SNM2NN, SNU2NN – 03CA
Standard porting drawing for 03CA

For unidirectional motors no case drain hole into the rear cover.

Bidirectional motors dimensions – 03CA

<table>
<thead>
<tr>
<th>Frame size</th>
<th>6.0</th>
<th>8.0</th>
<th>011</th>
<th>014</th>
<th>017</th>
<th>019</th>
<th>022</th>
<th>025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inlet/Outlet</th>
<th>C/c</th>
<th>D/d</th>
<th>E/e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 [0.591]</td>
<td>35 [1.38]</td>
<td>M6</td>
</tr>
<tr>
<td></td>
<td>20 [0.79]</td>
<td>40 [1.58]</td>
<td></td>
</tr>
</tbody>
</table>

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>03CA</td>
<td>SNM2NN/014BN03CAM385B5NNNN/NNNNN</td>
<td>70 N·m [620 lb·in]</td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 30-35.

For unidirectional SNU2NN dimensions, see SNU2NN ports, page 40.
SNM2NN, SNU2NN–04DB/05DB and 04AA/05AA
Standard porting drawing for 04DB/05DB and 04AA/05AA

For unidirectional motors no case drain hole into the rear cover.

Bidirectional motors dimensions – 04/05DB and 04/05AA

<table>
<thead>
<tr>
<th>Frame size</th>
<th>6.0*</th>
<th>8.0</th>
<th>011</th>
<th>014</th>
<th>017</th>
<th>019</th>
<th>022</th>
<th>025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inlet/Outlet</td>
<td>C/c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 [0.591]</td>
<td>20 [0.79]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D/d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35 [1.38]</td>
<td>40 [1.58]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E/e</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Before choosing this frame size, please apply to Turolla technical department.

For unidirectional SNU2NN dimensions, see SNU2NN ports, page 40.

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>04DB</td>
<td>SNM2NN/8.0BN04DBAM1B5B5NNNN/NNNNN</td>
<td>130 Nm [1151 lb-in]</td>
</tr>
<tr>
<td>05DB</td>
<td>SNM2NN/017BN05DBM1B5B5NNNN/NNNNN</td>
<td>140 Nm [1239 lb-in]</td>
</tr>
<tr>
<td>04AA</td>
<td>SNM2NN/8.0BN04AAM1B5B5NNNN/NNNNN</td>
<td></td>
</tr>
<tr>
<td>05AA</td>
<td>SNM2NN/017BN05AAM1B5B5NNNN/NNNNN</td>
<td></td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 30-35.
SNM2NN, SNU2NN, SKU2NN – 06SA, 06GA
Standard porting drawing for 06SA and 06GA

For unidirectional motors no case drain hole into the rear cover.

Bidirectional motors dimensions – 06SA and 06GA

<table>
<thead>
<tr>
<th>Frame size</th>
<th>6.0*</th>
<th>8.0</th>
<th>011</th>
<th>014</th>
<th>017</th>
<th>019</th>
<th>022</th>
<th>025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>47</td>
<td>49</td>
<td>52</td>
<td>54</td>
<td>56</td>
<td>59</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>[1.772]</td>
<td>[1.850]</td>
<td>[1.920]</td>
<td>[2.047]</td>
<td>[2.205]</td>
<td>[2.205]</td>
<td>[2.323]</td>
<td>[2.400]</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>93.5</td>
<td>97.5</td>
<td>101.5</td>
<td>107.5</td>
<td>111.5</td>
<td>115.5</td>
<td>121.5</td>
<td>125.5</td>
</tr>
<tr>
<td></td>
<td>[3.681]</td>
<td>[3.839]</td>
<td>[3.996]</td>
<td>[4.232]</td>
<td>[4.390]</td>
<td>[4.547]</td>
<td>[4.783]</td>
<td>[4.941]</td>
</tr>
<tr>
<td>Inlet/Outlet</td>
<td>C/c</td>
<td>7/16–14UNF–2B, 16.7 [0.658] deep</td>
<td>1 1/8–12UNF–2B, 18.0 [0.709] deep</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Before choosing this frame size, please apply to Turolla technical department.

For unidirectional SNU2NN dimensions, see SNU2NN ports, page 40.

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>06SA</td>
<td>SNM2NN/8.0BN06SAM1E5ENN/NNNNN</td>
<td>75 N-m [664 lb-in]</td>
</tr>
<tr>
<td>06GA</td>
<td>SNM2NN/017BN06GAM6E5ENN/NNNNN</td>
<td>80 N-m [708 lb-in]</td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 30-35.
GROUP 3 GEAR MOTORS

Motor design

**SNM3NN**

SNM3NN is the Group 3 bidirectional motor available in the whole displacements range from 22 up to 90 cm³/rev [1.35 up to 5.38 in³/rev].

Configurations include European and SAE flanges and shafts (01BA, 01FA, 01DA, 02AA, 02FA, 02DB, 03BB, 03FB, 06AA, 06DD, 07BC, 07GA, 07SA).

**SNU3NN**

SNU3NN is the Group 3 unidirectional motor available in the whole displacements range from 22 up to 90 cm³/rev [1.35 up to 5.38 in³/rev].

The SNU3NN motor construction is derived from the correspondent pump SNP3.

Configurations include European and SAE flanges and shafts (01BA, 01FA, 01DA, 02AA, 02FA, 02DB, 03BB, 03FB, 03DB, 06AA, 06SA, 07BC, 07GA, 07SA).
**Technical data**

This table details the technical data for Group 3 gear motors based on the model and displacement configuration.

### Technical data for Group 3 gear motors

<table>
<thead>
<tr>
<th>Frame size</th>
<th>022</th>
<th>026</th>
<th>033</th>
<th>038</th>
<th>044</th>
<th>048</th>
<th>055</th>
<th>063</th>
<th>075</th>
<th>090</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement</td>
<td>cm³/rev (in³/rev)</td>
<td>22.1 (1.35)</td>
<td>26.2 (1.60)</td>
<td>33.1 (2.02)</td>
<td>37.9 (2.32)</td>
<td>44.1 (2.69)</td>
<td>48.3 (2.93)</td>
<td>55.2 (3.36)</td>
<td>63.4 (3.87)</td>
<td>74.4 (4.54)</td>
</tr>
</tbody>
</table>

**SNU3NN (unidirectional)**

| | Peak pressure (bar [psi]) | 270 (3915) | 270 (3915) | 270 (3915) | 270 (3915) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 230 (3336) | 210 (3045) | 190 (2755) | 170 (2465) |
| | Rated pressure (bar [psi]) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 230 (3336) | 210 (3045) | 190 (2755) | 170 (2465) |
| Minimum speed (min⁻¹ [rpm]) | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Maximum speed | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**SNM3NN (bidirectional) motor in parallel**

| | Peak pressure (bar [psi]) | 270 (3915) | 270 (3915) | 270 (3915) | 270 (3915) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 230 (3336) | 210 (3045) | 190 (2755) | 170 (2465) |
| | Rated pressure (bar [psi]) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 230 (3336) | 210 (3045) | 190 (2755) | 170 (2465) |
| Minimum speed (min⁻¹ [rpm]) | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Maximum speed | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**SNM3NN (bidirectional) motor in series**

| | Peak pressure (bar [psi]) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 230 (3336) | 210 (3045) | 190 (2755) | 170 (2465) |
| | Rated pressure (bar [psi]) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 250 (3625) | 230 (3336) | 210 (3045) | 190 (2755) | 170 (2465) |
| Minimum speed (min⁻¹ [rpm]) | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 |
| Maximum speed | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**All (SNU3NN, SNM3NN)**

| | Weight (kg [lb]) | 6.8 (15.0) | 6.8 (15.0) | 7.2 (15.8) | 7.3 (16.1) | 7.5 (16.5) | 7.6 (16.8) | 7.8 (17.3) | 8.1 (17.9) | 8.5 (18.7) | 8.9 (19.6) |

1 kg•m² = 23.68 lb•ft²

---

**Caution**

The rated and peak pressure mentioned are for motors with flanged ports only. When threaded ports are required a de-rated performance has to be considered. To verify the compliance of an high pressure application with a threaded ports pump apply to a Turolla representative.
## Product Code

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEU3NN</td>
<td>Low Cost Gr3 Unidirectional Motor</td>
</tr>
<tr>
<td>SNU3NN</td>
<td>Gr3 Unidirectional Motor</td>
</tr>
<tr>
<td>SNU3GN</td>
<td>Gr3 Unidirectional Motor + Anticav. Check Valve</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>Gr3 Bidirectional Motor - Axial drain on cover</td>
</tr>
<tr>
<td>SNM3NL</td>
<td>Gr3 Bidirectional Motor - Vert. drain on rear cover</td>
</tr>
<tr>
<td>SNM3GN</td>
<td>Gr3 Bidirectional Motor - Anticav. Check Valve - Axial drain on cover</td>
</tr>
<tr>
<td>SNM3GL</td>
<td>Gr3 Bidirectional Motor - Anticav. Check Valve - Vert. drain on rear cover</td>
</tr>
<tr>
<td>SNM3CN</td>
<td>Gr3 Bidirectional Motor - Anticav. Check valve on Cover</td>
</tr>
<tr>
<td>SNM3DN</td>
<td>Gr3 Bidirectional Motor - Internal drain valve</td>
</tr>
</tbody>
</table>

## Displacement

<table>
<thead>
<tr>
<th>Code</th>
<th>Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>022</td>
<td>22,1 cc</td>
</tr>
<tr>
<td>026</td>
<td>26,2 cc</td>
</tr>
<tr>
<td>033</td>
<td>33,1 cc</td>
</tr>
<tr>
<td>038</td>
<td>37,9 cc</td>
</tr>
<tr>
<td>044</td>
<td>44,1 cc</td>
</tr>
<tr>
<td>048</td>
<td>48,3 cc</td>
</tr>
<tr>
<td>055</td>
<td>55,2 cc</td>
</tr>
<tr>
<td>063</td>
<td>63,4 cc</td>
</tr>
<tr>
<td>075</td>
<td>74,4 cc</td>
</tr>
<tr>
<td>090</td>
<td>88,2 cc</td>
</tr>
</tbody>
</table>

## Rotation

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Bidirectional</td>
</tr>
<tr>
<td>L</td>
<td>Left rotation</td>
</tr>
<tr>
<td>R</td>
<td>Right rotation</td>
</tr>
</tbody>
</table>
**Technical Information**

**D** Project version (value representing a change to the initial project)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description (Type of flange • Type of drive gear • Preferred ports for configuration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Pilot Ø50,8+4 holes (98,4x128,1)</td>
</tr>
<tr>
<td>02</td>
<td>Pilot Ø50,8+4 holes (98,4x137)</td>
</tr>
<tr>
<td>03</td>
<td>Pilot Ø60,3+4 holes (114,3x149,5)</td>
</tr>
<tr>
<td>06</td>
<td>Pilot Ø105+4 holes (102,0x145,0)</td>
</tr>
<tr>
<td>07</td>
<td>SAE B-pilot Ø101,6 -2 holes</td>
</tr>
<tr>
<td>08</td>
<td>SAE C-pilot Ø127 -4 holes</td>
</tr>
<tr>
<td>09</td>
<td>SAE A-pilot Ø82,55 -2 holes</td>
</tr>
<tr>
<td>91</td>
<td>Outrigger bearing typo 01 -Taper 1:8 M14x1,5 key 4x7,5</td>
</tr>
<tr>
<td>9Y</td>
<td>Outrigger bearing type 07 -taper shaft 1:8-5/8-18UNF-Key6,375 with Dust Cover</td>
</tr>
<tr>
<td>B1</td>
<td>Pilot Ø50,8+4 holes special shaft seal slot - Special 01</td>
</tr>
<tr>
<td>D6</td>
<td>Pilot Ø105+4 holes + shaft seal D40 per shaft spline - Special 06</td>
</tr>
<tr>
<td>D7</td>
<td>Pilot Ø101,6+2 holes + double shaft seal - Special 07</td>
</tr>
<tr>
<td>P1</td>
<td>Pilot Ø50,8+4 holes Ø12-12,5 - Special 01</td>
</tr>
<tr>
<td>P7</td>
<td>Pilot Ø101,6+2 fixed holes slot - Special 07</td>
</tr>
</tbody>
</table>

**F** Drive gear

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Taper 1:5-M16x1,5-Key 5</td>
</tr>
<tr>
<td>BA</td>
<td>Taper 1:8-M14x1,5-Key 4</td>
</tr>
<tr>
<td>BB</td>
<td>Taper 1:8-M16x1,5-Key 4,79</td>
</tr>
<tr>
<td>BC</td>
<td>Taper 1:8-5/8-18UNF-2A-Key 6,375</td>
</tr>
<tr>
<td>BD</td>
<td>Taper 1:8-M14x1,5-Key 4 + thd hole M8 - Special</td>
</tr>
<tr>
<td>BP</td>
<td>Taper 1:8-5/8-18UNF-2A-Key 6,375 with NUT &amp; WASHER (for flange 07)</td>
</tr>
<tr>
<td>CA</td>
<td>Tang 8xØ22,2 - Special</td>
</tr>
<tr>
<td>CB</td>
<td>Tang 12xØ24-shaft flange protrusion sb17.5-dr72.5-Special</td>
</tr>
<tr>
<td>DA</td>
<td>DIN 5482 B22x19 L=24 (for flange typo 01)</td>
</tr>
<tr>
<td>DD</td>
<td>DIN 5482 B28x25 L28  (for flange typo 06)</td>
</tr>
<tr>
<td>FA</td>
<td>Parallel Ø20-Key 5x5 L30 (for flange type 01-02)</td>
</tr>
<tr>
<td>FB</td>
<td>Parallel Ø22-Key 5x5 L40 (for flange type 03)</td>
</tr>
<tr>
<td>GA</td>
<td>Parallel Ø22,225 x L25,4-Key 6,375x6,375 L25,4</td>
</tr>
<tr>
<td>GB</td>
<td>Parallel Ø22,225xL25,4-Key 6,375x6,375x25,4+thd hole:1/4-20UNC-2B</td>
</tr>
<tr>
<td>GC</td>
<td>Parallel Ø22,225xL25,4-Key 6,375x6,375x25,4+thd hole:5/16-18UNC-2B - Special</td>
</tr>
<tr>
<td>SA</td>
<td>SAE J498-13T-16/32-SAE B</td>
</tr>
<tr>
<td>SB</td>
<td>SAE J498-13T-16/32-SAE A (for flange typo 09)</td>
</tr>
<tr>
<td>RA</td>
<td>SAE J498-14T-12/24-SAE C-4 bolt (for flange typo 08)</td>
</tr>
<tr>
<td>SH</td>
<td>SAE J498-15T-16/32-(for flange typo 07)</td>
</tr>
</tbody>
</table>
### Rear cover

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Std cover for unidirectional motors</td>
</tr>
<tr>
<td>M1</td>
<td>Std cover motor axial drain on cover M14x1,5</td>
</tr>
<tr>
<td>M2</td>
<td>Std cover motor axial drain on cover M12x1,5 ISO6149</td>
</tr>
<tr>
<td>M6</td>
<td>Std cover motor axial drain on cover 9/16-18UNF-2B</td>
</tr>
<tr>
<td>MF</td>
<td>Std cover motor axial drain on cover drain 3/8 Gas</td>
</tr>
<tr>
<td>L1</td>
<td>Cover motor with radial drain on cover - Vertical M14x1,5</td>
</tr>
<tr>
<td>L2</td>
<td>Cover motor with radial drain on cover - Horizontal M14x1,5</td>
</tr>
<tr>
<td>L6</td>
<td>Cover motor with radial drain on cover - Vertical 9/16-18UNF-2B</td>
</tr>
<tr>
<td>LT</td>
<td>Cover motor with radial drain on cover - Vertical 9/16-18UNF-2B drain up</td>
</tr>
<tr>
<td>C1</td>
<td>Cover motor with front metric ports : M22x1,5 - for SNM3CN series</td>
</tr>
<tr>
<td>D1</td>
<td>Cover motor without drain (internal drained) - for SNM3DN series</td>
</tr>
<tr>
<td></td>
<td>Inlet size</td>
</tr>
<tr>
<td>---</td>
<td>------------</td>
</tr>
<tr>
<td>H</td>
<td>Inlet size</td>
</tr>
<tr>
<td>A2</td>
<td>18,5x22,23x47,63x3/8-16UNC</td>
</tr>
<tr>
<td>A3</td>
<td>25x26,19x52,37x3/8-16UNC</td>
</tr>
<tr>
<td>A4</td>
<td>31x30,18x58,72x7/16-14UNC</td>
</tr>
<tr>
<td>A5</td>
<td>37,5/27x35,71x69,85x1/2-13UNC</td>
</tr>
<tr>
<td>B7</td>
<td>20x40xM6</td>
</tr>
<tr>
<td>BA</td>
<td>18x55xM8</td>
</tr>
<tr>
<td>BB</td>
<td>27x55xM8</td>
</tr>
<tr>
<td>BC</td>
<td>27x51xM10</td>
</tr>
<tr>
<td>C3</td>
<td>13,5x30xM6</td>
</tr>
<tr>
<td>C7</td>
<td>20x40xM8</td>
</tr>
<tr>
<td>CA</td>
<td>36x62xM10</td>
</tr>
<tr>
<td>CD</td>
<td>31x30,18x58,72xM10</td>
</tr>
<tr>
<td>CZ</td>
<td>27x51xM10(2 Vert.Holes)</td>
</tr>
<tr>
<td>G7</td>
<td>20x40x5/16-18UNC - Special</td>
</tr>
<tr>
<td>GA</td>
<td>27x51x3/8-16UNC - Special</td>
</tr>
<tr>
<td>E5</td>
<td>7/8-14UNF</td>
</tr>
<tr>
<td>E6</td>
<td>1-1/16-12UN</td>
</tr>
<tr>
<td>E8</td>
<td>1-5/16-12UN</td>
</tr>
<tr>
<td>E9</td>
<td>1-5/8-12UN</td>
</tr>
<tr>
<td>EA</td>
<td>1-7/8-12UN</td>
</tr>
<tr>
<td>H8</td>
<td>M27x2-ISO6149</td>
</tr>
<tr>
<td>H9</td>
<td>M33x2-ISO6149</td>
</tr>
<tr>
<td>F5</td>
<td>BSP 3/4 GAS</td>
</tr>
<tr>
<td>F6</td>
<td>BSP 1 GAS</td>
</tr>
<tr>
<td>F7</td>
<td>BSP 1-1/4 GAS</td>
</tr>
</tbody>
</table>
## J Ports Pos & Spec Body

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>NN</td>
<td>Std from catalogue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*PL</td>
<td>Inlet port Left position looking gear drive from front flange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*PR</td>
<td>Inlet port Right position looking gear drive from front flange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZZ</td>
<td>Port Bx-Bx in the center of the body - Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* to be used if inlet-outlet are different

## K Seals

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>N</th>
<th>B</th>
<th>D</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Standard NBR seals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>VITON seals - Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>NBR seals + VITON shaft seal with dust lip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>NBR seals + Dust Cover - Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>VITON seals + Dust Cover - Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>VITON shaft seal + Dust Cover - Option</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## L Screws

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>N</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Std burnished screws</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Dacromet/Geomer - Anticorrosion screws</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## M Set valves

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>NNN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No valve</td>
</tr>
</tbody>
</table>

## N Type of mark

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>N</th>
<th>A</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Standard Turolla Marking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Standard Turolla Marking+Customer Code-Special</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>Without Marking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## O Mark position

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>N</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Std Marking position (on top)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Special Marking position on the bottom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Motor performance graphs

The graphs on the next pages provide typical inlet flow and output power for Group 3 motors at various working pressures. Data were taken using ISO VG46 petroleum/mineral based fluid at 50 °C [122 °F] (viscosity = 28 mm²/s [132 SUS]).

SNM3NN/022 motor performance graph

SNM3NN/026 motor performance graph

SNM3NN/033 motor performance graph

SNM3NN/038 motor performance graph
SNM3NN/075 motor performance graph

SNM3NN/090 motor performance graph
# Flange, shaft and port configurations

<table>
<thead>
<tr>
<th>Motor</th>
<th>Code</th>
<th>Flange</th>
<th>Shaft</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNM3NN</td>
<td>01BA</td>
<td>pilot Ø 50.8 mm (2.0 in) European 01 4-bolt</td>
<td>1:8 tapered</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>02BA</td>
<td>pilot Ø 50.8 mm (2.0 in) European 02 4-bolt</td>
<td>1:8 tapered</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>03BB</td>
<td>pilot Ø 60.3 mm (2.374 in) European 03 4-bolt</td>
<td>1:8 tapered</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>06AA</td>
<td>pilot Ø 105 mm (4.133 in) German 4-bolt</td>
<td>1:5 tapered</td>
<td>German std ports port X pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>07BC</td>
<td>SAE B pilot Ø 101.6 2-bolt</td>
<td>1:8 tapered</td>
<td>Vertical four bolt flanged port</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>01FA</td>
<td>pilot Ø 50.8 mm (2.0 in) European 01 4-bolt</td>
<td>Ø 20 mm [0.787 in] parallel</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>02FA</td>
<td>pilot Ø 50.8 mm (2.0 in) European 02 4-bolt</td>
<td>Ø 20 mm [0.787 in] parallel</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>03FB</td>
<td>pilot Ø 60.3 mm (2.374 in) European 03 4-bolt</td>
<td>Ø 22 mm [0.866 in] parallel</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>07GA</td>
<td>SAE B pilot Ø 101.6 mm 2-bolt</td>
<td>Ø 22.225 mm [0.875 in] parallel</td>
<td>Vertical four bolt flanged port</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>01DA</td>
<td>pilot Ø 50.8 mm (2.0 in) European 01 4-bolt</td>
<td>Splined shaft 13T – m 1.60 DIN 5482 – B22 x 19</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>02DB</td>
<td>pilot Ø 50.8 mm (2.0 in) European 02 4-bolt</td>
<td>Splined shaft 13T – m 1.60 DIN 5482 – B22 x 19</td>
<td>European flanged port + pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>06DD</td>
<td>pilot Ø 105 mm (4.133 in) German 4-bolt</td>
<td>Splined shaft 15T – m 1.60 DIN 5482 – B28 x 25</td>
<td>German std ports port X pattern</td>
</tr>
<tr>
<td>SNM3NN</td>
<td>07SA</td>
<td>SAE B pilot Ø 101.6 mm 2-bolt</td>
<td>Splined shaft SAE J498 13T – 16/32DP</td>
<td>Vertical four bolt flanged port</td>
</tr>
</tbody>
</table>
Shaft and flange availability and torque capability
This table details the standard Group 3 shafts and flange combinations that are currently available with the maximum shaft torque limits.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>06</th>
<th>07</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Taper 1:5-M16x1,5-Key 5</td>
<td>300 [2655]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA</td>
<td>Taper 1:8-M14x1,5-Key 4</td>
<td>350 [3097]</td>
<td>350 [3097]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BB</td>
<td>Taper 1:8-M16x1,5-Key 4,79</td>
<td>500 [4425]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>Taper 1:8-5/8-18UNF-2A-Key 6,375</td>
<td></td>
<td></td>
<td>300 [2655]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BD</td>
<td>Taper 1:8-M14x1,5-Key 4 + thd hole M8 - Special</td>
<td>350 [3097]</td>
<td>350 [3097]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BP</td>
<td>*Taper 1:8-5/8-18UNF-2A-Key 6,375</td>
<td></td>
<td></td>
<td>300 [2655]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>with Nut &amp; Washer (for flange 07)*</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB</td>
<td>Tang 8xØ22,2 - Special</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DA</td>
<td>DIN 5482 B22x19 L24 (for flange typo 01)</td>
<td>290 [2566]</td>
<td>290 [2566]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DD</td>
<td>DIN 5482 B28x25 L28 (for flange typo 06)</td>
<td></td>
<td></td>
<td>450 [3982]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FA</td>
<td>Parallel Ø20-Key 5x5 L30 (for flange typo 01-02)</td>
<td>210 [1858]</td>
<td>210 [1858]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FB</td>
<td>Parallel Ø22-Key 5x5 L40 (for flange typo 03)</td>
<td></td>
<td></td>
<td>300 [2655]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GA</td>
<td>Parallel Ø22-Key 5x5 L40 (for flange typo 03)</td>
<td></td>
<td></td>
<td>230 [2035]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GB</td>
<td>Parallel Ø22,225 x L25,4-Key 6,375x6,375 L25,4</td>
<td></td>
<td></td>
<td>230 [2035]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GC</td>
<td>*Parallel Ø22,225xL25,4-Key 6,375x6,375x25,4</td>
<td></td>
<td></td>
<td>230 [2035]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>with thd hole:1/4-20UNC-2B</td>
<td></td>
<td></td>
<td></td>
<td>270 [2389]</td>
<td></td>
</tr>
<tr>
<td>SB</td>
<td>*Parallel Ø22,225xL25,4-Key 6,375x6,375x25,4</td>
<td></td>
<td></td>
<td></td>
<td>270 [2389]</td>
<td></td>
</tr>
<tr>
<td>RA</td>
<td>with thd hole:5/16-18UNC-2B - Special*</td>
<td></td>
<td></td>
<td></td>
<td>400 [3540]</td>
<td></td>
</tr>
<tr>
<td>SH</td>
<td>SAE J498-13T-16/32-SAE B</td>
<td></td>
<td></td>
<td></td>
<td>400 [3540]</td>
<td></td>
</tr>
</tbody>
</table>
## Ports dimensions

### Bidirectional motor ports

Available ports for Group 3 bidirectional motors

![Diagram of motor ports with dimensions](image)

<table>
<thead>
<tr>
<th>Port type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>a</td>
<td>b</td>
<td>v</td>
<td>c</td>
<td>g</td>
<td>h</td>
</tr>
</tbody>
</table>

**Drain**

M14 x 1.5 ⅛-18 UNC-2B
Unidirectional motor ports

Available ports for Group 3 unidirectional motors

Ports dimensions for unidirectional motors SNU3NN

<table>
<thead>
<tr>
<th>Port type</th>
<th>Dimensions</th>
<th>A</th>
<th>B</th>
<th>g</th>
<th>h</th>
<th>i</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>a</td>
<td>b</td>
<td>c</td>
<td>v</td>
<td>g</td>
</tr>
<tr>
<td><strong>Frame size</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(the table is continued on the next page)
## Unidirectional motor ports

### Available ports for Group 3 unidirectional motors

![Unidirectional motor ports diagram]

### Ports dimensions for unidirectional motors SNU3NN

<table>
<thead>
<tr>
<th>Frame size</th>
<th>Port type</th>
<th>Dimensions</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>022</td>
<td>Outlet</td>
<td>20 [0.79]</td>
<td>40 [1.58]</td>
<td>M8</td>
<td>M26 x 1.5</td>
<td>¼ Gas (BSPP)</td>
</tr>
<tr>
<td>026</td>
<td>Inlet</td>
<td>20 [0.79]</td>
<td>40 [1.58]</td>
<td>M8</td>
<td>M26 x 1.5</td>
<td>¼ Gas (BSPP)</td>
</tr>
<tr>
<td>033</td>
<td>Outlet</td>
<td>27 [1.063]</td>
<td>51 [2.008]</td>
<td>M10</td>
<td>M33x2</td>
<td>1 Gas (BSPP)</td>
</tr>
<tr>
<td>038</td>
<td>Inlet</td>
<td>20 [0.79]</td>
<td>40 [1.58]</td>
<td>M8</td>
<td>M26 x 1.5</td>
<td>¼ Gas (BSPP)</td>
</tr>
<tr>
<td>044</td>
<td>Outlet</td>
<td>27 [1.063]</td>
<td>51 [2.008]</td>
<td>M10</td>
<td>M33 x 2</td>
<td>1 Gas (BSPP)</td>
</tr>
<tr>
<td>048</td>
<td>Inlet</td>
<td>27 [1.063]</td>
<td>51 [2.008]</td>
<td>M10</td>
<td>M33 x 2</td>
<td>1 Gas (BSPP)</td>
</tr>
<tr>
<td>055</td>
<td>Outlet</td>
<td>27 [1.063]</td>
<td>51 [2.008]</td>
<td>M10</td>
<td>M33 x 2</td>
<td>1 Gas (BSPP)</td>
</tr>
<tr>
<td>063</td>
<td>Inlet</td>
<td>27 [1.063]</td>
<td>51 [2.008]</td>
<td>M10</td>
<td>M33 x 2</td>
<td>1 Gas (BSPP)</td>
</tr>
<tr>
<td>075</td>
<td>Outlet</td>
<td>36 [1.417]</td>
<td>62 [2.441]</td>
<td>M10</td>
<td>M42 x 2</td>
<td>1¼ Gas (BSPP)</td>
</tr>
<tr>
<td>090</td>
<td>Inlet</td>
<td>27 [1.063]</td>
<td>51 [2.008]</td>
<td>M10</td>
<td>M33 x 2</td>
<td>1 Gas (BSPP)</td>
</tr>
</tbody>
</table>
Anti-cavitation check valve – SNM3GN

SNM3GN
Turolla offers an optional integral anti-cavitation check valve integrated in Group 3 motors bearing blocks. Available for all the displacements, the valve directs internally the flow from the motor outlet to the inlet, when the outlet pressure gets higher then the inlet one.

Valve schematic diagram          Anticavitation check valve cross section
**Dimensions**

SNM3NN, SNU3NN – 01FA, 01DA and 01BA
Standard porting drawing for 01FA, 01DA and 01BA

<table>
<thead>
<tr>
<th>Frame size</th>
<th>022</th>
<th>026</th>
<th>033</th>
<th>038</th>
<th>044</th>
<th>048</th>
<th>055</th>
<th>063</th>
<th>075</th>
<th>090</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inlet/Outlet</td>
<td>C/c</td>
<td>D/d</td>
<td>E/e</td>
<td>M8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C/c</td>
<td>20 [0.79]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D/d</td>
<td>40 [1.58]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E/e</td>
<td></td>
<td></td>
<td></td>
<td>M10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For unidirectional SNU3NN dimensions, see SNU3NN ports, pages 65 and 66.

For unidirectional motors no case drain hole into the rear cover.

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>01FA</td>
<td>SNM3NN/075BN01FM1CACANNNN/NNNNN</td>
<td>210 Nm [1858 lb-in]</td>
</tr>
<tr>
<td>01DA</td>
<td>SNM3NN/026BN01DAM1CYC7NNNN/NNNNN</td>
<td>290 Nm [2566 lb-in]</td>
</tr>
<tr>
<td>01BA</td>
<td>SNM3NN/044BN018AM1CACANNNN/NNNNN</td>
<td>350 Nm [3097 lb-in]</td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 54-58.
Bidirectional motors dimensions – 02FA, 02DA and 02BA*

<table>
<thead>
<tr>
<th>Frame size</th>
<th>022</th>
<th>026</th>
<th>033</th>
<th>038</th>
<th>044</th>
<th>048</th>
<th>055</th>
<th>063</th>
<th>075</th>
<th>090</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inlet/Outlet</td>
<td>C/c</td>
<td>20 [0.79]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D/d</td>
<td>40 [1.58]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E/e</td>
<td>M8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For unidirectional SNU3NN dimensions, see SNU3NN ports, pages 65 and 66.

For unidirectional motors no case drain hole into the rear cover.

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>02FA</td>
<td>SNM3NN/04BN02FAM1CACANNNN/NNNNN</td>
<td>210 N•m [1858 lb•in]</td>
</tr>
<tr>
<td>02DA</td>
<td>SNM3NN/033BN02DAM1CACANNNN/NNNNN</td>
<td>290 N•m [2566 lb•in]</td>
</tr>
<tr>
<td>02BA</td>
<td>SNM3NN/026BN02BAM1C7C7NNNN/NNNNN</td>
<td>350 N•m [3097 lb•in]</td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 54-58.
SNM3NN, SNU3NN – 03FB and 03BB
Standard porting drawing for 03FB and 03BB

Bidirectional motors dimensions – 03FB and 03BB*

<table>
<thead>
<tr>
<th>Frame size</th>
<th>022</th>
<th>026</th>
<th>033</th>
<th>038</th>
<th>044</th>
<th>048</th>
<th>055</th>
<th>063</th>
<th>075</th>
<th>090</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>61</td>
<td>63</td>
<td>64.5</td>
<td>66.5</td>
<td>69.5</td>
<td>72.5</td>
<td>75</td>
<td>78</td>
<td>82</td>
<td>87</td>
</tr>
<tr>
<td>B</td>
<td>132.5</td>
<td>135.5</td>
<td>140.5</td>
<td>144.0</td>
<td>148.5</td>
<td>151.5</td>
<td>156.5</td>
<td>162.5</td>
<td>170.5</td>
<td>180.5</td>
</tr>
<tr>
<td>C/c</td>
<td>18</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D/d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>E/e</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M8</td>
</tr>
</tbody>
</table>

* For unidirectional SNU3NN dimensions, see SNU3NN ports, pages 65 and 66.

For unidirectional motors no case drain hole into the rear cover.

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>03FB</td>
<td>SNM3NN/063BN03FBM1CACANNNNNNNNN</td>
<td>300 N•m (2655 lb•in)</td>
</tr>
<tr>
<td>03BB</td>
<td>SNM3NN/090BN03BBM1CACANNNNNNNNN</td>
<td>500 N•m (4425 lb•in)</td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 54-58.
SNM3NN, SNU3NN – 06AA
Standard porting drawing for 06AA

Bidirectional motors dimensions – 06DD AND 06AA *

<table>
<thead>
<tr>
<th>Frame size</th>
<th>022</th>
<th>026</th>
<th>033</th>
<th>038</th>
<th>044</th>
<th>048</th>
<th>055</th>
<th>063</th>
<th>075</th>
<th>090</th>
</tr>
</thead>
</table>

Inlet/Outlet

<table>
<thead>
<tr>
<th></th>
<th>C/c 20 [0.79]</th>
<th>D/d 40 [1.58]</th>
<th>E/e M8</th>
</tr>
</thead>
</table>

* For unidirectional SNU3NN dimensions, see SNU3NN ports, pages 65 and 66.

For unidirectional motors no case drain hole into the rear cover.

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>06DD</td>
<td>SNM3NN/048N06DDM1BBB8NNNN/NNNNN</td>
<td>300 N•m (2655 lb•in)</td>
</tr>
<tr>
<td>06AA</td>
<td>SNM3NN/022BN06AAAM1BABBANNNN/NNNNN</td>
<td>450 N•m (3982 lb•in)</td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 54-58.
SNM3NN, SNU3NN – 07BC, 07SA and 07GA
Standard porting drawing for 07BC, 07SA and 07GA

Bidirectional motors dimensions – 07BC, 07SA and 07GA*

<table>
<thead>
<tr>
<th>Frame size</th>
<th>026</th>
<th>026</th>
<th>033</th>
<th>038</th>
<th>044</th>
<th>055</th>
<th>063</th>
<th>075</th>
<th>090</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inlet/Outlet</th>
<th>C/c</th>
<th>D/d</th>
<th>E/e</th>
<th>F/f</th>
</tr>
</thead>
</table>

* For unidirectional SNU3NN dimensions, see SNU3NN ports, pages 65 and 66.

For unidirectional motors no case drain hole into the rear cover.

Model code examples and maximum shaft torque

<table>
<thead>
<tr>
<th>Flange/drive gear</th>
<th>Model code example</th>
<th>Maximum shaft torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>07BC</td>
<td>SNM3NN/026BN07BCM6A3A3NNN/NNNNN</td>
<td>300 Nm [2655 lb-in]</td>
</tr>
<tr>
<td>07SA</td>
<td>SNM3NN/063BN07SAM6A4A4NNN/NNNNN</td>
<td>270 Nm [2389 lb-in]</td>
</tr>
<tr>
<td>07GA</td>
<td>SNM3NN/090BN07GAM6A4A4NNN/NNNNN</td>
<td>230 Nm [2035 lb-in]</td>
</tr>
</tbody>
</table>

For further details on ordering, see Model Code, pages 54-58.