## **PRODUCT DATA SHEET**



## **PARKER AEROSPACE**

# Fuel pump cartridge/canister

# Product data matrix and performance index

Many civilian and military aircraft utilize 28 VDC power for fuel system products. The 11C12-4/11C13-2 pump utilizes a two piece (cartridge/canister) assembly that allows for the main pumping element (cartridge) to be removed and replaced during service without performing additional maintenance on the fuel tank, such as draining the fuel from the tank to gain access to the pump. The 11C12-4/11C13-2 is used as the main boost pump for the aircraft engines. Extensive qualification testing has been completed, and the 11C12-4/11C13-2 pump assembly has 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

- Two piece assembly (cartridge/canister), skin mounted on the bottom of the aircraft fuel tank
- Circumferential, screened 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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### Model 11C12-4

Characteristic	Value	Pump performance
Model number Application	11C12-4 Cartridge assembly	Typical model 11C12-4/11C13-2 pump performance at sea level for room temperature JP-8 fuel
Pumping data Hydraulic element Rated flow Minimum discharge pressure Typical discharge pressure Maximum operating altitude Qualified fuels	Single stage, centrifugal 8600 pph 13 psig 16.9 psig at sea level 45,000 ft Jet A, JP-8, TS-1,	25.0 20.0
Temperature range Duty cycle	RT, Jet B, JP-5 -49°F to +130°F Continuous	5.0 0.0 0 2000 4000 6000 8000 10000 12000
Motor data Motor type Voltage Current at rated flow Maximum current Dry run capability EMI filtering Stator thermal protection Electrical connection	Brushless DC 18 - 32 volts 15.4 amps at sea level 25 amps Yes Yes Yes M83723/88H1404N	Flow (pph)  18 VDC - Pressure 22 VDC - Pressure 26.5-32 VDC - Pressure 18 VDC - Current 22 VDC - Current 26-32 VDC - Current
Geometric assembly data Assembly mounting Bypass flow valve Lift capability Approximate envelope (LxWxH) Weight (maximum)	Into canister No No 4.3" x 4.3" x 11.1" 5.2 lbs	

### Model 11C13-2

Characteristic	Value
Model number	11C13-2
Application	Canister assembly
Geometric assembly data	
Assembly mounting	Tank floor, skin mount
Inlet port	#12 mesh, screened inlet
Discharge port	AS1656-1-16
Discharge check valve	Yes
Bypass flow valve	No
Approximate envelope $(LxWxH)$	6.5" x 6.5" x 12.2"
Weight (maximum)	3.1 lbs

