DC-Tachogenerators

Precious Metal Commutation

Series 2225

		2225 U 4,3 G9			
EMF constant	k_E	4,3			mV/rpm
		41,1			mV/rad/s
Tolerance of EMF constant		± 1			%
Load resistance	R_L ≥	25			kΩ
Recommended max. speed:					
– for continuous operation	$n_{e\ max.}$	5 000			rpm
Current, max. recommended		limited by the load resistance			
Terminal resistance	R	260			Ω
Ripple, peak-peak, typical		7			%
Ripple, frequency, cycles		10			per turn
Linearity, without load ...					
between 500 rpm and 5 000 rpm	±	0,2			%
Reversion error	±	0,2			%
Temperature coefficient of EMF		0,02			%/°C
Temperature coefficient of armature resistance		0,4			%/°C
Rotor inductance	L	7 000			µH
Rotor inertia	J	1,65			gcm²
Commutator segments		5			gold alloy
Operating temperature range:					
– standard		– 30 ... + 85			°C
– optional		– 30 ... + 125			°C
Shaft bearings		sintered bronze sleeves	ball bearings	ball bearings, preloaded	
Shaft load max.:		(standard)	(optional)	(optional)	
– with shaft diameter		2,0	2,0	2,0	mm
– radial at 3 000 rpm (3 mm from bearing)		1,5	8	8	N
– axial at 3 000 rpm		0,2	0,8	0,8	N
– axial at standstill		20	10	10	N
Shaft play:					
– radial	≤	0,03	0,015	0,015	mm
– axial	≤	0,2	0,2	0	mm
Weight		45	61	61	g
Housing material		steel, zinc galvanized and passivated			
Direction of rotation		reversible			
Polarity		+ on plus pole if shaft is driven in clockwise direction			

Design
These tachogenerators feature the patented skew wound ironless rotors (System FAULHABER®).

Commutation system
Commutator and brushes are made of high quality gold alloy and provide a minimized but constant contact resistance as well as insensibility to changes in environment.

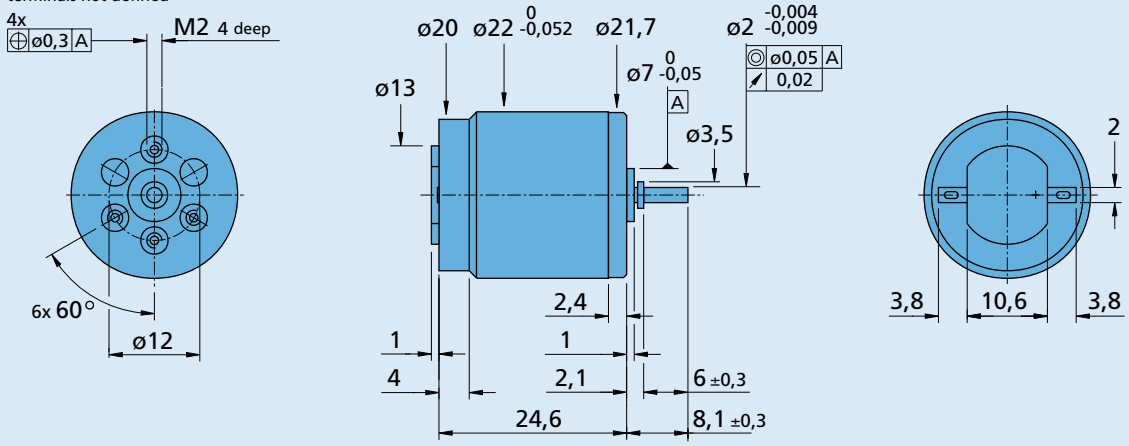
Advantages
This unique design exhibits the following advantages:

- excellent commutation signal
- linear speed/back-EMF characteristics
- high efficiency
- low armature inertia
- smooth running
- extreme low starting friction – even after long standstill

For notes on technical data and lifetime performance refer to "Technical Information".

Dimensional drawings

Orientation with respect to generator terminals not defined



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