Tachogenerators

Solid shaft ø11 mm with EURO flange B10

Housing ø115 mm

GTF7

Features

- **Open circuit voltage 10...60 mV per rpm**
- **Solid shaft ø11 mm**
- **EURO flange B10**
- **High signal quality due to patented LongLife technology**
- **Temperature compensation of tacho voltage as standard**
- **Low moment of inertia**
- **No auxiliary energy source required**

Technical data - electrical ratings

Reversal tolerance	≤0.1 %
Linearity tolerance	≤0.15 %
Temperature coefficient	±0.05 %/K (open-circuit)
Isolation class	B
Calibration tolerance	±5 %
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	GTF 7.08: 0.3 W (speed ≥5000 rpm) GTF 7.16: 0.6 W (speed ≥5000 rpm)
Armature-circuit time-constant	<4 µs
Open-circuit voltage	10...60 mV per rpm
Approval	CE

Technical data - mechanical design

Size (flange)	ø115 mm
Shaft type	ø11 mm solid shaft
Flange	EURO flange B10
Protection DIN EN 60529	IP 55
Torque	1.5 Ncm
Rotor moment of inertia	0.4 kgcm² (GTF 7.08) 0.6 kgcm² (GTF 7.16)
Admitted shaft load	≤100 N axial ≤200 N radial
Materials	Housing: stainless steel / plastic Shaft: stainless steel
Operating temperature	-30...+130 °C
Resistance	DIN EN 60068-2-6 Vibration 10 g, 10-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Weight approx.	0.9 kg (GTF 7.08), 1.1 kg (GTF 7.16)
Connection	Screw terminal connector

GTF7

Part number

GTF7 ☐

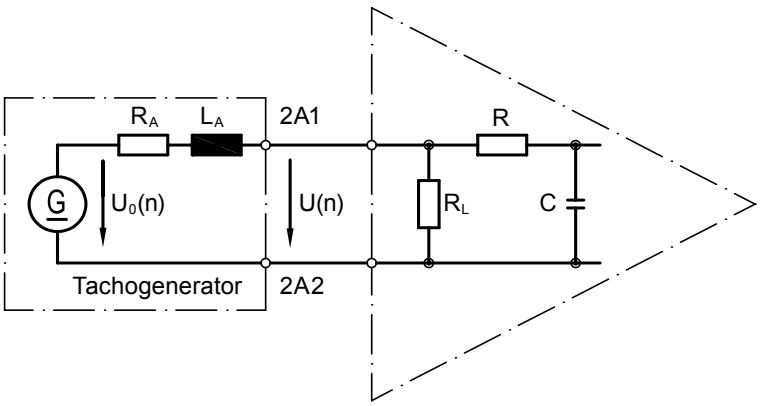
	Open-circuit voltage
.08L/410	10 mV per rpm
.08L/420	20 mV per rpm
.08L/430	30 mV per rpm
.16L/440	40 mV per rpm
.16L/460	60 mV per rpm

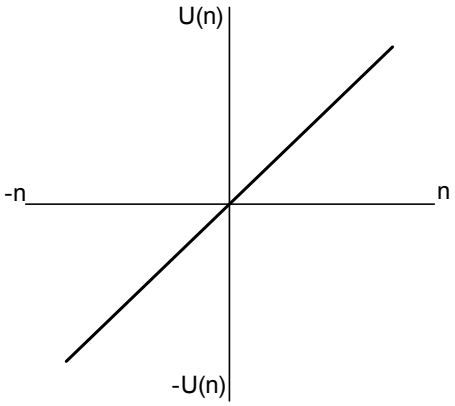
Data according to type

Type	Open-circuit voltage	Minimum load required depending on speed range [rpm]			Maximum operating speed	Armature resistance	Armature inductance
		0-3000	0-6000	0-n_{max}			
	U_0 [mV/rpm]	R_L [kΩ]	R_L [kΩ]	R_L [kΩ]	n_{max} [rpm]	R_A (20°C) [Ω]	L_A [mH]
GTF7.**08L/410**	10	≥5	≥12	≥27	9000	60	20
GTF7.**08L/420**	20	≥20	≥48	≥108	9000	230	80
GTF7.**08L/430**	30	≥45	≥108	≥243	9000	550	180
GTF7.**16L/440**	40	≥40	≥96	≥216	9000	410	160
GTF7.**16L/460**	60	≥90	≥215	≥223	6100	760	360

Superimposed ripple (for τ_{RC} = 0.3 ms): ≤0.6% (peak-peak) ≤0.25% (rms)

Replacement switching diagram





$\tau_{RC} \approx R \cdot C$ $\tau_A \approx \frac{L_A}{R_L}$

$U(n) = U_0(n) \frac{R_L}{R_A + R_L} \approx U_0(n)$ for $R > R_L \gg R_A$

Polarity for positive rotating direction: 2A1: **+** 2A2: **–** (VDE)

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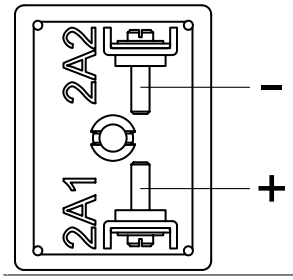
Terminal assignment

View A - Connecting terminal

Polarity for positive direction of rotation



Accessories

Carbon brushes

Mounting accessories

K 35	Spring washer coupling for solid shaft ø6...12 mm
K 50	Spring washer coupling for solid shaft ø11...16 mm
K 60	Spring washer coupling for solid shaft ø11...22 mm

Dimensions