# HIGH AND LOW SPEED RADIAL PISTON MOTORS

## G SERIES

TECHNICAL CATALOGUE

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<tr>
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<td></td>
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</tbody>
</table>
INTERMOT produces RADIAL PISTON HYDRAULIC MOTORS since 1985: our yearly production is more than 13,000 units which we sell all over the world through our agents and authorized sellers. Our motor range varies from 20cc to 8500cc displacement and it is completed by two-speed motors and special motors created in cooperation with our clients for different applications such as: underwater, high & low speed and wheel motors and with the possibility to assemble valves, brakes or gear reductions. You can directly contact our Technical Department which will give you all the necessary support to find the right solutions to your problems.

INTERMOT is a flexible work reality and manages deliveries also within the same day of order; we produce motors exactly interchangeable with our competitors, always ready on stock which our clients particularly appreciate.
**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>G 20</th>
<th>G 27</th>
<th>G 34</th>
<th>G 50</th>
<th>G 75</th>
<th>G 90</th>
<th>G 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement cc/rev</td>
<td>20,5</td>
<td>27,3</td>
<td>34,2</td>
<td>50,9</td>
<td>76,3</td>
<td>89</td>
<td>102</td>
</tr>
<tr>
<td>Specific Torque Nm/bar</td>
<td>0,32</td>
<td>0,43</td>
<td>0,54</td>
<td>0,81</td>
<td>1,21</td>
<td>1,41</td>
<td>1,61</td>
</tr>
<tr>
<td>Max cont. Pressure bar</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
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<tr>
<td>Max int. Pressure bar</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>280</td>
</tr>
<tr>
<td>Peak pressure bar</td>
<td>350</td>
<td>350</td>
<td>350</td>
<td>350</td>
<td>350</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td>Max continuous speed rpm</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
<td>2300</td>
<td>2100</td>
<td>1900</td>
<td>1850</td>
</tr>
<tr>
<td>Peak speed rpm</td>
<td>2500</td>
<td>2500</td>
<td>2500</td>
<td>2400</td>
<td>2300</td>
<td>2200</td>
<td>2200</td>
</tr>
<tr>
<td>Minimum speed rpm</td>
<td>40</td>
<td>35</td>
<td>30</td>
<td>25</td>
<td>20</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Dry weight kg</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Max power HP</td>
<td>17</td>
<td>24</td>
<td>28</td>
<td>42</td>
<td>59</td>
<td>71</td>
<td>82</td>
</tr>
<tr>
<td>kW</td>
<td>12</td>
<td>17</td>
<td>21</td>
<td>31</td>
<td>44</td>
<td>52</td>
<td>60</td>
</tr>
</tbody>
</table>

- N° of pistons: 9
- Max case pressure: 6 bar
- Max back pressure: 70 bar
- Max freewheeling speed: 2000 Rpm (*)
- Temperature range: -30°C ÷ +70°C

When the motor continuously works at high power values, motor flushing is needed (see performance diagrams). The recommended flushing flow is 3 l/min (G20, G27, G34), and 5 l/min (G50, G75, G90, G100).

(*) For the hydraulic circuit, please refer to page 4 (freewheeling operation).
For further information please contact Intermot technical department.
FREEWHEELING OPERATION

This is the most suitable circuit for high speed freewheeling. The motor operates under vacuum conditions, therefore it can work several hours without causing any damage and overheating.
The switch from normal to freewheeling operation (and vice versa) must be done at low speed and pressure.
For further informations please contact Intermot technical department.

For further information contact Intermot technical department.
SIZE

G 20-27-34
STANDARD SERIES

SHAFT

G 20-27-34

<table>
<thead>
<tr>
<th>A0: Standard Splined Shaft</th>
<th>A1: Splined Shaft on request</th>
<th>A2: Parallel shaft on request</th>
</tr>
</thead>
<tbody>
<tr>
<td>73</td>
<td>42</td>
<td>40</td>
</tr>
<tr>
<td>45</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>60</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>M8x20</td>
<td>M8x20</td>
<td>M8x20</td>
</tr>
<tr>
<td>Φ30x2 M4x6 DIN 5760</td>
<td>4x2 M4x6 DIN 5762</td>
<td>4x2 M4x6 DIN 5762</td>
</tr>
<tr>
<td>Mounting face</td>
<td>Mounting face</td>
<td>Mounting face</td>
</tr>
</tbody>
</table>

Ø170 max

2 PORTS
3/4" BSP

1 DRAIN PORT
1/4" BSP

8 MOUNTING HOLES M8x16
EQUISPACED ON Ø110 CIRCLE

4 MOUNTING HOLES Ø8,5
ON 147 CIRCLE BOLT DIA.
**SIZE**

**G 50-75-90-100**

<table>
<thead>
<tr>
<th>Standard Series</th>
<th>4 Mounting Holes Ø8,5 on 175 Circle Bolt Dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8 Rear Mounting Holes M10x15 Equispaced on Ø150 Circle</td>
</tr>
<tr>
<td></td>
<td>1 Drain Port 1/4&quot; BSP</td>
</tr>
<tr>
<td></td>
<td>2 Ports 3/4&quot; BSP</td>
</tr>
<tr>
<td></td>
<td>Ø125 f7</td>
</tr>
<tr>
<td></td>
<td>Ø125 f7</td>
</tr>
</tbody>
</table>

**SHAFT**

**G 50-75-90-100**

- **A0:** Standard Splined Shaft
- **A1:** Splined Shaft on request
- **A2:** Parallel shaft on request
**TACHOMETER**

**TA**

**TB**

**EST**

**EST.30**

**SPLINE BILLET**

**SB13**

---

**Operating parameters**

- **E-..../3**
  - Power supply (VDC): 10-30
  - Switching current (mA): 150
  - Frequency (Hz): 100rpm
  - Impulse/rpm: 50
  - Operating temp. (°C): -24/+70
  - Protection degree: IP67
  - Output: NPN
  - Motor type: All types

**Model**

- Ø5

**Output Torque**

- 1 Nm

---

**only for:**

G20-27-34-50-75-90-100 A1
ORDERING INSTRUCTIONS

- Motor model: G
- Displacement: 
- Shaft: 
  - A0: standard splined shaft
  - A1: special splined shaft
  - A2: parallel keyed shaft
- Distributor: D20 (3/4" BSP)
- Tachometer: 
  - TA
  - TB
  - EST
  - EST.30
  - J: TACHOMETER PREDISPOSITION
- Spline billet: SB13 (40x36 DIN 5482)

          G.100.A0.D20.TA
PERFORMANCES

1 Continuous operation
2 Intermittent operation for period 3-5 minute every 10-15 minute
3 Intermittent operation for very short period (3-5 seconds every 10-15 minutes)
4 Continuous operation with flushing
5 Intermittent operation for period 3-5 minute every 10-15 minute with flushing
6 Intermittent operation for very short period (3-5 seconds every 10-15 minutes) with flushing

The specified data are for product description purpose only and must not be interpreted as warranted characteristic in legal sense. For more details please contact our Technical Department.
1 Continuous operation
2 Intermittent operation for period 3-5 minute every 10-15 minute
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