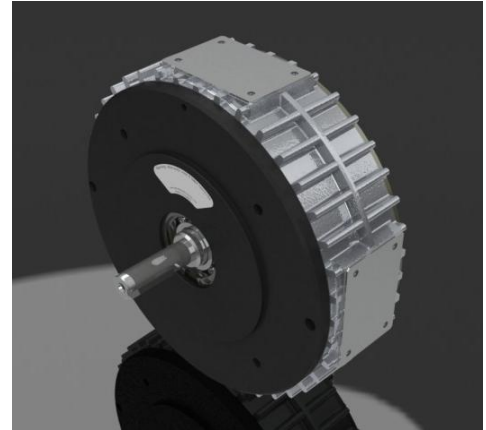


GR Series

Peak Torque **1334 to 3200 Ncm**
 Cont. Torque **133.4 to 320 Ncm**
 Power **420 to 1000 Watts**
 Speed **<1 to 6000 rpm**

The Printed Motor Works *GR* series is an exceptionally powerful and extremely accurate range of servo motors that provide all the advantages of the printed armature with an extremely robust motor case for industrial automation and scientific applications. *GR* motors include air cooling ports, with removable covers, for use with external cooling fans to increase the thermal limit of continuous operation. *GR* motors are available in 3 sizes *GR12*, 16 and 19.

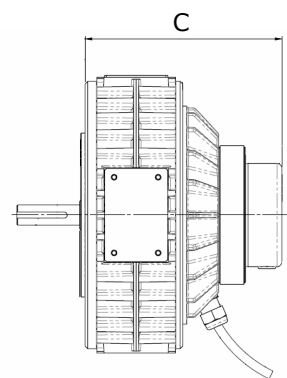
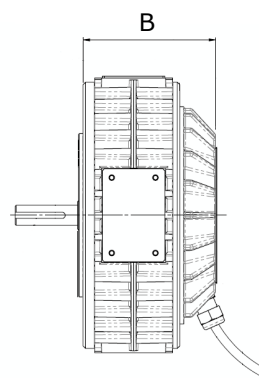
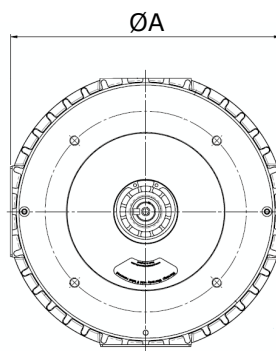


GR Series

| Motor Ratings | Power | Torque | Speed | Voltage | Current | Cont. Stall Current | Diameter | Depth | Depth + Tacho |
|---------------|-------|--------|-------|---------|---------|---------------------|----------|-------|---------------|
| | P | T | N | V | I | IS | A | B | C |
| | Watt | Ncm | RPM | Volt | Amp | Amp | mm | mm | mm |
| <i>GR12</i> | 420 | 133 | 3000 | 64 | 8.4 | 5.0 | 142 | 70.0 | 148 |
| <i>GR16</i> | 1050 | 334 | 3000 | 129 | 9.5 | 5.7 | 187 | 87.5 | 159 |
| <i>GR19</i> | 1000 | 320 | 3000 | 83 | 14.5 | 8.6 | 230 | 107.5 | 157 |

General benefits

- High peak torque output
- Zero cogging
- Low inertia
- Rapid acceleration
- Stable up to high temperatures
- High instantaneous torque
- Long brush life
- Controllable with servo amplifiers
- Design options include custom shaft, encoders, tachometers, gearboxes and pulleys



Standard Motor

Tacho Option



GR Series

Applications:

Servo mechanisms, motion control, industrial robots, CNC machining, printing machinery, logistics solutions, medical mobility, medical scanners, flight simulators, marine autopilots and high ambient temperature ventilation, valve actuators and scientific instrumentation.

Markets:

Industrial automation, medical, life sciences, aerospace & defence, printing, logistics, instrumentation, test and measurement, oil & gas and offshore marine.

Design Modifications

- Encoders
- Timing pulleys
- Tacho output voltage
- Tri-rated cable
- US mounting configuration
- Customised shafts
- EMC suppression
- Connectors
- Rated for operation in 150°C ambient
- Protective covers

Standard Tacho Option:

| Motor | Output Voltage Gradient V/KRPM | Output Tolerance % | Voltage Ripple % | Rotor Inertia g/cm ² |
|-------|-----------------------------------|-----------------------|---------------------|------------------------------------|
| GR12 | 3 | +5 -0 | 5 | 350 |
| GR16 | 3 | +5 -0 | 5 | 350 |
| GR19 | 3 | +5 -0 | 5 | 350 |

Suggested Drives:

JUNUS *General speed control applications*



20-180Vdc for Velocity and Torque control with 6 digital I/O. 5Amp - 30Amp variants, RS232 communication.

ACCELNET *General servo applications*



20-180Vdc for Velocity, Torque and Position control with 11 digital I/O and Encoder feedback. 5Amp - 36Amp variants, RS232 & macro communication.

XENUS *Advanced servo control*

CANopen

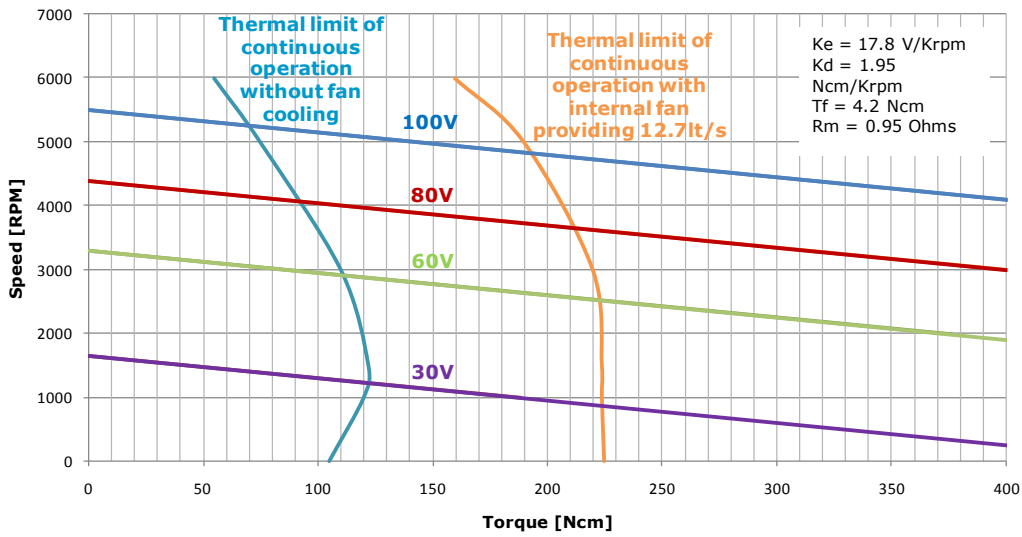


110-230Vac for Camming, Gearing, Position, Velocity & Torque control with 16 digital I/O and multiple feedback options. A stand alone motion control device with CANopen & RS232 communication protocols.

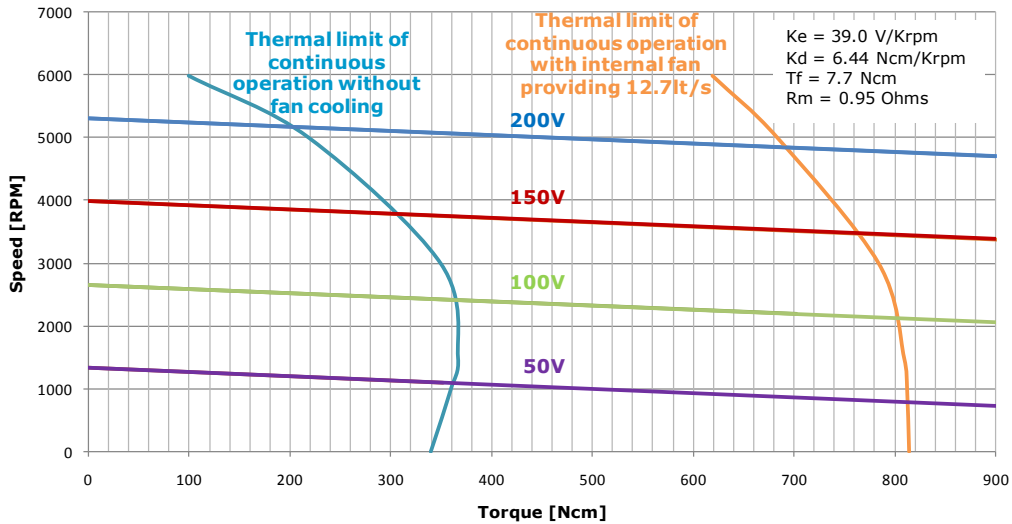
GR Series

GR Series

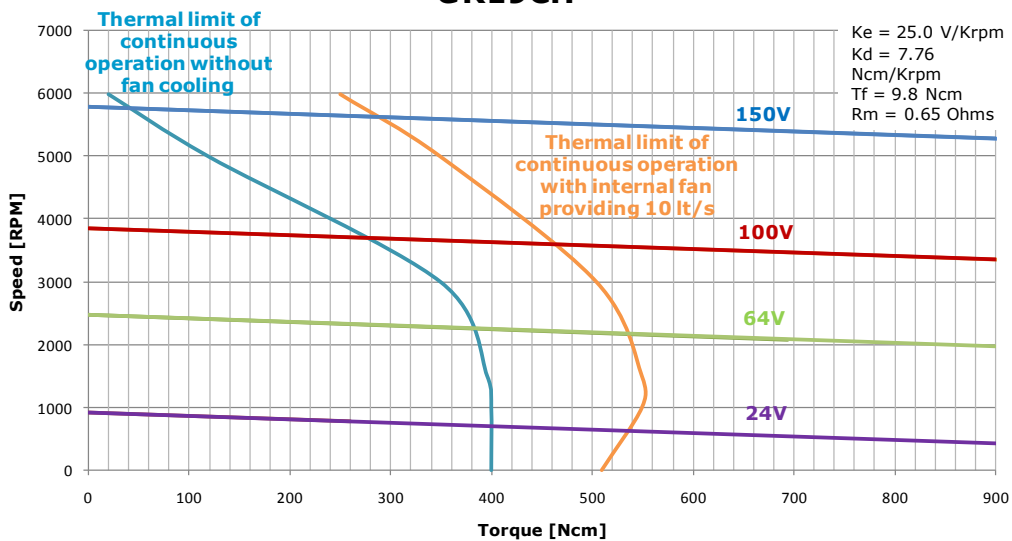
GR12CH



GR16CH



GR19CH



NOTE: The above voltages are examples, not a predefined maximum or minimum.
 Due to ongoing product improvements data is subject to change without notice.

