

Flowfit 415 V 3-Phase Electric Motor Pump Sets are robust, versatile **motor-driven pump assemblies** designed to provide a reliable **prime mover** for **hydraulic** and **fluid transfer** applications. These sets combine high-efficiency **three-phase electric motors** with precision **hydraulic gear pumps**, mounted with **bell housings** and couplings for quick integration into industrial systems.

Built around industry-standard **415 V, 50 Hz, 3-phase motors**, these pump sets deliver smooth, consistent output and are suitable for a wide range of applications where dependable **flow** and **pressure** are required.

Typical Applications

- **Hydraulic power packs** – as the core motor + pump drive assembly for hydraulic systems
- **Industrial fluid transfer** – moving hydraulic oil, lubricants, and other compatible fluids
- **Machinery actuation systems** – powering hydraulic cylinders, presses, clamps, and lifting systems
- **OEM hydraulic solutions** – integration into bespoke equipment and machine builds
- **Maintenance & replacement** – retrofit and replacement of existing motor-pump drives

Key Specifications

Voltage:	415V, 3 Phase
Frequency:	50 Hz
Motor Power:	0.12 to 22kW
Max Pressure:	Up to 270 Bar
Flow Rate:	1.5 to 131.4 L/Min
Pump Type:	Gear Pump



INTRODUCTION

PROTECTION

Motor protection according to IEC 60034-5 standards, are:

IP55 (standard) totally enclosed motors, fan cooled, protected against penetration of harmful quantities of dust and water sprayed from any direction.

All the motors are manufactured according to Quality Assurance Systems consistent with ISO 9001.

HIGH-PERFORMANCE IEC STANDARD MOTOR

Aluminium-housed three-phase asynchronous motors featuring a modern design, built from high-quality materials to IEC standards. They deliver high performance with safe, reliable, low-maintenance operation, plus low noise and vibration, in a lightweight, simple construction.

HYDRAULIC FLUIDS

It is advisable to use hydraulic oils of mineral origin with anti-foaming, anti-wear, anti-oxidant, and anti-corrosion characteristics; rapid air removal properties; and a high viscosity index.

- Recommended viscosity: 15–92 mm²/s (cSt).
- Start-up viscosity limit: 2000 mm²/s (cSt).

During normal operation, the oil temperature must be between 20°C and 65°C, with limit values between -20°C and 80°C with NBR gasket, and limit values between -15°C and 100°C with Viton gasket.

INSTALLATION NOTES

- Remove all dirt, chips, and all foreign bodies from flanges connecting inlet and delivery ports.
- Do not start the system under load at low temperatures or after long stops.
- Check the whole system filling by bleeding off the whole air amount after few minutes of system working.
- Increase the pressure until you reach the operating values by keeping checked the fluid and the moving parts temperature and the rotation speed. Maintain the set values within the limits specified in this catalogue.

SUCTION PRESSURE

The allowed working pressure supplied must be in the range 0.7–3 bar (absolute). For higher values (up to 30 bar), it is necessary to use sealing ring for high pressures.

SUCTION PIPES

Particular attention must be given to the sizing of rigid or flexible pipes, avoiding disproportionate lengths, sudden variations in cross section or small curvature radius, in any case selecting pipe cross-sections that guarantee an oil speed between 0.6 and 2 m/s.

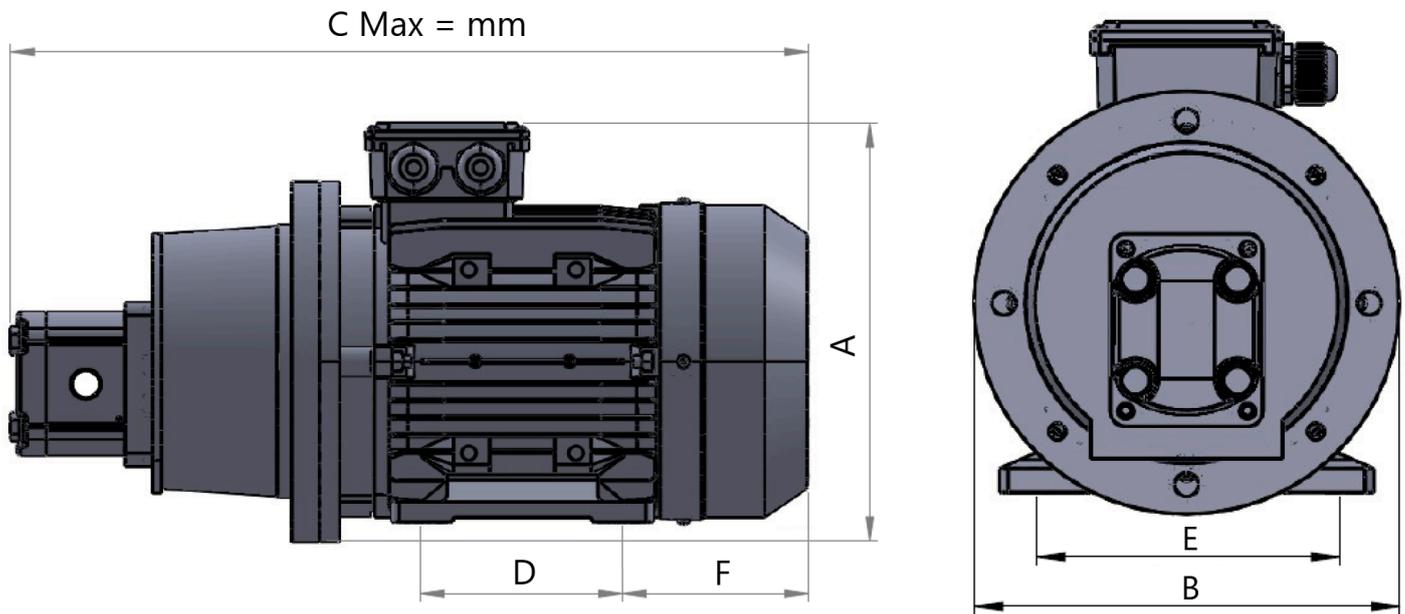
FILTRATION

In order to eliminate any oil impurity and to guarantee a longer duration of the pump, the system must be equipped with effective filtration, whose operation must be periodically checked.

The recommended filtration levels are as follows:

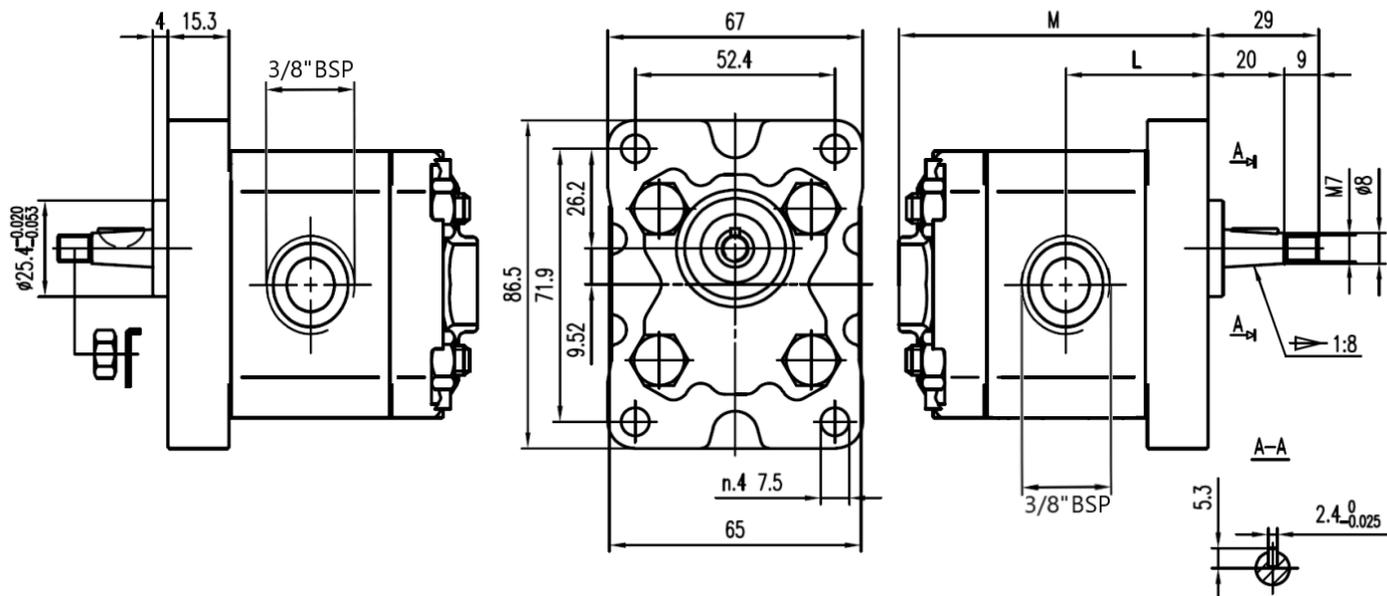
Up to 150 bar: 21/19/16 (ISO 4406) classe 10 (NAS 1638).
Over 150 bar: 20/18/15 (ISO 4406) classe 9 (NAS 1638).

ELECTRIC MOTOR PUMP SET DIMENSIONS



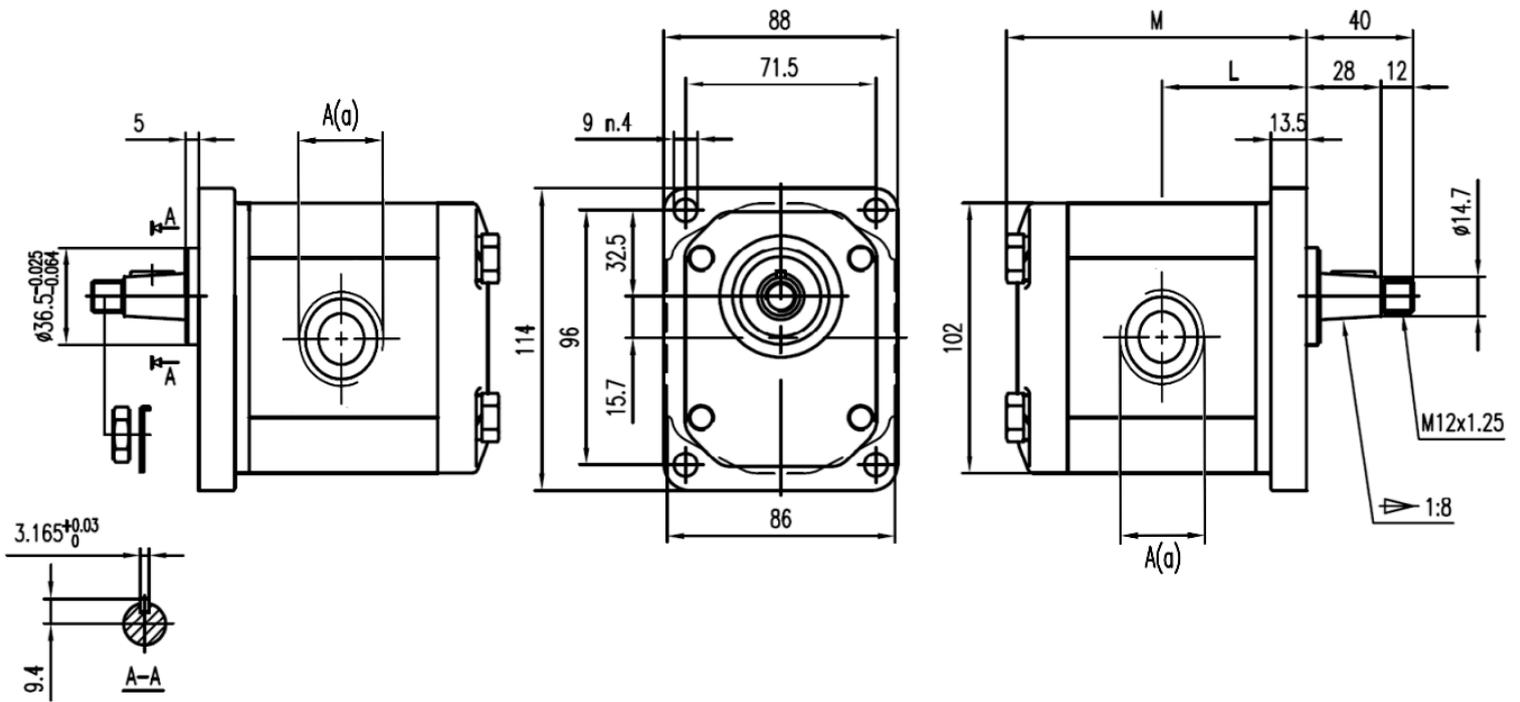
VOLTAGE kW	A	B	C (MAX)			D	E	F
			Group 1	Group 2	Group 3			
0.12	177	140	361	X	X	80	100	77
0.18								
0.25	193	160	385	X	X	90	112	76
0.37								
0.55	232	200	449	X	X	100	125	100
0.75								
1.1	238	200	461	X	X	100	140	106
1.5	241	200	486	518	X	125	140	106
2.2	280	250	525	557	X	140	160	112
3	280	250	X	557	X	140	160	112
4	291	250	X	579	X	140	190	127
5.5	336	300	X	646	654	140	216	151
7.5	336	300	X	684	716	178	216	151
9.2	336	300	X	684	737	178	216	151
11	337	350	X	803	871	210	254	177
15	377	350	X	792	871	210	254	177
18.5	445	354	X	X	953	241	279	215
22								

GEAR PUMP GROUP 1



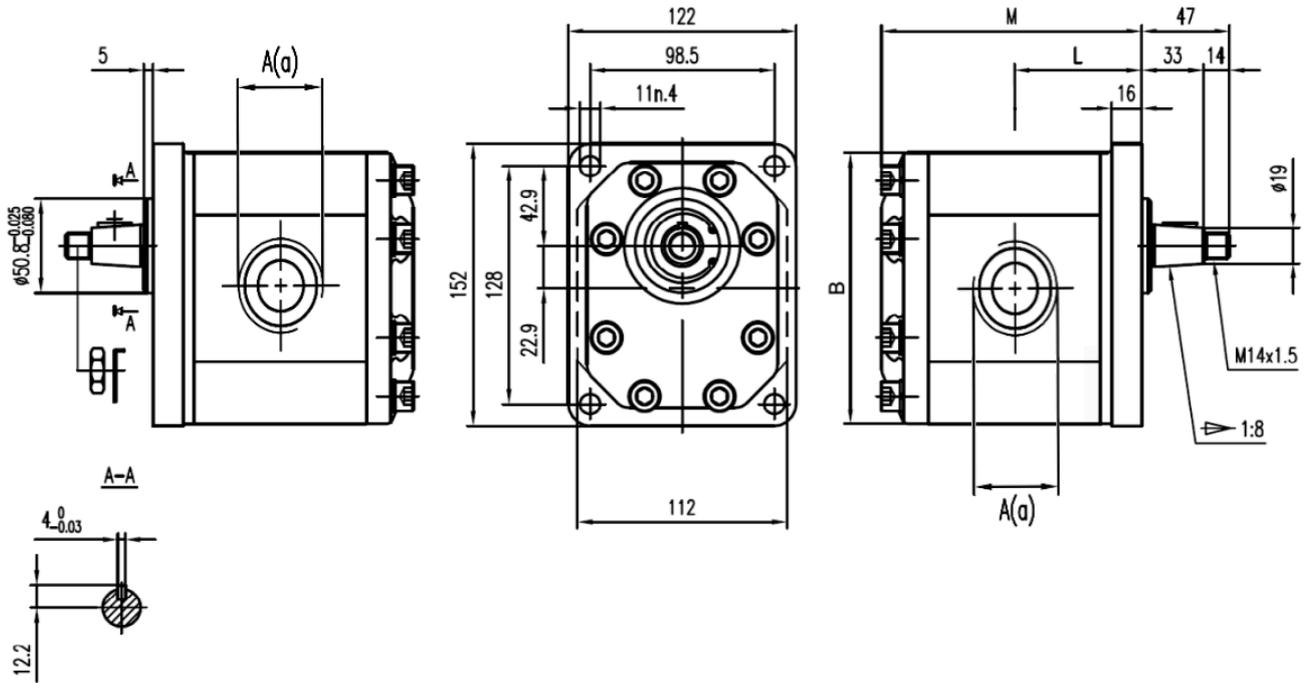
Displacement cm ³ / rev	Max Pressure			Max Speed r/min	Min Speed r/min	Dimensions	
	P1	P2	P3			M	L
0.8	250	270	290	6000	1000	73.5	32.8
1.1	250	270	290	6000	1000	74	33
1.3	250	270	290	6000	1000	75	33.5
1.6	250	270	290	6000	1000	76	34
1.8	250	270	290	6000	1000	77	34.5
2.1	250	270	290	6000	1000	78	35
2.7	250	270	290	6000	800	80	36
3.2	250	270	290	5000	800	82	37
3.7	250	270	290	4500	800	84	38
4.2	250	270	290	4000	800	86	39
4.8	230	250	270	3500	600	88	40
5.8	230	250	270	3000	600	92	42
7	210	230	250	2500	600	96	44
8	180	200	230	2100	600	100	46
9.8	150	170	190	2100	600	104	48

GEAR PUMP GROUP 2



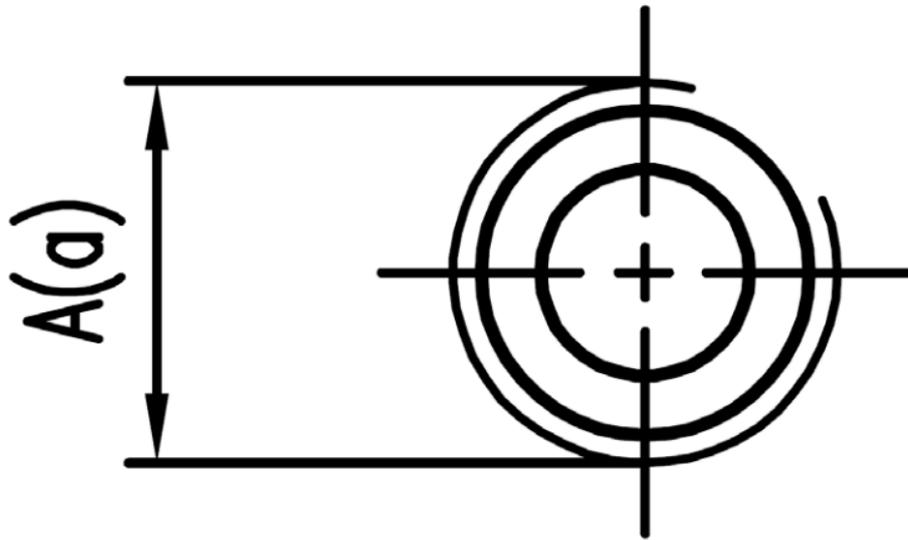
Displacement cm ³ / rev	Max Pressure			Max Speed r/min	Min Speed r/min	Dimensions	
	P1	P2	P3			M mm	L mm
4	270	285	300	4000	600	92.7	44.4
6	270	285	300	4000	600	96	46
8	270	285	300	3500	500	99.3	47.7
10	270	285	300	3000	500	102.6	49.3
12	270	285	300	3000	500	105.9	51
14	250	265	280	4000	500	109.3	52.7
16	250	265	280	4000	500	112.7	54.4
18	250	265	280	3600	400	116	56
20	220	235	250	3200	400	119.3	57.7
23	220	235	250	3000	400	122.6	59.3
25	200	215	230	3000	400	127.6	61.8
28	180	190	200	2500	400	132.6	64.3
30	160	170	180	2500	400	135.9	66

GEAR PUMP GROUP 3



Displacement	Max Pressure			Max Speed	Min Speed	Dimensions		
	P1	P2	P3			M	L	B
cm ³ / rev				r/min	r/min	mm	mm	mm
25	260	290	300	3000	500	123	59.3	118
28	260	290	300	3000	500	126	60.8	118
30	250	280	300	3000	500	129	62	118
32	250	280	300	300	500	131	63.3	118
36	250	280	300	2750	400	135	65.3	118
38	250	280	300	2750	400	137	66.3	118
40	250	280	300	2750	400	139	67.3	118
44	250	280	300	2750	400	144	69.5	118
50	220	240	260	3000	500	156	77	146
52	220	240	260	3000	500	158	78	146
55	220	240	260	2750	400	160	79	146
63	200	230	250	2750	400	168	83	146
71	180	200	220	2500	400	175	86	146
80	180	200	220	2500	400	189	96	146
90	180	200	220	2500	400	195	99	146
100	160	180	200	2500	400	201	102	146

GEAR PUMP PORT SIZES



GROUP 1

INLET	OUTLET
A	a
G3/8	G3/8

GROUP 2

DISPLACEMENT	INLET	OUTLET
	A	a
4-16CC	G1/2	G3/8
18-20CC	G3/4	G1/2
23-30CC	G1	G3/4

GROUP 3

DISPLACEMENT	INLET	OUTLET
	A	a
25-55CC	G1	G3/4
63CC	G1 1/4	G1
70-90CC	G1 1/2	G1 1/4