



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**

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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)	$\geq 900\text{in-lb}$
1-2	動態負載扭矩 (Rated Torque)	$\geq 450\pm 20\text{in-lb}$
1-3	無載轉速 (No Load Speed)	$\geq 150^\circ/\text{Sec}$
1-4	負載轉速 (Rated Speed) at rated torque	$\geq 100^\circ/\text{Sec}$
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 stall torque	$\leq 9\text{A}$
1-8	動態負載電流 (Peak current) at rated torque	$\leq 15\text{A}$
2. 機械特性規格		
2-1	外觀尺寸 (Case Dimensions)	$\leq 219(\text{W}) \times 124(\text{L}) \times 54(\text{H})\text{mm}$
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)	$\leq 2.7\text{kg}$
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)	$\leq 0.3^\circ$
3-3	操作溫度(operative temperature)	$-40^\circ\text{C} \sim 71^\circ\text{C}$



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伺服致動器系列二

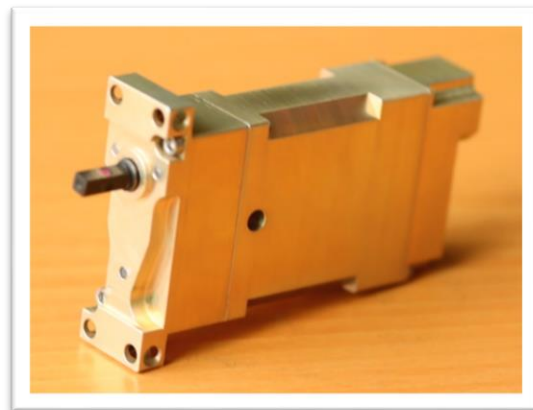
(二)、RA-120 伺服致動器：

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)	$-40^\circ\text{C} \sim 71^\circ\text{C}$



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伺服致動器系列三

(三)、RA-105(R)(E)伺服致動器：

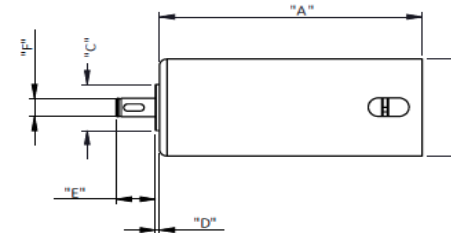
No.	項目	規格
1. 電器規格		
1-1	最大負載扭矩 (Stall Torque)	$\geq 45\text{in-lb}$
1-2	動態負載扭矩 (Rated Torque)	$\geq 25\pm 2\text{in-lb}$
1-3	無載轉速 (No Load Speed)	$\geq 200^\circ/\text{Sec}$
1-4	負載轉速 (Rated Speed) at rated torque	$\geq 150^\circ/\text{Sec}$
1-5	操作電壓 (Supply Voltage)	28VDC
1-6	操作電壓範圍 (Supply Voltage Range)	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)	$-40^\circ\text{C}\sim 71^\circ\text{C}$



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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) x8.8(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

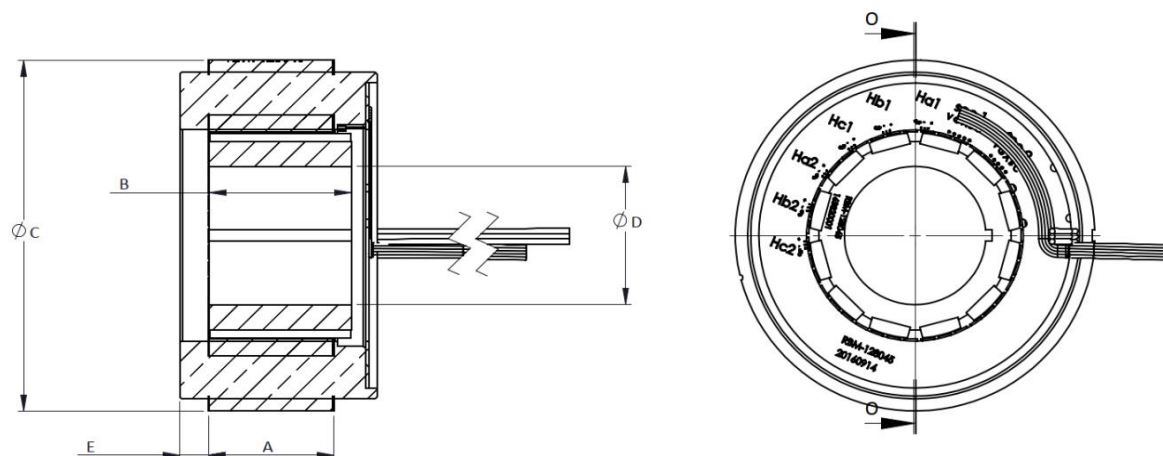


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Torque Motor

A. FRAMLESS TYPE



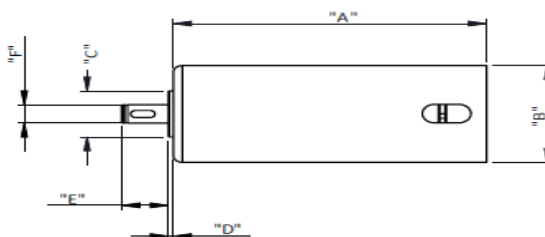
Model	"A"	"B"	"C"	"D"	"E"	"F"	Peak torque	Voltage
number	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	Oz-in	V
RBTM-128010	10.00 (0.39)	16.00 (0.63)	128.90 (5.07)	50.80 (2.00)	10.10 (0.40)	5.50 (0.22)	160	24
RBTM-037025	12.70 (0.50)	17.30 (0.68)	37.79 (1.49)	6.37 (0.25)	8.50 (0.33)	3.80 (0.15)	21.5	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	"A"	"B"	"C"	"D"	"E"	"F"	Peak torque	Voltage
number	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		

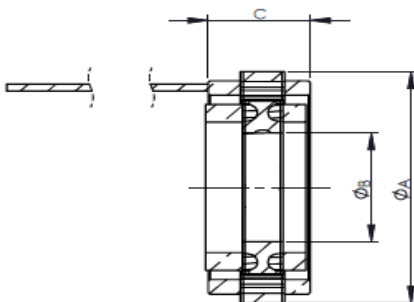


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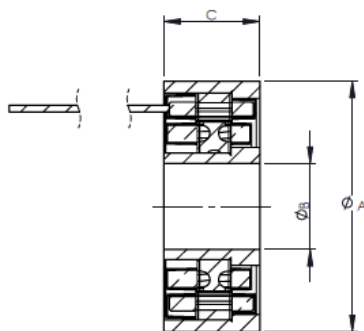
Resolver - Pancake Type

A. Bare



Model	"ψA"	"ψB"	"ψC"	Speed	Function	Primary Winding	Input-VRMS	Freq.	Accuracy	Accuracy (optional)
number	mm	mm	mm					Hz		
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



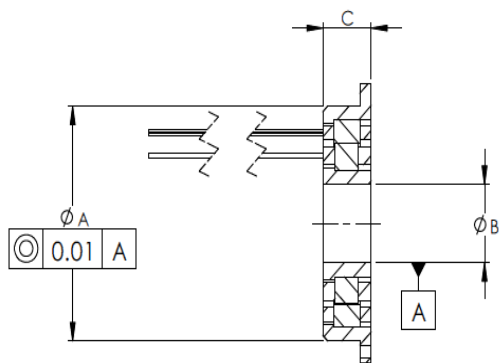
Model	"ψA"	"ψB"	"C"	Speed	Function	Primary Winding	Input-VRMS	Freq.	Accuracy	Accuracy (optional)
number	mm	mm	mm					Hz		
RHP-3413	33.34	11.43	12.7	2	RX	R	5	400	8'	
RHP-5513	60.32	27.94	13.46	2	RX	R	26	400	2'	



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Resolver-Pancake Type-
C. Sleeve and Hub (Flange)



Model	" ψA "	" ψB "	" C "	Speed	Function	Primary Winding	Input-VRMS	Freq.	Accuracy	Accuracy (optional)
number	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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