



RACING ELECTRIC INSTRUMENT CO.,LTD.

EXCELLENT
QUALITY PRODUCTS
Exceeding Our Customer Expectations



AEROSPACE



INDUSTRY



DEFENSE



GREEN POWER
PRODUCTS

- **Actuator**
- **Servo Motor**
- **Torque Motor**
- **Positioners**
- **Resolver**
- **Brush & Brushless Motor**
- **Drive Director Motor**
- **Potentiometer**



Catalog Download Here

Company Profile



ABOUT US

Racing Electric Instrument Co., LTD. was founded in 1986 with business focusing on the design, assembly and manufacturing of electric motors and components in the aerospace and defense sector.

We specialize on custom-design (ODM) and built-to-print products (OEM) to our customers.

In 2013, we expand our business to the industrial motors market, starting with a joint cooperation with a renowned market leader to develop and manufacture light-weighted and highly efficient fluid pumps and motors.

Our Management Team are originally from Taiwan's National Chung-Shan Institute of Science & Technology (NCSIST), with technical backgrounds in the fields of mechanical and electrical engineering.

About Racing Electric Instrument

Racing Electric Instrument Co., LTD. is an AS9100 certified company on the design, assembly and manufacture of electric motors and related components for use in industrial, military, and aerospace applications. We are proud of supplying high-quality and low-cost electric motors and components (stators & rotors)、high-precision linear actuator、potentiometer and synchronous generator to our valuable Customers, who include many well-known names in the aerospace industries.

builds its competitive advantage by focusing its core business on a niche market (aerospace and defense sector) and providing low-cost solutions (ODM & OEM) to our valuable Customers. In responding to the accelerated speed of global change and global competition, we quicken our response time and reduce wastes by redirecting resources toward the highest priorities and making analytical and predictive improvement.

Certificat Certificate



N° 2010/39005.5

N° 2010/38703.5

AFNOR Certification certifies that the management system implemented by:

AFNOR Certification certifie que le système de management mis en place par :

RACING ELECTRIC INSTRUMENT CO., LTD.

For the following activities:

pour les activités suivantes :

DESIGN AND MANUFACTURING OF ELECTRIC MACHINERY MOTORS
FOR THE AEROSPACE INDUSTRY.

has been assessed and found to meet the requirements of:

a été évalué et jugé conforme aux exigences requises par :

ISO 9001 : 2015

and is developed on the following locations:

et est déployé sur les sites suivants :

1F&2F, NO.27-2 & 1F&2F&4F, NO.27-3 & 8F, NO.27-1 & 8F, NO.27, JILIN RD.,
ZHONGLI DIST., TAOYUAN CITY 320, TAIWAN (R.O.C.)

Certificat Certificate



N° 2010/39005.5

AFNOR Certification certifies that the quality system implemented by:

AFNOR Certification certifie que le système qualité mis en place par :

RACING ELECTRIC INSTRUMENT CO., LTD.

for the following activities:

pour les activités suivantes :

DESIGN AND MANUFACTURING OF ELECTRIC MACHINERY MOTORS
FOR THE AEROSPACE INDUSTRY.

has been audited in accordance with the EN 9104-001:2013 and found to meet the requirements of the standard:

a été audit conformément à l'EN 9104-001:2013 et a été jugé conforme aux exigences requises par la norme :

AS9100:D / JSIQ 9100:2016 / EN 9100:2018

and is developed on the following locations:

et est déployé sur les sites suivants :

Central Function: 1F&2F, NO.27-2 & 1F&2F&4F, NO.27-3 & 8F, NO.27-1 & 8F,
NO.27, JILIN RD., ZHONGLI DIST., TAOYUAN CITY 320, TAIWAN (R.O.C.)

Expiry date - Date d'expiration

2024-05-05



Issue date / Date d'émission



Expiry date - Date d'expiration



2024-05-05

Julien NIZRI
Managing Director of AFNOR Certification
Directeur Général d'AFNOR Certification



AS-9100 Aerospace Certification





Racing Electric Instrument Co., Ltd

六俊電機儀具股份有限公司



伺服致動器系列一

(一)、RA-900S1 伺服致動器：

No.	項目	規格
1. 電器規格		
1-1	最大負載扭矩 (Stall Torque)	≥900in-lb
1-2	動態負載扭矩 (Rated Torque)	≥450±20in-lb
1-3	無載轉速 (No Load Speed)	≥150°/Sec
1-4	負載轉速 (Rated Speed) at rated torque	≥100°/Sec
1-5	操作電壓 (Supply Voltage)	28VDC
1-6	操作電壓範圍 (Supply Voltage Range)	22 ... 29VDC
1-7	靜態負載電流 (Rated Current) at stall torque	≤9A
1-8	動態負載電流 (Peak current) at rated torque	≤15A
2. 機械特性規格		
2-1	外觀尺寸 (Case Dimensions)	≤219(W)×124(L)×54(H)mm
2-2	機械齒隙 (Backlash (Mechanical))	≤0.5°@1.5in-lb
2-3	電控行程(Electric Travel Angle)	±45° (Error : ± 2°)
2-4	機械行程(Mechanical Travel Angle)	±50° (Error : ± 2°)
2-5	重量 (Weight)	≤2.7kg
3. 控制特性規格		
3-1	通訊介面 (Communication Interface)	Dual CAN @ver. 2.0B
3-2	控制精準度(Control Accuracy)	≤0.3°
3-3	操作溫度(operative temperature)	-40°C~71°C



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伺服致動器系列二

(二)、RA-120 伺服致動器：

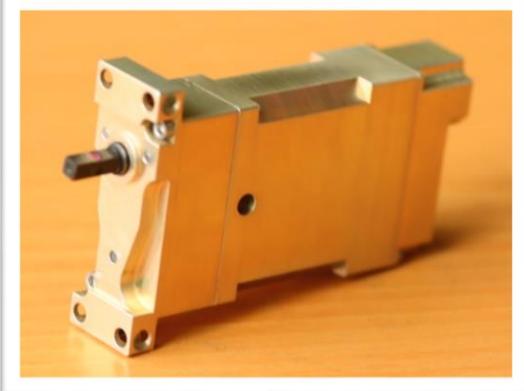
No.	項目	規格
1. 電器規格		
1-1	最大負載扭矩 (Stall Torque)	$\geq 120\text{in-lb}$
1-2	動態負載扭矩 (Rated Torque)	$\geq 60 \pm 20\text{in-lb}$
1-3	無載轉速 (No Load Speed)	$\geq 300^\circ/\text{Sec}$
1-4	負載轉速 (Rated Speed) at rated torque	$\geq 200^\circ/\text{Sec}$
1-5	操作電壓 (Supply Voltage)	28VDC
1-6	操作電壓範圍 (Supply Voltage Range)	22 ... 29VDC
1-7	靜態負載電流 (Rated Current) at rated torque	$\leq 1.5\text{A}$
1-8	動態負載電流 (Peak current) at stall torque	$\leq 4\text{A}$
2. 機械特性規格		
2-1	外觀尺寸 (Case Dimensions)	$\leq 101(\text{L}) \times 101(\text{W}) \times 43.2(\text{H})\text{mm}$
2-2	機械齒隙 (Backlash (Mechanical))	$\leq 0.5^\circ @ 1.5\text{in-lb}$
2-3	電控行程(Electric Travel Angle)	$\pm 45^\circ$ (Error : $\pm 2^\circ$)
2-4	機械行程(Mechanical Travel Angle)	$\pm 50^\circ$ (Error : $\pm 2^\circ$)
2-5	重量 (Weight)	$\leq 0.75\text{kg}$
3. 控制特性規格		
3-1	通訊介面 (Communication Interface)	CAN @ver. 2.0B
3-2	控制精準度(Control Accuracy)	$\leq 0.3^\circ$
3-3	操作溫度(operative temperature)	-40°C~71°C





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六俊電機儀具股份有限公司



伺服致動器系列三

(三)、RA-105(R)(E)伺服致動器：

No.	項目	規格
1. 電器規格		
1-1	最大負載扭矩 (Stall Torque)	$\geq 45\text{in-lb}$
1-2	動態負載扭矩 (Rated Torque)	$\geq 25 \pm 2\text{in-lb}$
1-3	無載轉速 (No Load Speed)	$\geq 200^\circ/\text{Sec}$
1-4	負載轉速 (Rated Speed) at rated torque	$\geq 150^\circ/\text{Sec}$
1-5	操作電壓 (Supply Voltage)	28VDC
1-6	操作電壓範圍 (Supply Voltage Range)	22 ... 29VDC
1-7	靜態負載電流 (Rated Current) at rated torque	$\leq 1\text{A}$
1-8	動態負載電流 (Peak current) at stall torque	$\leq 2\text{A}$
2. 機械特性規格		
2-1	外觀尺寸 (Case Dimensions)	$\leq 160(\text{L}) \times 85(\text{W}) \times 30(\text{H}) \text{ mm}$
2-2	機械齒隙 (Backlash (Mechanical))	$\leq 0.5^\circ @ 1.5\text{in-lb}$
2-3	電控行程(Electric Travel Angle)	$\pm 45^\circ$ (Error : $\pm 2^\circ$)
2-4	機械行程(Mechanical Travel Angle)	$\pm 50^\circ$ (Error : $\pm 2^\circ$)
2-5	重量 (Weight)	$\leq 0.35\text{kg}$
3. 控制特性規格		
3-1	通訊介面 (Communication Interface)	Dual CAN @ver. 2.0B or PWM (option)
3-2	控制精準度(Control Accuracy)	$\leq 0.3^\circ$
3-3	操作溫度(operative temperature)	-40°C~71°C



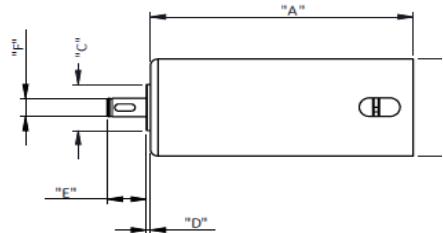


六俊電機儀具股份有限公司

Racing Electric Instrument Co., Ltd



Brushless DC Motor, With Ball Screw



No.	項目 (Description)	規格 (Specification)
1	外觀尺寸(Physical Dimension)	12.7(A) x 17.3 (B) x 37.8(C) x 6.4(D) x 4.5(E) x 8.8(F) mm
2	額定電壓(Rated Voltage)	60 VDC
3	操作電流(Operating Current)	20 Amp
4	無負載電流(No Load Current)	0.5 Amp
5	繞線電阻(Winding Resistance)	0.95 Ω
6	繞線電感(Winding Inductance)	1.10 Mh
7	輸出轉速與扭力(Rated Speed @ Rated Torque)	5500 rpm @ 67 oz-in
8	反電動勢常數(BEMF Constant, Kb)	≥ 0.049 V-sec/rad
9	扭力常數(Torque Sensitivity, Kt)	7.0 oz-in/Amp
10	重量(Weight)	≤ 0.635 Kg
11	轉子慣量(Rotor Inertia(Jm))	6×10^{-4} oz-in-sec ²



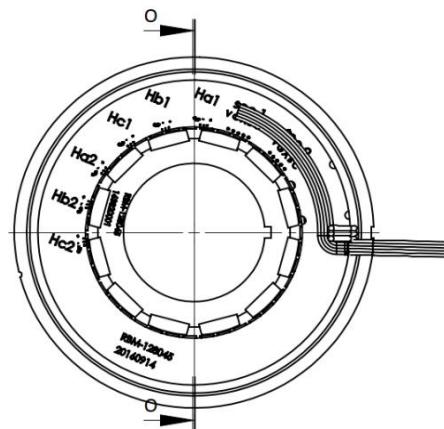
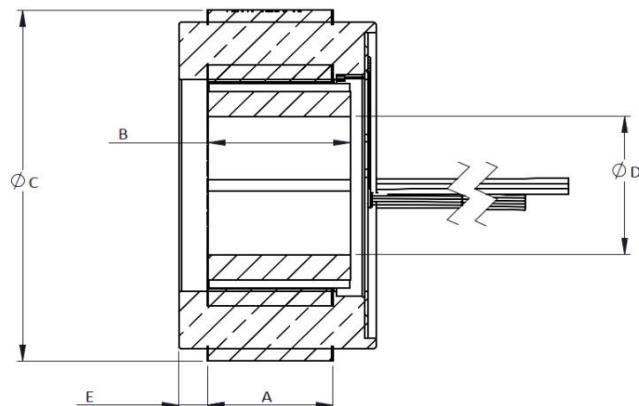


Racing Electric Instrument Co.,Ltd

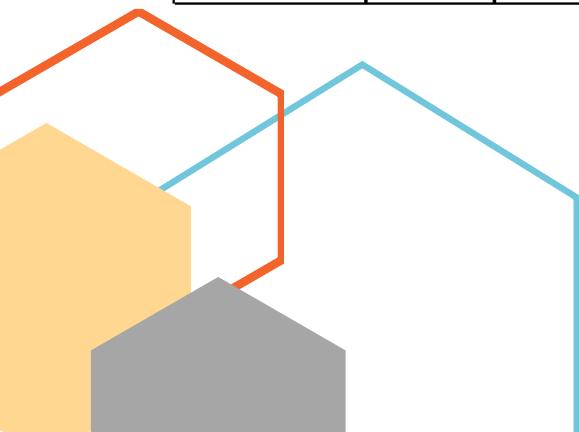


Torque Motor

A. FRAMLESS TYPE



Model number	"A" mm (in)	"B" mm (in)	"C" mm (in)	"D" mm (in)	"E" mm (in)	"F" mm (in)	Peak torque Oz-in	Voltage V
RBTM-128010	10.00 (0.39)	16.00 (0.63)	128.90 (5.07)	50.80 (2.00)	10.10 (0.40)	5.50 (0.22)	160	24
RBTM-037025	12.70 (0.50)	17.30 (0.68)	37.79 (1.49)	6.37 (0.25)	8.50 (0.33)	3.80 (0.15)	21.5	12
RBTM-229030	14.10 (0.56)	17.50 (0.69)	228.60 (9.00)	161.96 (6.38)	11.00 (0.43)	8.70 (0.34)	1900	24
RBTM-4935	19.10 (0.75)	23.60 (0.93)	49.20 (1.94)	10.02 (0.39)	10.20 (0.40)	5.20 (0.20)	158	24
RBTM-128045	45.00 (1.77)	51.00 (2.01)	128.90 (5.07)	50.80 (2.00)	15.47 (0.61)	10.20 (0.40)	800	24
RBTM-6066	50.80 (2.00)	55.37 (2.18)	60.35 (2.38)	12.72 (0.50)	10.16 (0.40)	5.10 (0.20)	424	60
RBTM-6093	74.40 (2.93)	81.50 (3.21)	60.35 (2.38)	12.72 (0.50)	12.60 (0.50)	5.50 (0.22)	566	28

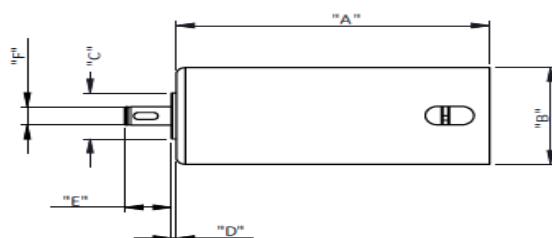




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Torque Motor-

B. HOUSED TYPE



Model number	"A"	"B"	"C"	"D"	"E"	"F"	Peak torque	Voltage
	mm	mm	mm	mm	mm	mm	Oz-in	V
	in	in	in	in	in	in		
RBM-2824	16.9	28	11	3.1	10.7	4	18	24
	0.67	1.10	0.43	0.12	0.42	0.16		
RBM-4485A	102	44.4	28.6	3.7	70.7	9.29	75	60
	4.02	1.75	1.13	0.15	2.78	0.37		
RBM-4989T	126	57.6	38.1	1.5	18.5	9.52	398	28
	4.96	2.27	1.50	0.06	0.73	0.37		
CBF-232A	112.8	49	23	5	13.8	5.5	600	180
	4.44	1.93	0.91	0.20	0.54	0.22		



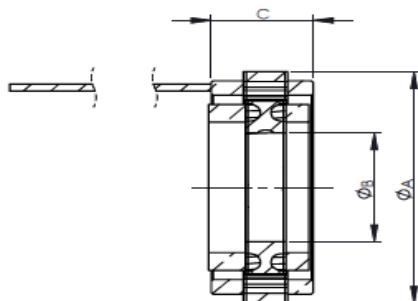


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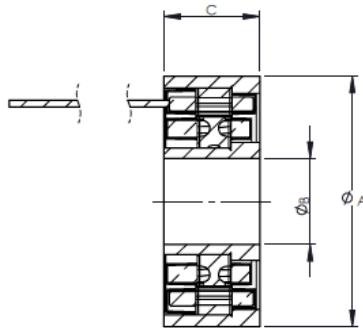
Resolver - Pancake Type

A. Bare



Model number	"ψA" mm	"ψB" mm	"ψC" mm	Speed	Function	Primary Winding	Input-VRMS	Freq.	Accuracy	Accuracy (optional)
RHP-7018	69.85	44.32	15.24	1	RX	R	26	400	6'	3'
RHP-9614B	96.01	69.6	17.03	1	RX	R	26	2000	6'	3'
RHP-12619B	126.86	87.76	22.3	1	RX	R	26	2000	6'	3'
RHP-220021	209.55	158.25	21.6	1/32	RX	R	26	400	1"	
RHP-220021A	209.55	158.25	21.6	1	RX	R	26	400	20'	

B. Sleeve and Hub



Model number	"ψA" mm	"ψB" mm	"C" mm	Speed	Function	Primary Winding	Input-VRMS	Freq.	Accuracy	Accuracy (optional)
RHP-3413	33.34	11.43	12.7	2	RX	R	5	400	8'	
RHP-5513	60.32	27.94	13.46	2	RX	R	26	400	2'	



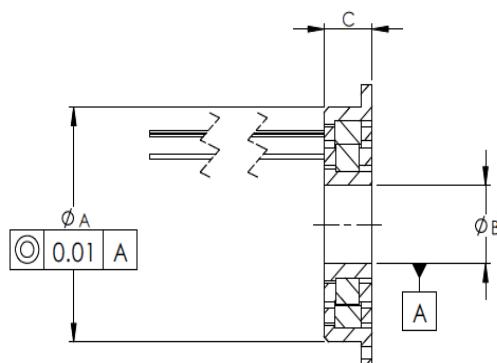


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Resolver-Pancake Type-

C. Sleeve and Hub (Flange)



Model number	"ψA"	"ψB"	"C"	Speed	Function	Primary Winding	Input-VRMS	Freq.	Accuracy	Accuracy (optional)
	mm	mm	mm					Hz		
RHP-3006	34	12	8.1	1	RX	R	10	3200	5'	3
RHP-4210	41.91	13.97	10.16	1	RX	R	5	400	5'	3





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