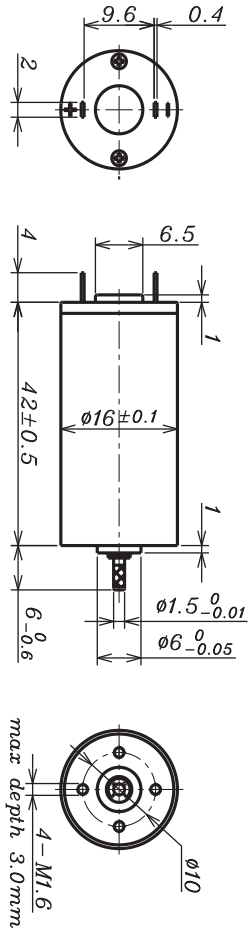




DC Coreless Motor AM-CL1642MA Series

ASSUN MOTOR

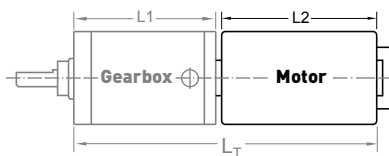
2015 edition. Specifications are subject to change without notice.



		PRECIOUS METAL BRUSH				BALL BEARING			
MOTOR MODEL		0609	1210	2409	2411	3609	3611	4809	4811
NOMINAL VOLTAGE	V	6.0	12.0	24.0	24.0	36.0	36.0	48.0	48.0
NO LOAD SPEED ±12%	rpm	9222	9952	9450	11120	9207	11682	9339	11253
NO LOAD CURRENT Max 150%	mA	19	10.5	6.0	7.0	4.5	5.0	3.5	4.2
Recommend Limit for Continuous Operating	mN.m	5.3	5.0	5.2	4.2	5.4	4.3	5.2	4.3
	rpm	8094	8874	8393	10215	8090	10700	8122	10242
	mA	880	450	220	2100	150	150	110	110
	W	4.5	4.7	4.5	4.5	4.6	4.8	4.4	4.6
STARTING CURRENT	mA	7059	4068	1920	2500	1204	1731	821	1182
STALL TORQUE	mN.m	44	47	46	51	45	51	40	48
MAXIMUM POWER OUTPUT	W	10.5	12.1	11.4	14.9	10.8	15.5	9.8	14.1
MAXIMUM EFFICIENCY	%	90	90	89	90	88	90	87	88
TERMINAL RESISTANCE PHASE TO PHASE ±12%	Ω	0.85	2.95	12.5	9.6	29.9	20.8	58.5	40.6
INDUCTANCE (1kHz)	mH	0.054	0.2	0.95	0.66	2.22	2.22	3.8	3.8
MECHANICAL TIME CONSTANT	ms	7.0	6.7	6.4	6.8	6.1	7.3	7.1	9.6
MOMENT OF INERTIA	gcm²	3.14	3.01	3.01	3.01	2.8	3.01	2.9	3.9
TORQUE CONSTANT	mN.m/A	6.2	11.5	24.2	20.6	37.2	29.3	48.9	40.6
SPEED CONSTANT	rpm/V	1541	831	395	465	257	325	195	235
SPEED/TORQUE GRADIENT	rpm/mN.m	211	214	204	217	206	231	234	235
WEIGHT	g	39.0	38.5	38.5	38.5	38.5	38.6	37.9	38.1

ADDITIONAL INFORMATION			
MAXIMUM ROLLING BEARING LOADS			
AXIAL (DYNAMIX)	3.4 N	RADIAL (5MM FROM HEAD FACE)	6.0 N
PRESS-FIT FORCE	36N	L: MAX ALLOWABLE SCREW DEPTH INTO FLANGE	3.0 mm
MAXIMUM RADIAL PLAY	≤0.02mm	AXIAL PLAY:	PRESET
MAXIMUM WINDING TEMPERATURE	85°C	AMBIENT TEMPERATURE RANGE:	-30 to 65°C

AM-CL1642MA COMBINATION SCHEME



Recommend Gearbox:
Planetary Gearbox:
AM-16P

TOTAL LENGTH (GEARBOX AND MOTOR): L _T = L ₁ + L ₂ + L ₃		
L1:16P	L2:CL16	L3
17.9	42.0	
21.8		
25.2		
28.6		
32.0		

For more gearbox specs, see Assun Motor website.

REMARKS	
<p>Clients can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.</p>	<p>Motor Data Tested at 25°. Motor Operation exceeds continuous limits of operating range will compromise the life of the device.</p>