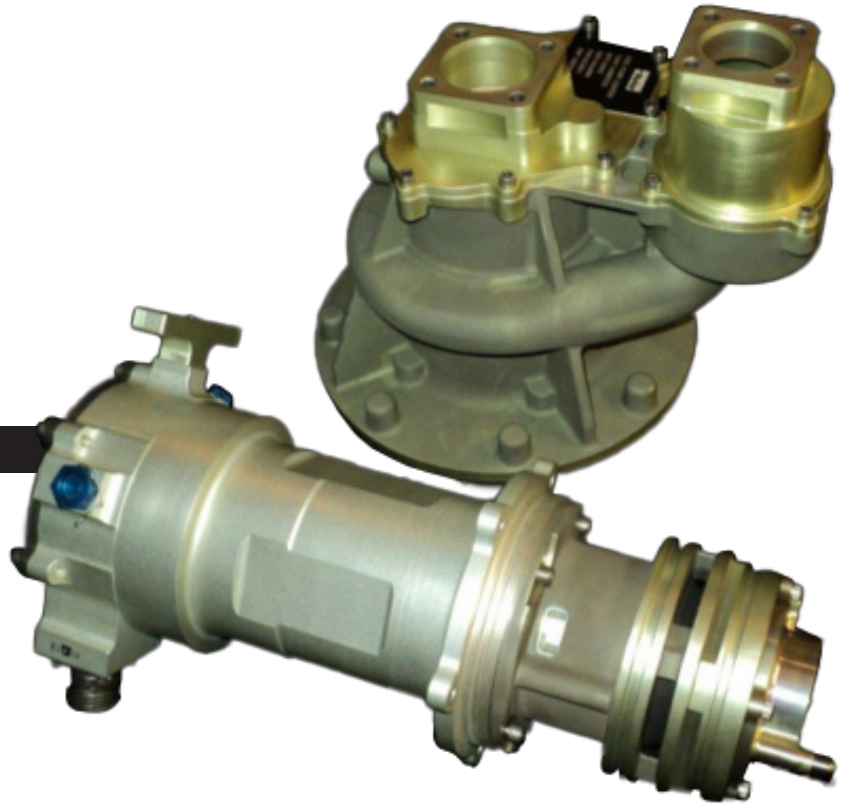


PRODUCT DATA SHEET

Model 9C210-2, 9C209-1



PARKER AEROSPACE

Fuel pump cartridge/canister

Product data matrix and performance index

Some civilian aircraft utilize 115 VAC (L-N), variable frequency power for fuel system products. The 9C209-1/9C210-2 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 9C209-1/9C210-2 is spar mounted on the side of the fuel tank and utilizes a liquid ring assembly to “lift” fuel through an inlet snorkel.

Extensive qualification testing has been completed, and the 9C209-1/9C210-2 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 115 VAC, variable frequency power system.

Product attributes and benefits

- Two piece assembly (cartridge/canister), mounted to the vertical spar of the aircraft fuel tank
- Single inlet utilizing a centrifugal impeller
- 115 Volt (L-N), variable frequency drive motor
- Motor is fuel cooled for long life

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Fuel pump cartridge/canister

Product data matrix and performance index

Model 9C210-2

Characteristic	Value	Pump performance																																																																
Model number	9C210-2	Typical model 9C209-1/9C210-2 pump performance at 115 VAC across various frequencies and altitudes for -40°F Jet A																																																																
Application	Cartridge assembly																																																																	
Pumping data																																																																		
Hydraulic element	Single stage, centrifugal	<table border="1"><caption>Approximate data points from the pump performance graph</caption><thead><tr><th>Flow (pph)</th><th>5K/-40F/635 Hz</th><th>10K/-40F/632 Hz</th><th>20K/-40F/629 Hz</th><th>30K/-40F/628 Hz</th><th>35K/-40F/620 Hz</th><th>39K/-40F/618 Hz</th><th>GL/-40F/440 Hz</th></tr></thead><tbody><tr><td>0</td><td>48.0</td><td>47.0</td><td>46.0</td><td>45.0</td><td>44.0</td><td>43.0</td><td>23.0</td></tr><tr><td>5000</td><td>45.0</td><td>44.0</td><td>43.0</td><td>42.0</td><td>41.0</td><td>40.0</td><td>20.0</td></tr><tr><td>10000</td><td>40.0</td><td>39.0</td><td>38.0</td><td>37.0</td><td>36.0</td><td>35.0</td><td>17.0</td></tr><tr><td>15000</td><td>35.0</td><td>34.0</td><td>33.0</td><td>32.0</td><td>31.0</td><td>30.0</td><td>13.0</td></tr><tr><td>20000</td><td>28.0</td><td>27.0</td><td>26.0</td><td>25.0</td><td>24.0</td><td>23.0</td><td>9.0</td></tr><tr><td>25000</td><td>18.0</td><td>17.0</td><td>16.0</td><td>15.0</td><td>14.0</td><td>13.0</td><td>5.0</td></tr><tr><td>30000</td><td>8.0</td><td>7.0</td><td>6.0</td><td>5.0</td><td>4.0</td><td>3.0</td><td>1.0</td></tr></tbody></table>	Flow (pph)	5K/-40F/635 Hz	10K/-40F/632 Hz	20K/-40F/629 Hz	30K/-40F/628 Hz	35K/-40F/620 Hz	39K/-40F/618 Hz	GL/-40F/440 Hz	0	48.0	47.0	46.0	45.0	44.0	43.0	23.0	5000	45.0	44.0	43.0	42.0	41.0	40.0	20.0	10000	40.0	39.0	38.0	37.0	36.0	35.0	17.0	15000	35.0	34.0	33.0	32.0	31.0	30.0	13.0	20000	28.0	27.0	26.0	25.0	24.0	23.0	9.0	25000	18.0	17.0	16.0	15.0	14.0	13.0	5.0	30000	8.0	7.0	6.0	5.0	4.0	3.0	1.0
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Rated flow	15,497 pph at 5K, at 635 Hz																																																																	
Minimum discharge pressure	31.5 psig at 5K, at 635 Hz																																																																	
Typical discharge pressure	34.5 psig at 5K, at 635 Hz																																																																	
Maximum operating altitude	39,000 ft																																																																	
Qualified fuels	Jet A																																																																	
Temperature range	-40°F to +130°F																																																																	
Duty cycle	Continuous																																																																	
Motor data																																																																		
Motor type	Variable freq. AC																																																																	
Voltage	115 VAC																																																																	
Current at rated flow	10.5 amps at 5K, at 635 Hz																																																																	
Maximum current	17.7 amps																																																																	
Dry run capability	Yes																																																																	
EMI filtering	No																																																																	
Stator thermal protection	Yes																																																																	
Electrical connection	D38999/21YD97PN																																																																	

Geometric assembly data

Assembly mounting	Into canister
Bypass flow valve	No
Lift capability	Up to 9"
Approximate envelope (L x W x H)	13.8" x 7.0" x 5.4"
Weight (maximum)	13 lbs

Model 9C209-1

Characteristic	Value
Model number	9C209-1
Application	Canister assembly

Geometric assembly data

Assembly mounting	Spar, wall mount
Inlet port	4 bolt customer flange
Discharge port	4 bolt customer flange
Discharge check valve	Yes
Bypass flow valve	No
Approximate envelope (L x W x H)	8.1" x 8.4" x 10.6"
Weight (maximum)	7.5 lbs

