

## RE.0444 R (Robust)

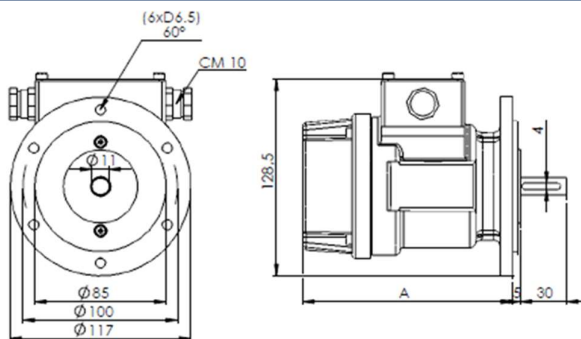
### Direct Current Tachometer generator



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

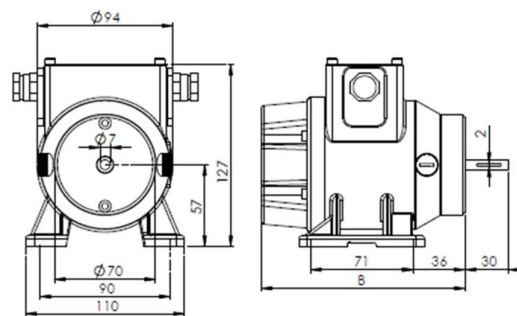
- Features :**
- Robust design
  - High quality signal
  - Terminal box
  - Mechanical combinations with encoders & speed switches
  - Various electrical options

#### RE.0444R – B5 flange



	1 commutator	2 commutators
<b>A</b>	<b>136 mm</b>	<b>155 mm</b>

#### RE.0444R – B3 foot



	1 commutator	2 commutators
<b>B</b>	<b>142 mm</b>	<b>161 mm</b>

### MAIN CHARACTERISTICS

DESCRIPTION	SYMB	VALUE
Max. speed	$n_m$	12 000 rpm
Moment of inertia	J	0,95 Kg cm <sup>2</sup>
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	$\Delta E$	$\leq 0,15 \% E_T$
Overall ripple rate (peak to peak)	$\Delta E_c$	$\leq 0,5 \% E_c$
Rotation harmonics (f=2 p.n)	$\Delta E_p$	$\leq 0,2 \% E_c$
Slots harmonics (f=Z.n.)	$\Delta E_z$	$\leq 0,3 \% E_c$
Calibration precision	$\Delta E_o$	$+ 1 \% E_{T_o}$
E.M.F. temperature drift		
Not compensated	$\Delta E_c$	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 <sub>a</sub> (IEC 68-1)
Ingress protection	IP54 (IEC 34-5)
Direction of rotation	reversible
Excitation: Permanent magnets:	Alnico

<b>Net weight</b>	<b>2,8 kg (1 commutator)</b> <b>3,2 kg (2 commutators)</b>
-------------------	---



## 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 : -

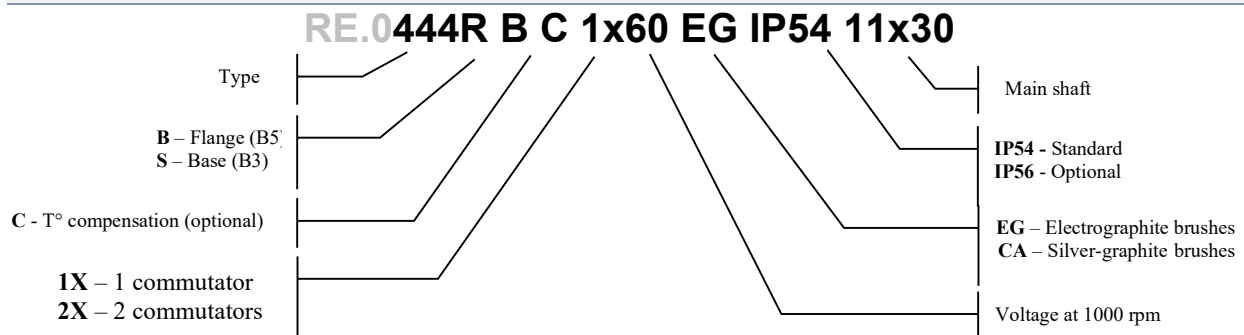
## ELECTRICAL OPTIONS

DESCRIPTION	SYMB	UNIT	VALUES											
E.M.F. at 1 000 rpm	E <sub>n</sub>	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 <sub>v</sub>	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 <sub>a</sub>	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 <sub>th</sub>	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 <sub>a</sub>	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.

## Main Item / Part Number for RE.444 R



OUR CODE		OUR PRODUCT DESCRIPTION	Types	Mounting Type	Charac. at 1000 rpm	Comp.	Brush	IP	Shaft
<b>RE.0 444 R STANDARD 1X60 V</b>									
		<b>RE.0 444 R STANDARD 1X60 V</b>	<b>STANDARD</b>						
0000025	RE.0	444R B 1X60 EG IP54 11X30	RE.0444 R1	B > Flange	60 V		EG	54	11x30
0000026	RE.0	444R B 1X60 CA IP54 11X30	RE.0444 R1	B > Flange	60 V		CA	54	11x30
0000031	RE.0	444R S 1X60 EG IP54 11X30	RE.0444 R1	S > Foot	60 V		EG	54	11x30
0000032	RE.0	444R S 1X60 CA IP54 11X30	RE.0444 R1	S > Foot	60 V		CA	54	11x30
<b>RE.0 444 R 1X60 V with Sealing Ring IP 56</b>									
		<b>RE.0 444 R SPECIAL 1X60 V with Sealing Ring</b>	<b>SPECIAL</b>						
0000158	RE.0	444R B 1X60 EG IP56 11X30	RE.0444 R1	B > Flange	60 V		EG	56	11x30
0000027	RE.0	444R B 1X60 CA IP56 11X30	RE.0444 R1	B > Flange	60 V		CA	56	11x30
0006619	RE.0	444R S 1X60 EG IP56 11X30	RE.0444 R1	S > Foot	60 V		EG	56	11x30
0017388	RE.0	444R S 1X60 CA IP56 11X30	RE.0444 R1	S > Foot	60 V		CA	56	11x30
<b>RE.0 444 R 1X60V with Temperature Compensation</b>									
		<b>RE.0 444 R SPECIAL 1X60 V with Temp. Compensation</b>	<b>SPECIAL</b>						
0000131	RE.0	444R B C1X60 EG IP54 11X30	RE.0444 R1	B > Flange	60 V	C	EG	54	11x30
0000029	RE.0	444R B C1X60 CA IP54 11X30	RE.0444 R1	B > Flange	60 V	C	CA	54	11x30
0005128	RE.0	444R S C1X60 EG IP54 11X30	RE.0444 R1	S > Foot	60 V	C	EG	54	11x30
0000033	RE.0	444R S C1X60 CA IP54 11X30	RE.0444 R1	S > Foot	60 V	C	CA	54	11x30
<b>RE.0 444 R 1X60 V with Temp. Compensation &amp; Sealing Ring</b>									
		<b>RE.0 444 R SPECIAL 1X60 V with Temp. Compensation and Sealing Ring</b>	<b>SPECIAL</b>						
0016333	RE.0	444R B C1X60 EG IP56 11X30	RE.0444 R1	B > Flange	60 V	C	EG	56	11x30
0005372	RE.0	444R B C1X60 CA IP56 11X30	RE.0444 R1	B > Flange	60 V	C	CA	56	11x30
0016816	RE.0	444R S C1X60 EG IP56 11X30	RE.0444 R1	S > Foot	60 V	C	EG	56	11x30
0018372	RE.0	444R S C1X60 CA IP56 11X30	RE.0444 R1	S > Foot	60 V	C	CA	56	11x30

OUR CODE		OUR PRODUCT DESCRIPTION	Types	Mounting Type	Charac. at 1000 rpm	Comp.	Brush	IP	Shaft
<b>RE.0 444 R 1x20 to 200V</b>									
		<b>RE.0 444 R SPECIAL (1x60 V excluded)</b>	<b>SPECIAL</b>						
0002029	RE.0	444 R B 1X20 EG IP54 11X30	RE.0444 R1	B > Flange	20 V		EG	54	11x30
0002039	RE.0	444 R B 1X40 EG IP54 11X30	RE.0444 R1	B > Flange	40 V		EG	54	11x30
0007015	RE.0	444 R B 1X40 CA IP54 11X30	RE.0444 R1	B > Flange	40 V		CA	54	11x30
0024793	RE.0	444 R B 1X50 CA IP54 11X30	RE.0444 R1	B > Flange	50 V		CA	54	11x30
0000132	RE.0	444 R B 1X100 EG IP54 11X30	RE.0444 R1	B > Flange	100 V		EG	54	11x30
0006439	RE.0	444 R B 1X100 CA IP54 11X30	RE.0444 R1	B > Flange	100 V		CA	54	11x30
0025629	RE.0	444 R B 1X100 CA IP54 14X40	RE.0444 R1	B > Flange	100 V		CA	54	14X40
0019399	RE.0	444 R B 1X120 EG IP54 11X30	RE.0444 R1	B > Flange	120 V		EG	54	11x30
0008119	RE.0	444 R B 1X120 CA IP54 11X30	RE.0444 R1	B > Flange	120 V		CA	54	11x30
0001696	RE.0	444 R S 1X120 CA IP54 11X30	RE.0444 R1	S > Foot	120 V		CA	54	11x30
0005561	RE.0	444 R B 1X150 EG IP54 11X30	RE.0444 R1	B > Flange	150 V		EG	54	11x30
0005129	RE.0	444 R B 1X150 CA IP54 11X30	RE.0444 R1	B > Flange	150 V		CA	54	11x30
0006692	RE.0	444 R S 1X150 CA IP54 11X30	RE.0444 R1	S > Foot	150 V		CA	54	11x30
0005838	RE.0	444 R S 1X150 EG IP54 11X30	RE.0444 R1	S > Foot	150 V		EG	54	11x30
0005667	RE.0	444 R B 1X200 EG IP54 11X30	RE.0444 R1	B > Flange	200 V		EG	54	11x30
0008384	RE.0	444 R B 1X200 CA IP54 11X30	RE.0444 R1	B > Flange	200 V		CA	54	11x30
Other Configuration (Voltage, shaft,...)option ( Brush,...) on request									
<b>RE.0 444 R 1x20 to 200V with Sealing Ring IP 56</b>									
		<b>RE.0 444 R SPECIAL with Sealing Ring (1x60 V excluded)</b>	<b>SPECIAL</b>						
0006479	RE.0	444R B 1X20 CA IP56 11X30	RE.0444 R1	B > Flange	20 to 200V		EG	56	11x30
Other Configuration (Voltage, shaft,mounting...)option ( Brush,...) on request									
<b>RE.0 444 R 1x20 to 200V with Temperature Compensation</b>									
		<b>RE.0 444 R SPECIAL with Temp. Compensation (1x60 V excluded)</b>	<b>SPECIAL</b>						
0007614	RE.0	444 R B C1X20 CA IP54 11X30	RE.0444 R1	B > Flange	20 V	C	CA	54	11x30
0022465	RE.0	444 R B C1X40 EG IP54 11X30	RE.0444 R1	B > Flange	40 V	C	EG	54	11x30
0007343	RE.0	444 R B C1X40 CA IP54 11X30P	RE.0444 R1	B > Flange	40 V	C	CA	54	11x30P
0023715	RE.0	444 R S C1X100 EG IP54 11X30	RE.0444 R1	S > Foot	100 V	C	EG	54	11x30
Other Configuration (Voltage, shaft,mounting...)option ( Brush,...) on request									
<b>RE.0 444 R STANDARD 2X60 V</b>									
0000035	RE.0	444R B 2X60 EG IP54 11X30	RE.0444 R2	B > Flange	2x60 V		EG	54	11x30
0000036	RE.0	444R B 2X60 CA IP54 11X30	RE.0444 R2	B > Flange	2x60 V		CA	54	11x30
0000039	RE.0	444R S 2X60 EG IP54 11X30	RE.0444 R2	S > Foot	2x60 V		EG	54	11x30
0000040	RE.0	444R S 2X60 CA IP54 11X30	RE.0444 R2	S > Foot	2x60 V		CA	54	11x30

OUR CODE		OUR PRODUCT DESCRIPTION	Types	Mounting Type	Charac. at 1000 rpm	Comp.	Brush	IP	Shaft
<b>RE.0 444 R 2X60 V with Sealing Ring IP 56</b>									
		<b>RE.0 444 R SPECIAL 2X60 V with Sealing Ring</b>	<b>SPECIAL</b>						
0006248	RE.0	444R B 2X60 EG IP56 11X30	RE.0444 R2	B > Flange	2x60 V		EG	56	11x30
0000037	RE.0	444R B 2X60 CA IP56 11X30	RE.0444 R2	B > Flange	2x60 V		CA	56	11x30
On request	RE.0	444R S 2X60 EG IP56 11X30	RE.0444 R2	S > Foot	2x60 V		EG	56	11x30
C4R20E100A60	RE.0	444R S 2X60 CA IP56 11X30	RE.0444 R2	S > Foot	2x60 V		CA	56	11x30
<b>RE.0 444 R 2X60 V with Temperature Compensation</b>									
		<b>RE.0 444 R SPECIAL 2X60 V with Temp. Compensation</b>	<b>SPECIAL</b>						
0002083	RE.0	444R B C2X60 EG IP54 11X30	RE.0444 R2	B > Flange	2x60 V	C	EG	54	11x30
0000038	RE.0	444R B C2X60 CA IP54 11X30	RE.0444 R2	B > Flange	2x60 V	C	CA	54	11x30
0012139	RE.0	444R S C2X60 EG IP54 11X30	RE.0444 R2	S > Foot	2x60 V	C	EG	54	11x30
0000125	RE.0	444R S C2X60 CA IP54 11X30	RE.0444 R2	S > Foot	2x60 V	C	CA	54	11x30
<b>RE.0 444 R 2X60 V with Temp. Compensation &amp; Sealing Ring</b>									
		<b>RE.0 444 R SPECIAL 2X60 V with Temp. Compensation and Sealing Ring</b>	<b>SPECIAL</b>						
0019322	RE.0	444R B C2X60 EG IP56 11X30	RE.0444 R2	B > Flange	2x60 V	C	EG	56	11x30
0006618	RE.0	444R B C2X60 CA IP56 11X30	RE.0444 R2	B > Flange	2x60 V	C	CA	56	11x30
0009027	RE.0	444R S C2X60 EG IP56 11X30	RE.0444 R2	S > Foot	2x60 V	C	EG	56	11x30
On request	RE.0	444R S C2X60 CA IP56 11X30	RE.0444 R2	S > Foot	2x60 V	C	CA	56	11x30
<b>RE.0 444 R 2x20 to 100V</b>									
		<b>RE.0 444 R SPECIAL (2X60 V excluded)</b>	<b>SPECIAL</b>						
0006567	RE.0	444 R B C2X100 CA IP54 11X30	RE.0444 R2	B > Flange	2X(20 to 100)		CA	54	11x30
Other Configuration (Voltage, shaft,mounting Comp T°...)option ( Brush,IP...) on request									