



翔暉企業有限公司
SHINE WEI ENT CO., LTD.



2017

高精密減速機
High Precision Reducers

MF-H 系列

MF-H SERIES



MF40H~MF120H
MF150HS~MF180HS



MF150H~MF180H

Overview

- Type : MF40H ~ MF180H
- Backlash : $\leq 3-12$ Arc.min
- Ratio : $1/3 \sim 1/1000$
- Capacity : 0.05KW ~ 11KW

- 型 式 : MF40H ~ MF180H
- 背 隙 : $\leq 3-12$ 弧分
- 減速比 : $1/3 \sim 1/1000$
- 容 量 : 0.05KW ~ 11KW

■ 内部構造介紹 — MF40H-180H

本體採用鉻組合金
鋼一體成型內齒精
密度高輸出扭矩大
表面採用鍍鉻處理
抗蝕效果好

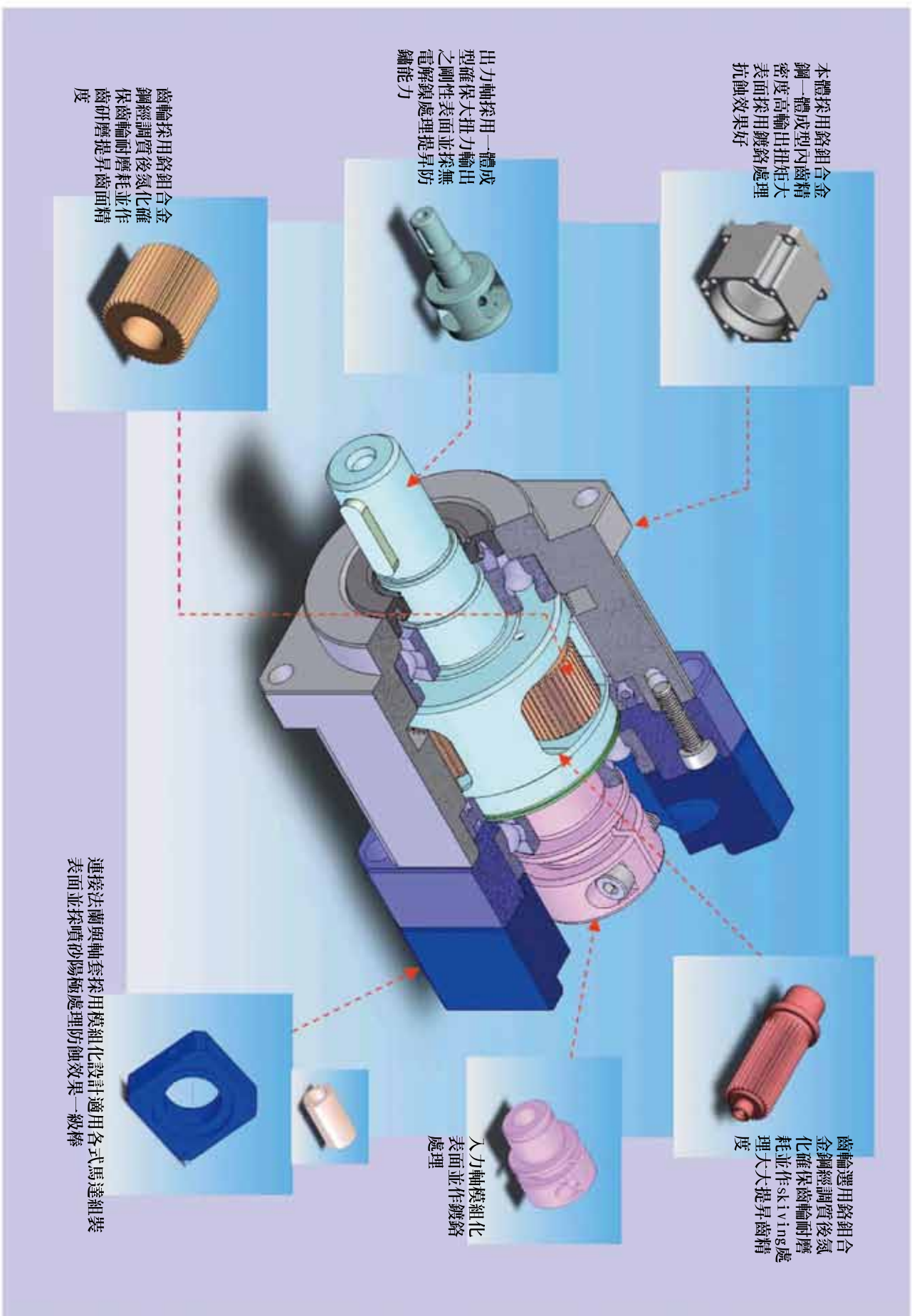
出力軸採用一體成
型確保大扭力輸出
之剛性表面並採無
電解鍍處理提升防
鏽能力

齒輪採用鉻組合金
鋼經調質後氮化確
保齒輪耐磨耗並作
齒研磨提升齒面精
度

齒輪選用鉻組台
金鋼經調質後氮
化確保齒輪耐磨
耗並作skiving處
理大大提升齒精
度

入力軸模組化
表面並作鍍鉻
處理

連接法蘭與軸套採用模組化設計適用各式馬達組裝
表面並採噴砂陽極處理防蝕效果一級棒



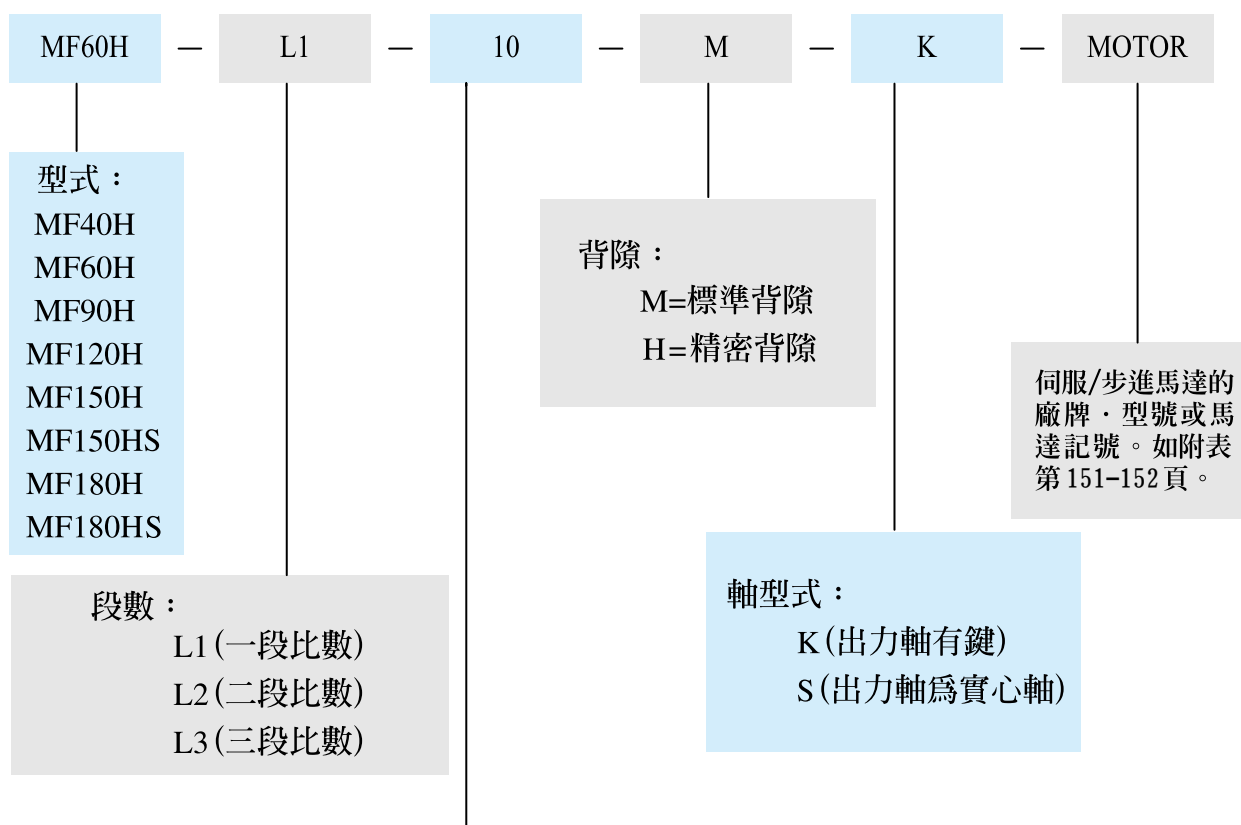
MF-H 系列-性能表

	段數	減速比 (i)	MF40H	MF60H	MF90H	MF120H	MF150H MF150HS	MF180H MF180HS
	一段 (L1)	3	16	50	125	248	500	1000
		4	14	43	136	286	580	1090
		5	17	52	152	320	660	1215
		6	13	52	145	308	—	1200
		7	13	46	136	306	540	1135
		8	13	—	118	—	—	—
		9	—	35	94	225	—	—
		10	13	35	94	225	460	935
	二段 (L2)	15	16	50	125	248	500	1000
		20	14	43	136	285	530	1090
		25	17	52	152	320	660	1215
		30	13	52	145	308	610	—
		35	13	46	136	306	540	1135
		40	13	43	118	225	530	1090
		45	—	35	94	225	—	—
		50	13	35	152	320	660	—
		60	—	52	145	308	—	1200
		70	—	46	136	306	540	1135
		80	—	—	118	—	—	—
		90	—	35	94	225	—	—
		100	—	35	94	225	460	935
裝置馬達軸孔徑	L1,L2,L3	3~1000	5~8	6~14	14~24	16~24	19~42	19~42
最大輸出轉距 (Nm)	L1,L2,L3	3~1000	3倍額定輸出轉距 (Nm)					
額定輸入轉速 (rpm)	L1,L2,L3	3~1000	3000	3000	3000	3000	3000	3000
標準背隙 (arc-min)	L1	3~10	≤ 8	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
	L2	15~100	10	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8
	L3	150~1000	15	≤ 12	≤ 12	≤ 12	≤ 12	≤ 12
精密背隙 (arc-min)	L1	3~10	5	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
	L2	15~100	8	≤ 5	≤ 5	≤ 5	≤ 5	≤ 4
	L3	150~1000	12	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8
扭轉剛性 (Nm/arc-min)	L1,L2,L3	3~1000	3	7	15	28	51	142
容許徑向力 (N)	L1,L2,L3	3~1000	750	1300	3000	6200	9000	14200
容許軸向力 (N)	L1,L2,L3	3~1000	375	765	1500	3100	4500	7100
效率 (%)	L1	3~10	96%					
	L2	12~100	93%					
	L3	150~1000	90%					
重量 (kg)	L1	3~10	0.6	1.6	4.5	10	18	30
	L2	12~100	0.8	2.0	6.0	12	23	39
	L3	150~1000	1.0	2.4	8.1	14	28	—
使用溫度 °C	L1,L2,L3	3~1000	-10°C~80°C					
防護等級	L1,L2,L3	3~1000	IP65					
潤滑油	L1,L2,L3	3~100	全合成潤滑油					
安裝方向	L1,L2,L3	3~100	任意方向					
噪音值 (db)	L1,L2,L3	3~100	≤ 65	≤ 65	≤ 65	≤ 68	≤ 68	≤ 70

1. 上述單段減速機 (未指定比數) 相關規格, 主要為使用各型號5比減速機所測得之數據。
2. 減速比: $i = \text{輸入轉速} / \text{輸出轉速}$ 。
3. 背隙值: 為在2%額定輸出扭矩下測試所得之數據。
4. 最大徑向力及最大軸向力: 施力於出力軸中心位置, 週期負載時間50%, 轉速100rpm, 條件下所測得之數據。
5. 運轉負載週期<60%狀況下, 平均使用壽命如列表數據值; 負載週期>=60%之連續運轉下, 平均使用壽命可能會降低至正常的50%以下。
6. 噪音值: 距離1公尺, 空載運轉, 額定輸入轉速, 條件下所測得之數據。

MF-H 系列

型號開立：



規 格 \ 段 數	一段減速比數	二段減速比數	三段減速比數
MF40H	3,4,5,6,7,8,10	15,20,25,30,35,40,50	150,200,250,300,350,400,500
MF60H	3,4,5,6,7,9,10	12,15,16,20,21,25,28,30 35,40,50,60,70,90,100	120,150,200,250,300,350,400,450, 500,600,700,900,1000
MF90H	3,4,5,6,7,8,9,10	12,15,16,20,21,25,28,30 35,40,50,60,70,80,90,100	120,150,200,250,300,350,400,450, 500,600,700,800,900,1000
MF120H	3,4,5,6,7,9,10	12,15,16,20,21,25,28,30 35,40,50,60,70,90,100	120,150,200,250,300,350,400,450, 500,600,700,900,1000
MF150H MF150HS	3,4,5,7,10,12	9,12,15,16,20,21,25,28,30 35,40,50,70,100,120	150,200,250,300,350,400,500,700 800,1000
MF180H MF180HS	3,4,5,6,7,10	9,12,15,16,20,21,25,28,30 35,40,50,60,70,100	150,200,250,300,350,400,500,600 700,1000

MF-H 系列-減速比的選用表

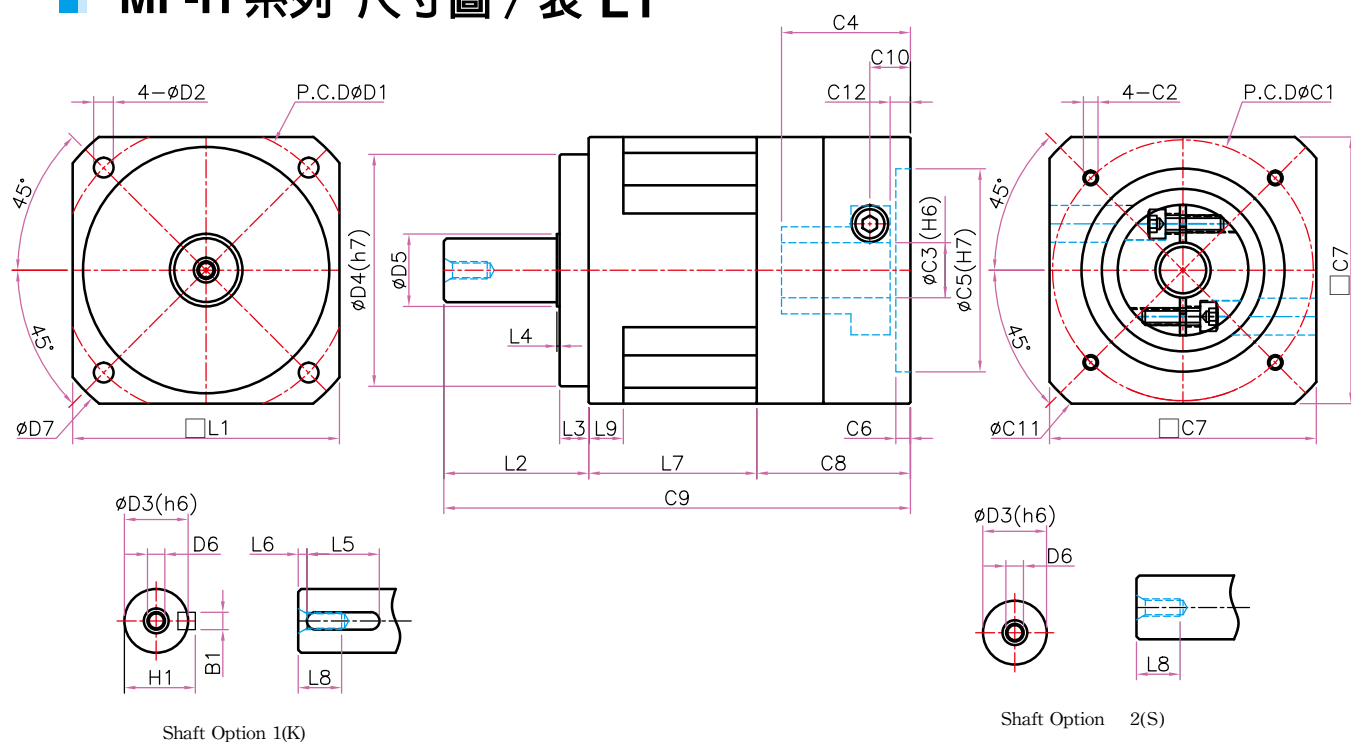
減速比		1/3	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/15	1/20	1/25	1/30	1/35	1/40	1/50	1/60	1/70	1/80	1/90	1/100
容量	MF40H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF60H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
200w	MF60H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF90H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
400w	MF60H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF90H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
500w	MF90H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF120H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
750w	MF90H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF120H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1.0kw	MF120H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF150H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1.5kw	MF120H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF150H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF180H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2.0kw	MF150H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF180H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3.5kw	MF150H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF180H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5.0kw	MF150H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF180H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
7.0kw	MF150H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	MF180H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
11.0kw	MF180H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

P.S 此"●"記號為可選用之減速比。

註1. 三段減速比不在上表中，若需用到請告知銷售人員。

註2. 慣性距較大的場合減速機型號須大一級使用。

MF-H 系列 尺寸圖 / 表 L1

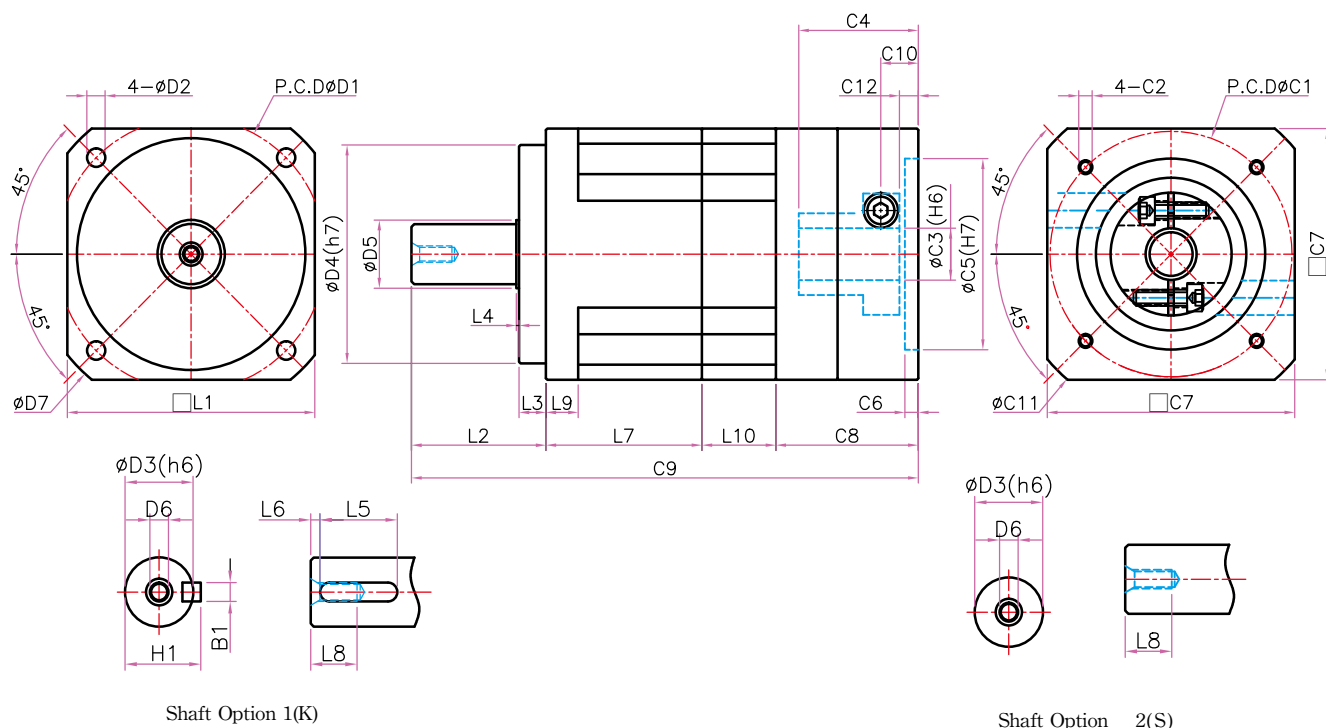


(單位:mm)

Size(mm)	MF40H-L1	MF60H-L1	MF90H-L1	MF120H-L1	MF150H-L1	MF150HS-L1	MF180H-L1	MF180HS-L1
D1	50	70	100	130	165	165	215	215
D2	3.5	5.5	6.8	8.7	11	11	13	13
D3	13	16	22	32	38	38	50	50
D4	35	50	80	110	130	130	160	160
D5	15	18	25	35	40	40	60	60
D6	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M12x1.75P	M12x1.75P	M12x1.75P	M12x1.75P
D7	55	80	118	158	190	190	245	245
L1	42	60	92	120	142	142	182	182
L2	25.5	35.5	50	65	75	86	95	105
L3	5.5	7.5	10	12	4	15	10	20
L4	0.5	1.5	1	1	3	3	2	2
L5	15	20	25	40	45	45	70	70
L6	2	3	5	3	5	5	6	6
L7	33.5	49	58	69	90	79	95.5	85.5
L8	8	12	15	20	32	32	42	42
L9	7	10	12	15	15	12	15	15
C1	46	70	90	145	200	200	200	200
C2	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M12x1.75P	M12x1.75P	M12x1.75P	M12x1.75P
C3	5~8	6~14	14~19	16~24	19~42	19~42	19~42	19~42
C4	28	33	39	65	88.5	88.5	85	85
C5	30	50	70	110	114.3	114.3	114.3	114.3
C6	4	4	5	7	6	6	10	10
C7	42	62	92	120	176	176	182	182
C8	34	39.5	49	78	98	98	100	100
C9	93	124	157	212	263	263	290.5	290.5
C10	12.5	13	15	28.5	47	47	33.5	33.5
C11	56	80	120	160	240	240	240	240
C12	7.5	7	7	20	35	35	17	17
B1	4	5	6	10	10	10	14	14
H1	14.5	18	24.5	35	41	41	53.5	53.5

以上C1~C12為標準的連接法蘭尺寸，實際尺寸會因馬達型號不同而變動，入力馬達記號如附表第151-152頁除MF150H-MF180H本體為圓型本體外，其餘皆為四方型本體

MF-H 系列 尺寸圖 / 表 L2



(單位:mm)

Size(mm)	MF40H-L2	MF60H-L2	MF90H-L2	MF120H-L2	MF150H-L2	MF150HS-L2	MF180H-L2	MF180HS-L2
D1	50	70	100	130	165	165	215	215
D2	3.5	5.5	6.8	8.7	11	11	13	13
D3	13	16	22	32	38	38	50	50
D4	35	50	80	110	130	130	160	160
D5	15	18	25	35	40	40	60	60
D6	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M12x1.75P	M12x1.75P	M12x1.75P	M12x1.75P
D7	55	80	118	158	190	190	245	245
L1	42	60	92	120	142	142	182	182
L2	25.5	35.5	50	65	75	86	95	105
L3	5.5	7.5	10	12	4	15	10	20
L4	0.5	1.5	1	1	3	3	2	2
L5	15	20	25	40	45	45	70	70
L6	2	3	5	3	5	5	6	6
L7	33.5	49	58	69	90	79	95.5	85.5
L8	8	12	15	20	32	32	42	42
L9	7	10	12	15	15	12	15	15
L10	19	16	27.5	33.2	46	46	51.5	51.5
C1	46	70	90	145	200	200	200	200
C2	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M12x1.75P	M12x1.75P	M12x1.75P	M12x1.75P
C3	5~8	6~14	14~19	16~24	19~42	19~42	19~42	19~42
C4	28	33	39	65	88.5	88.5	85	85
C5	30	50	70	110	114.3	114.3	114.3	114.3
C6	4	4	5	7	6	6	10	10
C7	42	62	92	120	176	176	182	182
C8	34	39.5	49	78	98	98	100	100
C9	112	140	184.5	245.2	309	309	342	342
C10	12.5	13	15	28.5	47	47	33.5	33.5
C11	56	80	120	160	240	240	240	240
C12	7.5	7	7	20	35	35	17	17
B1	4	5	6	10	10	10	14	14
H1	14.5	18	24.5	35	41	41	53.5	53.5

以上C1~C12為標準的連接法蘭尺寸，實際尺寸會因馬達型號不同而變動，入力馬達記號如附表第151-152頁除MF150H-MF180H本體為圓型本體外，其餘皆為四方型本體



翔暉企業有限公司

台中市西屯區四川西二街47號

電話：+886-4-2314-6090

傳真：+886-4-2316-5758

E-mail: shinwe@seed.net.tw

<http://www.shinwe.com.tw>



SW0002-201706印製