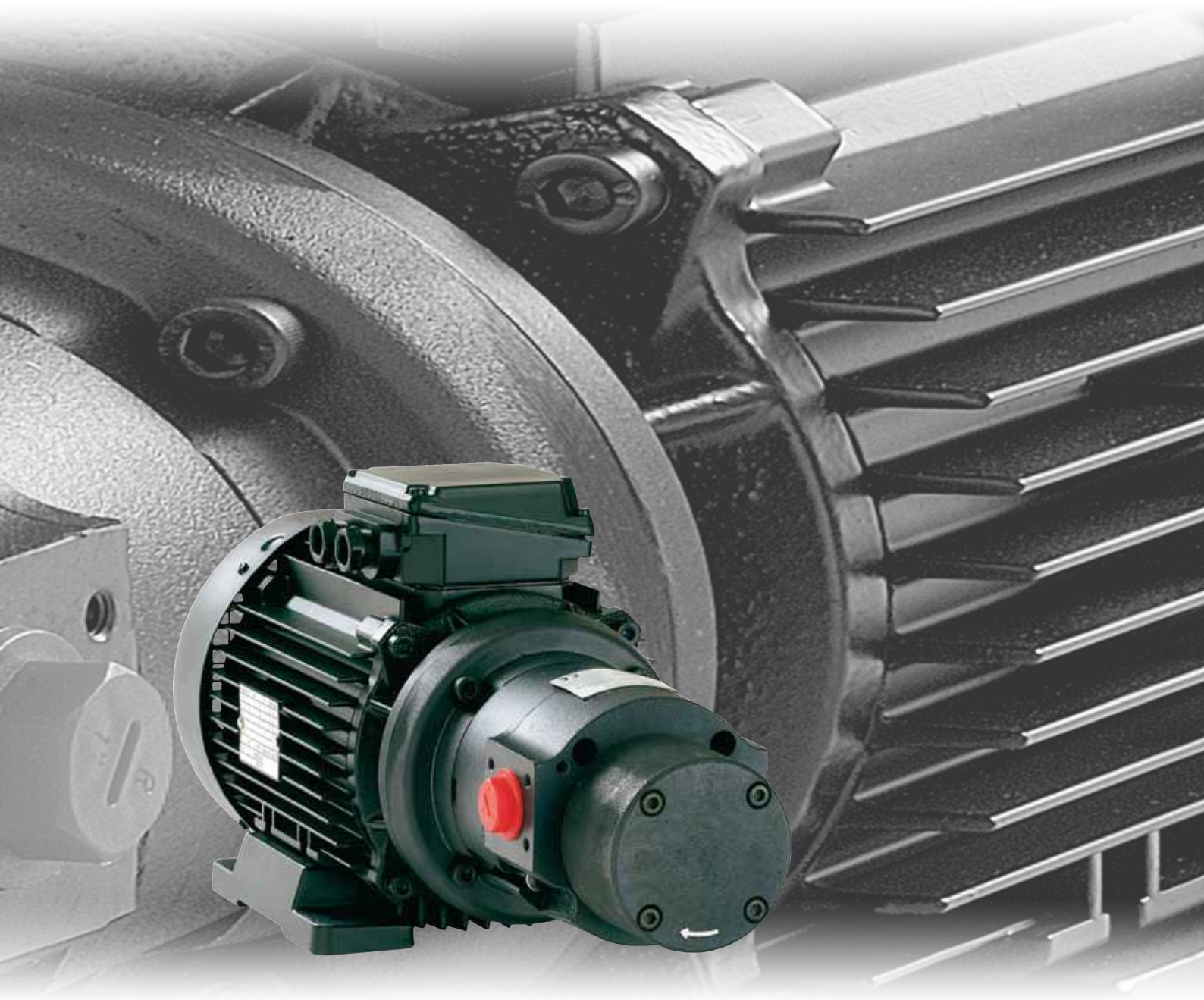




The Professional Choice

QPM3

Gerotor pump



OLAER QPM3 | Low pressure pump



Olaer is a global player specialising in innovative, efficient system solutions for temperature optimisation and energy storage.

All over the world, our products are working in the most diverse environments and applications.

Low pressure pump

- for high efficiency

Properties

Olaer's QPM range of gerotor type of low pressure pumps has been a big seller on the market for many years. High performance, light and compact, low noise level as well as low energy consumption are strong arguments for having a QPM3 installed in your system for the circulation of oil. The QPM3 pump has a dual shaft bearing and a resilient connection that guarantees safe and secure operation. The pump conforms to standard EN 60034-1/IEC 60072, version B3/B14, which allows the use of different makes of electric motor.

Construction and advantages

- The special design of the pressure relief groove ensures low flow pulsations and low noise level.

- Double-feed gerotor provides excellent suction ability.
- Dual shaft bearings provides for long service life.
- The design of the pressure chambers ensures low pressure pulsations.
- Few internal parts make the pump light and compact.

Many areas of use

QPM3 is ideal for:

- 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.



QPM3 is compatible with:

- Mineral oils
- Synthetic oils
- Vegetable oils

When operating with other fluids always consult your local Olaer office.

Bypass valve

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



Optimized

QPM3 is optimized for use in Olaer's DU03 oil filters, WEG03 cooling and filter systems and LOC types of cooling systems.

Cost effective

Simple and robust design = cost effective.

Consult your local Olaer office for:

- Special models
- Dimensioning
- Extreme operating conditions

Olaer range of low pressure pumps

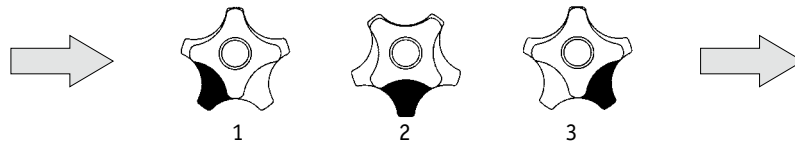
QPM3 type of gerotor pump is available with pump capacity:

OHP type of screw pump is available with pump capacity:

QPM3-20	QPM3-40	QPM3-60	QPM3-80	OHP 100	OHP 150	OHP 190
20 l/min	40 l/min	60 l/min	80 l/min	100 l/min	150 l/min	190 l/min

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 centreline positioned at a fixed eccentricity from the centreline 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.



Step 1: Oil is drawn into the gerotor

Step 2: The opening between the "gear wheels" is closed. Suction side and pressure side are sealed from each other.

Step 3: The oil is forced out into the pressure channel.

What to consider before installation

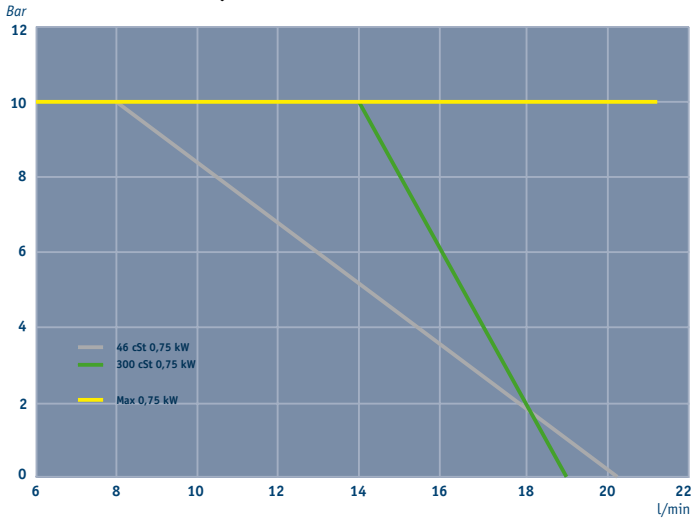
- We recommend to install the QPM3 in a horizontal position.
- Minimise the difference in height between the pump inlet and the tank fluid level, preferably with the pump below the tank fluid level (max. 5 m).
- Use by-pass valves if the system is fitted with shutoff valves etc. or if the pump is exposed 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 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.

Many areas of use

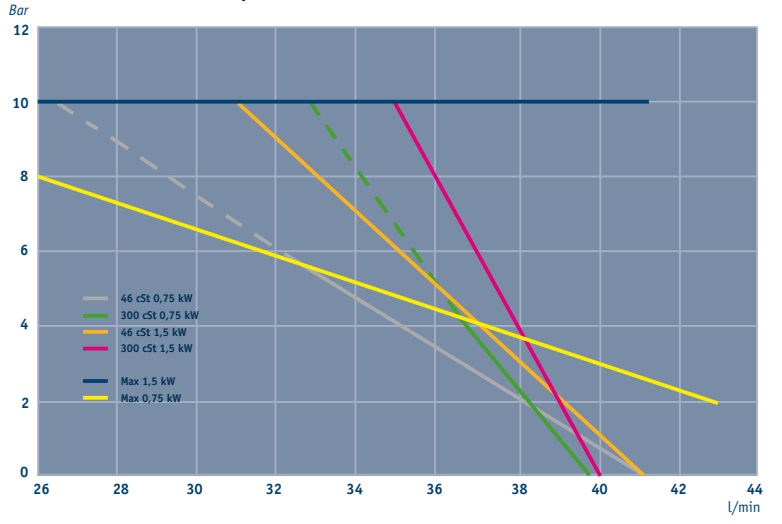
QPM3 is ideal for:

- 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 temperature, always consult your local Olaer office.
- Recommended ambient temperature -20°C – +40°C.
- Recommended max. working pressure: 10 bar. For operation at higher working pressures, consult your local Olaer office.
- 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.

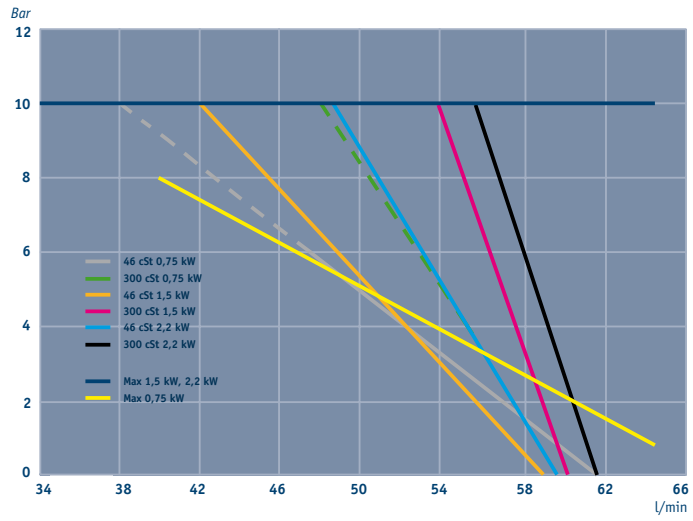
QPM3 20 L



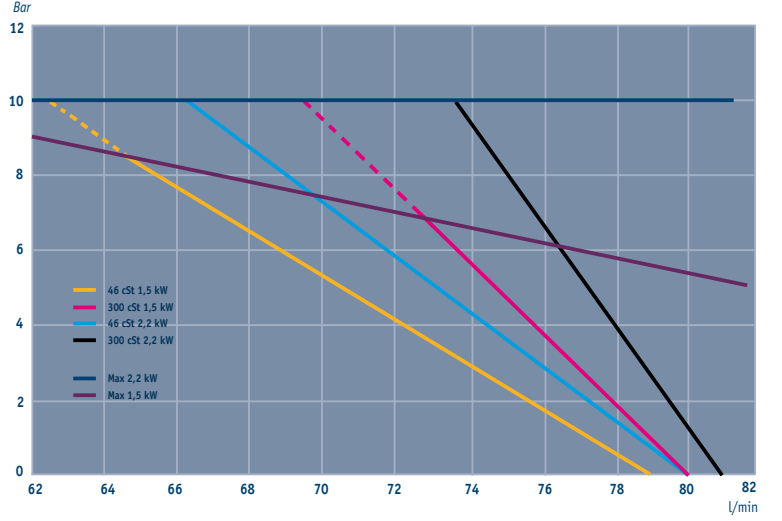
QPM3 40 L



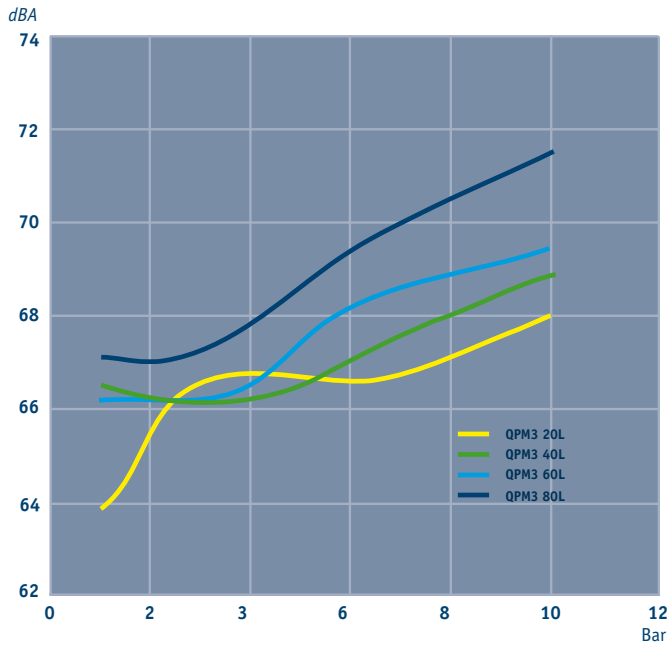
QPM3 60 L



QPM3 80 L

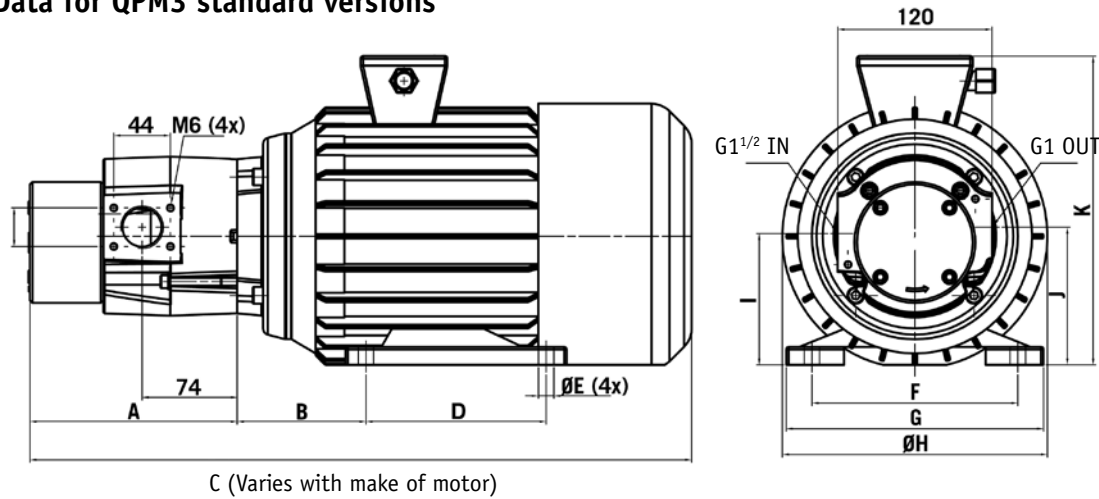


Acoustic power diagram for QPM3 Pump



Motor:
 MEZ 4AP90L-4
 1,5 kW 4-pole
 Ambient temp.: 20°C
 Viscosity: 100 cSt
 Standard: ISO 3741

Data for QPM3 standard versions



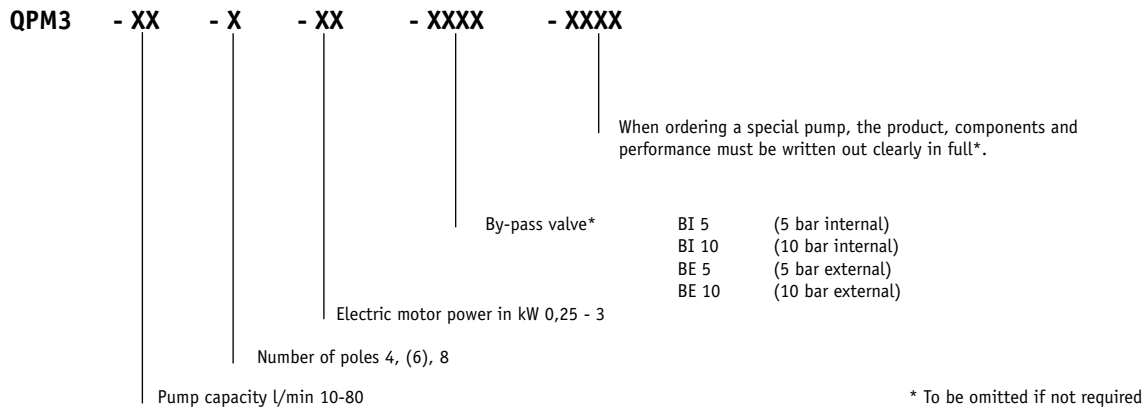
C (Varies with make of motor)

TYPE	Number of poles	Motor power kW	Pump flow l/min	Weight* kg	Acoustic pressure level LpA dB(A) at 1 m**	Dimensions in mm										
						A	B	C*	D	E	F	G*	H*	I	J	K*
QPM3 10	8	0.25	10	13	65	136	50	368	100	10	125	160	157	82	87	195
QPM3 20	4	0.75	20	13	65	136	50	368	100	10	125	160	157	82	87	195
QPM3 20	4	1.5	20	21	66	136	83	443	125	10	140	170	185	92	97	220
QPM3 40	4	0.75	40	13	65	148	50	381	100	10	125	160	157	82	87	195
QPM3 40	4	1.5	40	21	66	148	83	456	125	10	140	170	185	92	97	220
QPM3 40	4	2.2	40	28	67	148	100	502	140	12	160	200	206	102	107	240
QPM3 40	4	3	40	28	67	148	100	502	140	12	160	200	206	102	107	240
QPM3 60	4	0.75	60	14	65	161	50	393	100	10	125	160	157	82	87	195
QPM3 60	4	1.5	60	22	66	161	83	468	125	10	140	170	185	92	97	220
QPM3 60	4	2.2	60	28	67	161	100	514	140	12	160	200	206	102	107	240
QPM3 60	4	3	60	28	67	161	100	514	140	12	160	200	206	102	107	240
QPM3 80	4	1.5	80	22	67	174	83	481	125	10	140	170	185	92	97	220
QPM3 80	4	2.2	80	28	67	174	100	527	140	12	160	200	206	102	107	240
QPM3 80	4	3	80	28	67	174	100	527	140	12	160	200	206	102	107	240

* Depends on motor make

** Noise level tolerance ± 3 dB(A)

Key for QPM3 Gerotor pump



Technical specification and options

TECHNICAL DATA

Pump housing/pump cover	aluminium with anodized surfaces
Gerotor	sintered steel
O-rings/sealings	nitrile
3-phase, 4-pole, asynchronous motor equipped with support and flange	
Pump capacity	10 - 80 l/min

ELECTRIC MOTOR

Voltage	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
Rated current	3.5 A at 230 V and 2.0 A at 400 V, 50 Hz*
Electric motor, 4-pole	1.5 kW
Rated current	6.1 A at 230 V and 3.5 A at 400 V, 50 Hz*
Electric motor, 4-pole	2.2 kW
Rated current	8.5 A at 230 V and 4.8 A at 400 V, 50 Hz*
Electric motor, 4-pole	3.0 kW
Rated current	11.3 A at 230 V and 6.6 A at 400 V, 50 Hz*

* Approximate values depending on make of motor.

The motor should be overload protected.

Options

In case where the QPM3 is installed in an environment where water could enter the electric motor from above, a protective shield should be used. The protective shield is available as an option.



- in Fluid Energy Management

Global perspective

and local entrepreneurial flair



Olaer is a global player specialising in innovative, efficient system solutions for temperature optimisation and energy storage. Olaer develops, manufactures and markets products and systems for a number of different sectors, e.g. the aircraft, engineering, steel and mining industries, as well as for sectors such as oil and gas, contracting and transport, farming and forestry, renewable energy, etc.

All over the world, our products operate in the most diverse environments and applications. One constantly

repeated demand in the market is for optimal energy storage and temperature optimisation. We work at a local level with a whole world as our workplace – local entrepreneurial flair and a global perspective go hand in hand.

Our local presence, long experience and a wealth of knowledge combine with our cutting-edge expertise to give you the best possible conditions for making a professional choice.