

TDP 0,2, TDPZ 0,2

Solid shaft with EURO flange B10 or housing foot B3

With own bearings

Overview

- Low response time
- Open circuit voltage 10...150 mV per rpm
- Redundant output (TDPZ)
- EURO flange B10 or housing foot B3
- Very high resistance to shock
- High signal quality due to patented LongLife technology
- Recognition of sense of rotation possible via control



HUBNER
BERLIN
A Baumer Brand

Technical data

Technical data - electrical ratings

Reversal tolerance	≤0.1 %
Linearity tolerance	≤0.15 %
Temperature coefficient	± 0.05 %/K (open-circuit)
Isolation class	B
Calibration tolerance	±1 %
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	TDP: 12 W (speed ≥3000 rpm) TDPZ: 2x 3 W (speed ≥3000 rpm)
Armature-circuit time-constant	<75 μs (TDP) <40 μs (TDPZ)
Open-circuit voltage	TDP: 10...150 mV per rpm TDPZ: 20...100 mV per rpm
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE CSA

Technical data - mechanical design

Size (flange)	ø115 mm
Shaft type	ø11 mm solid shaft ø7 mm solid shaft (optional) ø14 mm solid shaft (optional)

Technical data - mechanical design

Flange	EURO flange B10 Housing foot B3
Protection EN 60529	IP 55 IP 56 (option)
Operating speed	≤10000 rpm
Torque	1.5 Ncm
Rotor moment of inertia	1.1 kgcm ² (TDP) 1.2 kgcm ² (TDPZ)
Admitted shaft load	≤60 N axial ≤80 N radial
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-30...+130 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 1 ms
Weight approx.	2.4 kg (TDP) 2.9 kg (TDPZ)
Connection	Terminal box

Optional

- Marine air protected/tropicalized
- Second shaft end (B14)

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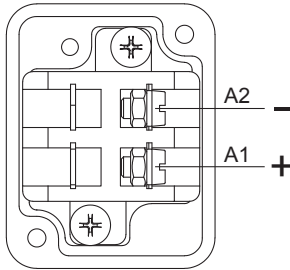
With own bearings

Terminal assignment

View A (see dimension)

Connecting terminal tachogenerator TDP

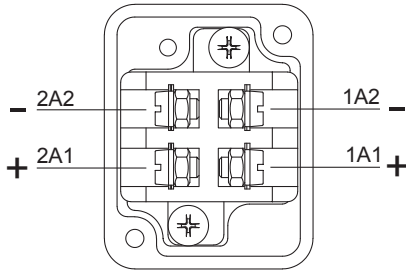
Polarity for positive rotating direction



View A (see dimension)

Connecting terminal twin tachogenerator TDPZ

Polarity for positive rotating direction



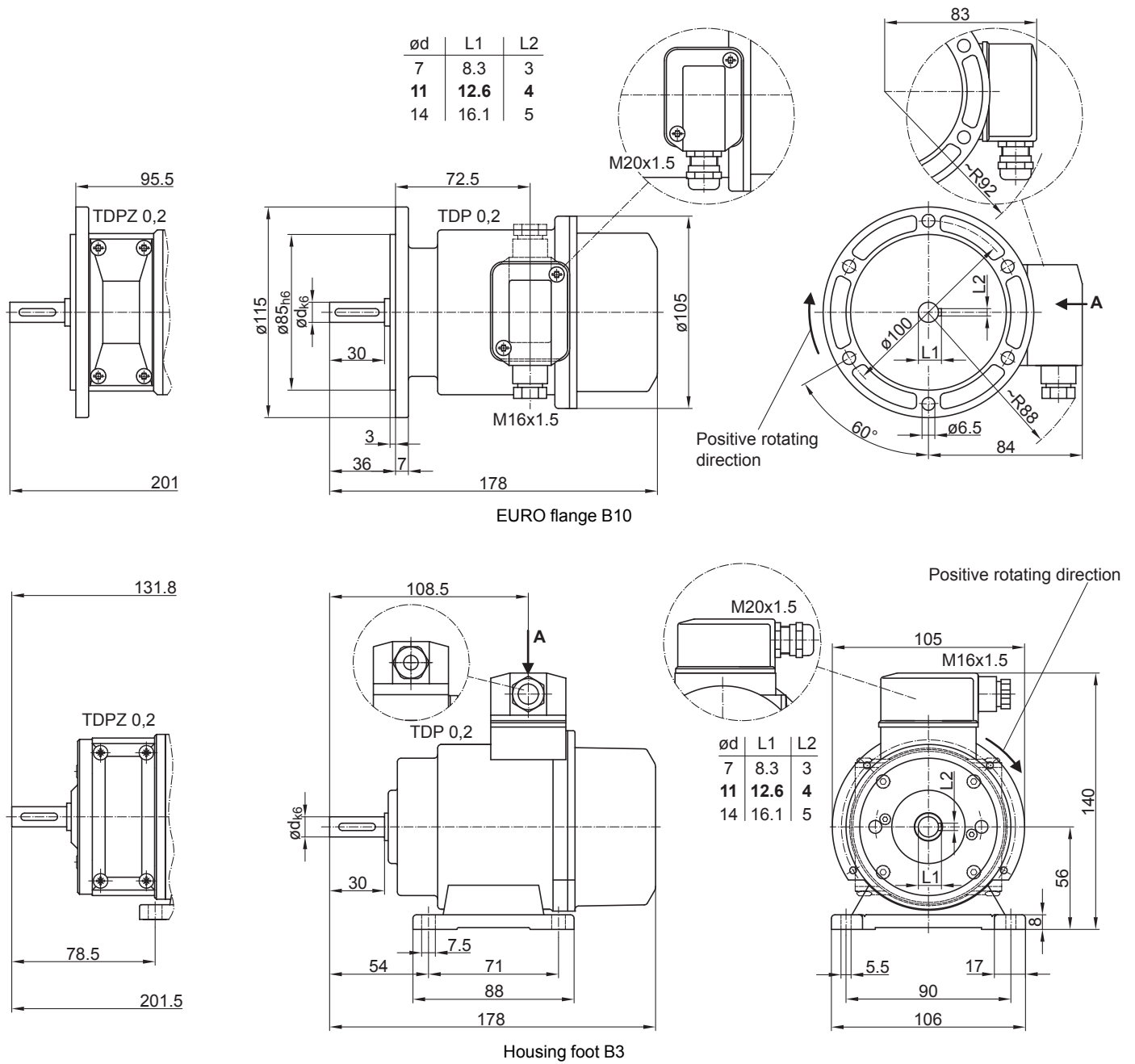
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Dimensions

ød	L1	L2
7	8.3	3
11	12.6	4
14	16.1	5



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Ordering reference

	TDP	#	#####	#####
Product				
Tachogenerator	TDP			
Design				
Tachogenerator				
Twin tachogenerator		Z		
Open-circuit voltage				
10 mV per rpm (not available for TDPZ)			0,2LT-6	
20 mV per rpm			0,2LT-7	
30 mV per rpm			0,2LT-10	
40 mV per rpm			0,2LT-5	
60 mV per rpm			0,2LT-4	
100 mV per rpm			0,2LT-3	
150 mV per rpm (not available for TDPZ)			0,2LT-1	
Mounting type				
EURO flange B10				B10
Housing foot B3				B3

Data according to type

Type	Open-circuit voltage U ₀ [mV/rpm]	Minimum load required depending on speed range [rpm]			Maximum operating speed n _{max} [rpm]	Armature resistance R _A (20°C) [Ω]	Armature inductance L _A [mH]
		0-3000 R _L [kΩ]	0-6000 R _L [kΩ]	0-n _{max} R _L [kΩ]			
TDP0,2 LT-6	10	≥0.1	≥0.3	≥0.9	10000	3	6
TDP0,2 LT-7	20	≥0.3	≥1.2	≥3.3	10000	11	23
TDP0,2 LT-10	30	≥0.7	≥2.7	≥7.5	10000	26	50
TDP0,2 LT-5	40	≥1.2	≥5	≥13.5	10000	47	90
TDP0,2 LT-4	60	≥2.7	≥11	≥30	10000	99	200
TDP0,2 LT-3	100	≥7.5	≥30	≥30	6000	271	550
TDP0,2 LT-1	150	≥16	---	≥30	4000	630	1260
Twin tachogenerator with redundant output (The data refer to each of the two tachogenerator outputs)							
TDPZ0,2 LT-7	20	≥1.2	≥4.8	≥14	10000	19	45
TDPZ0,2 LT-10	30	≥2.7	≥11	≥30	10000	42	103
TDPZ0,2 LT-5	40	≥4.8	≥20	≥54	10000	70	170
TDPZ0,2 LT-4	60	≥11	≥44	≥120	10000	160	390
TDPZ0,2 LT-3	100	≥30	≥120	---	6000	445	1080
Superimposed ripple (for τ _{RC} = 0.7 ms):		≤0.5% (peak-peak)		≤0.2% (rms)			

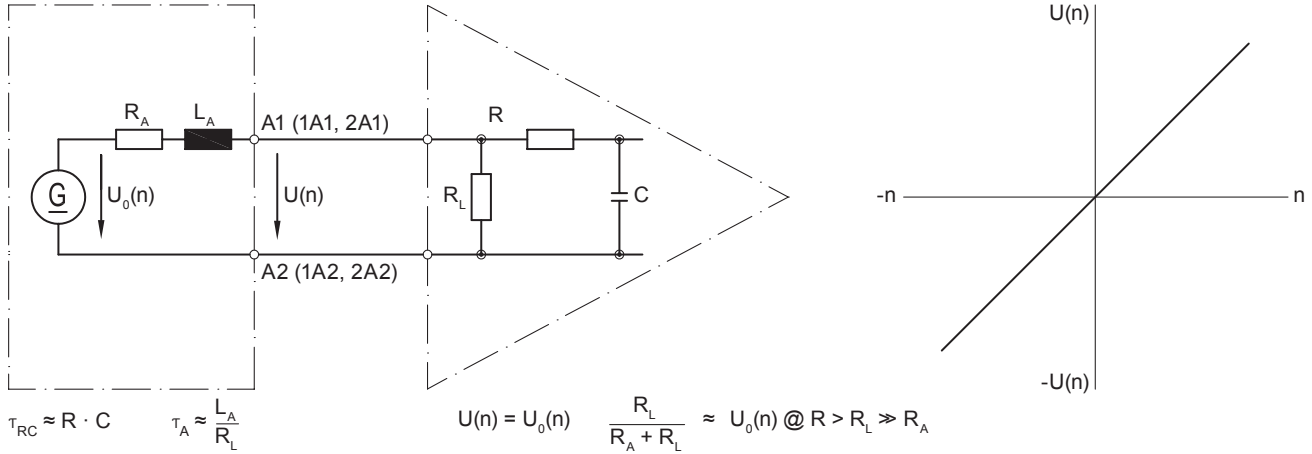
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Equivalent circuit diagram

Tachogenerator



Polarity for positive rotating direction (see dimension) / A1 (1A1, 2A1): + (VDE) / A2 (1A2, 2A2): - (VDE)

Accessories

Mounting accessories

- Spring disk coupling K 35 (shaft ø6...12 mm)
- Spring disk coupling K 50 (shaft ø11...16 mm)
- Spring disk coupling K 60 (shaft ø11...22 mm)