

RE.0444R - Robust

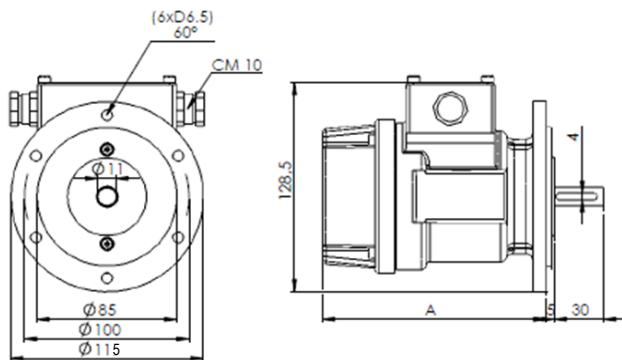
Direct Current Tachometer generator



- Applications :**
- Industry
 - Speed control & regulation

- Features :**
- Robust design
 - High quality signal
 - Terminal box
 - Mechanical combinations with encoders & speed switches
 - Various electrical options

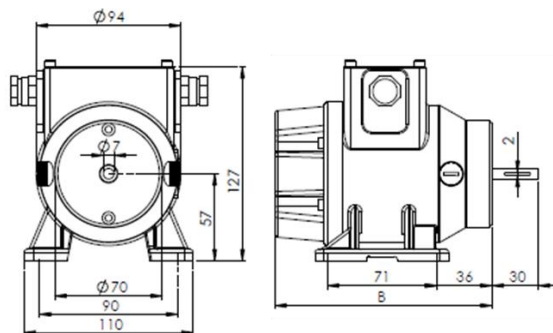
RE.0444R – B5 flange



1 commutator 2 commutators

A **136 mm** **155 mm**

RE.0444R – B3 foot



1 commutator 2 commutators

B **142 mm** **161 mm**

MAIN CHARACTERISTICS

DESCRIPTION	SYMB	VALUE
Max. speed	n_m	12 000 rpm
Moment of inertia	J	0,95 Kg cm ²
No-load driving torque	M_r	1,5 N.cm
Max. radial shaft stress	F	1,0 da N
Maximum E.M.F.	E_m	600 V
Maximum linearity error	ΔE	$\leq 0,15 \% E_T$
Overall ripple rate (peak to peak)	ΔE_c	$\leq 0,5 \% E_c$
Rotation harmonics (f=2 p.n)	ΔE_p	$\leq 0,2 \% E_c$
Slots harmonics (f=Z.n.)	ΔE_z	$\leq 0,3 \% E_c$
Calibration precision	ΔE_o	+ 1 % E_{T_o}
E.M.F. temperature drift		
Not compensated	ΔE_c	0,02 %/°C
Compensated		0,005 %/°C
Time constant	C_t	2,5 ms
*Filter :		
Time constant of filter		0,47 ms
Load current		5 mA
Speed		3000 rpm

CONSTRUCTION DETAILS

Number of poles	2
Armature slots number	19
Commutator blades number	57
Insulation class	B (IEC 34-1)
Operating temperature	-30 °C +130 °C
Climatic protection	C _a (IEC 68-1)
Ingress protection	IP54 (IEC 34-5)
Direction of rotation	reversible
Excitation: Permanent magnets:	Alnico

Net weight **2,8 kg (1 commutator)**
3,2 kg (2 commutators)



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MECHANICAL OPTIONS

	MOUNTING SIDE			OPPOSITE MOUNTING SIDE (upon request)		
	D (mm)	L (mm)	Ball-bearing	D (mm)	L (mm)	Ball-bearing
Standard shaft	11	30	12 x 28 x 8 ZZ	7	30	8 x 22 x 7 ZZ
Special shaft	14 max	30	15 x 32 x 9 ZZ	8 max	30	8 x 22 x 7 ZZ

Various adaptors available for mounting devices on the rear of the tachometer generator.



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

1 COMMUTATOR	2 COMMUTATORS
1 A1 : +	2 A1 : +
1 A2 : -	2 A2 : -

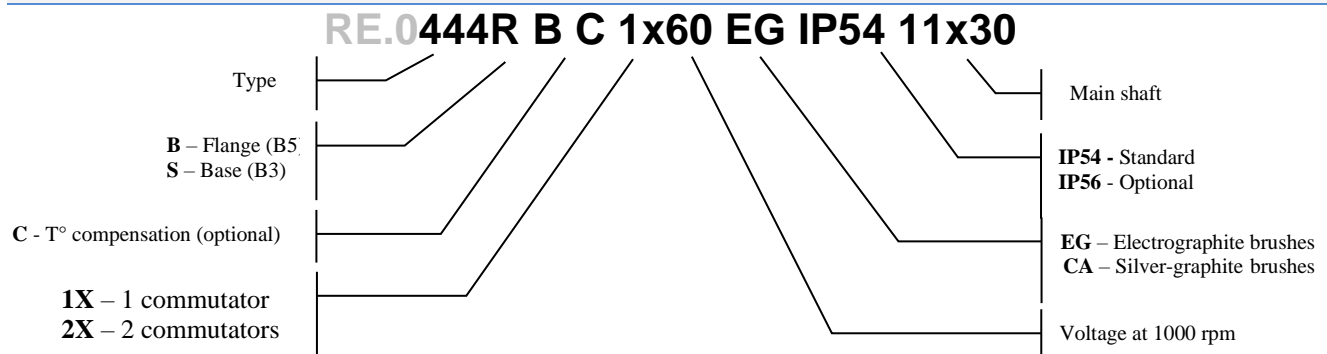
ELECTRICAL OPTIONS

DESCRIPTION	SYMB	UNIT	VALUES											
			1 com.	6	20	30	40	50	60	80	100	120	150	200
E.M.F. at 1 000 rpm	E _n	V	1 com.	6	20	30	40	50	60	80	100	120	150	200
			2 com.	2 x 20	2 x 30		2 x 50	2 x 60		2 x 100				
Voltage gradient	C _v	V/rpm	1 com.	0,006	0,020	0,030	0,040	0,050	0,060	0,080	0,100	0,120	0,150	0,200
			2 com.	2 x 0,02	2 x 0,03		2 x 0,05	2 x 0,06		2 x 0,1				
Armature resistance	R _a	Ω	1 com.	1,50	12	28	45	70	100	180	280	400	640	900
			2 com.	2 x 24	2 x 55		2 x 150	2 x 200		2 x 470				
Max thermal load	I _{th}	A	1 com.	1,4	0,55	0,35	0,25	0,22	0,18	0,14	0,11	0,09	0,07	0,07
			2 com.	2 x 0,23	2 x 0,14		2 x 0,09	2 x 0,09		2 x 0,05				
Max. Allowed speed	n _a	rpm	EG	12 000	12 000	12 000	12 000	12 000	10 000	7 500	6 000	5 000	4 000	3 000
			CA	6 000	6 000	6 000	6 000	6 000	5 000	3 750	3 000	2 500	2 000	1 500

BRUSHES

GRADE	PART NO	MAX OUTPUT VOLTAGE	DIMENSIONS	QUANTITY
EG - Electrographite	/0002607	600 V	3,1 x 4,1 x 12,5 mm	4
CA - Silver-graphite	/0001397	< 300 V		

PRODUCT DESCRIPTION



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

RADIO-ENERGIE

Route de Nonnes-86100 CHATELLERAULT - FRANCE - Tel : +33 5 49 21 76 22 - Fax : +33 5 49 93 26 79

www.radio-energie.eu

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