

TYPE

RDC 30

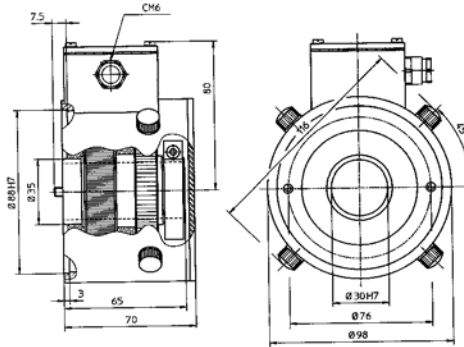


DESTINATION

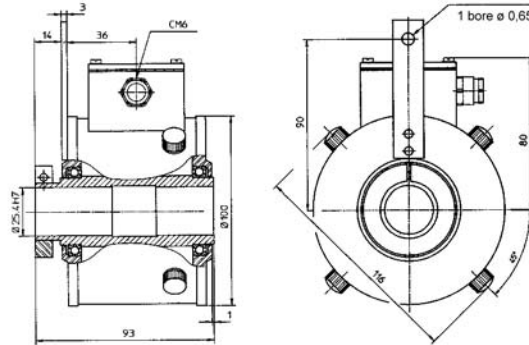
- Industrial applications

DISCRIPTION

- Hollow shaft tachometer generator (BF)
- Option with bearing, direct mounting on shaft (MF)
- Permanent magnet excitation
- Large bore
- Mounted on smooth shaft



RDC 30 BF



RDC 30 MF

Weight	kg	1,8
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ALLGEMEINE KENNDATEN

Designation	Symbol	Unit	Value
Maximum speed (mechanical)	n_m	rpm	7500
Moment of inertia	J	kg cm ²	3,5
No load driving torque	M_r	N. cm	≤ 0,7
Maximum E.M.F.	E_m	V	300
Maximum linearity error	ΔE	% E_T	≤ 0,15
Overall ripple rate (peak to peak)	ΔE_c	% E_c	≤ 0,6
Rotation harmonics (f = 2 p. n.)	ΔE_p	% E_c	≤ 0,05
Slot harmonics (f = Z. n.)	ΔE_z	% E_c	≤ 0,55
Calibration precision	ΔE_o	% E_{T_o}	± 2,0
E.M.F. temperature drift - not compensated - compensated	ΔE_e	% /°C	0,005 -
Time constant	Ct	ms	0,7
*Filter:	RF x CF	ms	0,1
Load current	I_c	mA	1,5
Speed	n	rpm.	3000

Construction Details	
Number of poles	4
Number of armature slots	33
Number of collector blades	33
Insulation class	B (IEC 34-1)
Operating temperature	-20° - 110 °C
Climatic protection	C _a (IEC 68-1)
Protection degree	IP 44 (IEC 34-5)**
Direction of rotation	Reversible
Excitation	Permanent magnets Alnico

* Filter-connection diagram see following pages
 ** The protection degree refers to a mounted machine

Rev.: 02

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Mechanical options

Armature bore Ø d (mm)			Motor centring end frame Ø D (mm)			Armature clamping device
Standard	Max.	Min.	Standard			
MF	30					
BF	30	17	88			Collet

Options

- With bearings, direct mounting on shaft (MF)

Available options

- On request

Markings and Polarity of Terminals (cables) for counter clockwise rotation viewing the mounting face

1 collector	2 collector
A1: + - A2: -	

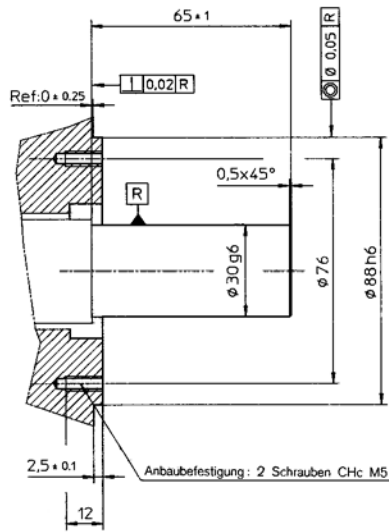
Electrical options

			Min.					Max.					
E.M.F. at 1000 rpm.	E_n	V	10	20	30	40	50	60					
Voltage gradient	C_v	V/rpm	0,01	0,02	0,03	0,04	0,05	0,06					
Armature resistance	R_a	Ω	8	33	73	130	200	290					
Max. thermal load	I_{th}	A	400	200	150	100	80	60					
Max. allowed speed	n_a	rpm	7500	7500	7500	7500	6000	5000					

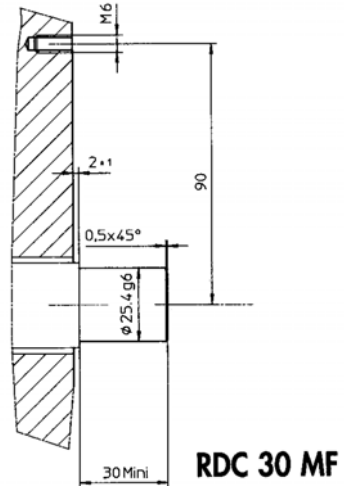
Brushes

Number	Size	Quality	Application limits	Reference
4	4 x 5 x 12	Electro-graphite (EG)	Special applications, on request	
		Silver-graphite (CA)	STANDARD for normal use at E.M.F. < 300 V	50 - 40 - CA

MOUNTING INSTRUCTIONS

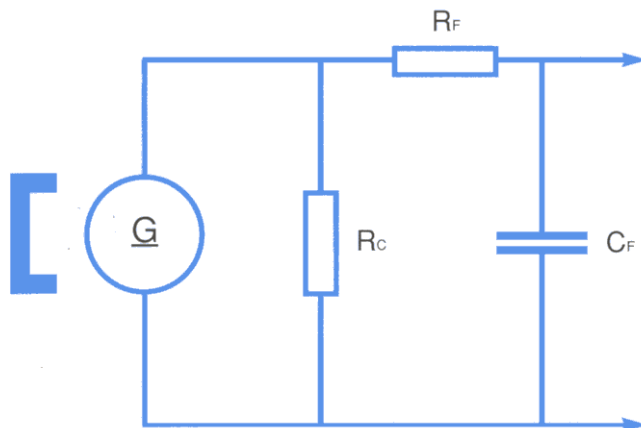


RDC 30 BF



RDC 30 MF

Filter Scheme



R_C : Load resistance
 R_F : Filter resistance
 C_F : Filter capacity