



# Planetary Gearbox AM-16P Series

**ASSUN MOTOR**

2017 edition. Specifications are subject to change without notice.

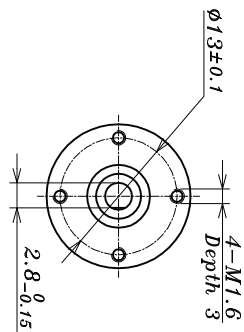
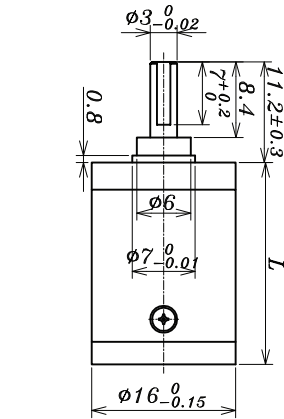
## GEARBOX CHARACTER

<b>GEAR TYPE</b>	Straight teeth	<b>AVERAGE BACKLASH NO LOAD</b>	<3°
<b>OUTPUT SHAFT</b>	Stainless steel hardened	<b>RADIAL PLAY</b>	<0.04
<b>MAIN GEAR</b>	Alloy Steel	<b>PERMISSIBLE AXIAL LOAD</b>	<10N
<b>RING GEAR</b>	Steel	<b>PERMISSIBLE FORCE FOR PRESS FITS</b>	<50N(5mm from mounting face)
<b>ADAPTER PLATE</b>	Copper	<b>RECOMMENDED INPUT SPEED</b>	<10000RPM
<b>BEARING AT OUTPUT</b>	Ball bearing	<b>OPERATING TEMPERATRE RANGE</b>	-20°C ~ +50°C
<b>AXIAL PLAY</b>	0-0.3	<b>OPERATING HUMIDITY RANGE</b>	10-90%RH
<b>DIRECTIONS</b>	CW/CCW		

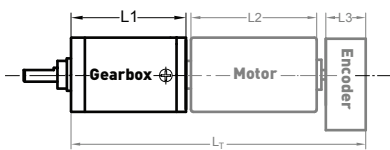
## GEARBOX DATA

NUMBER OF STAGE	1	2	3	4	5						
<b>REDUCTION RATIO X:1</b>	3.3 3.8 4.4 5.4	11 12 14 16 18	19 20 24 29	37 41 47 53 84	62 64 72 76 158	97 104 109 128 561	175 198 231 270 316	370 410 455 522 561	591 690 850	742 1014 1185 1386 1621	1996 2458 3027 3728 4592
<b>REDUCTION RATIO ABSOLUTE</b>	63/19 15/4 57/13 27/5	3969/361 945/76 225/16 855/52 1701/95	3249/169 81/4 1539/65 729/25	250047/6859 59535/1444 3375/64 14175/304 12825/208 204687/3211 48735/676	1215/16 185193/2197 45927/475 87723/845 2187/20 41553/325 19683/125	212625/1216 50625/256 192375/832 731025/2704 2777895/8788 10556001/28561	6561/16 5000211/10985 1240029/2375 2368521/4225 59049/100 1121931/1625	531441/625	759375/1024 10965375/10816 41668425/35152 158340015/114244 601692057/371293 285012027/142805 135005697/54925 63950067/21125 30292137/8125 14348907/3125		
<b>GEARBOX LENGTH "L" (mm)</b>	18.0	22.0	26.0	30.0	34.0						
<b>RATED TORQUE (Kgf.cm)</b>	3.5	5	6.2	7.5	7.5						
<b>BREAKING TORQUE (Kgf.cm)</b>	10.5	15.0	18.5	22.5	22.5						
<b>GEARBOX EFFICIENCY</b>	93%	86%	80%	75%	70%						
<b>MOMENT OF INERTIA RANGE (g.cm<sup>2</sup>)</b>	0.06	0.05	0.05	0.05	0.05						
<b>GEARBOX WEIGHT APPROX (g)</b>	23	28	31	36	40						
<b>GEARBOX MODEL</b>	AM-16PA-X-01	AM-16PB-X-01	AM-16PC-X-01	AM-16PD-X-01	AM-16PE-X-01						

"X" Stand for RATIO



## AM-16P EXAMPLE OF COMBINATION



Recommend Motor:  
Coreless Motor:  
AM-CL1623MA  
AM-CL1626 MA  
AM-CL1642MA  
Coreless Motor (w/E):  
AM-CL1633A/B  
AM-CL1643A/B  
Brushless Motor (w/E):  
AM-BL1640A/B

Recommend Encoder:  
Suitable for Coreless Motor  
Encoder S: AM-EN16-S\*\*\*  
2 ~3 Channels

Suitable for Brushless Motor  
Encoder S: AM-EN16-S\*\*\*  
2 ~3 Channels  
Encoder T: AM-EN16-T\*\*\*  
2 ~3 Channels

For more motor and encoder specs, see Assun Motor website.

## REMARKS

Clients can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.

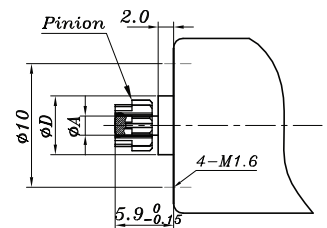
Motor Data Tested at 25°.

Motor Operation exceeds continuous limits of operating range will compromise the life of the device.

## INPUT GEAR DATA

<b>MODULUS</b>	0.3
<b>PRESS ANGLE</b>	20°
<b>TEETH NUMBER</b>	10 13 16 19
<b>MAX GEAR HOLE "A"</b>	1.5 2.0
<b>MAX MOTOR SHAFT</b>	1.5 2.0
<b>MOTOR DIMENSION "D"</b>	6.0/6.15 6.3

## MOTOR DIMENSION



## GEAR MOTOR LENGTH "LT"

GEAR MOTOR LENGTH LT					
<b>GEARMOTOR LENGTH L1</b>	18	22	26	30	34
<b>MOTOR LENGTH L2</b>	23	26	42	33	43 40
<b>ENCODER LENGTH L3</b>	12	10.7	10	7.1	