



Gear Motors

Series PGM
Fixed Displacement Motors,
Aluminium and Cast-Iron Designs

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



ENGINEERING YOUR SUCCESS.

PGM 500
Heavy-duty Aluminium Body Gear Motors



Motor Displacement	Code	0060	0080	0100	0110	0140	0160	0190	0230	0270	033
	cm ³ /rev	6.0	8.0	10.0	11.0	14.0	16.0	19.0	23.0	27.0	33.0
Max. Working Pressure	bar	250	250	250	250	250	250	250	225	190	155
Minimum Speed of rotation	rpm	500	500	500	500	500	500	500	500	500	500
Maximum Speed of rotation	rpm	3500	3500	3500	3500	3500	3500	3250	2750	2350	2000
Maximum Motor input flow	l/min	21	28	35	38.5	49	56	61.8	63.3	63.5	66
Typical torque at work pressure	Nm	21.5	28.6	35.8	39.4	50.1	57.3	68.0	74.1	73.5	73.3
Approximate Weight	kg	3.40	3.47	3.55	3.57	3.71	3.79	3.91	4.06	4.21	73.3

PGM 600
Heavy-duty Cast-iron Body Gear Motors



Motor PGM 620 Displacement	Code	0160	0190	0230	0260	0290	0330	0360	0370	0410	0440	0450	0500	0520
	cm ³ /rev	16.0	19.0	23.0	26.0	29.0	33.0	36.0	37.0	41.0	44.0	45.0	50.0	52.0
Max. Working Pressure	bar	275	275	275	275	275	275	250	250	220	210	-	210	210
Minimum Speed of rotation	rpm	500	500	500	500	500	500	500	500	500	500	500	500	500
Maximum Speed of rotation	rpm	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3000	3000
Maximum Motor input flow	l/min	56	66.5	80.5	91	102	116	126	130	144	154	158	150	156
Typical torque at work pressure	Nm	63.0	74.8	90.6	102.4	114.2	130.0	128.9	132.5	129.2	132.4	-	150.4	156.4
Approx. Weight	kg	12.0	12.1	12.2	12.3	12.6	12.7	12.8	12.9	13.0	13.1	13.1	13.3	13.4

Motor PGM 640 Displacement	Code	300	350	400	450	500	550	600	650	700	750	800	900	1000
	cm ³ /rev	30,0	35,0	40,0	45,0	50,0	55,0	60,0	65,0	70,0	75,0	80,0	90,0	100,0
Max. Working Pressure	bar	310	310	310	310	310	310	290	265	245	225	210	190	180
Minimum Speed of rotation	rpm	500	500	500	500	500	500	500	500	500	500	500	500	500
Maximum Speed of rotation	rpm	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Maximum Motor input flow	l/min	90	105	120	135	150	165	180	195	210	225	240	270	300
Typical torque at work pressure	Nm	133.2	155.4	177.6	199.8	222.0	244.2	249.2	246.7	245.7	241.7	240.6	245.0	258.0
Aprox. Weight	Kg	20,6	20,6	21,2	21,2	22,0	22,0	22,6	22,6	23,3	23,3	25,0	25,5	25,5

PI PGP-PGM UK.PMD RH



PGM 500 motors offer superior performance, high efficiency and low noise operation at high operating pressures. They are produced in size PGM 511 with displacements ranging from 6 to 33 cm³/rev. A wide variety of standard options is available to meet specific application requirements.



Characteristics

- **Up to 250 bar continuous operation**
High strength materials and large journal diameters provide low bearing loads for high pressure operation.
- **Low noise**
A12 tooth gear profile and optimized flow metering provide reduced pressure pulsation and exceptionally quiet operation.
- **High efficiency**

Pressure balanced bearing blocks assure maximum efficiency under all operating conditions.

- **Application flexibility**
International mounts and connections, integrated valve capabilities provide unmatched design and application versatility for example in fan drives, lawn mowers or construction equipment.

Characteristics

Motor type	Heavy-duty, aluminium, external gear.
Mounting	SAE, rectangular, thru-bolt standard specials on request.
Ports	SAE and metric split flanges and others
Shaft style	SAE splined, keyed, tapered, cylindrical tang drive, specials on request
Speed	500 - 3500 rpm, see Technical Data
Theor. displacement	See Technical Data
Axial / Radial load	Units subject to axial or radial loads must be specified with an outboard bearing.
Outlet pressure	The outlet pressure for motors w/o drain line must be smaller as the max. allowable pressure of the shaft seal.
Inlet pressure	See Technical Data
Pressure rising rate	Max. 3000 bar/s
Flow velocity	See Nomograph for Pipe Velocity
Hydraulic fluids	Hydraulic oil HLP, DIN 51524-2
Fluid temperature	Range of operating temperature -15 to +80 °C. Max. permissible operating pressure dependent on fluid temperature. Temperature for cold start -20 to -15 °C at speed ≤ 1500 rpm.

Fluid viscosity	Range of operating viscosity 8 to 1000 mm ² /s Max. permissible operating pressure dependent on viscosity. Viscosity range for cold start 1000 to 2000 mm ² /s at operating pressure p≤10 bar and speed n ≤1500 rpm.
Range of ambient temperature	-40 °C to +70 °C
Filtration	According to ISO 4406 Cl. 18/16/13
Direction of rotation (looking at the drive shaft)	Clockwise, counter-clockwise or double. Attention! Drive motor only in indicated direction of rotation.