RE.0110
RE.0122

Direct Current Tachometer generator

RADIO-ENERGIE
The best signal since 1928

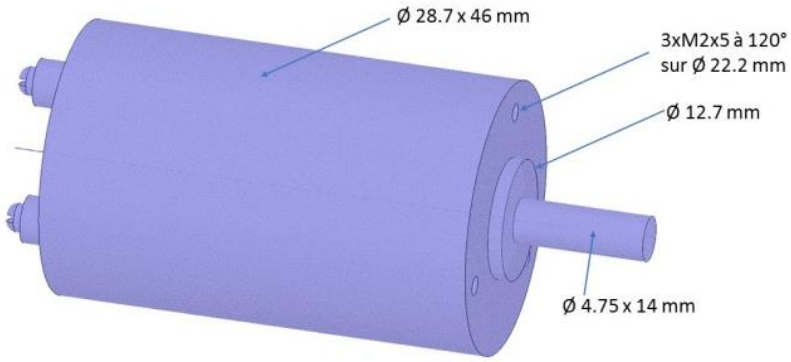
Destination :

- General applications
- Small dimensions

Description :

- Small size DC tachometer generator
- Permanent magnets
- Armature with frontal commutator
- Connection on two terminals used also as brush-holders
- Flange B 14

DIAGRAM



MAIN CHARACTERISTICS

DESIGNATION	SYMB	UNIT	VALUES RE.0110	VALUES RE.0122
Max. speed (mechanical)	n_m	rpm	12 000	12 000
Moment of inertia	J	Kg cm^3	0.011	0.024
No load driving torque	Mr	N.cm	0.10	0.16
Max. radial shaft stress	F	da N	0.10	0.10
Maximum E.M.F.	E_m	V	100	100
Maximum linearity error	ΔE	$\%E_T$	≤ 0.15	≤ 0.15
Overall ripple rate (peak to peak)	ΔE_c	$\%E_c$	≤ 3	≤ 3
Rotation harmonics (f=2 p.n)	ΔE_p	$\%E_c$	≤ 3	≤ 3
Slot harmonics (f=Z.n.)	ΔE_z	$\%E_c$	≤ 2.7	≤ 2.7
Calibration precision	ΔE_o	$\%E_{To}$	±1	±1
E.M.F. temp. drift	ΔE_e			
• Not compensated			-	-
• Compensated		% /°C	0.005	0.005
Time constant	C_t	ms	0.2	0.2
*Filter: Time constant		ms	0.33	0.33
Load current		mA	3	3
Speed		rpm	3 000	3 000

CONSTRUCTION DETAILS	
Number of poles 2p	2
Number of armature slots	11
Number of collector blades	11
Insulation class	B (IEC34-1)
Operating temperature	-30°C -130°C
Climatic protection	C_a (IEC68-11)
Protection degree	IP 44 (IEC3A-S)
Direction of rotation:	réversible
Excitation: permanent magnets	Alnico

	RE.0110	RE.0122
Net weight	**0.10 kg**	**0.15 kg**

CE

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MECHANICAL OPTIONS

Shaft ends and bearings

	MOUNTING SIDE			OPPOSITE MOUNTING SIDE (on request)		
	D (mm)	L (mm)	Bearings	D (mm)	L (mm)	Bearings
Standard	4.75	14	5 x 13 x 4 ZZ	-	-	3 x 8 x 3 FF
Max	4.75	-	5 x 13 x 4 ZZ	-	-	3 x 8 x 3 FF

Markings and polarity of terminals (cables) for counter-clockwise rotation, seen from the shaft.

A1 : +
A2 : -

ELECTRICAL OPTIONS

DESCRIPTION	SYMB	UNIT		VALUES Min.							Max.
E.M.F. at 1 000 rpm	E_n	V	RE.0110	2	3	5	7				
			RE.0122					8	10	15	20
Voltage gradient	C_v	V/rpm	RE.0110	0.002	0.003	0.005	0.007				
			RE.0122					0.008	0.010	0.015	0.020
Armature resistance	R_a	Ω	RE.0110	50	80	215	460				
			RE.0122					185	290	670	900
Max. thermal load	I_{th}	A	RE.0110	0.05	0.05	0.03	0.02				
			RE.0122					0.04	0.03	0.02	0.02
Max. allowed speed	n_a	rpm	RE.0110	12 000	12 000	12 000	12 000				
			RE.0122					12 000	10 000	6 500	5 000

BRUSHES

GRADE	CODE	APPLICATION LIMITS	DIMENSIONS	NUMBER
CA - Carbo-argent		Standard < 100 V	2.5 x 2.5 x 6 mm	2

PRODUCT DESCRIPTION

RE.0110 B C 1x7 CA IP44 4.75x14

- Type
- **B** – Flange
- **C** - T° compensation (optional)
- **1x** – 1 commutator
- **4.75x14**– Standard shaft
- **IP44** - Standard
- **EG** – Electrographite
  CA – Silver-graphite
- Voltage at 1000 rpm

When inquiring, please advise the serial number of the tachogenerator to be replaced.

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