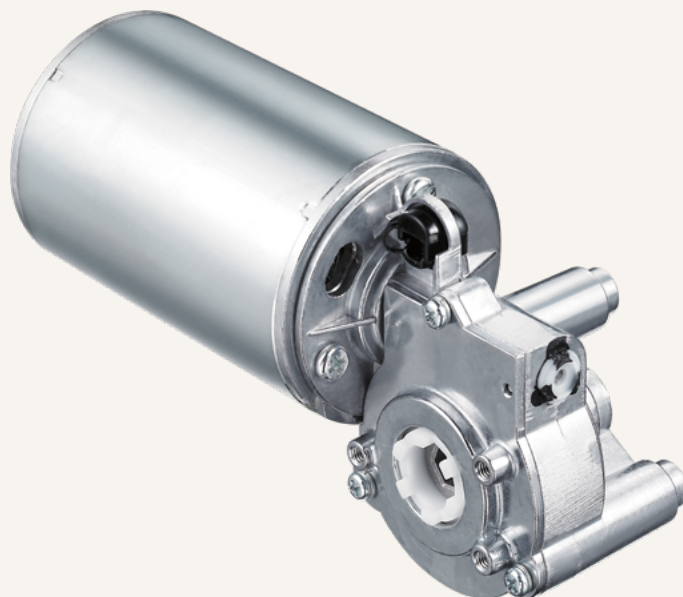


TGM2

series



Product Segments

- **Ergo Motion**
- **Industrial Motion**

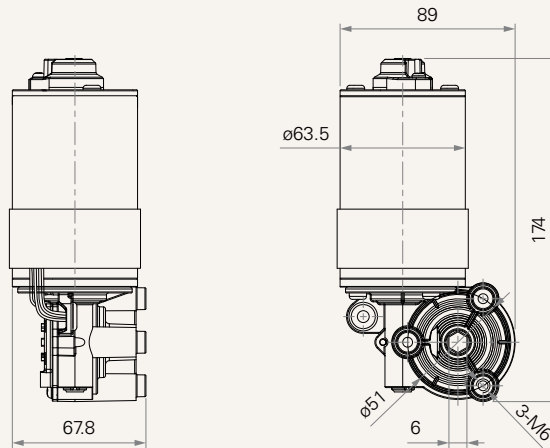
The TGM2 series is TiMOTION's most powerful gear motor. It was designed primarily for ergonomic applications like height adjustable workstations and tables, but can be used in many other applications. This economical product allows for fast, smooth and quiet adjustment of built-in spindles through the use of external limit switches. Shafting allows for the mechanical synchronization of dual spindles.

General Features

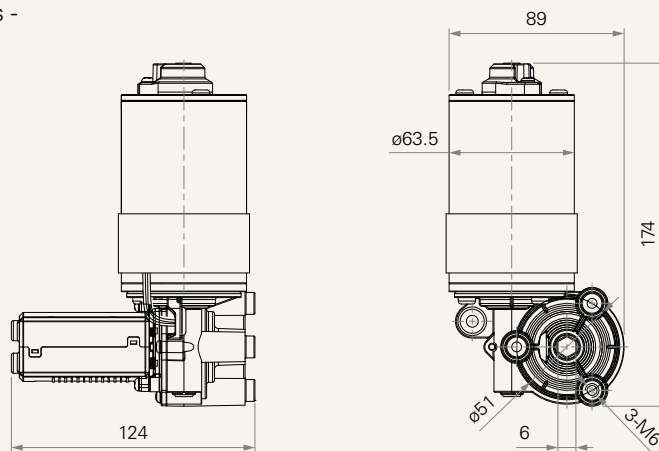
Max. rated torque	21.8Nm
Max. speed at max. load	60~67RPM
Max. speed at no load	86.9~96RPM
Output signals	Hall sensor*2 Hall sensor*3 (only for BLDC motor)
Options	Motor brake
Voltage	12V DC 24V DC (thermal protector) 24/48V DC, BLDC
Low noise	

Drawing

Standard Dimensions -
Without TES2
(mm)



Standard Dimensions -
With TES2
(mm)



Load and Speed

CODE	Rated Voltage (V DC)	No Load		Rated Load			Duty Cycle	Self locking force (Nm)
		Current	RPM	Torque (Nm)	Current	RPM		
Motor Speed (3800RPM)								
A	24V DC	1.20	73~88	18.3	12.0	56~64	10%	11.0
Motor Speed (2200RPM)								
B	24V DC	0.70	40~50	12.0	4.3	24~32	10%	11.0
BLDC Motor Speed (4500RPM)								
C	24V DC	2.0	86~106	21.8	11.0	58~65	33%	5.0
BLDC Motor Speed (6200RPM)								
D	48 V DC	0.5	86~106	21.8	5.3	60~67	33%	5.0
E	48V DC	1.0	118.7~145.1	18.3	7.0	86.9~96	25%	5.0

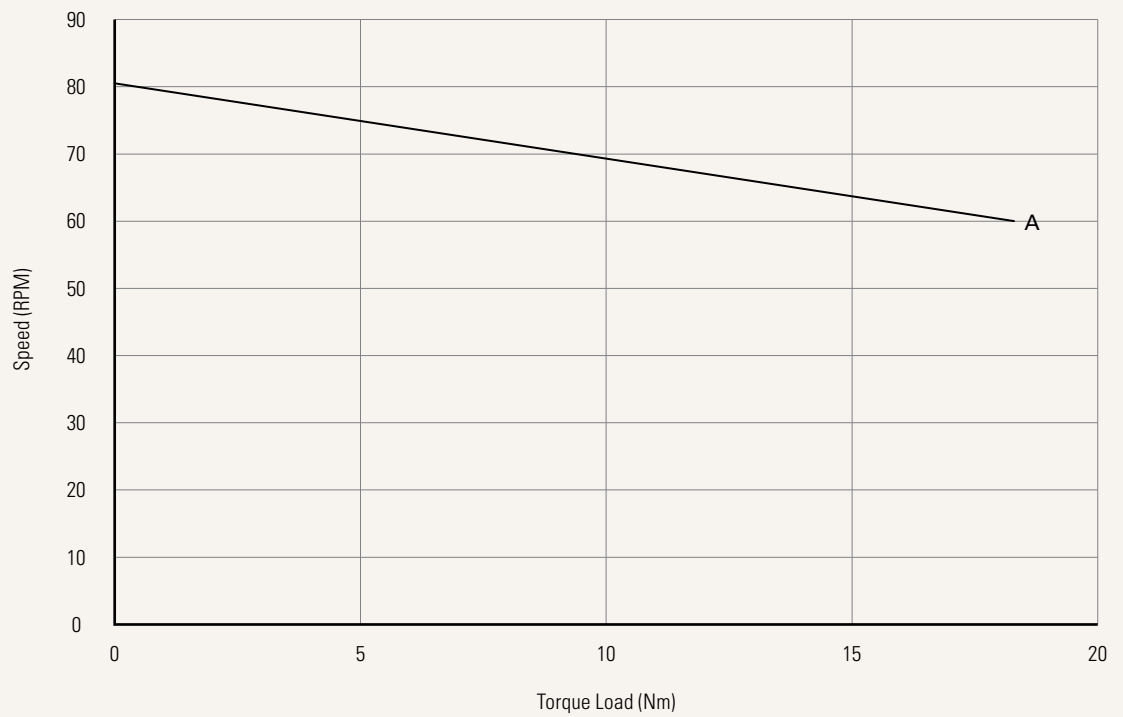
Note

- 1 Please refer to the approved drawing for the final authentic value.
- 2 Operational temperature range at full performance: +5°C~+45°C
- 3 The current & speed in table and diagram are tested with TiMOTION control boxes, and there will be around 10% tolerance depending on different models of the control box.

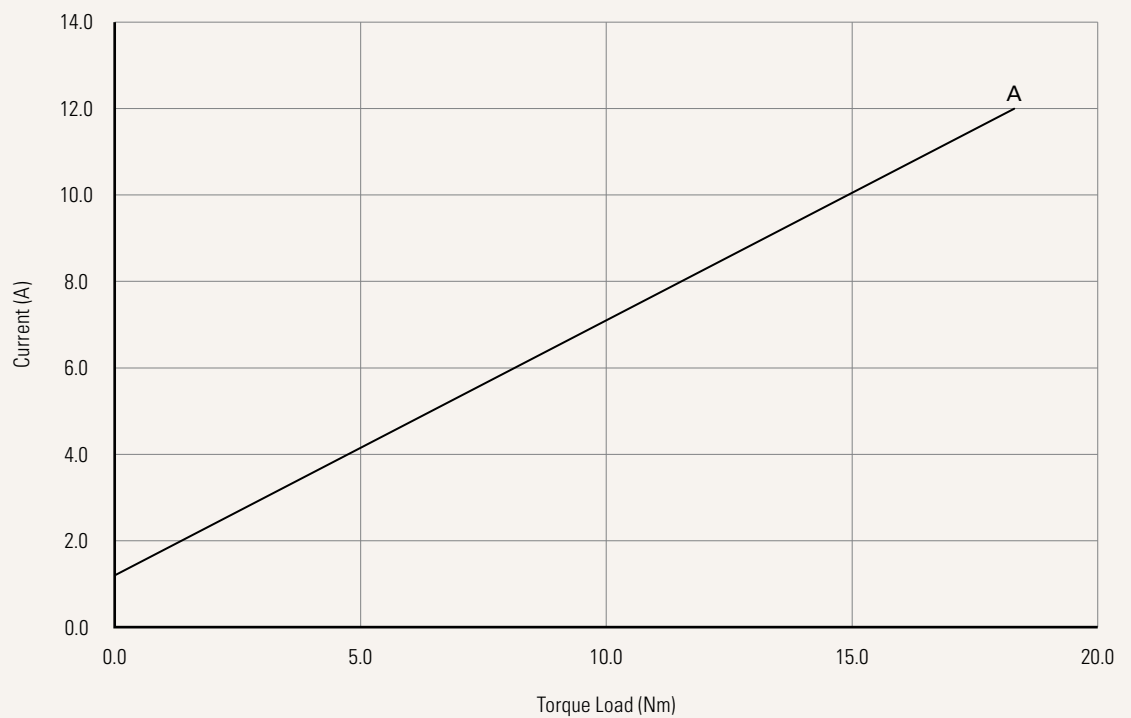
Performance Data (24V DC Motor)

Motor Speed (3800RPM)

Speed vs. Torque Load



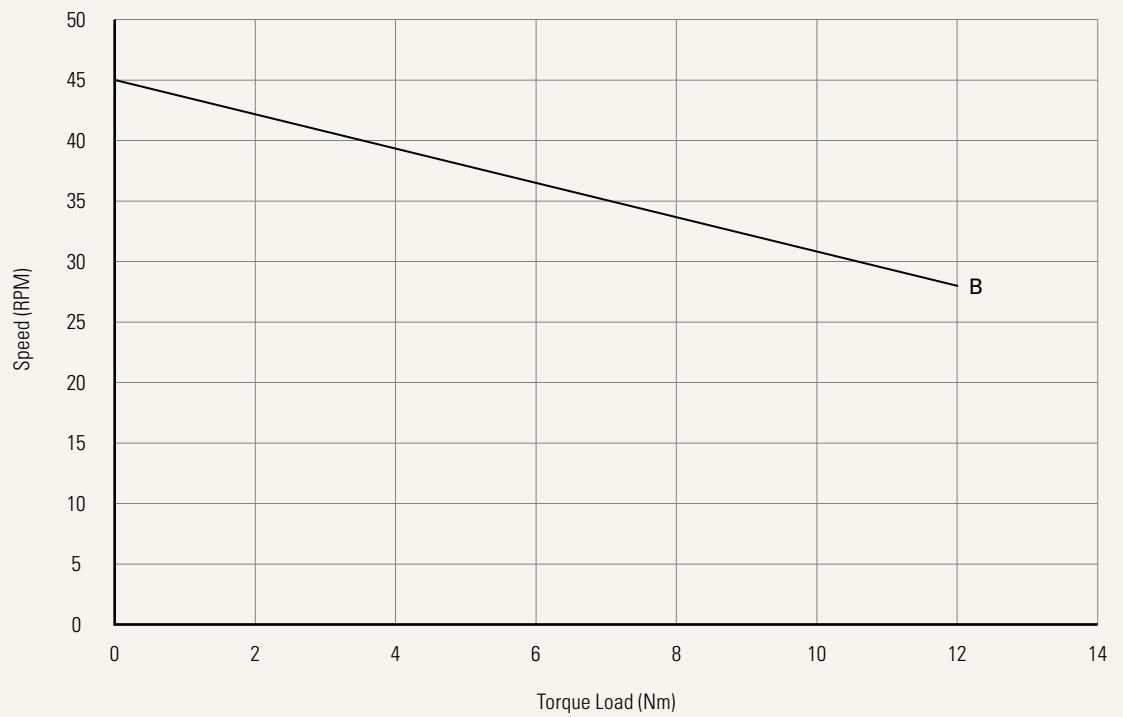
Current vs. Torque Load



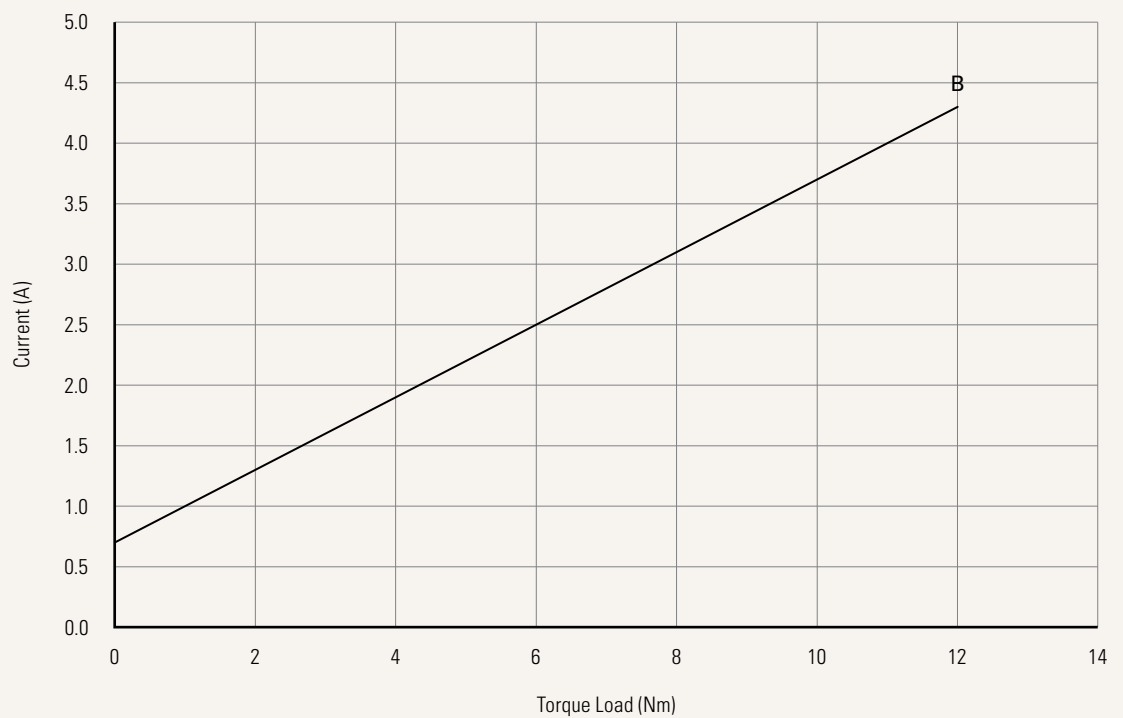
Performance Data (24V DC Motor)

Motor Speed (2200RPM)

Speed vs. Torque Load



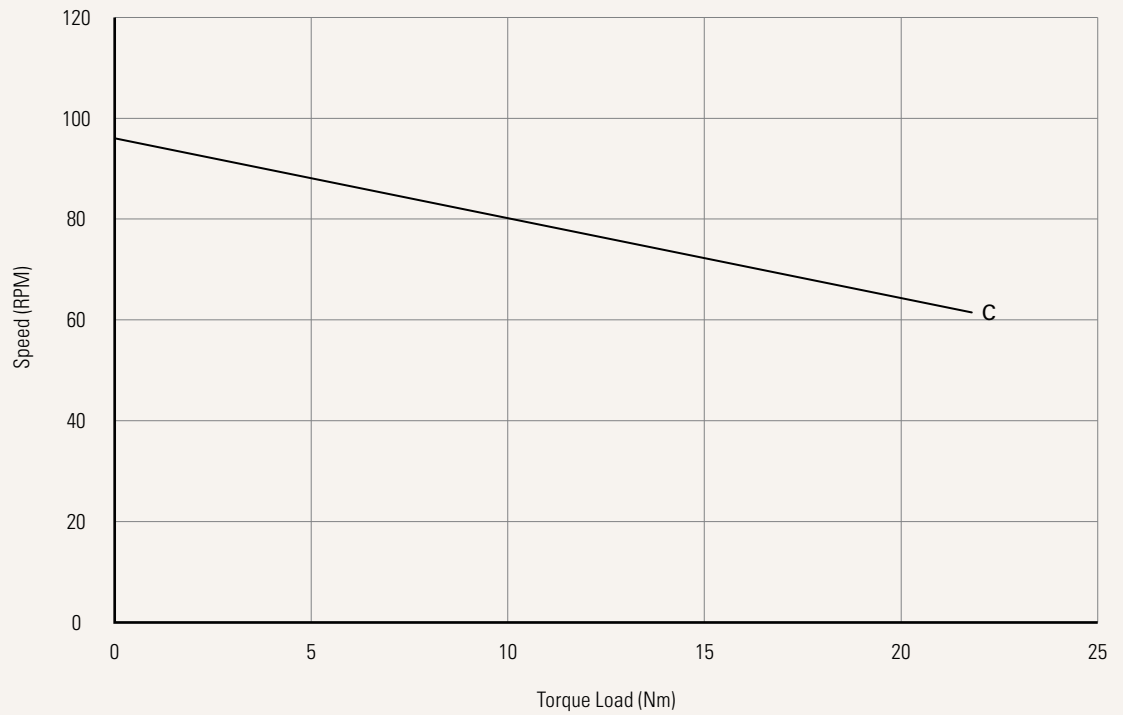
Current vs. Torque Load



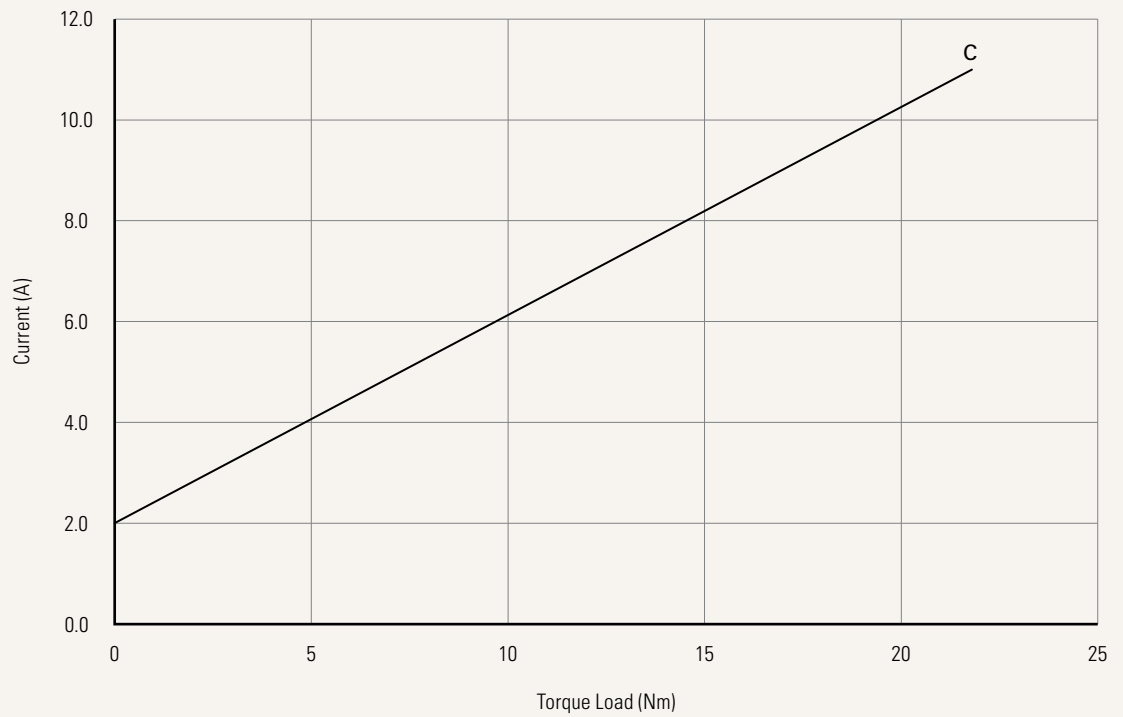
Performance Data (24V DC Motor)

BLDC Motor Speed (4500RPM)

Speed vs. Torque Load



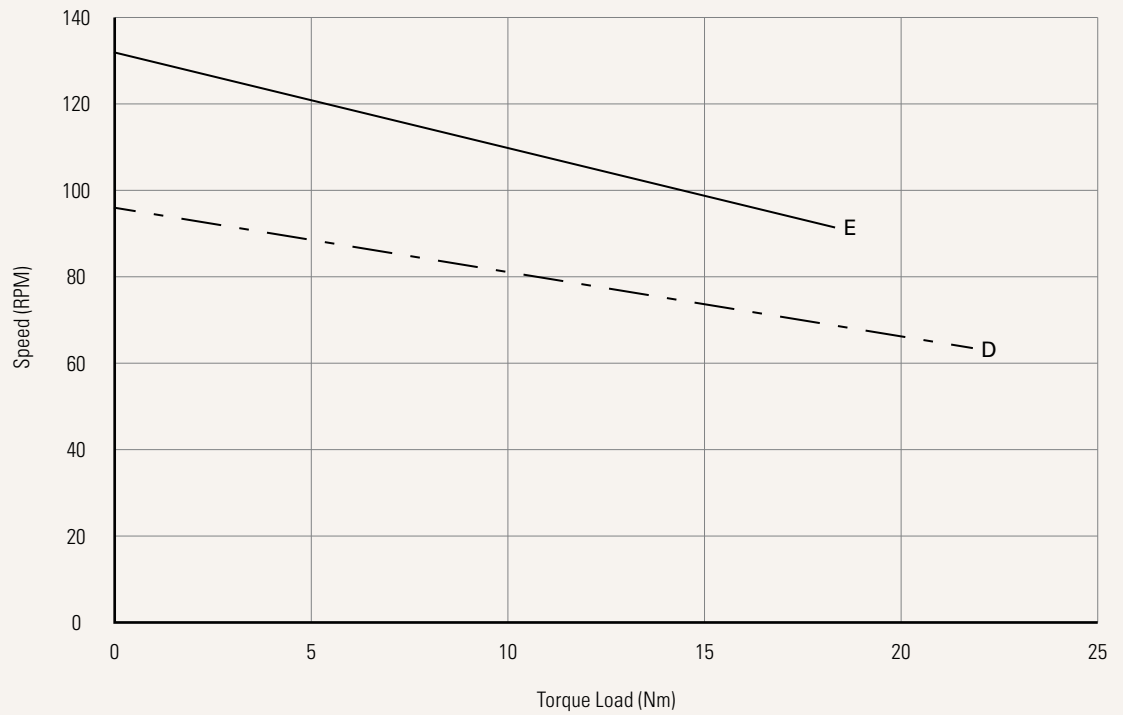
Current vs. Torque Load



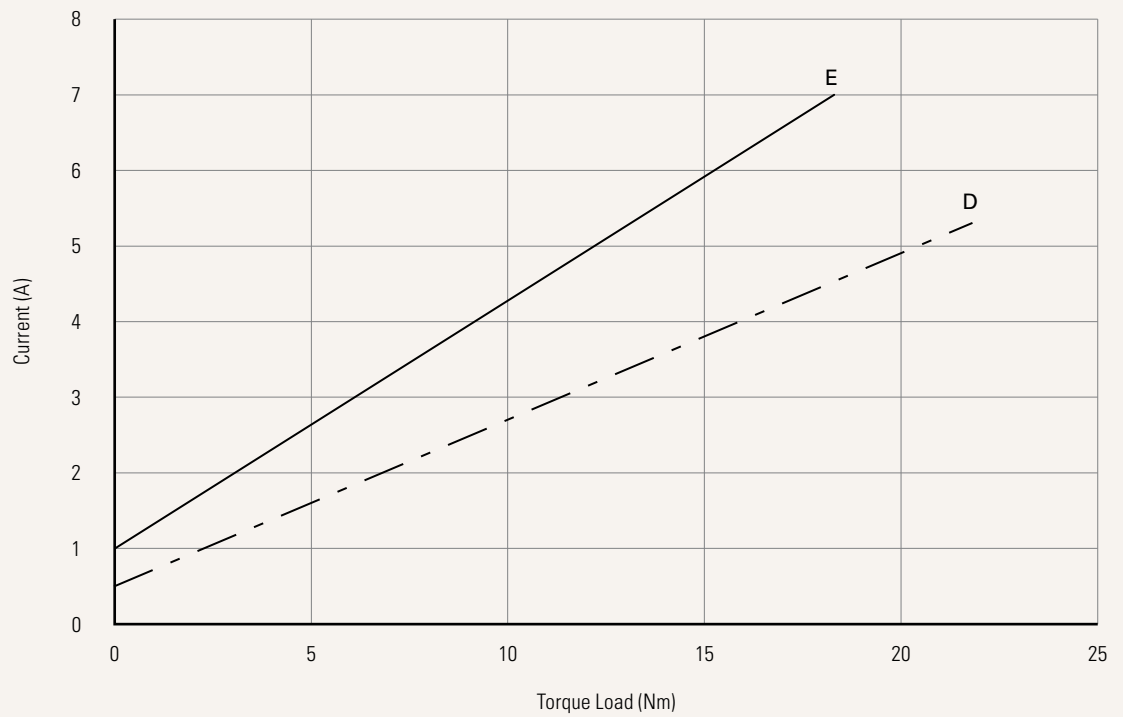
Performance Data (24V DC Motor)

BLDC Motor Speed (6200RPM)

Speed vs. Torque Load



Current vs. Torque Load



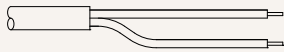
TGM2

Version: 20241017-Q

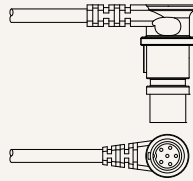
Voltage	1 = 12V	5 = 24V, thermal protector	B = 24V, BLDC	C = 48V, BLDC
Load and Speed	See page 2			
Output Signal	0 = Without 2 = Hall sensor*2		B = Hall sensor *3 (only for BLDC motor)	
Brake	0 = Without	1 = Motor brake		
Plug See page 8	0 = Tinned leads	1 = DIN 6P, 90°	2 = Molex 8P	
Cable Length (mm)	0 = Straight, 1000	1 = Straight, 1500	2 = Straight, 2000	3 = Curly, 1000
Output Torque (mm) See page 8	1 = Drive shaft hole (inner hexagon 9) 2 = One side drive shaft (Ø12, knurling) 3 = Two sides drive shaft (Ø12, knurling)		4 = Two sides drive shaft (Ø12, with Ø4.8 latch hole) 5 = Drive shaft hole (inner hexagon 6)	
External Limit Switch (TES2)	00 = Without XX = Number of output rotations (between13~17 & 25~35 rotations, factory preset)			

Plug

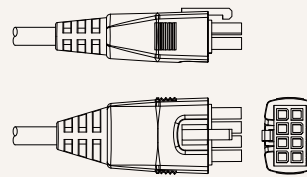
0 = Tinned leads



1 = DIN 6P, 90°

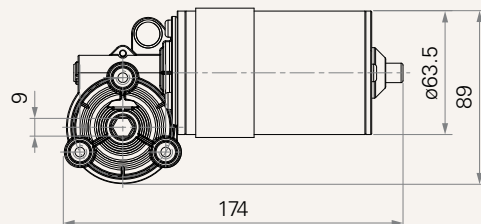


2 = Molex 8P

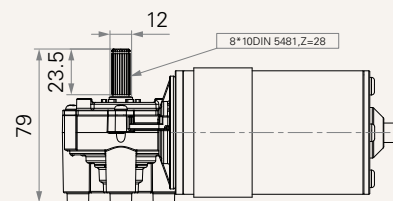


Output Torque (mm)

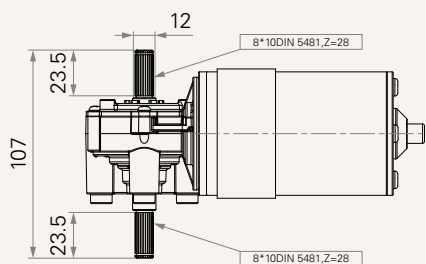
1 = Drive shaft hole (inner hexagon 9)



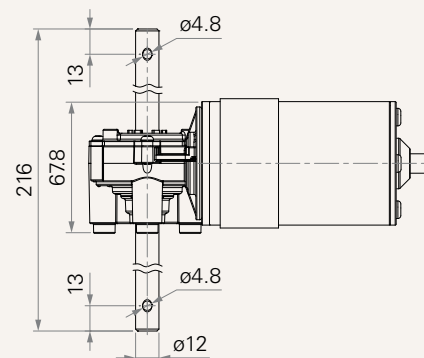
2 = One side drive shaft (Ø12, knurling)



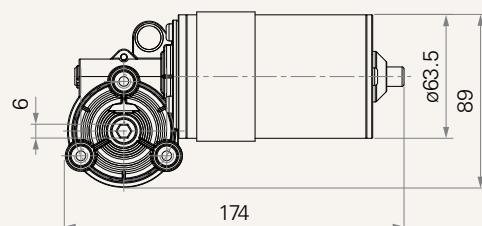
3 = Two sides drive shaft (Ø12, knurling)



4 = Two sides drive shaft (Ø12, with Ø4.8 latch hole)



5 = Drive shaft hole (inner hexagon 6)



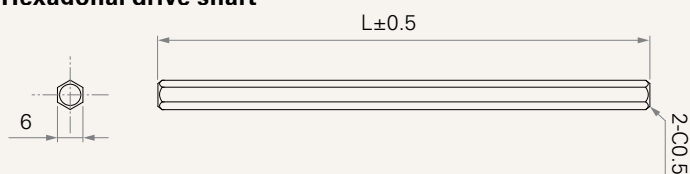
TBS Series - the combination of TGM and TBS

TBS	Input Torque	TGM				
		TGM1	TGM2	TGM3	TGM4	TGM7
TBS1	#1	V	V	V	V	-
TBS2	#1	-	-	-	-	V
TBS3	#1	-	-	-	-	V
TBS4	#1	V	V	V	V	-
TBS5	#1	V	V	V	V	-
TBS9	#1	V	V	V	V	-
TBS10	#1	V	V	V	V	-

Note

- 1 The combinations of TGM and TBS are marked as "v" on the above table.
- 2 When choosing the combination of TBS2 / 3 and TGM7, the hexagonal drive shaft is not required.
- 3 When choosing the combination of TBS1 / 4 / 5 / 9 / 10 and TGM1 / 3 / 4, the extra order of hexagonal drive shaft is needed.
- 4 Please refer to the table below for the serial numbers and the dimensions of the component.

Hexagonal drive shaft



CODE	L (mm)
32709-0101-175-1	175
32709-0101-200-1	200
32709-0101-270-1	270
32709-0101-375-1	375
32709-0101-470-1	470
32709-0101-570-1	570

Terms of Use

The user is responsible for determining the suitability of TiMOTION products for a specific application. TiMOTION products are subject to change without prior notice.