QPM3 Gerotor pumps
Low pressure oil pumps for industrial and marine applications
Low pressure pump
for high efficiency

Parker’s QPM compact, lightweight range of gerotor circulation pumps offer high performance, low noise levels and low energy consumption. The low pressure QPM3 has a dual shaft bearing and a resilient connection that guarantees safe and secure operation. It conforms to EN 60034-1/IEC 60072 version B3/B14, which allows the use of different makes of electric motors.

Advantages
The special design of the pressure relief groove ensures low flow pulsations and low noise levels. Double-feed gerotor provides excellent suction ability. Dual shaft bearings ensures a long service life. The design of the pressure chambers ensures low pressure pulsations. Few internal parts make the pump light and compact.

Applications:
• Circulation of oil in cooling and oil filter systems
• Circulation of oil in industrial hydraulic systems
• Filling and draining of oil in tanks
• Transfer of oil in stationary or mobile oil storage depots.

The Olaer Group is part of Parker Hannifin since July 1st, 2012. With manufacturing and sales in 14 countries in North America, Asia and Europe, the Olaer Group expands Parker’s presence in geographic growth areas and offers expertise in hydraulic accumulator and cooling systems for target growth markets such as oil and gas, power generation and renewable energy.
The QPM3 is compatible with mineral, synthetic and vegetable oils. When operating with other fluids always consult your Parker representative.

Internal or external bypass valve with opening pressure 5 or 10 bar.

A simple, robust design means cost efficiency.

Consult your Parker representative for:
- special models
- dimensioning support
- extreme operating conditions

The QPM3 range of low pressure pumps
QPM3 type of gerotor pumps are available with the following pump capacities:

<table>
<thead>
<tr>
<th>QPM3-20</th>
<th>QPM3-40</th>
<th>QPM3-60</th>
<th>QPM3-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 l/min</td>
<td>40 l/min</td>
<td>60 l/min</td>
<td>80 l/min</td>
</tr>
</tbody>
</table>
Operating principles of the gerotor

The gerotor principle is based on an inner and an outer rotor. The inner rotor has one less tooth than the outer. The inner rotor has its centre-line positioned at a fixed eccentricity from the centre-line of the outer rotor. As the rotors rotate about their own respective axes, oil is drawn into the enlarging chamber. The process occurs constantly for each chamber, providing a smooth pumping action.

Consider this before installation:

- Install the QPM3 in a horizontal position.
- Minimise the difference in height between the pump inlet and the tank fluid level, preferably with the pump below the tank fluid level (max. 5 m).
- Use by-pass valves if the system is fitted with shut-off valves etc., or if the pump is exposed to cold starts.
- A low suction height and a short inlet line provide optimum pump performance.
- The diameter of the inlet line must be equal to, or larger than, the pump connection.
- For a long service life, oil cleanliness should, according to ISO 4406, not be below 17/15.
- Can be fitted as required in steps of 90° in relation to the electric motor.
- The electric motor may be overloaded due to cold starting and operation with viscous fluids – choose the right electric motor!
- Oil temperature must not exceed 100 °C. In the event of higher temperatures, always consult your Parker representative.
- Recommended ambient temperature: -20°C – +40°C.
- Recommended max. working pressure: 10 bar.
- For operation at higher working pressures, consult your Parker representative.
- Maximum oil viscosity: 800 cSt.
- Maximum suction side pressure: 0.5 bar.
- Maximum negative pressure in inlet line: 0.4 bar with oil filled pump.
Acoustic power diagram for QPM3 Pump

Motor:
MEZ 4AP90L-4
1.5 kW 4-pole

Ambient temp.: 20°C
Viscosity: 100 cSt
Standard: ISO 3741
Data for QPM3 standard versions

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Num. of poles</th>
<th>Motor power kW</th>
<th>Pump flow l/min</th>
<th>Weight* kg</th>
<th>Acoustic pressure level LpA dB(A) at 1 m**</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>QPM3 10</td>
<td>8</td>
<td>0.25</td>
<td>10</td>
<td>13</td>
<td>65</td>
<td>136</td>
</tr>
<tr>
<td>QPM3 20</td>
<td>4</td>
<td>0.75</td>
<td>20</td>
<td>13</td>
<td>65</td>
<td>136</td>
</tr>
<tr>
<td>QPM3 20</td>
<td>4</td>
<td>1.5</td>
<td>20</td>
<td>21</td>
<td>66</td>
<td>136</td>
</tr>
<tr>
<td>QPM3 40</td>
<td>4</td>
<td>0.75</td>
<td>40</td>
<td>13</td>
<td>65</td>
<td>148</td>
</tr>
<tr>
<td>QPM3 40</td>
<td>4</td>
<td>1.5</td>
<td>40</td>
<td>21</td>
<td>66</td>
<td>148</td>
</tr>
<tr>
<td>QPM3 40</td>
<td>4</td>
<td>2.2</td>
<td>40</td>
<td>28</td>
<td>67</td>
<td>148</td>
</tr>
<tr>
<td>QPM3 40</td>
<td>4</td>
<td>3</td>
<td>40</td>
<td>28</td>
<td>67</td>
<td>148</td>
</tr>
<tr>
<td>QPM3 60</td>
<td>4</td>
<td>0.75</td>
<td>60</td>
<td>14</td>
<td>65</td>
<td>161</td>
</tr>
<tr>
<td>QPM3 60</td>
<td>4</td>
<td>1.5</td>
<td>60</td>
<td>22</td>
<td>66</td>
<td>161</td>
</tr>
<tr>
<td>QPM3 60</td>
<td>4</td>
<td>2.2</td>
<td>60</td>
<td>28</td>
<td>67</td>
<td>161</td>
</tr>
<tr>
<td>QPM3 60</td>
<td>4</td>
<td>3</td>
<td>60</td>
<td>28</td>
<td>67</td>
<td>161</td>
</tr>
<tr>
<td>QPM3 80</td>
<td>4</td>
<td>1.5</td>
<td>80</td>
<td>22</td>
<td>67</td>
<td>174</td>
</tr>
<tr>
<td>QPM3 80</td>
<td>4</td>
<td>2.2</td>
<td>80</td>
<td>28</td>
<td>67</td>
<td>174</td>
</tr>
<tr>
<td>QPM3 80</td>
<td>4</td>
<td>3</td>
<td>80</td>
<td>28</td>
<td>67</td>
<td>174</td>
</tr>
</tbody>
</table>

* Depends on motor make.  ** Noise level tolerance ± 3 dB(A)
Key for QPM3 Gerotor pump

QPM3 - XX - X - XX - XXXX

By-pass valve*
BI 5 (5 bar internal)
BI 10 (10 bar internal)
BE 5 (5 bar external)
BE 10 (10 bar external)

Electric motor power in kW 0.25 - 3
Number of poles 4, (6), 8
Pump capacity l/min 10-80

When ordering a special pump, the product, components and performance must be written out clearly in full*.

* To be omitted if not required

Technical specification and options

TECHNICAL DATA
• Pump housing/pump cover aluminium with anodized surfaces
• Sintered steel gerotor
• Nitrile o-rings/sealings
• 3-phase, 4-pole, asynchronous motor equipped with support and flange
• Pump capacity 10–80 l/min

ELECTRIC MOTOR
• ΔY 220–240/380–420 V, 50 Hz
• ΔY 255–280/440–480 V, 60 Hz
• Protection standard IP 55
• Insulation class F
• Rise of temperature class B
• Cooling method IC 411
• The electric motor fulfils the requirements of standards: EN 60034-1, IEC 60072, DIN/VDE 0530.
• Electric motor, 4-pole, 0.75 kW with a rated current of 3.5 A at 230 V and 2.0 A at 400 V, 50 Hz*
• Electric motor, 4-pole, 1.5 kW with a rated current of 6.1 A at 230 V and 3.5 A at 400 V, 50 Hz*
• Electric motor, 4-pole, 2.2 kW with a rated current of 8.5 A at 230 V and 4.8 A at 400 V, 50 Hz*
• Electric motor, 4-pole, 3.0 kW with a rated current of 11.3 A at 230 V and 6.6 A at 400 V, 50 Hz*
• The motor should be overload protected.
• When the QPM3 is installed in an environment where water could enter the electric motor from above, a protective shield (optional equipment) should be used.

* Approximate values depending on make of motor.
Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 22 33 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parker.bulgaria@parker.com

BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaoers
Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parker.easteurope@parker.com

LA – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Aker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 525 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 212 573 24 00
parker.portugal@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 75 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel: +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

US – USA, Cleveland (industrial)
Tel: +1 216 896 3000

US – USA, Elk Grove Village (mobile)
Tel: +1 847 258 6200

Asia Pacific

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Fujisawa
Tel: +81 (0)4 6635 3050

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 717 8140

TW – Taiwan, New Taipei City
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, Cachoeirinha RS
Tel: +55 51 3470 9144

CL – Chile, Santiago
Tel: +56 2 623 1216

MX – Mexico, Apodaca
Tel: +52 81 8156 6000

EMEA Product Information Centre
Free phone: 00 800 27 27 5374
(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre
Toll-free number: 1-800-27 27 537

www.parker.com

Your local authorized Parker distributor

Parker Hannifin Corporation. All rights reserved.

Catalogue HY10-6012 /UK, POD, 04/2013, ZZ