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### Specifications

<table>
<thead>
<tr>
<th>Model Code Number</th>
<th>130</th>
<th>160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement cc/rev (in³/rev)</td>
<td>130 (7.93)</td>
<td>160 (9.76)</td>
</tr>
<tr>
<td>Shaft Speed rpm</td>
<td>3200</td>
<td>2950</td>
</tr>
<tr>
<td>Continuous Pressure – ΔP bar (psi)</td>
<td>430 (6250)</td>
<td>430 (6250)</td>
</tr>
<tr>
<td>Bearing Life – L₁₀ hours</td>
<td>10,000</td>
<td>18,000</td>
</tr>
<tr>
<td>Bearing Life – L₂₀ hours</td>
<td>33,700</td>
<td>46,400</td>
</tr>
</tbody>
</table>

* Nominal Pressure: Max delta system pressure at which component fatigue does not occur (pump life estimated by bearing life).
* Peak Pressure: Max operation pressure which is permissible for a short duration of time (t < 1 sec).

The following chart shows the expected bearing life with no external shaft side load and charge pressure of 304 psi.

### Performance

**Output Torque vs Speed**

**Input Flow vs Speed**

- **Note:** Operating the motor below 50 rpm is not recommended.
The following 22 digit coding system has been developed to identify preferred feature options for the Series 760 Fixed Displacement Motor. Use this code to specify a motor with the desired features. All 22-digits of the code must be present to release a new product number for ordering.

<table>
<thead>
<tr>
<th>ADZ</th>
<th>XXX</th>
<th>XX</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>XX</th>
<th>A</th>
<th>D</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3</td>
<td>4,5,6</td>
<td>7,8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18,19</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>

**Product**

**AEA – Hydrostatic Fixed Displacement Motor**

**Displacement**

130 – 130.0 cm³/r (7.93 in³/r) at 18° Swashplate angle

160 – 160.0 cm³/r (9.76 in³/r) at 18° Swashplate angle

**Input Shaft**

01 – (1.750) Diameter Straight With (.4375) x (1.00) Square Key

02 – (1.750) Diameter Tapered With (.4375) x (1.00) Square Key

13 – 13 Tooth 8/16 Pitch Spline

27 – 27 Tooth 16/32 Pitch Spline

**Main Ports**

A – 31.75 (1.25) SAE 4-bolt split flange port, high pressure series (code 62)

B – 31.75 (1.25) SAE 4-bolt split flange port, high pressure series (code 62) with M12 x 1.75 threaded holes

**End Cover and Loop Flushing Valve**

A – Same side ports, integral loop flushing valve with high-rate springs

B – Same side ports, integral loop flushing valve with low-rate springs

C – Same side ports, valve block loop flushing with high-rate springs

D – Same side ports, valve block loop flushing with low-rate springs

**Charge Pressure Relief Valve**

E – Rear ports, integral loop flushing valve with high-rate springs

F – Rear ports, integral loop flushing valve with low-rate springs

G – Rear ports, valve block loop flushing with high-rate springs

H – Rear ports, valve block loop flushing with low-rate springs

**Charge Pressure Relief Valve Setting**

A – None

B – 103 bar (1500 lbf/in²)

C – 138 bar (2000 lbf/in²)

D – 172 bar (2500 lbf/in²)

E – 207 bar (3000 lbf/in²)

F – 241 bar (3500 lbf/in²)

G – 276 bar (4000 lbf/in²)

H – 310 bar (4500 lbf/in²)

J – 345 bar (5000 lbf/in²)

K – 379 bar (5500 lbf/in²)

L – 414 bar (6000 lbf/in²)

M – 431 bar (6250 lbf/in²)

N – 448 bar (6500 lbf/in²)

P – 466 bar (6750 lbf/in²)

**Speed Sensor**

0 – No sensor

1 – Digital sensor with 3 wire weather pack connector

2 – Sensor hole (5/8-18 UNF thread) plugged (for digital sensor)

3 – Quadrature sensor with 4 wire weather pack connector (one 24 pulse per rev speed signal and one directional signal)

4 – Quadrature sensor with 4 wire weather pack connector (two 12 pulse per rev speed signal in quadrature)

5 – Sensor hole (9/16-32 UN thread) plugged (for quadrature sensor)

**Special Features**

00 – No special features

01 – Metal case drain plug in both ports

02 – Nametag opposite dowel pin

**Paint and Packaging**

A – Painted primer blue (standard)

**Identification on Unit**

A – Standard

**Design Code**

A – A
Input Shaft Options
Model Code Position 7, 8

**Code 01**
(1.750) Diameter Straight
With (.4375) X (1.00)
Square Key

**Code 02**
(1.750) Diameter Tapered
With (.4375) X (1.00)
Square Key

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**Note**
Input Shaft Options
Model Code Position 7, 8

**Code 13**
13 Tooth 8/16 Pitch Spline
Torque 1921 Nm
17,000 lbf-in

Code 27
27 Tooth 16/32 Pitch Spline
Torque 734 Nm
6,500 lbf-in
Main Ports
Model Code Position 9

**Code A**
31.75 (1.25) SAE 4-Bolt Split Flange Port, High Pressure Series (Code 62)

**Code B**
31.75 (1.25) SAE 4-Bolt Split Flange Port, High Pressure Series (Code 62) with M12 X 1.75 Threaded Holes
End Cover and Loop Flushing Valve
Model Code Position 10

**Code A**
Same Side Ports, Integral
Loop Flushing Valve with
High-Rate Springs

**Code B**
Same Side Ports, Integral
Loop Flushing Valve with
Low-Rate Springs
End Cover and Loop Flushing Valve
Model Code Position 10

Code C
Same Side Ports, Valve Block Loop Flushing with High-Rate Springs

Code D
Same Side Ports, Valve Block Loop Flushing with Low-Rate Springs

Unit Is Bi-rotational
Flow Into Port A Produces CW Rotation
Flow Into Port B Produces CCW Rotation
End Cover and Loop Flushing Valve
Model Code Position 10

Code E
Rear Ports, Integral Loop Flushing Valve with High-Rate Springs

Code F
Rear Ports, Integral Loop Flushing Valve with Low-Rate Springs
End Cover and Loop Flushing Valve
Model Code Position 10

**Code G**
Rear Ports, Valve Block
Loop Flushing with High-Rate Springs

**Code H**
Rear Ports, Valve Block
Loop Flushing with Low-Rate Springs

Unit is Bi-rotational
Flow into Port A
Produces CW Rotation
Flow into Port B
Produces CCW Rotation
Speed Sensor
Model Code Position 17

Code 0
No Sensor

Code 1
Digital Sensor with 3 wire weatherpack connector

Output Circuit Wiring Instructions

Red to Pin C
Green to Pin B
Black to Pin A

Supply Voltage 4.5Vdc to 16Vdc
Supply Current 20mA Max
Logic Zero State 400mV at 20mA
Sink Current
Operating Temperature: 40°F to +257°F (-40°C To +125°C)
Operating Frequency 0Hz to 5KHz
Duty Cycle 20% to 80%
Sink Current: 25mA Max

Code 2
Sensor Hole (5/8-18 UNF Thread) Plugged
(For Digital Sensor)
Speed Sensor
Model Code Position 17

**Code 3**
Quadrature Sensor with 4 Wire Weather Pack Connector (One 24 Pulse Per Rev Speed Signal and One Directional Signal)

**Output Circuit Wiring Instructions**

Output 1 and 2 are quadrature outputs with a phase angle difference of 90°±45°. The speed output signal is the exclusive or of output 1 and output 2. The direction output signal is derived from the last and current states of output 1 and 2.

**Code 4**
Quadrature Sensor with 4 Wire Weather Pack Connector (Two 12 Pulse Per Rev Speed Signal in Quadrature)

Supply Voltage: (Vs) 8 to 28 Vdc (Functional Range)
Supply Current: (Is) 40mA (Including Internal Pull-up Resistor)
Switching Frequency: 7 to 3k Hz

Output: Open Collector with 10k OHm Pull-up Resistor
Output Voltage Low: (Vol) 0.5 Vdc Max at 10 Ma
Pulse Width: 20 to 80% of Duty Cycle (with Specified Target)

**Connector Pin Color-signal**

<table>
<thead>
<tr>
<th>Output Types</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Code 3</strong> One Speed Signal Providing 2 Pulse Per Target Tooth and One Directional Signal</td>
<td>Red-Power</td>
<td>Black-common</td>
<td>Blue-speed</td>
<td>White-direction</td>
</tr>
<tr>
<td><strong>Code 4</strong> Two Speed Signals in Quadrature Each Providing 1 Pulse Per Target Tooth</td>
<td>Red-Power</td>
<td>Black-common</td>
<td>Orange-output 1</td>
<td>Yellow-output 2</td>
</tr>
</tbody>
</table>

**Code 5**
Sensor Hole (9/16-32 UN Thread) Plugged (For Quadrature Sensor)