

### IPH Series IP Pump

3.6 to 125.9cm<sup>3</sup>/rev  
30MPa

❖ This is a new design series in which all pump types are installation compatible with previous designs. Note, however, that there is no longer compatibility for some of the seal components between the IPH-3 and IPH-4 sizes and design numbers 10 and 12.

### Features

- ① A patented axial and radial pressure loading system provides high efficiency and generates pressures up to 30MPa {306kgf/cm<sup>2</sup>}.
- ② Outstanding durability and very long life.
- ③ A modified involute short-tooth gear enables internal gearing for greatly reduced pulsation and noise, and exceptionally quiet operation.
- ④ A simple structure makes maintenance and inspection easier.

### Specifications

Model No.	Capacity cm <sup>3</sup> /rev	Rated Voltage MPa	Maximum Operating Pressure MPa(kgf/cm <sup>2</sup> )	Minimum Revolution Speed min <sup>-1</sup>	Maximum Revolution Speed min <sup>-1</sup>	Weight kg	
						Type A	Type B
IPH-2A(B)- 3.5-11	3.60	25 {255}	30 {306}	600	2000	4.4	2.4
	5.24					4.5	2.5
	6.55					4.6	2.6
	8.18					4.8	2.8
IPH-3A(B)- 10-20	10.2	25 {255}	30 {306}	600	2000	10.5	4.8
	13.3					10.7	5.0
	15.8					11.0	5.3
IPH-4A(B)- 20-20	20.7	25 {255}	30 {306}	500	2000	15.2	9.5
	25.7					15.7	10.0
	32.3					16.2	10.5
IPH-5A(B)- 40-21(11)	40.8	25 {255}	30 {306}	400	2000	32.0	19.0
	50.3					33.0	20.0
	63.9					34.0	21.0
IPH-6A(B)- 80-21(11)	81.3	25 {255}	30 {306}	300	2000	62.0	39.0
	101.6					64.0	41.0
	125.9					66.0	43.0

- Note) 1.Capacity: Logical discharge rate per rotation.  
 2.Suction Pressure: +0.03 to +0.3MPa {-0.3 to +0.3kgf/cm<sup>2</sup>}  
 3.Maximum working pressure shown here is the pressure limit when there are frequent pressure changes.  
 4.Avoid installation with the suction port towards the bottom of the pump.  
 5.Specify using the model number format shown below when pipe flanging is required.

#### ● Handling

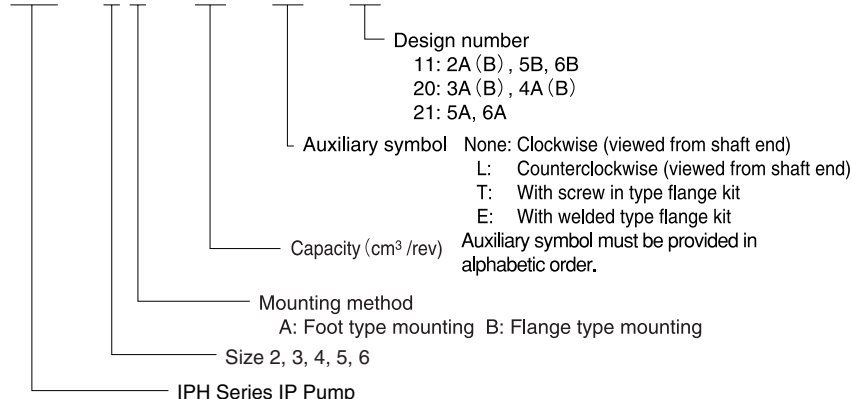
- ① For the hydraulic operating fluid, use an R&O type and wear-resistant type of ISO VG32 to 68 or equivalent (viscosity index of at least 90). Use hydraulic operating fluid that provides kinematic viscosity during operation in the range of 20 to 150mm<sup>2</sup>/s.
- ② The operating temperature range is 5 to 65°C. When the oil temperature at

startup is 5°C or less, perform a warm-up operation at low pressure until the oil temperature reaches 5°C. Use the pump in an area where the temperature is within the range of 0 to 60°C.

- ③ Suction pressure is -0.03 to +0.03MPa (-0.3 to +0.3kgf/cm<sup>2</sup>), and the suction port flow rate should be to greater than 2m/sec.
- ④ Avoid pulley, gear, and other drive systems that impart a radial or thrust load on the end of the pump shaft.
- ⑤ Mount the hydraulic pump so its pump shaft is oriented horizontally. Provide a suction strainer with a filtering grade of about 100μm (150 mesh). For the return line to the tank, use a 25μm line filter.
- ⑥ Manage hydraulic operating fluid so contamination is maintained at class NAS10 or lower. Take care to avoid contamination with water and other foreign matter, and watch out for discoloration. Whitish fluid indicates that air has contaminated the fluid, and brownish fluid indicates the fluid is dirty.

### Understanding Model Numbers

IPH - 4 B - 25 - LT - 20



(Continued on following page)