GROUP OP – P3000 SERIES

PERFORMANCE DATA

Pressures quoted are relief valve maximum by-pass
Performance with SAE 20W oil at 50° C

<table>
<thead>
<tr>
<th>PUMP TYPE</th>
<th>Nominal Displacement cc/rev</th>
<th>Nominal Delivery @ 1500 rpm &amp; Pressure P lpm</th>
<th>Maximum Continuous Pressure P psi</th>
<th>bar</th>
<th>Speed at Maximum Continuous Pressure P Max</th>
<th>min</th>
</tr>
</thead>
<tbody>
<tr>
<td>3003</td>
<td>0.80</td>
<td>1.20</td>
<td>3000</td>
<td>207</td>
<td>4000</td>
<td>500</td>
</tr>
<tr>
<td>3004</td>
<td>1.20</td>
<td>1.80</td>
<td>3000</td>
<td>207</td>
<td>4000</td>
<td>500</td>
</tr>
<tr>
<td>3006</td>
<td>1.67</td>
<td>2.50</td>
<td>3000</td>
<td>207</td>
<td>4000</td>
<td>500</td>
</tr>
<tr>
<td>3008</td>
<td>2.27</td>
<td>3.40</td>
<td>3000</td>
<td>207</td>
<td>4000</td>
<td>500</td>
</tr>
<tr>
<td>3011</td>
<td>3.20</td>
<td>4.80</td>
<td>3000</td>
<td>207</td>
<td>4000</td>
<td>500</td>
</tr>
<tr>
<td>3013</td>
<td>3.87</td>
<td>5.80</td>
<td>3000</td>
<td>207</td>
<td>4000</td>
<td>500</td>
</tr>
<tr>
<td>3015</td>
<td>4.53</td>
<td>6.80</td>
<td>3000</td>
<td>207</td>
<td>4000</td>
<td>600</td>
</tr>
</tbody>
</table>

TYPICAL PERFORMANCE

TYPICAL PUMP DELIVERY
Flow at Max. Pressure.

TYPICAL INPUT HORSEPOWER
Fluid SAE 20W
Fluid Temperature 50° C
OP SERIES

INSTALLATION DIMENSIONS

<table>
<thead>
<tr>
<th>PUMP TYPE</th>
<th>DIM-X</th>
<th>DIM-Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP-3015</td>
<td>42.2</td>
<td>84.5</td>
</tr>
<tr>
<td>OP-3013</td>
<td>41.5</td>
<td>83.1</td>
</tr>
<tr>
<td>OP-3011</td>
<td>40.8</td>
<td>81.7</td>
</tr>
<tr>
<td>OP-3008</td>
<td>39.9</td>
<td>79.7</td>
</tr>
<tr>
<td>OP-3006</td>
<td>39.1</td>
<td>78.2</td>
</tr>
<tr>
<td>OP-3004</td>
<td>38.6</td>
<td>77.1</td>
</tr>
<tr>
<td>OP-3003</td>
<td>38.1</td>
<td>76.3</td>
</tr>
<tr>
<td>PUMP TYPE</td>
<td>DIM-X</td>
<td>DIM-Y</td>
</tr>
</tbody>
</table>

ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED.
OP SERIES

DRIVE SHAFT

SHAFT CODE - L

SHAFT CODE - P

ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED.
DRIVE SHAFT

SHAFT CODE - T
FOR FLANGE CODE - D

WOODRUFF KEY
B.S.46-304
KEY WIDTH 2.4
-0.025

ø12.7 GAUGE BASIC TAPER
PER INCH ON DIA 0.125" (1:8)

ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED.
OP SERIES

MOUNTING FLANGE

CODE - S

[Diagram with dimensions and tolerances]

CODE - D

[Diagram with dimensions and tolerances]

ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED.
OP SERIES

BODY

CODE - F

CODE - T

INLET AND OUTLET PORTS

3/8"-BSP FOR PUMP TYPES OP3003 TO 3011
1/2"-BSP FOR PUMP TYPES OP3013 TO 3015

ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED.
OP SERIES

BODY PORT

CODE - J

INLET AND OUTLET PORTS

7/8"-14 UN FOR PUMP TYPES 3015 INLET OUTLET 3/4-16 UN
3/4"-16 UN FOR PUMP TYPES 0P3003 TO 0P3013

ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED.
END COVER

CODE - B

CODE - R
RELIEF VALVE SUITABLE FOR GROUP 0P
MOUNTED IN PLACE OF END COVER