



# Planetary Gearbox AM-45P Series

**ASSUN MOTOR**

2017 edition. Specifications are subject to change without notice.

## GEARBOX CHARACTER

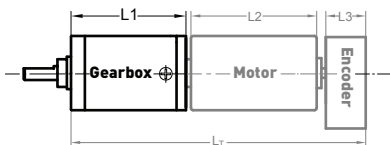
<b>GEAR TYPE</b>	Straight teeth	<b>AVERAGE BACKLASH NO LOAD</b>	<1.5°
<b>OUTPUT SHAFT</b>	Stainless steel hardened	<b>RADIAL PLAY</b>	<0.06
<b>MAIN GEAR</b>	alloy steel	<b>PERMISSIBLE AXIAL LOAD</b>	<150N
<b>RING GEAR</b>	Steel	<b>PERMISSIBLE FORCE FOR PRESS FITS</b>	<280N(5mm from mounting face)
<b>ADAPTER PLATE</b>	Aluminium alloy	<b>RECOMMENDED INPUT SPEED</b>	<8000RPM
<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			
		3.4	12	22	40	83	162	224	399	649
<b>REDUCTION RATIO</b> X:1	3.8	13	26	44	98	171	255	421	738	
	4.3	14	32	50	111	202	283	446	824	
	5.1	16	40	66	131		322	513	948	
	6.3	19		75	150		358	570	1078	
<b>REDUCTION RATIO</b> <b>ABSOLUTE</b>	75/22	5625/484	2277/104	421875/10648	75141/676		607500/2717		107163/209	
	72/19	2700/209	4356/169	101250/2299	287496/2197		1164375/4576		5143824/9025	
	69/16	5184/361	2079/65	338125/7744	71441/475		139725/494		2464749/3800	
	66/13	621/38	3969/100	16200/247	137214/845		171225/3328		18896409/25600	
63/10	4761/256		15525/208	273861/1600		1414017/3952		9056124/10985		
			20493/247	130977/650		4499145/11264		2250423/2375		
			313632/3211			1352538/3211		17253243/16000		
						980100/2197		8251551/6500		
<b>GEARBOX LENGTH "L"</b> (mm)	39	50		60.5					71.5	
<b>RATED TORQUE</b> (Kgf.cm)	54	72		90					108	
<b>BREAKING TORQUE</b> (Kgf.cm)	165	216		270					324	
<b>GEARBOX EFFICIENCY</b>	90%	86%		80%					70%	
<b>MOMENT OF INERTIA</b> <b>RANGE</b> (g.cm <sup>2</sup> )	12	14		14					15	
<b>GEARBOX WEIGHT</b> <b>APPROX</b> (g)	305	418		520					633	
<b>GEARBOX MODEL</b>	AM-45PA-X-01	AM-45PB-X-01		AM-45PC-X-01					AM-45PD-X-01	

"X" Stand for RATIO

## AM-45P EXAMPLE OF COMBINATION



Recommend Motor:  
Coreless Motor (w/E) :  
AM-CL3570GA/B

Brushless Motor (w/E) :  
AM-BL3660A/B  
AM-BL45100A/B

Recommend Encoder:  
Suitable for Coreless Motor  
Encoder S: AM-EN22-S\*\*\*  
2 ~ 3 Channels

Suitable for Brushless Motor  
Encoder S: AM-EN22-S\*\*\*  
2 ~ 3 Channels  
Encoder T: AM-EN36-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.

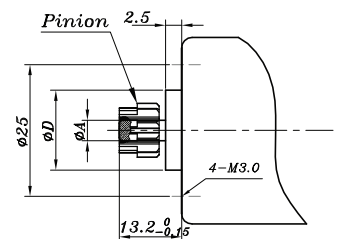
Motor Data Tested at 25°.

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

## INPUT GEAR DATA

<b>MODULUS</b>	0.6
<b>PRESS ANGLE</b>	20°
<b>TEETH NUMBER</b>	10 13 16 19 22
<b>MAX GEAR HOLE "A"</b>	2.5 3.0 3.15;4;5 6;8
<b>MAX MOTOR SHAFT</b>	2.5 3.0 3.175;4;5 6;8
<b>MOTOR DIMENSION "D"</b>	13.0 17.5

## MOTOR DIMENSION



## GEAR MOTOR LENGTH "LT"

<b>GEAR MOTOR LENGTH LT</b>				
<b>GEARMOTOR LENGTH L1</b>	39	50	60.5	71.5
<b>MOTOR LENGTH L2</b>	70	60	100	
<b>ENCODER LENGTH L3</b>	12	10.7	10	