

DC-Motor-Tacho Combinations

80 mNm

Graphite Commutation

For combination with:
 Gearheads: 30/1, 38/1, 38/2
 Encoders: 20/21B, 03B, 10/09B, 10/09BP, 5500, 5540

Series 3557 ... C, CS, CR

Characteristics of the DC-Motor-Tacho Combination

Series 3557 ... C 40 mNm	Series 3557 ... CS 50 mNm	Series 3557 ... CR 80 mNm	tacho output	frequency response
3557 K 006 C 4,3 G-60	3557 K 009 CS 4,3 G-60	3557 K 012 CR 4,3 G-60	4,3 V / 1000 rpm	880 Hz
3557 K 009 C 4,3 G-60	3557 K 012 CS 4,3 G-60	3557 K 024 CR 4,3 G-60	4,3 V / 1000 rpm	880 Hz
3557 K 012 C 4,3 G-60	3557 K 020 CS 4,3 G-60	3557 K 048 CR 4,3 G-60	4,3 V / 1000 rpm	880 Hz
3557 K 020 C 4,3 G-60	3557 K 024 CS 4,3 G-60		4,3 V / 1000 rpm	880 Hz
3557 K 024 C 4,3 G-60	3557 K 048 CS 4,3 G-60		4,3 V / 1000 rpm	880 Hz
3557 K 032 C 4,3 G-60			4,3 V / 1000 rpm	880 Hz

The characteristics of the DC-Micromotor Series 3557 ... C, CS, CR, used for these combinations are listed on separate Data sheet.

Tachogenerator		4,3 G-60	
EMF constant	K_E	4,3	mV/rpm
Tolerance of EMF constant		41,1	mV/rad s ⁻¹
Load resistance	R_L	± 1	%
Operating speed, max. continuous	$n_{e \text{ max.}}$	≥ 25	kΩ
Terminal resistance	R	≤ 5000	rpm
		260	Ω
Ripple, peak-peak, typical		7	%
Ripple frequency, cycles		10	per turn
Linearity, without load, between 500 and 5000 rpm		± 0,2	%
Reversion error		± 0,2	%
Temperature coefficient of EMF		0,02	% / °C
Temperature coefficient of armature resistance		0,4	% / °C
Rotor inductance	L	7000	μH
Direction of rotation		reversible	
Polarity		dependent on direction of rotation	

Features

Design

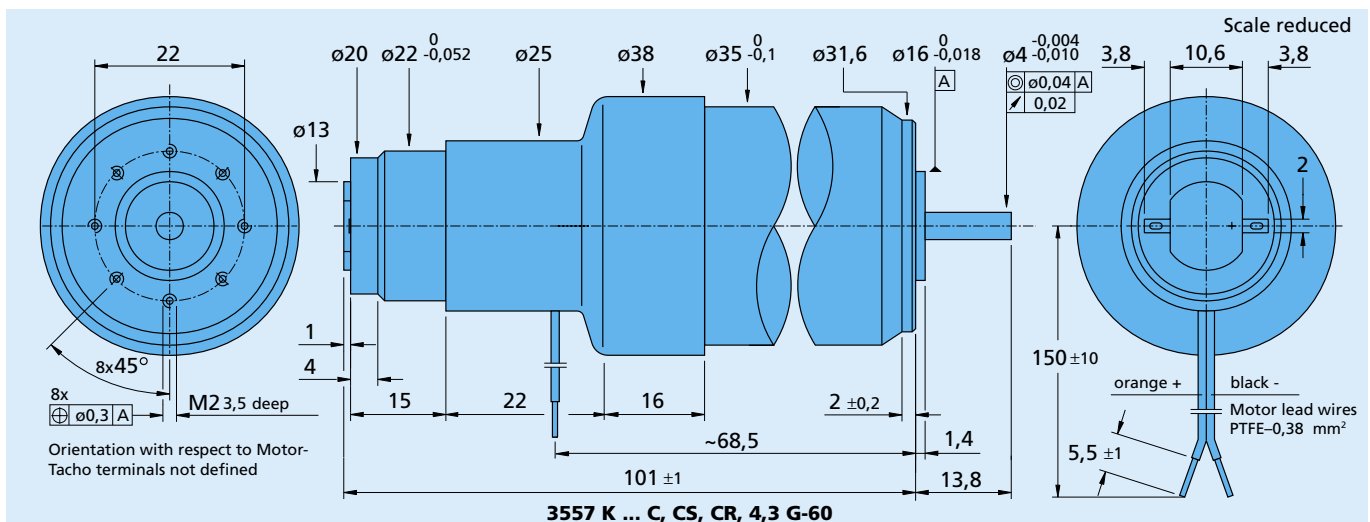
Motor and tachogenerator feature the patented skew wound ironless rotors (System FAULHABER®). The Tachogenerator is assembled on to the rear-end motor shaft with an extension sleeve and gives excellent torsion characteristics and frequency response.

Commutation system

The motors are built with copper commutators and copper impregnated graphite brushes. The tachogenerator have commutators and brushes made of gold alloy to assure a high quality output signal.

Operating temperature ranges:

Motor-Tacho, standard -30 ... + 125 °C
 Rotor, max. permissible + 125 °C



For notes on technical data refer to "Technical Information" on the main catalogue

Specifications subject to change without notice.