

Clarification of Requirements for No Idle Climate Control System

2.A. Exterior components of the system shall be continuously exposed to 125 Deg F ambient temperature and 1120 W/M² of solar load. Interior components are not subject to solar load.

2.B. Exterior components shall be continuously exposed to -40 Deg F.

2.C. Provide an interior air temperature of 85 to 95 Deg F.

2.D. System may be tied into the vehicle electrical system, but cannot pull any power from the vehicle electrical system. No exported electrical power is required from the system. Vehicle electrical connections are for starting only. A fuel supply shall be provided from the vehicle main tank. Fuel supply will be pressurized. System shall run for a minimum duration of 12 hours.

2.E. Performance shall be met with the use of JP8 fuel; however, the system must have the ability to run on both JP8 and DF2 (commercial diesel) fuel.

2.F. None

2.G. The system shall operate at this grade from any side, either tilted front to back or side to side.

2.H. None. See MIL-STD-1275D.

The following system requirements have been DELETED.

2.I. Cleaning Spray. The system shall be capable of being cleaned with steam and water, with agents conforming to P-C-437B, jet rinse. The jet spray is applied perpendicular to the surface being cleaned at a distance of 1.0 + 0.5 foot from the surface for steam cleaning and 5.0 + 0.5 feet from the surface for water jet cleaning, and the surface cleaned at a rate of 1.0 square foot per minute. Nozzle pressure shall be 110 + 11 pounds per square inch gage (psig). Nozzle orifice diameter shall be 0.25 to 0.30 inch for the water jet.

2.J. Sand and Dust.

2.J.a Sand. The system shall operate during and after exposure to sand particles of 0.01 to 1.00 millimeter (mm) diameter blown against external component surfaces at an air velocity of 1750 feet per minute (ft/min) (30 knots) minimum. Sand concentration shall be 0.3 +/- 0.2 grams per cubic foot (gm/ft³). The system shall operate throughout the blowing particle test for no less than 19 hours without cleaning.

2.J.b Dust. The system shall operate during and after exposure to dust-laden air with dust particles of 0.001 to 0.200 mm diameter and 0.3 +/- 0.2 gm/ft³ blown against external component surfaces at an air velocity of 1750 ft/min (30 knots) minimum. The system shall operate throughout the blowing particulate test for no less than 4 hours without cleaning. This condition represents 48 hours of zero visibility dust operation nominal, 80 hours maximum, and 16 hours minimum based on dust feed rate control.

2.K Vibration and Shock

2.K.a Vibration. The system shall operate after exposure to sinusoidal vibration applied in accordance with Table A1 in each of the three mutually perpendicular axes shown in Figure B1 in Appendix B, while operating. The vibration shall consist of a logarithmic sweep rate of 15 minutes per sweep cycle from 5 to 500 to 5 hertz (Hz) applied at the assembly mounting interfaces for a total of 180 minutes per axis.

<i>Axis</i>	<i>Frequency (Hz)</i>	<i>Amplitude</i>
<i>Vertical</i>	<i>5 to 25</i>	<i>+/- 1g</i>
	<i>25 to 44</i>	<i>0.030 inch D.A.</i>
	<i>44 to 500</i>	<i>+/-3g</i>
<i>Longitudinal</i>	<i>5 to 25</i>	<i>+/- 1g</i>
	<i>25 to 32</i>	<i>0.030 inch D.A.</i>
	<i>32 to 500</i>	<i>+/-1.5g</i>
<i>Latitudinal</i>	<i>5 to 25</i>	<i>+/- 1g</i>
	<i>25 to 32</i>	<i>0.030 inch D.A.</i>
	<i>32 to 500</i>	<i>+/-1.5g</i>

Table A1

2.K.b Shock

2.K.b1 Basic. The system shall operate after exposure to peak, half sine wave shock impulses of 30 +/- 3 gravities (g), 11 +/- 1.1 milliseconds (ms) applied in each direction of the three mutually perpendicular axis shown in Figure B1 in Appendix B, while operating. This shall be imposed at the mounting surfaces.

2.K.b2 Gun firing. The system shall operate after exposure to peak, half sine wave shock impulses applied in each direction of the mutually perpendicular axis in accordance with Table A2 and as shown in Figure B1 in Appendix B, while operating. This shall be imposed at the mounting surface.

<i>Axis</i>	<i>Level (g's)</i>	<i>Duration (ms)</i>
<i>Vertical</i>	<i>70 to 7</i>	<i>1.0+/-0.1</i>
<i>Longitudinal</i>	<i>100 to 10</i>	<i>1.0+/-0.1</i>
<i>Latitudinal</i>	<i>100 to 10</i>	<i>1.0+/-0.1</i>

Table A2