



# DC Coreless Motor AM-CL3570GA/B Series

**ASSUN MOTOR**

2015 edition. Specifications are subject to change without notice.

## GRAPHITE BRUSH

## BALL BEARING

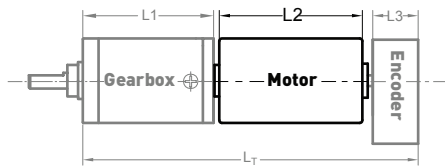
MOTOR MODEL		1206	1204	2406	2404	4806	4804	4803	48.0
<b>NOMINAL VOLTAGE</b>	<b>V</b>	12	12	24	24	48	48	48	48
<b>NO LOAD SPEED</b> ±12%	<b>rpm</b>	6140	4150	5930	4020	6060	4040	3240	1756
<b>NO LOAD CURRENT</b> Max 150%	<b>mA</b>	190	130	100	70	55	33	26	12
Recommend Limit for Continuous Operating	<b>mN.m</b>	63.3	73.3	69.3	81.1	67.5	86.6	87.7	100.3
	<b>rpm</b>	5632	3695	5506	3541	5629	3573	2740	1223
	<b>mA</b>	3600	2800	1900	1500	950	800	650	400
	<b>W</b>	37.4	28.4	40.0	30.1	39.7	32.4	25.2	12.9
<b>STARTING CURRENT</b>	<b>mA</b>	41397	24490	25263	12060	12632	6667	4068	1290
<b>STALL TORQUE</b>	<b>mN.m</b>	765	669	969	680	947	749	568	331
<b>MAXIMUM POWER OUTPUT</b>	<b>W</b>	123.0	72.7	150.4	71.5	150.3	79.2	48.2	15.2
<b>MAXIMUM EFFICIENCY</b>	<b>%</b>	87	86	88	85	87	85	85	82
<b>TERMINAL RESISTANCE PHASE TO PHASE</b> ±12%	<b>Ω</b>	0.29	0.49	0.95	1.99	3.8	7.2	11.8	37.2
<b>INDUCTANCE</b> (1kHz)	<b>mH</b>	0.036	0.11	0.21	0.45	0.83	1.71	2.75	9.6
<b>MECHANICAL TIME CONSTANT</b>	<b>ms</b>	8.8	7.1	6.9	6.5	7.0	6.2	6.4	6.2
<b>MOMENT OF INERTIA</b>	<b>gcm<sup>2</sup></b>	105.3	108.7	108.4	105.6	104.4	110.5	106.4	110.8
<b>TORQUE CONSTANT</b>	<b>mN.m/A</b>	18.6	27.5	38.5	56.7	75.3	112.9	140.6	258.6
<b>SPEED CONSTANT</b>	<b>rpm/V</b>	514	348	248	168	127	85	68	37
<b>SPEED/TORQUE GRADIENT</b>	<b>rpm/mN.m</b>	8.0	6.2	6.1	5.9	6.4	5.4	5.7	5.3
<b>WEIGHT</b>	<b>g</b>	348.3	350.2	350.5	348.2	347.4	351.4	348.7	351.6

## ADDITIONAL INFORMATION

### MAXIMUM ROLLING BEARING LOADS

<b>AXIAL (DYNAMIX)</b>	5.5 N	<b>RADIAL ( 5MM FROM HEAD FACE)</b>	28 N
<b>PRESS-FIT FORCE</b>	100(1000) N	<b>L: MAX ALLOWABLE SCREW DEPTH INTO FLANGE</b>	4.0 mm
<b>MAXIMUM RADIAL PLAY</b>	≤0.02mm	<b>AXIAL PLAY:</b>	PRESET
<b>MAXIMUM WINDING TEMPERATURE</b>	85°C	<b>AMBIENT TEMPERATURE RANGE:</b>	-30 to 65°C

### AM-CL3570GA/B COMBINATION SCHEME



Recommend Gearbox:  
Planetary Gearbox:  
AM-36P  
AM-45P

Recommend Encoder:  
Encoder S: AM-EN22-S\*\*\*  
2-3 Channels

For more gearbox specs, see Assun Motor website.

### TOTAL LENGTH (GEARBOX AND MOTOR): $L_T = L_1 + L_2 + L_3$

L1:36P	L1:45P	L2: CL35	L3: EN22-S
34.1	38.6	70.5	10.7
42.7	49.4		
51.3	60.2		
59.9	71.0		

## 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.

**ASSUN MOTOR**

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