JO3C

Joint Operations Configurable Combination Cart

✔ Available in Diesel-Driven, Electric-Driven, or Both
✔ Smallest and Lightest Weight Unit on the Market
✔ Transportable on a Single C130 Pallet Position

Supports All Fighter Jets Flying — World-Wide

Model JO3C

APPLICATION

The JO3C follows a modular design concept that allows the customer the greatest amount of flexibility to select the required cooling and power outputs. Power modules may be removed from the JO3C and utilized as stand-alone units. In addition, modules may be swapped to reconfigure the cart for various aircraft platforms. For example, the JO3C may be changed from an F-16 support cart supplying 400 Hz to a F-35 support cart supplying 270 VDC. As a result of this flexibility, the JO3C eliminates the need for multiple ground support carts by replacing them with one cart that services all fighter applications. Future aircraft power and air conditioning requirements may be met by upgrading existing modules or simply replacing a module with a new one. This eliminates the need to acquire new carts for aircraft platform modifications and variances.

ITW MILITARY GSE

ITW Military GSE leads the industry in product design and innovation. Utilizing the industry's premier engineering capabilities, ITW Military GSE has partnered with aircraft manufacturers to support the most advanced fighters in the world such as the F-18 Hornet, F-15 Eagle, F-16 Falcon, F-35 Joint Strike Fighter, and the F-22A Raptor. ITW Military GSE equipment has been tested and certified by Military aircraft manufacturers to the most stringent specifications of each aircraft, providing full confidence that each design will meet their aircraft support needs now and in the future. In addition, ITW Military GSE engineering and manufacturing expertise is now being utilized to support many special operations missions as well as development of UAVs (Unmanned Aerial Vehicles) and other advanced military flying platforms.

PERFORMANCE FEATURES

- Diesel and Electric power for mobile and facility power applications
- Modular design:
  - 270 VDC Output Module
  - 400 Hz Output Module
  - 28 VDC Output Module
  - 400 Hz/270 VDC Output Module
- Power modules also stand-alone capable with dedicated control panel
- EPA certified diesel engine
- R134A refrigerant
- Power quality exceeds MIL-STD-704E and F-35 standards
- Simplified control panel and indications
- Air transportable with C130 aircraft

OPTIONS

- Solid state 400 Hz convterter
- Solid state 270 VDC converter
- Solid state 28 VDC converter
- Servo Air
- Diesel or Electric powered (or both)
- Lighting package

MAINTENANCE

The JO3C simplifies maintenance of GSE equipment. If a module requires maintenance, only the module need be removed from service while the rest of the cart remains fully functional. In addition, a module can simply be replaced, returning the cart to full service while the original module is being serviced. Fixed hangar equipment can be the same modules as found in the mobile unit, simplifying the base maintenance concepts.

Registered to AS9100 (with ISO 9001)

Model	Cooling Capacity	Heating Capacity	Power Output	Length	Width	Height	Weight
JO3C	243.6 MBH (71.4 kW)	33.6 MBH (9.85 kW)	See reversed side for options.	8.67 ft. (2.64 m)	7.00 ft. (2.13 m)	7.67 ft. (2.34 m)	6,000 to 10,000 lbs. (2,721 to 4,536 kg) depending on options

FROM DESIGN TO DEPLOYMENT

JO3C Joint Operations Configurable Combination Cart Specifications

GENERAL

- Operating temperature: -40˚F (-40˚C) to 125˚F (52˚C)
- Storage temperature: -65˚F (-54˚C) to 150˚F (66˚C)
- Central controls for system operation
- Instrumentation Accuracy: ±2%
- MTBF 3000 hrs. minimum — low maintenance

COOLING AIR OUTPUT

- Max. outlet pressure 5.5 PSIG (0.38 kgf/cm2) variable
- Delivered air volume: 25 to 100 PPM (680 to 2,721 kg/h) variable
- Nominal delivered air temp @ 125˚F (52˚C) ambient: 50˚F (10˚C) @ 50 PPM (1,361 kg/h)
- Output Duct: 30 ft. (9.14 m) of 8-inch hose and 10 ft. (3.05 m) of 4-inch hose with fitting for aircraft as required (other lengths available)

EMI

MIL-STD-461E:

CE102 Conducted Emissions, Power Leads, 10 kHz to 10 MHz

CS101 Conducted Susceptibility, Power Leads, 30 Hz to 150 kHz

CS114 Conducted Susceptibility, Bulk Current Injection, 10 kHz to 200 MHz

CS115 Conducted Susceptibility, Bulk Cable Injection, Impulse Excitation

CS116 Conducted Susceptibility, Damped Sinusoidal Transients, Cables and Power Leads, 10 kHz to 100 MHz, 10A max for all configurations

RE102 Radiated Emissions, Electrical Field, 10 kHz to 1 GHz

RS103 Radiated Susceptibility, Electric Field, 2 MHz to 18 GHz

OPTIONS

Engine/Generator Set:

- 4-cycle water-cooled diesel; meets Tier 3 EPA standards, jet fuel capable
- Electronic speed control
- All necessary instruments and controls
- Automatic shutdown protection:
  - High temperature
  - Low oil pressure
  - Overspeed
- 480/60 Hz or 400/50 Hz Generator with integral voltage regulator

Servo Air:

- 0.5 PPM (13.6 kg/h) @ 18 PSIG (1.26 kgf/cm2)/min.
- 30 ft (9.14 m) hose with fitting for fighter aircraft included

400 HZ Output:

- 115/200 V, 3 PH, 90 kVA (72 kW)
  - Voltage ± 0.5% No Load - Full Load
  - Frequency ± 0.1% No Load - Full Load
  - Meets MIL-STD-704E
  - Harmonics: less than 2% total
  - 112 kVA (90 kW) for 10 minutes
- Output Cables: 30 ft. (9.14 m) each with NATO Standard AC plug (other lengths optional)
- Complete protection package

270 VDC Output:

- 260 Amps Continuous
- Meets or exceeds MIL-STD-704

28 VDC Output:

- 600 Amps Continuous
- 2000 Amps Starting
- Adjustable current limit over the range of 300 to 2000 Amps
- Meets MIL-STD-704E

Lighting package

Specifications subject to change without notice.

The JO3C is compatible with Every Military Fighter Jet Deployed – World-Wide

F-22A Raptor

F-15 Eagle

F-16 Falcon

F-18 Hornet

T-50

Eurofighter

JSF F-35

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Headquarters & Factory: 11001 US Hwy. 41 North, Palmetto, FL 34221 U.S.A.
Phone: 941.721.1003; 941.721.1006 • Fax: 941.723.3582; 941.531.5876
E-mail: sales@itwmilitarygse.com • www.itwmilitarygse.com

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FROM DESIGN TO DEPLOYMENT