

## 金屬滾珠軸承規範說明 Metal Ball Bearing Specification

### 滾珠軸承精度等級 Tolerance Classes

ISO492	Normal	Class 6	Class 5	Class 4	Class 2
JIS	CLASS 0	Class 6	Class 5	Class 4	Class 2
DIN	P0	P6	P5	P4	P2
AFBN	ABEC-1	ABEC-3	ABEC-5	ABEC-7	ABEC-9

### 滾珠軸承內環尺寸精度 Inner Ring Tolerance

內徑		內徑平均公差 $\Delta dmp, \mu m$									
d, mm		Normal		Class 6		Class 5		Class 4		Class 2	
Over	To	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.5	10	0	-8	0	-7	0	-5	0	-4	0	-2.5
10	18	0	-8	0	-7	0	-5	0	-4	0	-2.5
18	30	0	-10	0	-7	0	-6	0	-5	0	-2.5
30	50	0	-12	0	-10	0	-8	0	-6	0	-2.5

### 滾珠軸承外環尺寸精度 Outer Ring Tolerance

外徑		外徑平均公差 $\Delta Dmp, \mu m$									
D, mm		Normal		Class 6		Class 5		Class 4		Class 2	
Over	To	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
6	18	0	-8	0	-7	0	-5	0	-4	0	-2.5
18	30	0	-9	0	-8	0	-6	0	-5	0	-4
30	50	0	-11	0	-9	0	-7	0	-6	0	-4
50	80	0	-13	0	-11	0	-9	0	-7	0	-4

### 軸承游隙說明 Ball Bearing Internal clearance 徑向游隙 Radial Internal Clearance

Unit:  $\mu m$

Bore dia. d, mm		C2		Cn		C3		C4		C5	
Over	To	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
6	10	0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73

※ 以上資料為金屬滾珠軸承規範參考表

Above information are the metal ball bearing specification for reference.