

產品編號 (Part Number)	減速比 (Gear Ratio)	減速機額定轉矩 (Gearhead Rated Torque)	容許懸吊載重 (Permissible Overhung Load)	容許推力載重 (Permissible Thrust Load)	馬達轉速對應減速機輸出轉矩 (Gearhead Output Tq. by Motor Speed)		容許轉動慣量 (Permissible Inertia I) [ x10 <sup>-4</sup> kg-m <sup>2</sup> ]	急停或瞬時正反轉運行時* (When Instantaneous Stop or Bi-Directional Operation is performed)
					馬達轉速 (Motor Speed) 100~3000 r/min	馬達轉速 (Motor Speed) 4000~ r/min		
EVM5N35030E16-B20F	20.87	22.1 N-m	1680 N (168 Kg)	300 N (30 Kg)	16.04 N-m	12.03 N-m	1500	750

馬達特性規格 (Motor Performance Spec.)

額定電壓 (Rated Voltage )	48 VDC
額定功率 (Rated Power)	350 W
額定轉速 (Rated Speed)	3000 r/min
無載轉速 (No Load Speed)	4200 r/min
無載電流 (No Load Current)	1.0 A
額定轉矩 (Rated Torque)	1.1 N-m
起動轉矩 (Starting Torque)	2.2 N-m
額定輸入電流 (Rated Input Current)	9.2 A
耐壓測試(Hi-Pot)	1000 VAC/ 1mA / 1sec.
絕緣測試(Insulation Test)	500 VDC / 50 MΩ min.
反電動勢 (Back Emf)	8.2 V/krpm
總重 (Total Weight )	10.2 Kg

換相時序圖 (Commutation Sequence )  
8P / from motor bottom, C.C.W

馬達 (Motor Cable)			霍爾信號 (Hall Signal)		
U	V	W	S1	S2	S3
X	Low	Hi	1	1	0
Hi	Low	X	0	1	0
Hi	X	Low	0	1	1
X	Hi	Low	0	0	1
Low	Hi	X	1	0	1
Low	X	Hi	1	0	0

產品編號說明  
( Part Number Information )

EVM 5 N 350 30 E 16 - B 20 F

減速機軸型  
F - 中空軸

減速比  
20 - 1:20

減速機系列  
B - GB系列減速機

客戶流水碼  
16 - 編碼器+電磁剎車出口線轉90°

機型  
E - 搭載搭配編碼器

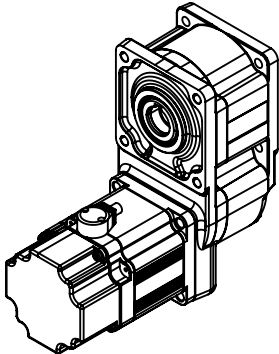
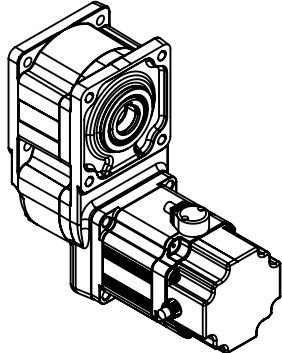
馬達額定轉速  
30 - 3000 r/min

額定功率  
350 - 350 W

額定電壓  
N - 48 VDC

馬達尺寸(框徑)  
5 - 90 mm

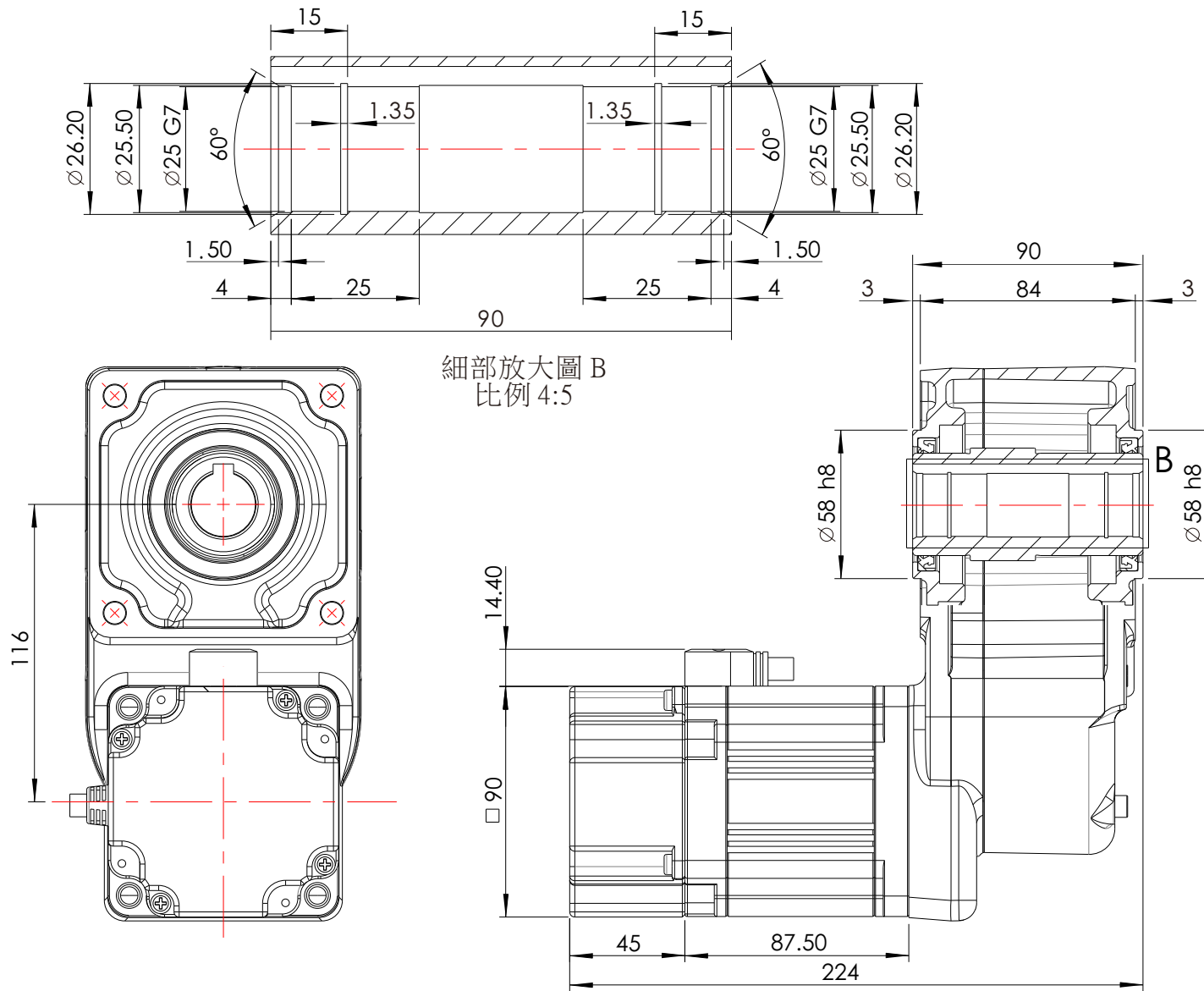
馬達系列  
EVM - 搭配EV系列馬達



標題(TITLE)	BLDC Motor / Encoder Hollow Shaft Flat Gearhead							NOTES		THIRD ANGLE PROJECTION
								TOLERANCE TO BE FOLLOWINGS UNLESS OTHERWISE BE SPECIFIED:		
型號(MODEL)	EVM5N35030E16-B20F							LENGTH (mm)	TOLERANCE	UNIT: mm
								0~30 (included)	±0.20mm	
規格(SPEC.)	EV系列, 48VDC, 350W, 3000RPM 無刷馬達, 附編碼器, 1:20平行中空軸減速機	1.0	ESD-438	Regan		Gear	2019/5/28	30~120 (included)	±0.30mm	SHEET NO: 1/3
								120~315 (included)	±0.50mm	SCALE: ---
								315~1000 (included)	±0.80mm	SIZE: A4
								OVER 1000	±1.20mm	
DWG NO.	SD-06-S0397	Version	ECO NO.	DRWN	CH'KD	APPR	Date			

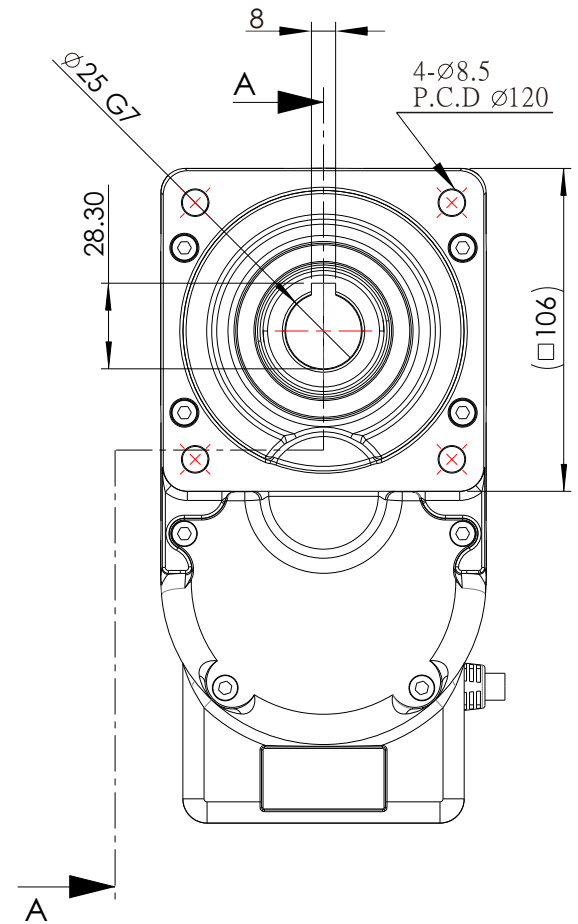


創盟電子工業股份有限公司  
TRUMMAN TECHNOLOGY CORP



細部放大圖 B  
比例 4:5

剖面圖 A-A



NOTES	
TOLERANCE TO BE FOLLOWINGS UNLESS OTHERWISE BE SPECIFIED:	
LENGTH (mm)	TOLERANCE
0~30 (included)	±0.20mm
30~120 (included)	±0.30mm
120~315 (included)	±0.50mm
315~1000 (included)	±0.80mm
OVER 1000	±1.20mm

THIRD ANGLE PROJECTION	
UNIT:	mm
SHEET NO:	2/3
SCALE:	2:5
SIZE:	A4



創盟電子工業股份有限公司  
TRUMMAN TECHNOLOGY CORP

型號(MODEL)	EVM5N35030E16-B20F
DWG NO.	SD-06-S0397

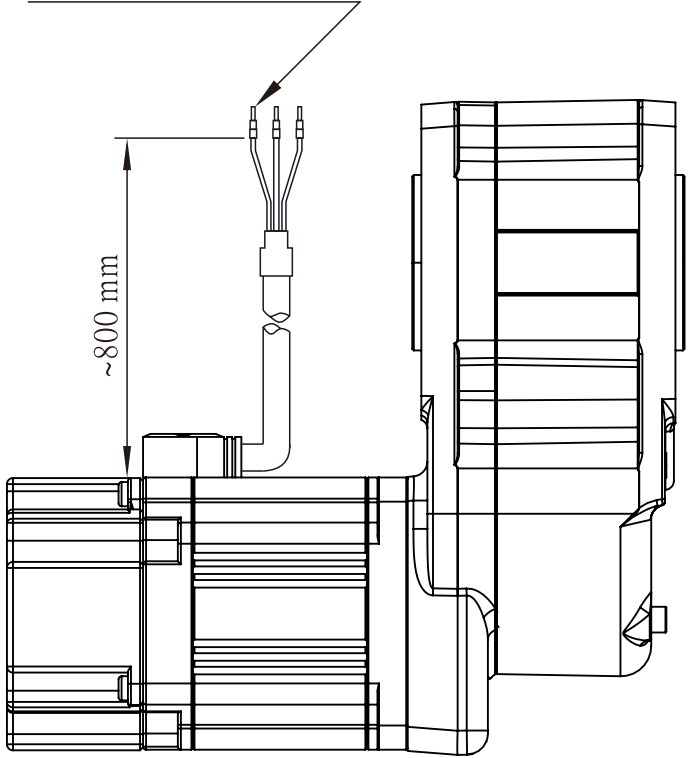
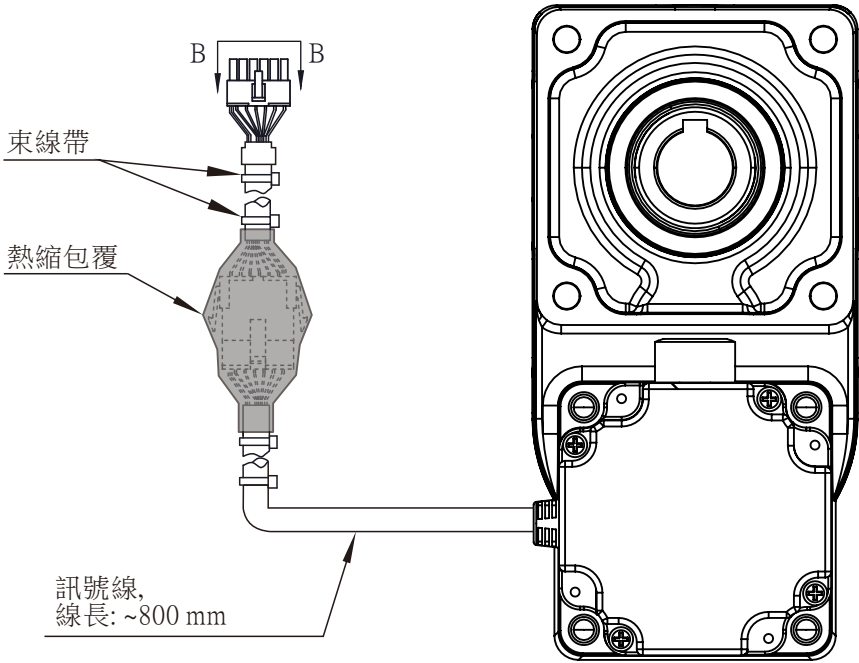
PD12-I30002 腳位定義 ( Pin Function )			
PIN	功能 (Function)	線色 (Color)	線規 (Reamrk)
1	Null	X	UL 2464耐撓曲Cable, 80℃, 300V, (5x(2x0.25^2)) 對絞有隔離網. (White, Brown) (Green, Yellow) (Gray, Pink) (Blue, Red) (Black, Purple)  (Flex cable)
2	OT-	黑(Black)	
3	Z / W	藍(Blue)	
4	B / V	灰(Gray)	
5	A / U	綠(Green)	
6	GND	白(White)	
7	Null	X	
8	OT+	紫(Purple)	
9	Z / W	紅(Red)	
10	B / V	粉(Pink)	
11	A / U	黃(Yellow)	
12	+5V	棕(Brown)	

馬達動力線 線色定義 (Color Function)		
功能(Function)	線色(Color)	線規(Remark)
U	紅 (Red)	105℃, 300V, 12 AWGx3C 耐油曲, OD:8.5mm (Flex cable)
V	白(White)	
W	黑(Black)	



PD12-I30002  
(B-B VIEW)

KSS BD5-18F AWG10~12  
(或相等品)x3  
絕緣扁平端子(黃)  
加配線標誌(白)



型號(MODEL)	EVM5N35030E16-B20F
DWG NO.	SD-06-S0397

NOTES		THIRD ANGLE PROJECTION
TOLERANCE TO BE FOLLOWINGS UNLESS OTHERWISE BE SPECIFIED:		
LENGTH (mm)	TOLERANCE	UNIT: mm
0~30 (included)	±0.20mm	SHEET NO: 3/3
30~120 (included)	±0.30mm	
120~315 (included)	±0.50mm	SCALE: ---
315~1000 (included)	±0.80mm	SIZE: A4
OVER 1000	±1.20mm	



創盟電子工業股份有限公司  
TRUMMAN TECHNOLOGY CORP