

# FHD-C系列

## FHD-C SERIES

中空機身，直結輸出，為機器人第一軸設計  
 HOLLOW BODY DESIGN, DIRECT OUTPUT  
 DESIGNED FOR BASE OF ROBOT



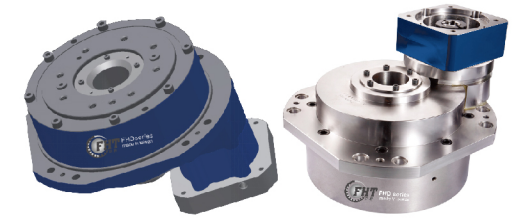
### Overview

- Type : FHD-10C~FHD-500C
- Backlash:  $\leq 1-5$  Arc.min
- Ratio : 1/64.38 ~ 1/219
- Capacity: 0.2KW ~ 15KW
- Rotation : Shaft Run
- Rated output torque: 98NM ~ 4900NM

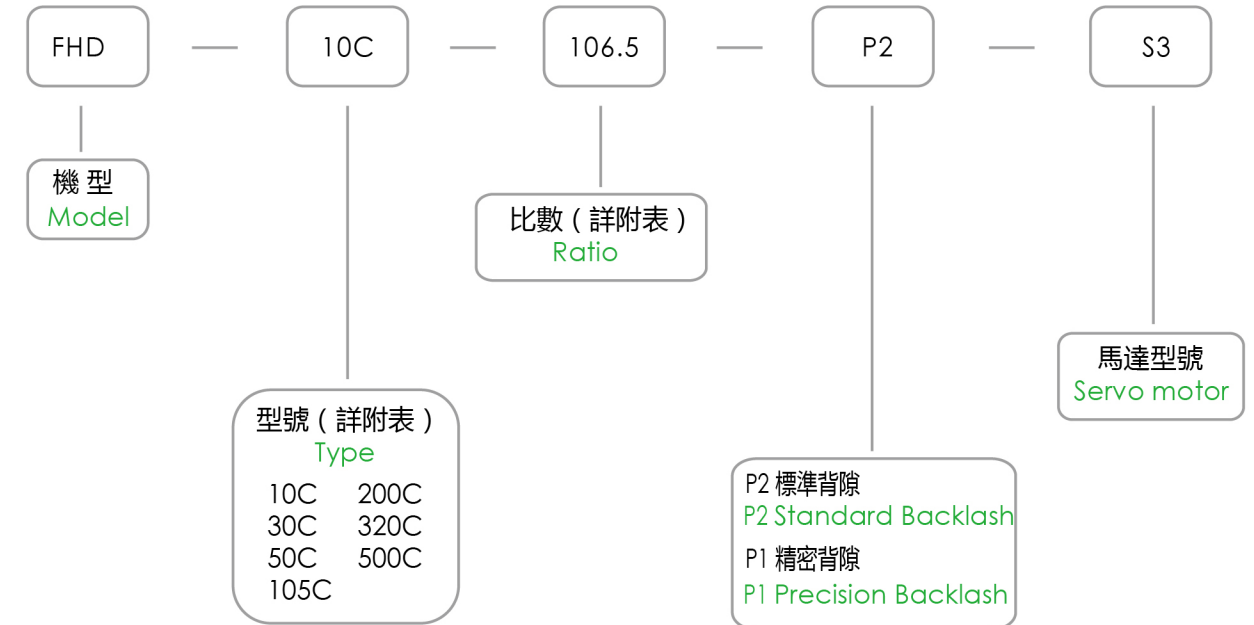
型 式 : FHD-10C ~ FHD-500C  
 背 隙 :  $\leq 1-5$  弧分  
 減速比 : 1/64.38 ~ 1/219  
 容 量 : 0.2KW ~ 15KW  
 轉動方式 : 軸轉動  
 額定輸出扭矩 : 98NM ~ 4900NM

### FHD-C 订购说明

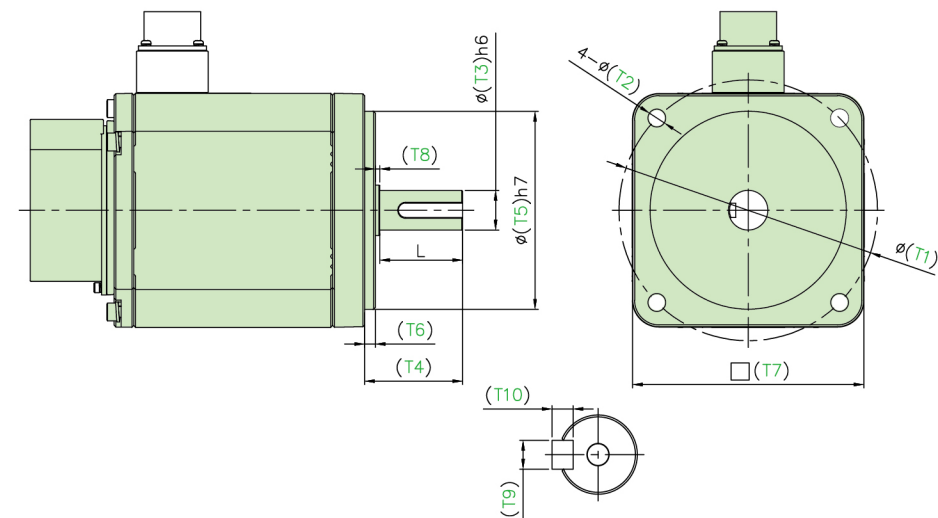
### FHD-C ORDERING INSTRUCTIONS



- 機型代碼 ORDERING CODE EXAMPLE :  
 (型號和比數請參考後面附表 For the type and ratio, please refer to technical specifications table.)



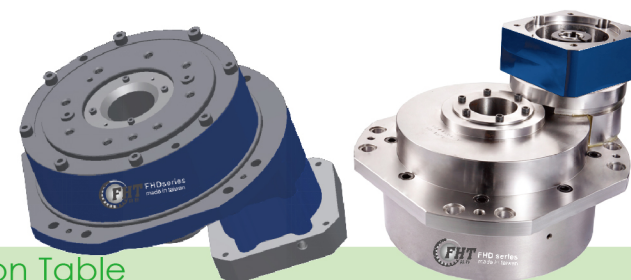
- 訂購時請提供電機尺寸 Please provide the motor dimension below when ordering



馬達廠牌	Motor Brand :				
馬達型號	Motor Model :				
	T1	T2	T3	T4	T5
螺絲孔中心距	螺絲孔直徑	馬達軸外徑	馬達軸長度	馬達凸緣外徑	馬達緣高度
P.C.D	Bolt Hole Diameter	Motor Shaft Diameter	Motor shaft length	Motor Pilot Diameter	Motor Pilot Height
	T7	L	T8	T9	T10
馬達面尺寸	馬達軸有效長	非安川免填		鍵寬	鍵高
Motor Outline Dimension	Motor Shaft Length	Diameter required when using YASKAWA made motor		Key Width	Key Thickness

# FHD-C 性能表

## FHD-C TECHNICAL SPECIFICATION TABLE



Specification 規格		THD-C Technical Specification Table				THD-C Technical Specification Table				
		THD-10C	THD-30C	THD-50C	THD-105C	THD-200C	THD-320C	THD-500C	THD-700C	
Rotation 轉動方式		Shaft Run 軸轉動	Shaft Run 軸轉動	Shaft Run 軸轉動	Shaft Run 軸轉動	Shaft Run 軸轉動	Shaft Run 軸轉動	Shaft Run 軸轉動	-	
Ratio 減速比		106.5	64.38	78.4	97.6777	71.9924	94.5	111	-	
		154	84.18	102.4	110.5677	92.2932	109.5	147		
		-	103.98	126.4	136.3478	105.827	123	183		
		-	-	-	187.9079	137.9699	153	219		
		-	-	-	-	-	-	-		
Rated Output Torque 額定輸出扭矩	Nm kgf-m	98 (10)	295 (30)	490 (50)	1030 (105)	1960 (200)	3136 (325)	4900 (500)	-	
Acceleration & Braking Torque 加速和制動扭矩	Nm kgf-m	245 (25)	737 (75)	1225 (125)	2575 (262)	4900 (500)	7840 (800)	12250 (1250)	-	
Instantaneous Max. Allowable Torque 瞬時最大容許轉矩	Nm kgf-m	490 (50)	1475 (150)	2450 (250)	5150 (525)	9800 (1000)	15680 (1600)	24500 (2500)	-	
Rated Input Speed 額定輸入轉速	Nr (rpm)	2000	2000	1500	1500	1500	1500	1500	-	
Rated Output Speed 額定輸出轉速	Nr (rpm)	15	15	15	15	15	15	15	-	
Rated Lifetime 額定壽命	Hr	6000	6000	6000	6000	6000	6000	6000	-	
Maximum Allowable Output Speed (Intermittent) 容許最高輸出轉速 (間歇)		28	47	38	26	28	21	18	-	
		19	36	29	23	22	18	14		
		-	29	24	18	19	16	11		
		-	-	-	13	14	13	9		
Allowable Output Speed (Continuous) 容許輸出轉速 (連續)		19	31	26	15	21	16	14	-	
		13	24	20	14	16	14	10		
		-	19	16	11	14	12	8		
		-	-	-	8	11	10	7		
Tilting Stiffness 傾斜鋼度	Nm/arc.min kgf-m/arc.min	421 (43)	1068 (109)	1960 (200)	2813 (287)	9800 (1000)	12740 (1300)	24500 (2500)	-	
Torsional Stiffness 扭轉鋼度	Nm/arc.min kgf-m/arc.min	47 (4.8)	147 (15)	255 (26)	510 (52)	980 (100)	1960 (200)	3430 (350)	-	
Max. Lost Motion 最大無效行程	(arc.min)	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	
Angular Transmission Error 扭轉傳輸中角度偏移量	ATE (arc.sec)	50	50	50	50	50	50	50	-	
Backlash 背隙	Standard Backlash 標準背隙	arcmin	<5.0	<4.0	<3.0	<3.0	<3.0	<3.0	<3.0	-
	Precision Backlash 精密背隙		<3.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
Maximum Tilting Moment 最大傾斜力矩	Nm kgf-m	1372 (140)	1960 (200)	3528 (360)	4900 (500)	17640 (1800)	39200 (4000)	78400 (8000)	-	
Rated Radial Force 額定徑向力	Nm	686	980	1764	2450	8820	20580	34300	-	
Max. Axial Force 最大軸向推力	N	5880	8820	11760	13720	19600	29400	39200	-	
Start Efficiency 啟動效率	%	65	70	70	80	80	80	80	-	
Weight 重量	KG	10.7	20	34	46	100	176	-	-	

PS:需要上述速比之外的減速比時，請洽詢本公司，電機轉速超出額定輸入轉速時，運轉噪音將會提高，請注意減速機容許負載使用表面溫度需低於70°C。

Please contact us for other ratio selections. Please be noted that the noise will be increased when the input speed (RPM:revolution per minute) of motor is higher than rated input speed; the operating temperature and motor service temperature should be under 70°C.



