter Typically, 50 dB
Relative humidity	0 to 100%
Operational useful life	Minimum 25 years
Mean Time To Repair (MTTR)	Maximum 20 minutes
Performance	Mobile
Control panel/Display	TFT with touchpad
Cable IN	10 m or as per customer request
Cable OUT	10 m or as per customer request

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