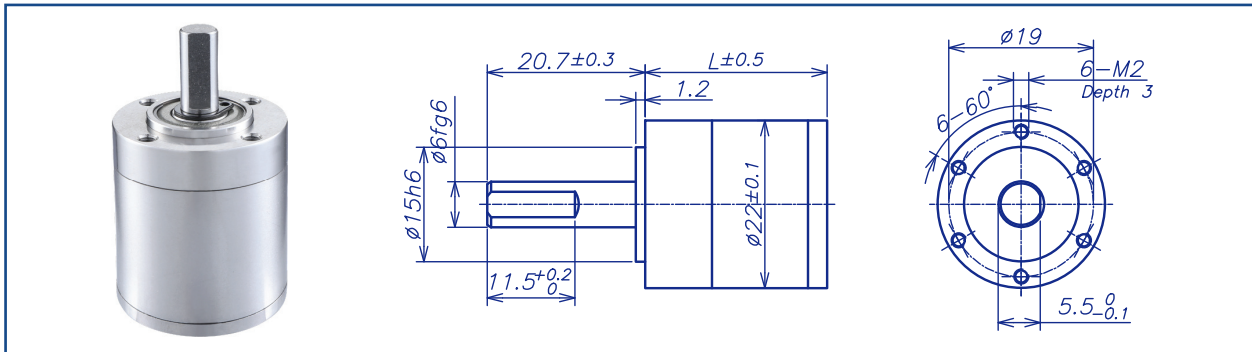


AM-22HP Series

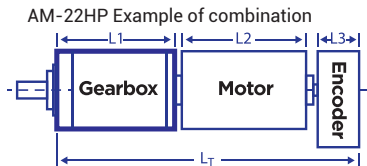


**GEARBOX CHARACTER**

Gear type	Straight teeth	Radial Play (8mm from flange)	max 0.1mm
Output shaft	Stainless steel hardened	Permissible force press fits	max. 120 N
Main gear	Alloy Steel hardened	Permissible axial load (dynamic)	max. 100N
Ring gear	Stainless steel hardened	Recommended input speed	12000RPM
Adapter plate	Stainless steel	Operating temperature range	-40°C ~ +100°C
Bearing AT output	Ball bearing	Operating humidity range	10-90%RH
Axial play	0-0.3	Number of stages	1 2 3 4
Directions	CW/CCW	Permissible load (10mm from flange)	60N 100N 120N 120N

**GEARBOX DATA**

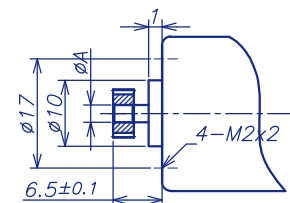
Number of stage	1			2			3			4		
Reduction ratio X:1	3.1	4.0	6.0	10	19	31	75	113	158	356	679	
				13	24	40	96	144	186	384	864	
				16	36	50		216	201	453	1296	
						59			237	576		
						64			256			
									302			
Reduction ratio absolute	22/7	4/1	6/1	484/49	132/7	10648/343	528/7	792/7	7744/49	17424/49	4752/7	
				88/7	24/1	1936/49	96/1	144/1	63888/343	384/1	864/1	
				16/1	36/1	352/7		216/1	1408/7	3168/7	1296/1	
						2904/49			11616/49	576/1		
						64/1			256/1			
									2112/7			
Motor shaft max. diameter (mm)	3	1.5		3	1.5			1.5			1.5	
Gearbox length "L" (mm)	19.1			23.9			28.7			33.5		
Max. continuous torque (N.m)	0.8			2.5			3.2			3.8		
Max. intermittent torque (N.m)	1			3			3.8			4.5		
Average backlash no load	1.1°			1.3°			1.3°			1.3°		
Gearbox efficiency	90%			81%			73%			65%		
Max. mass inertia (g.cm <sup>2</sup> )	0.36			0.36			0.36			0.36		
Gearbox weight approx (g)	55			70			85			100		
gearbox model	AM-22HPA-X			AM-22HPB-X			AM-22HPC-X			AM-22HPD-X		



**INPUT GEARBOX DATA**

Modulus	0.4
Press angle	20°
Teeth number	9 15 21
Max gear hole "A"	1.5 3 3
Max motor shaft	1.5 3 3

**MOTOR DIMENSION**



**Recommend Motor:**

Coreless Motor (w/E):  
AM-CL16\*\*\*  
AM-CL19\*\*\*  
AM-CL22\*\*\*

Brushless Motor (w/E):  
AM-BL16\*\*\*  
AM-BL20\*\*\*

**Recommend Encoder:**

Suitable for Coreless Motor  
Encoder S: AM-EN1611S\*\*\*  
AM-EN2211S\*\*\*

Suitable for Brushless Motor

Encoder S: AM-EN1611S\*\*\*  
Encoder T: AM-EN1612T\*\*\*

**GEARBOX MOTOR LENGTH "LT"**

Gear motor length L <sub>T</sub>	42.1	74.6	80.7
Gear box length L <sub>1</sub>	19.1	23.9	28.7
Motor length L <sub>2</sub>	23	40	40
Encoder length L <sub>3</sub>	-	10.7	12

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