

Datasheet

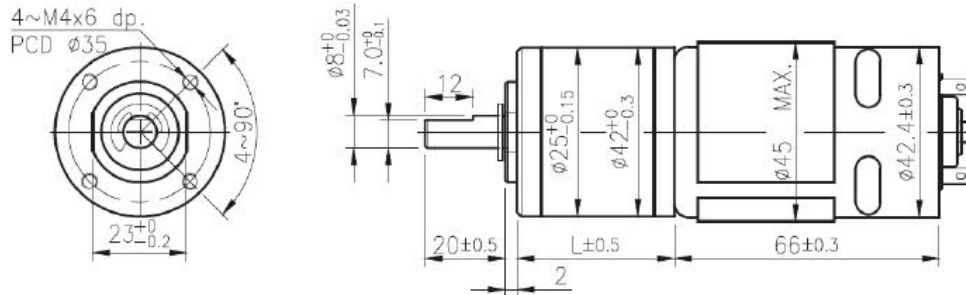
Item no.: 1601546, 1601547, 1601548, 1601549, 1601550, 1601551, 1601552

V2_02082019_01_en

IG-42GM 01 & 02 TYPE



外形尺寸 / Appearance Size



unit:mm

齒輪馬達轉矩 & 速度 / Geared Motor Torque & Speed

減速比 Reduction ratio	1/4	1/14	1/17	1/24	1/49	1/61	1/84	1/104	1/144	1/212	1/294	1/504	1/624	1/720	1/864	1/1062	1/1470	1/2500	1/3000	1/3600
12V 定格扭力 Rated torque (Kg-cm)	2.2	6.5	8	8	18	18	18	20	20	25	25	30	30	30	30	30	30	30	30	30
12V 定格轉數 Rated speed (rpm)	1400	405	325	248	120	98	76	63	45	31	22	13.5	10.9	9.5	8	6.5	4.6	2.7	2.3	1.9
24V 定格扭力 Rated torque (Kg-cm)	1.8	5.4	6.6	8	16	18	18	20	20	25	25	30	30	30	30	30	30	30	30	30
24V 定格轉數 Rated speed (rpm)	1445	420	340	246	122	102	77.5	63	47	31	21.8	13.5	10.9	9.5	8	6.5	4.6	2.7	2.3	1.9
軸心迴轉方向 Rotation direction	CCW																			
長度 Length (L)	32.5	39.2					45.9						52.6					59.6		

Datasheet

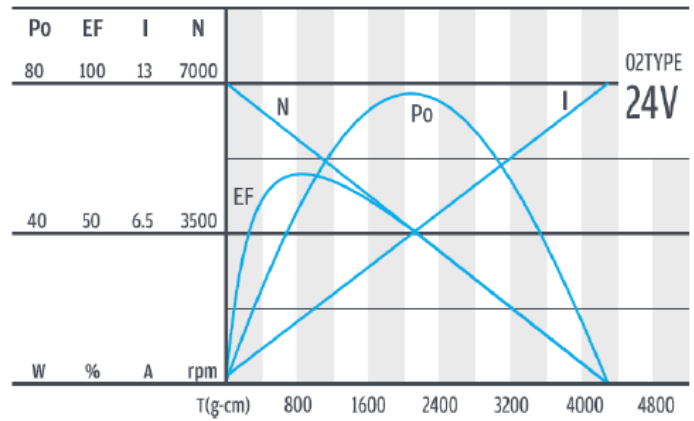
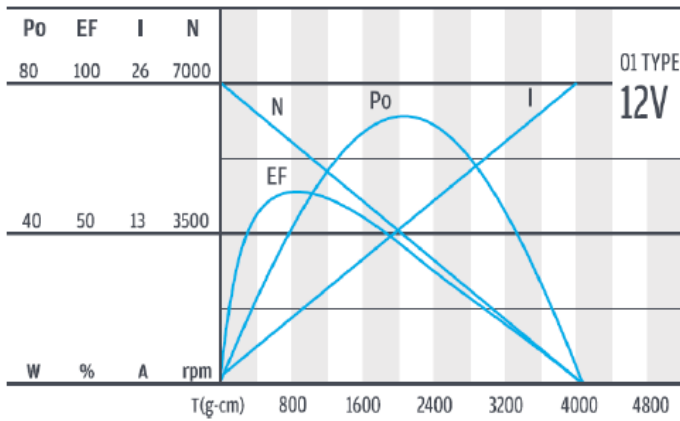
Item no.: 1601546, 1601547, 1601548, 1601549, 1601550, 1601551, 1601552

V2_02082019_01_en

馬達單體型式/ Motor Data

定格電壓 Rated volt (V)	定格扭力 Rated torque (g-cm)	定格轉數 Rated speed (rpm)	定格電流 Rated current (mA)	無負荷轉數 No load speed (rpm)	無負荷電流 No load current (mA)	定格出力 Rated output (W)	重量 Weight (g)
12	700	5700	≤ 5500	7000	≤ 900	41.3	360
24	570	5900	≤ 2100	7000	≤ 500	34.7	360

馬達單體特性/ Motor Characteristics



Datasheet

Item no.: 1601546, 1601547, 1601548, 1601549, 1601550, 1601551, 1601552

V2_02082019_01_en

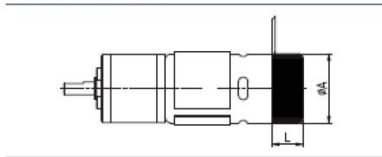
Magnetic Encoders

Two Channel Hall Effect Encoder 雙向霍爾作用編碼器

One Channel Hall Effect Encoder 單向霍爾作用編碼器

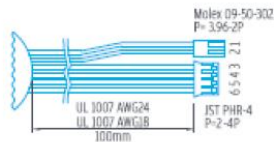
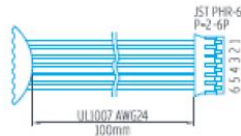
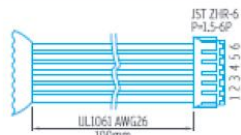


馬達外徑 & 長度/



★ WITHOUT CAP

Motor (øA)	Cap (L)	Counts poles of per turn (PPR)	
		Current	limit.
ø 12	★ 6.5	2, 6 (1, 3)	6 (3)
ø 15.4	★ 6.5	2, 6 (1, 3)	6 (3)
ø 20.3	★ 8.5	2, 6 (1, 3)	6 (3)
ø 22	12.6	2, 6 (1, 3)	6 (3)
ø 30	12.6	2, 6, 14 (1, 3, 7)	14 (7)
ø 32	14.3	14 (7)	14 (7)
ø 36	13.5	14 (7)	14 (7)
ø 42.5	15.5	2, 10 (1, 5)	10 (5)
ø 52 & ø 54	18	2, 10 (1, 5)	10 (5)



Two Channel Encoder Connections

1. Black : - Motor
2. Red : + Motor
3. Brown : Hall Sensor Vcc
4. Green : Hall Sensor GND
5. Blue : Hall Sensor A Vout
6. Purple : Hall Sensor B Vout

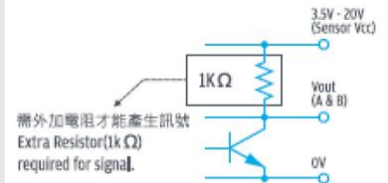
One Channel Encoder Connections

1. Black : - Motor
2. Red : + Motor
3. Brown : Hall Sensor Vcc
4. Green : Hall Sensor GND
5. Blue : Hall Sensor A Vout
6. Purple : EMPTY

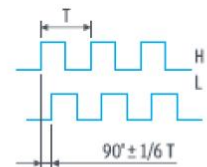
電氣特性/ Electrical Characteristics

規格特性 Characteristics	代號 Symbol	測試條件 Test conditions	極小 Min.	基準 Ref.	最大 Max.	單位 Units
輸入電壓 Supply voltage	Vcc	--	3.5	-	20	V
輸出飽和電壓 Output saturation voltage	Vce (sat)	Vcc = 14V ; IC = 20mA	-	300	700	mV
輸出漏電流 Output leakage current	Icex	Vcc = 14V ; Vcc = 14V	-	< 0.1	10	µA
輸入電流 Supply current	Ice	Vcc = 20V Output open	-	5	10	mA
輸出上升時間 Output rise time	tr	Vcc = 14V ; RL = 820 Ω ; CL = 20pF	-	0.3	1.5	µs
輸出下降時間 Output fall time	tr	Vcc = 14V ; RL = 820 Ω ; CL = 20pF	-	0.3	1.5	µs

輸出電路
Output circuit



輸出波形
Output wave



- 使用相對溼度 : 20%~85%RH
Operating relative humidity
- 使用溫度範圍 : -10°C~+60°C
Operating temperature range

This is a publication by Conrad Electronic SE, Klaus-Conrad-Str. 1, D-92240 Hirschau (www.conrad.com).

All rights including translation reserved. Reproduction by any method, e.g. photocopy, microfilming, or the capture in electronic data processing systems require the prior written approval by the editor. Reprinting, also in part, is prohibited. This publication represents the technical status at the time of printing.

© Copyright 2019 by Conrad Electronic SE.