


Results	1.) INVERTER Specification and Features: LS03-06001 – 1000 watt model	
FAA TSO Tested & Approved	(a.) Example: Aluminum chassis, front mounting, MS connector design. 	Lightweight, High efficiency pure sine wave inverter family designed for 115vac, 60hz and 230vac 50hz units. <ul style="list-style-type: none"> • LIGHT WEIGHT: Airborne • Robust design: • High Temp Parts • Pure Sine Wave • SC, OV, UV, OC, RP. • (Transient input) protections.
Pass	(b.) Output Signal:	PURE SINE WAVE
Pass	(c.) Output Frequency:	60hz (Fixed)
Pass:	(d.) Design	Input – Output fully Isolation design.
Pass	(e.) High Efficiency	89-90% 115, 60hz, 89% 230-50hz Hi reliability, Robust design.
Pass	(f.) Power saving mode	Low power to conserve energy.
Pass	(g.) Dual - color indicators:	Input voltage, (GRN), Alarm = (RED) on pcb.
Pass	(h.) Circuit protections:	SC, OV, UV, OC, RP, TIP- input protections.
Pass	(i.) Cooling Fans:	Inverter will be designed with (2) cooling fans
Pass	(j.) Remote Control MS- connector:	Remote control on-off, PIN E to + 28v see drawing LS03-06001
Pass	(k.) MS 3102 Connector: input/output	MS 3102E24-12P connector DC input, AC output
Pass	(L.) Aluminum Chassis:	Enclosure mounting brackets, holes-slots. Drawing LS03-06001
Pass	(m.) Inverter Color:	Color = Gold anodizing, and or iridite per MIL –C-5541 Class1A
Pass	(n.) Inverter Markings:	Label or Silk Screening
	2.) SPECIFICATIONS TABLE:	
Pass	(p.) Input Voltage:	28 Vdc (nominal), 20 to 37.5 vdc input range
Pass	(q.) Output Voltage, Waveform, Phase:	PURE SINE WAVE: Single Phase, 115vac-60hz, 230, 50hz
Pass	(r.) Power Output: 1000 Watt Model	110% of rated power for 2 hrs 90% of rated load for 5 (min) at 20vdc input
Pass	(s.) Harmonic Distortion:	3% (nominal) THD
Pass	(t.) PCB Components:	Pcb components = high voltage, high temp 125c,high reliability
Pass	(u.) Power Factor:	+0.8 to –0.8
Pass	(v.) Response Time:	30mS (no load to full load)
Pass	(w.) Regulation:	1% Line, 1% Load, 2.5% Temperature
Pass	(x.) Overload Capacity:	110% of rated power for 2 hours 150% of rated power for 5 min.
Pass	(y.) Protections- Circuit:	The inverter will shut down under the following conditions: <ul style="list-style-type: none"> • Input voltage > 37.5 Vdc. • Input voltage < 20.0 Vdc. • Internal high ambient temperature: >50C • Short circuit condition for (1) minute, within (5) minutes after removing SC the inverter shall be re-energized and operated without degradation. • SC, OV, UV, OC, RP, CB Front Panel. • Safety GFCI Sensor – disable current
		Notes:

Test Results	2.) Specifications Table cont.	
Pass	(aa.) Input protection:	Transient input protection on input, 100 volts for (1) millisecond.
Pass	(bb.) Cooling Fans: x 2	Thermostatically controlled High reliability brush-less fans if needed. (Turn on above 50C) Comair Rotron, Delta, ebm.
		DO-160G RTCA env.cat. Compliance FAA TSO C73 MPS
Pass	(cc.) Emissions:	EN55022, EN55011 Class B, EN61000-3-3, TSO MPS or equivalent
Pass	(dd.) Reliability:	MTBF: 100,000 hrs.
Pass	(ee.) Size:	12.0L x 6.30W x 3.40H
Pass	(ff.) Temperature:	-55C to 71C, (-65F to + 160F)
Pass	(gg.) Humidity:	95%
Pass	(hh.) Remote on-off	Yes, remote on/off function, Pin E (28 vdc + for on)
Pass	(ii.) Vibration:	10-500 hz (15min cycle), (3) axis, Double Amplitude
Pass	(jj.) Dielectric Strength:	The inverter shall withstand, without damage, the application of 1500 volts r.m.s. 60 hz between winding and frame for (1) minute.
Pass	(kk) Shock:	(10g), 18 impacts to vertical, parallel to major, minor, horizontal axis.
Pass	(ll.) Altitude:	Altitude: tested to 30k, 24hrs operational, 40k 5 min
Pass	(mm.) Safety Issues:	Inverter will operate non critical electronics: DVD, Cell phones, chargers, LCD monitors, entertainment equipment, household items, food service equipment, etc. Safety is the highest priority so that crew members and or passengers on board are not harmed by an ac shock condition. The manufacturer will provide GFCI circuitry within the inverter to meet recent FAA AC directives for PED's. Manufacturer will provide engineering drawings for a typical installation from the output MS connector to the ac plug.
Pass	(nn.) Weight:	6.0 lbs.
pending	Test report: From MFG.	Notes: Testing – Manufacturer will test the main specifications listed for their design to confirm it meets this specification. Input, output, current, THD, power factor, response time, regulation, GFCI, Circuit protections,: SC, OV, UV, OC, RP, TIP Efficiency LED Indicators Fans – on at 50c Remote control Weight:
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