Sumitomo Drive Technologies

Always on the Move

Motion Control Drives

IB Series P1 Type

2009.10

Motion Control Drive

IB Series P1 Type

- Most compact in the industry
- **38%** of our models have been downsized
- Motor capacity range expanded **50W-5000W**
- Reduction ratio range expanded 1/5, 1/9, 1/15, 1/21, 1/33,1/45, **1/81**
- **Compatible with newest servo motors!**

Features

- High torque transmission capacity, leading the industry
- Low backlash: 15 min
- Very quiet
- High efficiency: 90% and greater
- All listed reduction ratios are the actual ratios
- Input speeds up to 6000r/min
- Compatible with major servo motor flanges
- Flange output type available

Flange Shaft Type

Applications

- Transfer robots
- Peripheral equipment for robots
- Factory automation
- Semiconductor production machine
- Machine tool
- Loader drive and shaft motion
- Wrapping machines (bag making and pillow wrapping)
- Wood-processing machine
- Medical equipment
- Monitoring camera
- Vending machine
- Analyzing machine
- Measuring equipment

Compact housing with integrated internal gears.

Wide variety

Three variations available to match customers' needs.

Keyless Solid Shaft Type

Flange Shaft Type

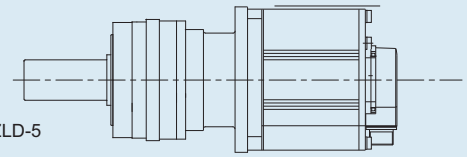
Solid Shaft Type with Keyway

Most compact in the Industry

Significantly smaller size and less mass than the comparable P Series models in the low reduction ratios and medium capacity range.

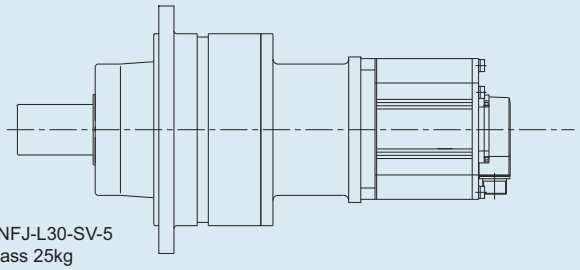
P1 Series

Mass approx. 1/3 of P Series



ANFX-P130N-1ZLD-5
Mass 8.4kg

P Series

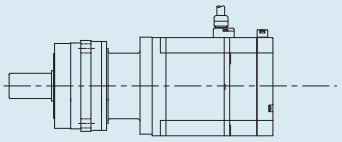


ANFJ-L30-SV-5
Mass 25kg

Comparison of Reduction Ratio 5 for 3500W

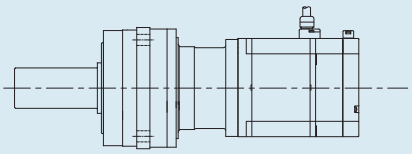
P1 Series

Mass approx. 1/2 of P Series



ANFX-P120N-7XLD-5
Mass 2.7kg

P Series



ANFX-P35N-7XLC-5
Mass 6.3kg

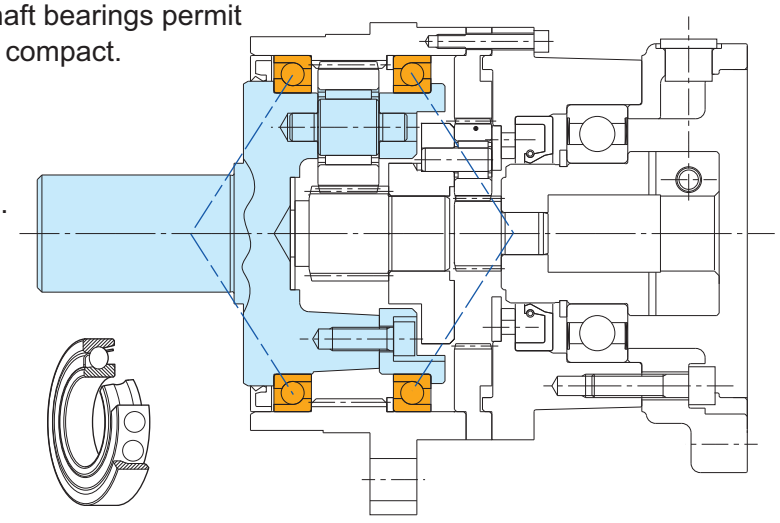
Comparison of Reduction Ratio 5 for 1500W

High Moment Capacity: New Large Diameter Angular Bearing

Large diameter precision angular output shaft bearings permit large radial loads while keeping the casing compact.

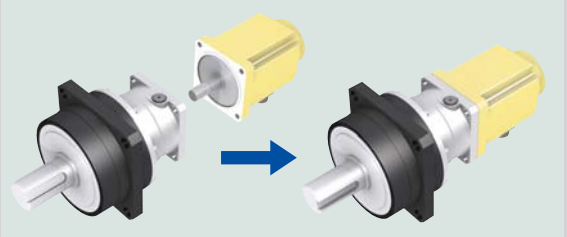
Angular Contact Ball Bearing:

High precision bearings used for machine tool and other similar applications. This bearing supports both radial and axial loads. It supports greater axial load than standard ball bearings.



Assembly

Easy assembly. Connect servo motor and reducer directly with bolt (provided by customer). Tighten motor shaft with hexagon wrench. The unit is ready for immediate use.



Keyless Type Servo Motor

Input Side Clamp

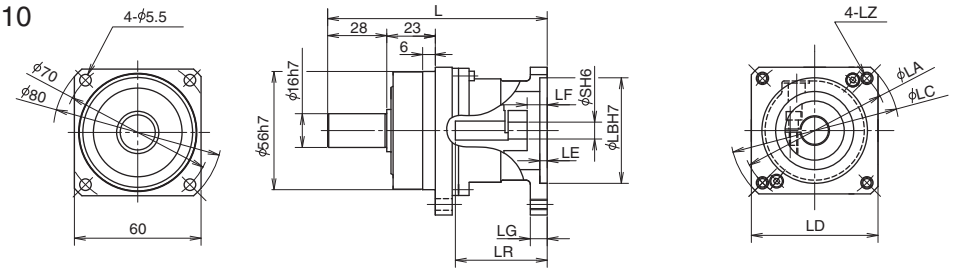
Specifications

Model	Ratio	Rated torque at input speed 3000r/min [Nm]	Allowable torque		Allowable max. input speed [r/min]	Backlash [arc-min]	Radial load at input speed 2000r/min [N]	*1: Typical value	
			max. acceleration or deceleration torque [Nm]	Peak torque for emergency stop [Nm]				Moment of inertia equivalent on input shaft [kgm^2] *1	Weight [kg] *1
P110	5	10.5	45	60	6000	15	350	0.116×10^{-4}	0.9
	9	11.5	35				425	0.098×10^{-4}	
	15	15.5	45				505	0.137×10^{-4}	1.1
	21	17.5	45				565	0.107×10^{-4}	
	33	19.0	45				655	0.092×10^{-4}	
	45	22.0	45				730	0.092×10^{-4}	
	81	11.5	35				890	0.092×10^{-4}	
P120	5	44.5	190	250			1075	0.653×10^{-4}	2.4
	9	42.5	140				1310	0.504×10^{-4}	
	15	46.5	190				1550	0.483×10^{-4}	2.8
	21	49.5	190				1735	0.432×10^{-4}	
	33	40.0	135				2020	0.403×10^{-4}	
	45	54.5	190				2240	0.401×10^{-4}	
	81	43.5	140				2725	0.406×10^{-4}	
P130	5	86.5	380	500	5000		1440	2.823×10^{-4}	6.7
	9	97.5	330				1750	1.820×10^{-4}	
	15	90.0	380				2075	1.822×10^{-4}	7.0
	21	96.0	380				2325	1.533×10^{-4}	
	33	82.0	370				2705	1.282×10^{-4}	
	45	112	380				3000	1.271×10^{-4}	
	81	101	330				3645	1.263×10^{-4}	

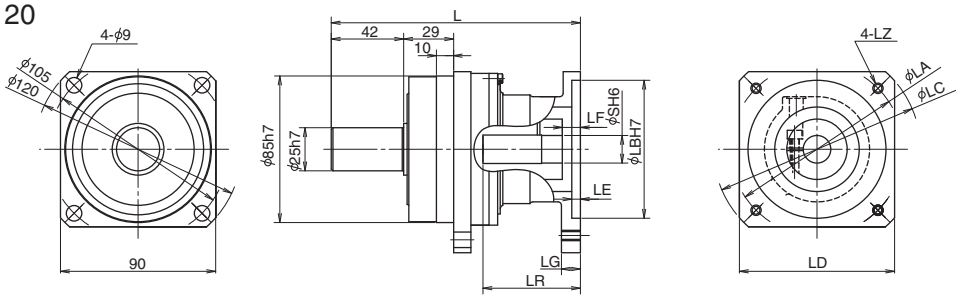
Dimensions (Solid Output Shaft)

Consult Sumitomo for more details.
Our products are compatible with various servo motor manufacturers' products.

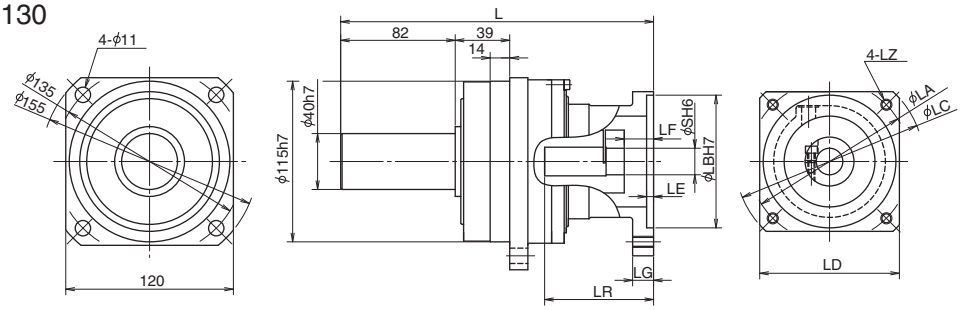
Size P110



Size P120



Size P130



Sumitomo Machinery Corporation of America
USA Headquarters & Manufacturing
4200 Holland Boulevard
Chesapeake, VA 23323
Tel: 757-485-3355 Fax: 757-485-7490
E-mail: customercare@suminet.com
www.smcyclo.com