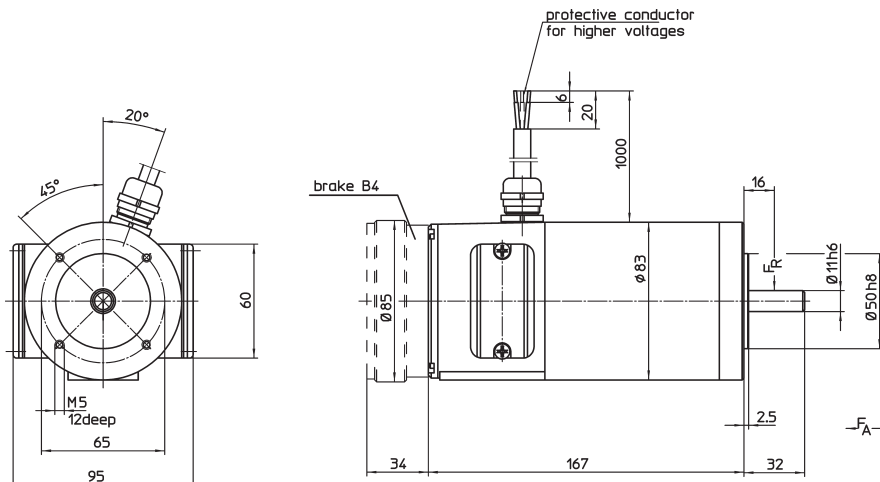




GNM 5440

DC Motors
with permanent magnet field

Motor series GNM 5440
up to 150 Watts output power
with + without parking brake

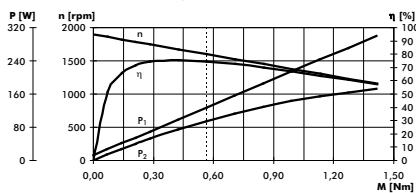


Operation characteristics:

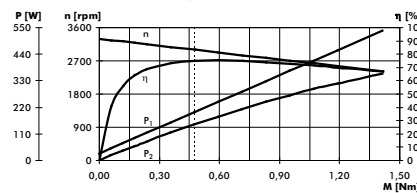
n - Speed
 η - Efficiency

P_1 - Input power
 P_2 - Output power

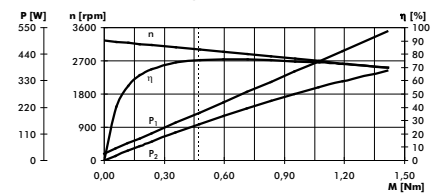
GNM5440, 24V, 1600rpm



GNM5440, 24V, 3000rpm



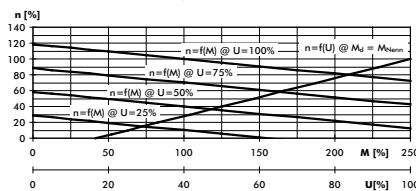
GNM5440, 42V, 3000rpm



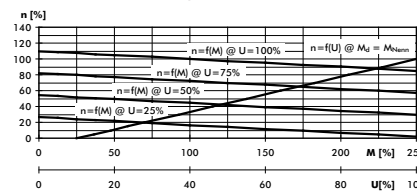
Control characteristics :

$n=f(M)$ - Speed as a torque function
 $n=f(U)$ - Speed as a supply voltage function

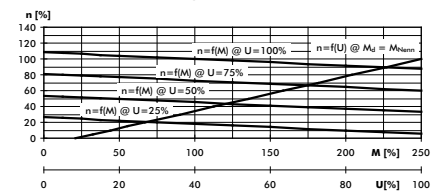
GNM5440, 24V, 1600rpm



GNM5440, 24V, 3000rpm



GNM5440, 42V, 3000rpm



		GNM 5440			
		E			
type series	rpm	1 600	3 000	3 000	3 000
nominal speed	V	24	24	42	42
nominal voltage	A	5,3	8,3	4,75	4,75
nominal current	W	95	150	150	150
nominal power					
operation acc. to VDE 0530					
protection acc. to VDE 0530					
connection					
rotating direction					
design					
					IP 54 light plastic-sheathed cable reversible IMB 14
mechanical data:					
mass moment of inertia	kgm ²				0,2*10 ⁻³
nominal torque	Nm	0,567	0,477	0,477	0,477
starting torque	Nm	3,1	3,8	3,8	3,8
max. continuous torque at stall	Nm	0,59	0,59	0,59	0,59
speed regulation constant	N ⁻¹ cm ⁻¹ rpm	5,2	6,2	5,2	5,2
mechanical time constant	ms	10,8	12,9	10,8	10,8
friction torque	Nm	0,06	0,08	0,08	0,08
rotor weight	kg		0,85		
motor weight	kg		2,8		
motor weight incl. parking brake	kg		3,9		
ball bearings					6201/6200
F _r (allowable radial shaft load)					140
F _A (allowable axial shaft load)					56
electrical data:					
armature resistance	Ω	0,7	0,24	0,7	0,7
armature inductance	mH	2,2	0,7	2,2	2,2
terminal resistance	Ω	0,75	0,29	0,75	0,75
voltage constant	V/1000 rpm	12,34	7,02	12,34	12,34
torque constant	Nm/A	0,118	0,067	0,118	0,118
starting current	A	30	74	50	50
max. peak current ¹⁾	A	37	65	37	37
electrical time constant	ms	2,9	2,4	2,9	2,9
thermal data:					
max. ambient temperature	°C		40		
insulation class acc. to VDE 0530			F		
thermal time constant	min		40		
temperature-rise without cooling	K/W		2,2		
parking brake B 4:					
nominal voltage	V		24		
nominal current	A		0,14		
static break torque (motor shaft)	Nm		1		
max. number of operations per hour			2000		
Tolerances acc. to standard VDE 0530. ± 10 % is valid for not VDE mentioned tolerances.					
The values mentioned in the table are valid for supply with DC voltage with allowable harmonic content up to 5%. For undulatory current with increased harmonic content the rated motor values must be multiplied by 0,7.					
1) The values are valid for operation in temperature-ranges from 0 up to 40°C and it is not allowed to exceed them, even not for a short-time, to avoid magnet-weakening.					
<ul style="list-style-type: none"> ● Motors also available with DC tachogenerator and/or incremental encoder. ● Motors also available with device plug DIN 43650. 					
Motor design: Brushed 2-pole DC motor with permanent magnet field. Brush holder opening will be accessible by removing the cover plate. Flange mounting with 4 threads (see drawing). Rotating direction: The rotating direction can be changed by inverting the connections. 1. Order example Motor GNM 5440E 24 V, 1 600 rpm, 95 W Special designs on request. 2. Order example Motor GNM 5440E 42 V, 3 000 rpm, 150 W - parking brake - B 4 - 24 V					