

PARKER AEROSPACE

Fuel boost pump

Product data matrix and performance index

Many military aircraft utilize 270 VDC power for fuel system products. The 8C110 Series pumps can supply pressurized fuel from the main tanks(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 8C110 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 270 VDC power.

Product attributes and benefits

- · Integral assembly, mounted internal to the aircraft fuel tank
- · Dual inlet utilizing a centrifugal impeller and two centrifugal inducers
- 270 volt brushless DC drive system (motor & controller)
- Motor and controller are fuel cooled for long life

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Model 8C110-14,15

Characteristic	Value	Pump performance
Model number Application	8C110-14,15 Fuel transfer pump	Typical model 8C110-14 pump performance at 270 VDC for room temperature JP-8 at sea level
Pumping data Hydraulic element Rated flow Minimum discharge pressure	Dual stage, centrifugal 40,000 pph 18.5 psig	16 14 12 12 10 16 15 10 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
Typical discharge pressure	23 psig at SL 60,000 ft	6 da 15 da 27 da 2
Maximum operating altitude	60,000 It	
Qualified fuels Temperature range Duty cycle	JP-5, JP-8 -40°F to +175°F Continuous	0 10000 20000 30000 40000 50000 60000 Flow(pph)
Motor data Motor type Voltage Input power at rated flow Maximum input power Dry run capability EMI filtering Stator thermal protection Electrical connection	Brushless DC 270 vdc 10.1 amps at SL 11.75 amps Yes Yes Yes D38999/23YD97PN	High-power discharge pressure Medium-power discharge pressure Low-power discharge pressure High-power current Medium-power current Low-power current
Geometric assembly data Assembly mounting Inlet port Discharge port Discharge check valve Bypass flow valve Lift capability Approximate envelope (L x W x H) Weight (maximum)	Submerged, wall mount #8 mesh, screened inlet JSFD01-32 Yes Yes No 12.7" x 9.3" x 10.6" 16.25 lbs	

