

GMF420D901

1,75 rpm with 24V BLDC motor

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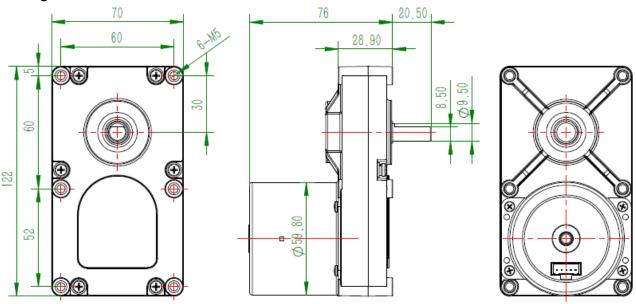
Rated voltage	24 Vd.c.
Rated current	0,4 A ±10%
Rated power	10 W ±10%
Speed range	0,2 -1,75 rpm ±5%
Rated torque	18 Nm
Max torque	25 Nm
Stall torque	30 Nm

Operating voltage	18 Vd.c. – 26 Vd.c.
Operating temperature	from -20°C to +60°C - peaks up to 70°C
Operating humidity	10 – 90 % R.H. (no condensation)
Rotation	cw / ccw
Sound pressure level	48 dB(A) at 1 m
IP rate	IP 40
Type of service	S1 (continuous)

#### Note:

- 1) Gearbox motor can operate with a torque load on the slow shaft from 0 Nm to max torque value.
- The stall torque is the condition over which the gearbox motor is not able to operate.
- 3) If the gearbox motor operates over the max torque, its life is reduced drastically.

#### **Drawing**



Electrical and mechanical features		
Insulation Class	Class E	
Class appliance	Class III	
Reduction rate	567,4:1 (5 stage)	
Axial play slow shaft	0,5 mm max	
Backlash (no load)	2,0° max	
Mounting position	Any	
Driver	Built in	

Material list			
Item	Material / References	pcs	
Gearbox shells	Zamak (zinc aluminium alloy)	2	
Plastic gear	PA66	2	
Metal gear	Sintered SB4050 and steel	7	
Shaft bearing	Ball bearing (two last stage) 4		
Motor bearing	Ball bearing NMB – 626ZZ 2		
Grease	Derill® M660-H-B0	na	

### **Motor protection:**

- Against reverse polarity
- Against over current, limit to 0,8 A



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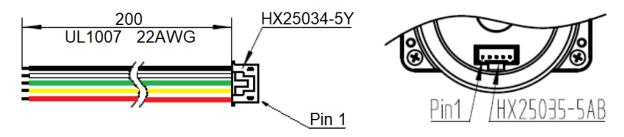
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#### **Electrical connection and wiring diagram**

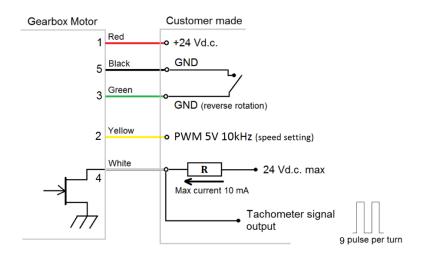
To connect with the motor has to be used the following products:

- Pitch connector HXH brand, code: HX25034-5Y
- Terminals HXH brand, code: HX25002-PT or HX25002-PTA

Note: the samples will be shipped with a connection cable 200mm length as following drawing for helping the electrical connection.



Pin Nr	Wire colour	Function	Feeding/Connection	Added information
1	Red	Feeding	+24Vd.c.	
2	Speed Speed		0 – 10 V or	See table at bottom
	Yellow	regulation	PWM 10V 10kHz	page
3	Croon	Reverse	Open CW rotation	
	Green rotation		To GND CCW rotation	
4	White Speed output		Open-drain	9 pulses per turn of
			External pull up resistor is needed	motor
5	Black	Ground	0 V (GND)	



Speed regulation table

		<u>, i                                     </u>		
		Analogical regulation	PWM regulation	
		0 – 10 Vd.c.	10V 10kHz	
	Start	0.5 V	5 %	
		5 V	50 %	
		8 V	80 %	
	Full speed	10 V	100 %	



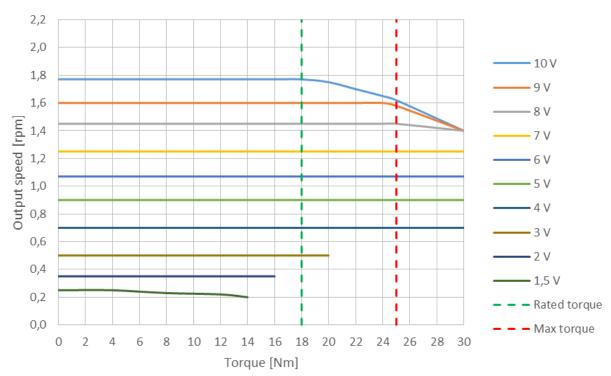
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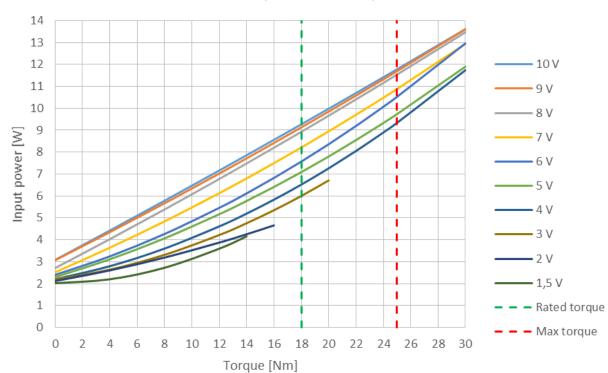
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#### **Performance curves**





### rated speed 0,2-1,75 rpm

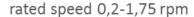


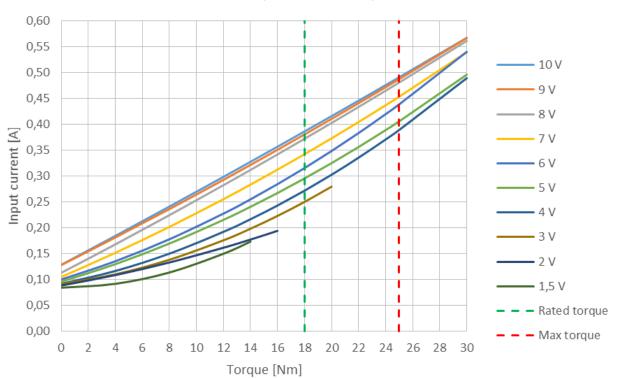


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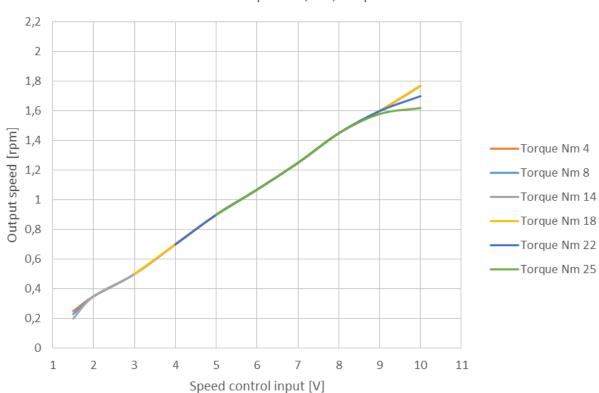
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