

# StG 3 / StG 3<sup>+</sup>

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## DATA SHEET

### Description

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Small and medium-sized combustion engines of any kind are the preferential application for these powerful actuators.

Two different versions are available, differing in their maximum torque and working temperature range.

Both units work without gears directly on the shaft and therefore offer very quick response times.

On the shaft, a multi-pole permanent magnet system is radially facing several working coils. That kind of design enables powerful and uniformly strong torques over the entire range of adjustment in both directions of rotation.

On request, the actuators are available with a return spring as well that works either clockwise or counter-clockwise ex works.

The armature is optimised for lowest heat build-up. Additionally, the design enhances heat transfer to the outside and so allows a wide working temperature range.

A high precision contactless feedback system supplies an electrical analogue signal of shaft position to any external control device.

Application of special materials and long-duration lubricants assure maintenance-free operation and long service life. Mounting of the actuators is possible in any fitting position. The robust and enduring design with IP6K9K degree of protection allows operation under roughest ambient conditions.

### Application range

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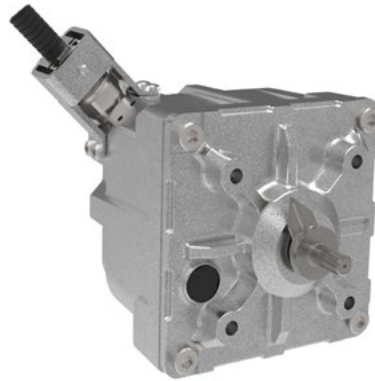
- Small and medium-sized diesel or gas engines
- Gas and steam turbines

### Certificates

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On request:

CSA, ATEX, marine approval



### Features

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Direct acting without gears

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Quick response time

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Robust and enduring construction

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Enhanced service life due to optimised bearing

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Working temperature range up to 150 °C possible

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Completely maintenance-free

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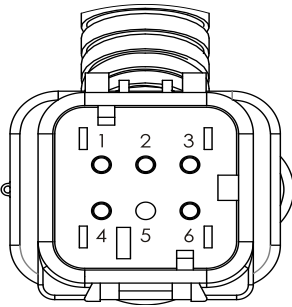
IP6K9K degree of protection

## Technical data

	StG 3	StG 3+
Mode of operation	4Q	4Q
Angle of rotation	72°	72°
Max. torque without return spring	approx. 3 Nm	approx. 6 Nm
Torque in steady state without return spring	approx. 1.5 Nm	approx. 3 Nm
Torque of return spring	0.50 ... 0.82 Nm	0.50 ... 0.82 Nm
No load response time (depending on controller)	< 40 ms	< 40 ms
Working voltage of armature	nom. 24 VDC 18 ... 32 VDC	nom. 24 VDC 18 ... 32 VDC *)
Max. permissible current consumption	6 A	6 A
Max. permissible current in steady state	3 A	3 A
Power supply position sensor	5 ±0.1 VDC	5 ±0.1 VDC
Position signal (0 ... 100 %)	0.5 ... 4.5 V	0.5 ... 4.5 V
Degree of protection / actuator	IP6K9K	IP6K9K
Degree of protection / plug	IP67	IP67
Weight	approx. 5.5 kg	approx. 5.5 kg
Ambient temperature	-20 ... +125 °C 150 °C on request	-20 ... +100 °C

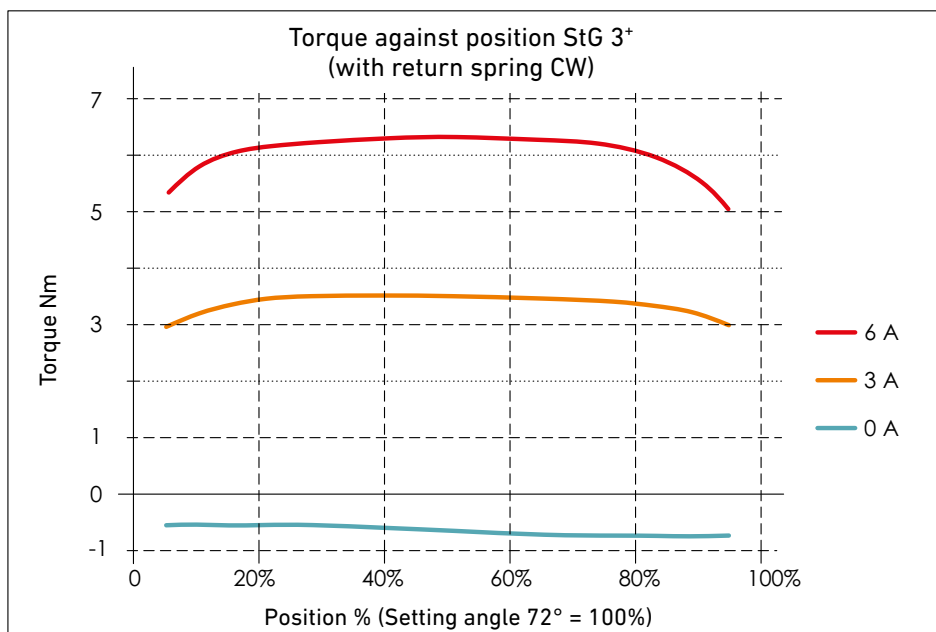
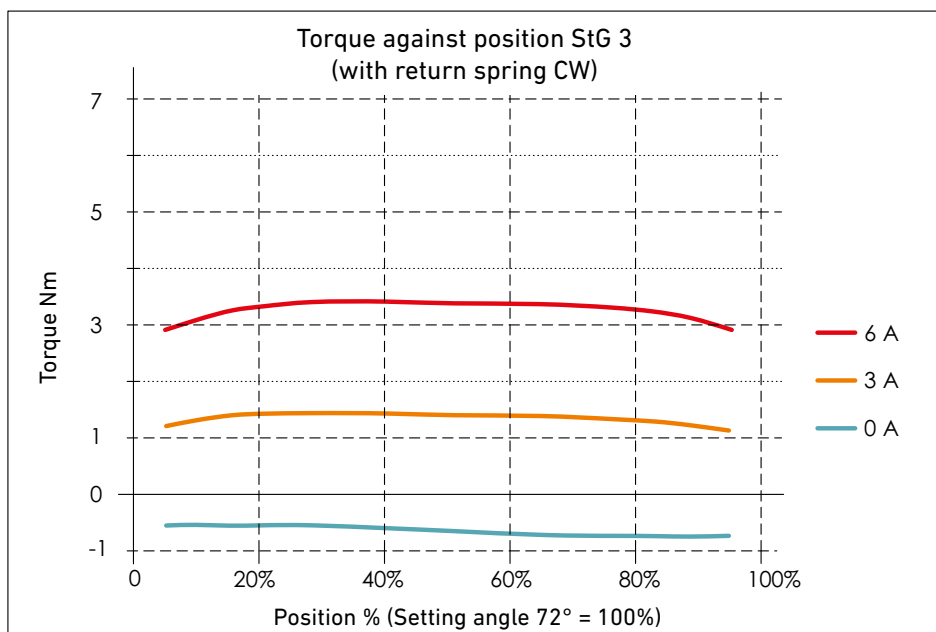
\*) with voltage supply < 24 VDC temperature-related derating of maximum torque

## Pin assignment



Connector	AMPSEAL 16 (6 pin)
1	Power supply position sensor
2	GND position sensor
3	Position feedback signal
4	Armature (-)
5	(not connected)
6	Armature (+)

# Characteristic curves



# Dimensions

