Feature

The 1HG pump is for small capacity and mid. pressure. The Max. flow rates are 4.5L/min or less and the Max. discharge pressure is 2.5MPa. Therefore this pump is suitable to feed hydraulic oil and lubricant oil. A relief valve cannot be attached to the HG pump. If a relief valve is required, please use external 2 VBD(see page 33). The rotation direction is counter-clockwize as seen from the shaft end.

Model

FTP– [Model No.] HG [Attachment] – [Seal material]

Model examples:FTP-11HGI (With angle plate)

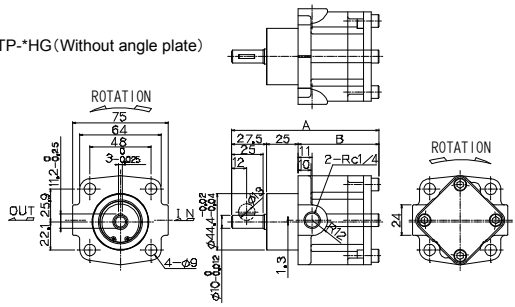
Model No.
11
12

Attachment
No mark:Without angle plate
I:With angle plate

Seal material
No mark:Standard (-5~80℃)
VF:Viton(R) for high temp. (120℃)

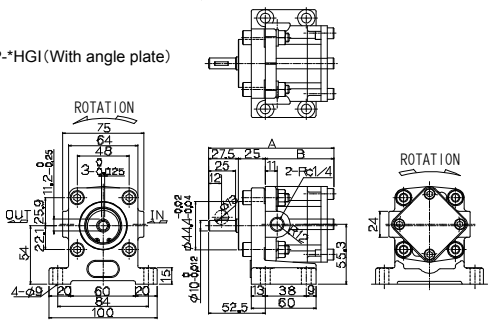
Dimensional diagrams (mm)

■ FTP-*HG(Without angle plate)



Model	A	B
11HG	111	58.5
12HG	116	63.5

■ FTP-*HGI(With angle plate)



Model	A	B
11HG	111	58.5
12HG	116	63.5

Spec

Model	Flow rate per. rev. (ml/rev)	Theoretical flow rate (L/min)		Max. discharge pressure (MPa)	Max. revolution (min^{-1})	Approx. weight (kg)
		1500min^{-1}	1800min^{-1}			
11HG	1.5	2.2	2.7	2.5	3000	1.4
12HG	2.5	3.7	4.5	2.5	2500	1.5

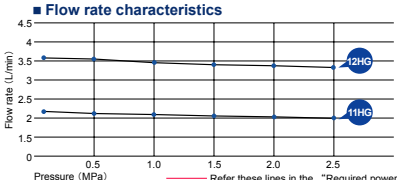
● The above max. discharge pressure and max. revolution are in combination with ISO-VG46 at 40℃.
The rates vary depending on viscosity and temperature.

Performance

● Test conditions Oil:ISO-VG46 Oil temp.:40℃

At 1,450 rotations (50Hz)

■ Flow rate characteristics

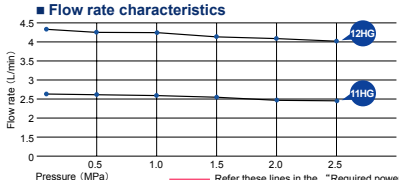


■ Required power

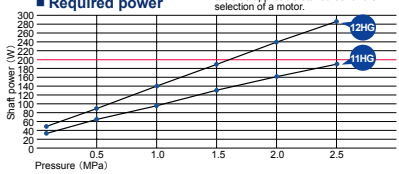
Model \ Spec	Flow rate (L/min) Pressure (MPa)						Required power (W) Pressure (MPa)					
	0.1	0.5	1.0	1.5	2.0	2.5	0.1	0.5	1.0	1.5	2.0	2.5
11HG	2.21	2.17	2.13	2.09	2.05	2.00	32	56	85	112	140	168
12HG	3.58	3.54	3.48	3.43	3.37	3.32	45	77	117	160	200	240

At 1,750 rotations (60Hz)

■ Flow rate characteristics



■ Required power



Model \ Spec	Flow rate (L/min) Pressure (MPa)						Required power (W) Pressure (MPa)					
	0.1	0.5	1.0	1.5	2.0	2.5	0.1	0.5	1.0	1.5	2.0	2.5
11HG	2.67	2.63	2.58	2.54	2.49	2.45	38	65	96	129	160	191
12HG	4.32	4.27	4.21	4.16	4.10	4.04	50	90	140	188	239	285

● The required power varies depending on viscosity temp. etc.