

Product data matrix and performance index

Many civilian and military aircraft utilize 28 VDC power for fuel system products. The 13C1 series pumps can supply pressurized fuel from the main tank(s) directly to the engine or APU as a boost function or can supply pressurized fuel for tank to tank transfers. Extensive qualification testing has been completed, and the 13C1 series pumps have shown excellent field reliability. The combination of certification testing and field experience provides a low risk, cost effective solution for fuel pump applications utilizing a 28 VDC power system.

Product attributes and benefits

- · Integral assembly, mounted internal to aircraft fuel tank
- · Single inlet utilizing a centrifugal impeller
- 28 volt brushless DC drive system (motor & controller)
- Voltage range is from 18 VDC to 32 VDC
- Motor and controller are fuel cooled for long life

Contact information

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PARKER AEROSPACE

Fuel boost pump

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Model 13C1-3

Characteristic	Value	Pump performance
Model number Application	13C1-3 Fuel boost pump	Typical model 13C1-1 pump performace curve at 28 VDC for room temperature JP-8 at sea level
Pumping data		4040
Hydraulic element	Single stage, centrifugal	35
Rated flow	25.0 gpm	B) 30
Minimum discharge pressure	25.9 psig	ig 30 Eg 25 25 25 25 Established
Typical discharge pressure	28 psig at SL	25 25 25 25 25 25 25 25 25 25 25 25 25 2
Maximize operating altitude	40,000 ft	Discharge pressure (psig) 25 25 25 25 25 25 25 25 25 25 25 25 25
Qualified fuels	Jet A, Jet A-1, JP-8, JP-5	5 5
Temperature range	-65°F to +131°F	
Duty cycle	Continuous	0 5 10 15 20 25 30 Flow(apm)
Motor data Motor type Voltage Current at rated flow Maximum current Dry run capability EMI filtering Stator Thermal protection Electrical connection	Brushless DC 28 VDC 23 amps at SL 30 amps Yes Yes Yes D38999/21YE6PN	— Pressure — Current
Geometric assembly data Assembly mounting Inlet port Discharge port Discharge check valve Bypass flow valve Lift capability Approximant envelope (LxWxH) Weight (maximum)	Submerged, wall mount #8 mesh, screened inlet AS1656-1A-24 Yes Yes No 6.0" x 5.5" x 9.0" 9.0 lbs	

