

## PRODUCT FAMILY

# 28 VDC Brushed Fuel Pump

Parker Aerospace FSD-Elyria has a long history of supplying fuel pumps to the general aviation, business jet, regional jet, and helicopter markets. These pumps typically run from a 28 VDC power system and supply pressurized fuel from the main tank(s) directly to an engine or auxiliary power unit (boost function) or move fuel to another fuel tank on the aircraft (transfer function). The product catalog covers numerous mounting arrangements and provides “off-the-shelf” (OTS) possibilities for any new or retrofit application. Extensive qualification testing has been completed on these products. Past testing, combined with operational field experience means that OTS pumps can provide a low-risk, cost-effective solution for fuel system design.



Model 1C64 family  
Cartridge/canister mounting

## Product Features

There are numerous fuel pumps available in the 28 VDC Fuel Pump Family. An existing product can almost always be found that provides a proven solution for a new or retrofit application. Some of the key features that provide versatility are as follows:

### Mounting configuration

- Single assembly, line mounted external to the aircraft fuel tank
- Single assembly, mounted internal to the aircraft fuel tank on the floor or walls
- Two-piece, cartridge/canister assembly that mounts on the bottom of the fuel tank (enables cartridge removal and replacement without draining fuel tank)

### Hydraulic elements

- Centrifugal impeller
- Positive displacement, vane element

### Motor drive

- 28 VDC, direct drive motor with carbon brushes and permanent magnets
- Motor designs are operational from 18 VDC to 32 VDC
- Motor is fuel-cooled for long life

## Specifications

Attributes	Values
Flow range	0 to 13,000 pph
Discharge pressure range	4 to 29 psi
Required input range	100 to 675 watts
Fluid temperature range	-65°F to +135°F
Ambient temperature range	-65°F to +160°F
Assembly weight	2 to 7 pounds
Duty cycle	Intermittent to continuous

## Applications

Pumps from the 28 VDC fuel pump product family are used on the following aircraft:

- Agusta A109 series, AB139
- Beechcraft A100/B100/B200/E90
- Bell 204/205/212/412
- Bell Canada 407
- CASA CN235
- Cessna Sovereign
- Dornier 228 series
- Embraer 170/190, 145, Super Tucano
- LearJet 45
- Piaggio P160, P180
- Sikorsky UH60/SH60

## Optional Features

There are numerous pumps available within the product line family that each have unique features. Any specifications associated with a new application should be sent to Parker, and the best available option from the product catalog will be presented to the customer for consideration.

## Contact Information

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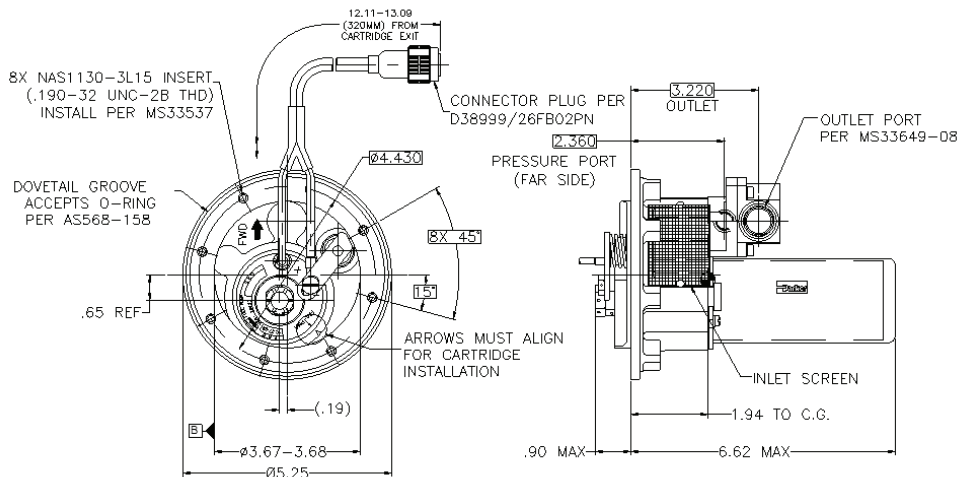
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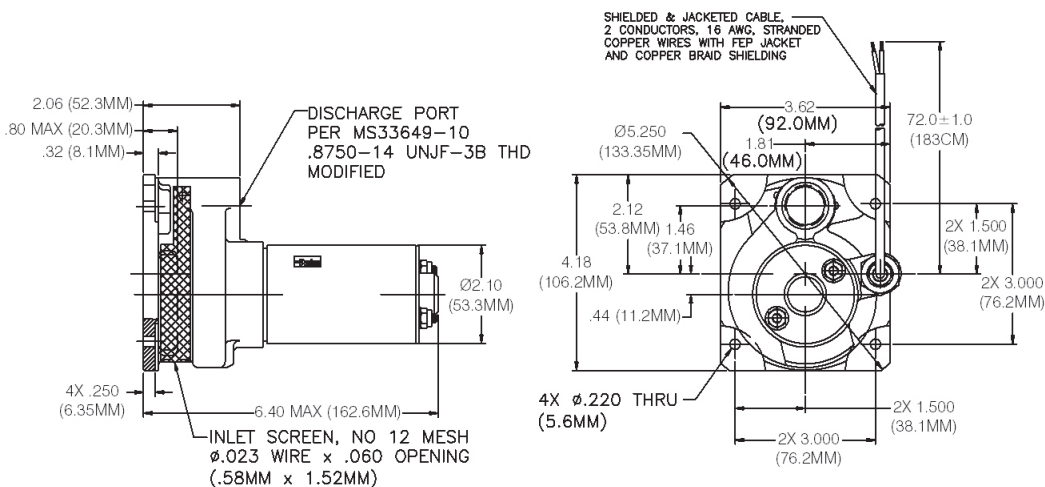
### Model 1C64 family

Cartridge/canister mounting



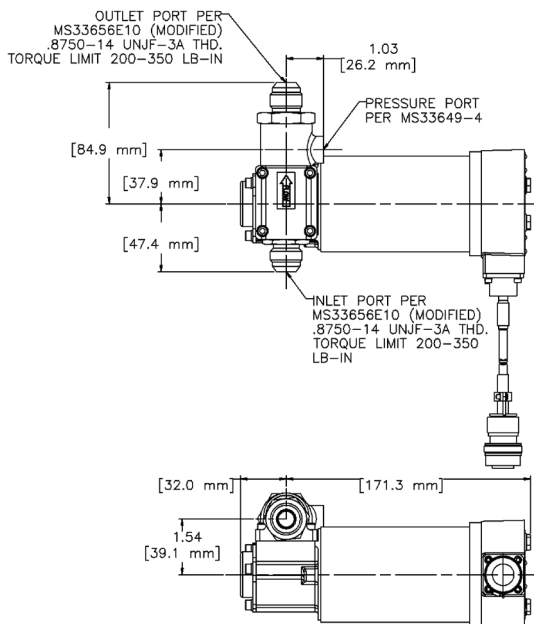
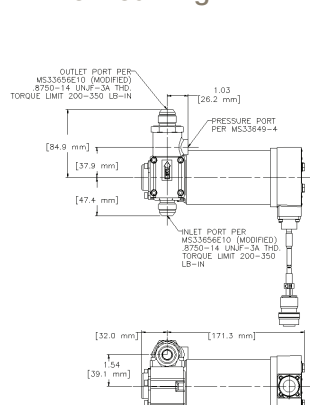
### Model 1C12 family

In-tank mounting



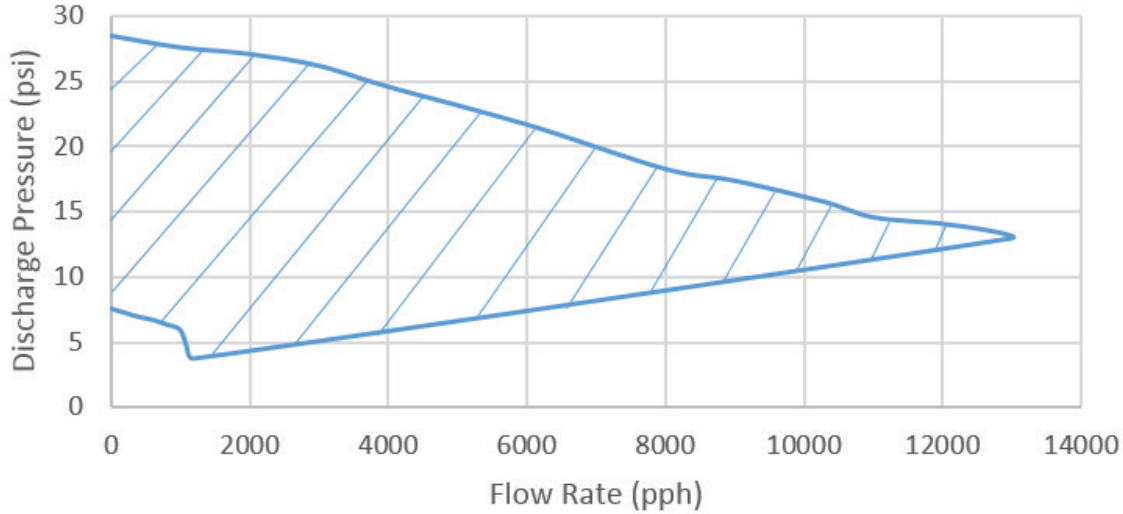
### Model 3B7 family

In-line mounting

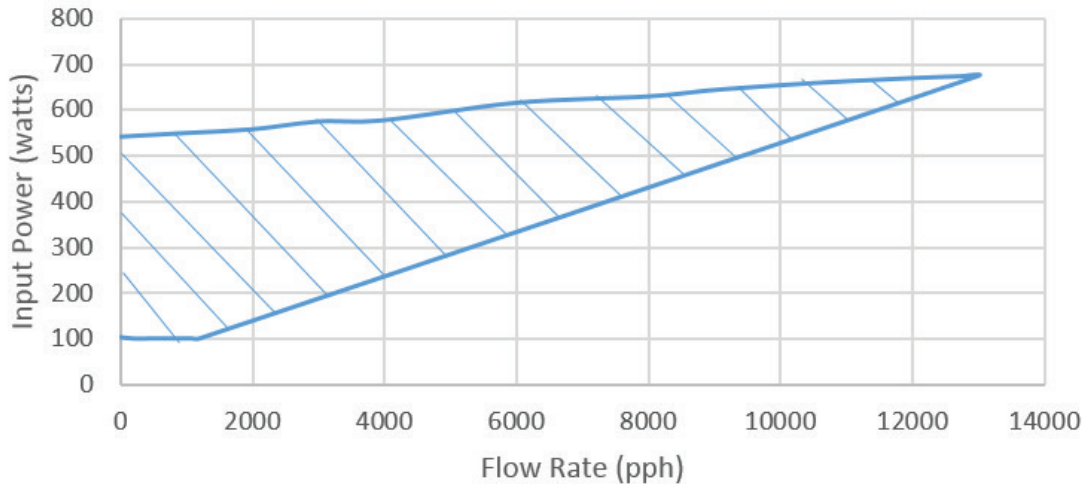


# Product range curves for fuel flow versus discharge pressure and fuel flow versus input power

## 28VDC Brushed Pump Flow vs. Discharge Pressure



## 28 VDC Brushed Pump Flow vs. Input Power



If the required flow, discharge pressure, and input power fit within the cross-hatched areas, then a product already exists that may fit the new application. Any pressure requirements below the cross-hatched region will also be satisfied.

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