

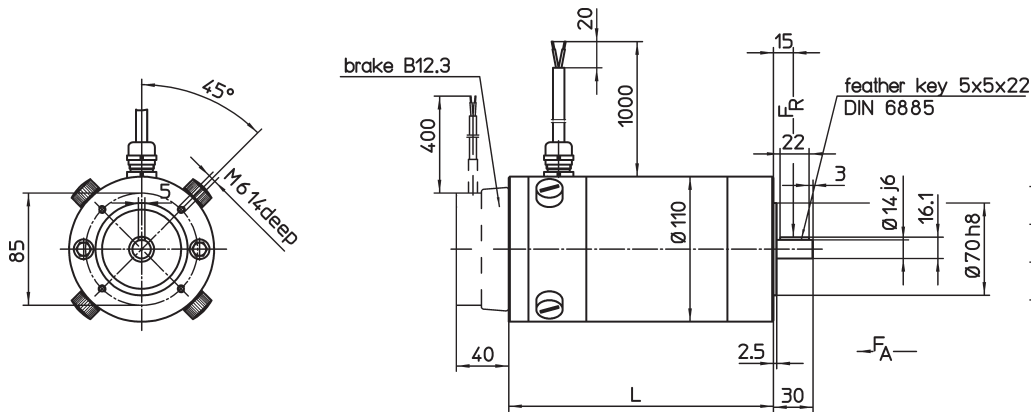


GNM 80

DC Motors

with permanent magnet field

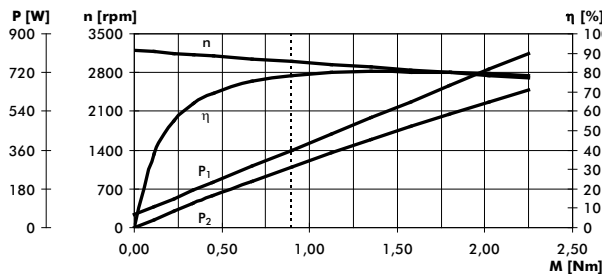
Motor series GNM 80
up to 500 Watts output power
with + without parking brake



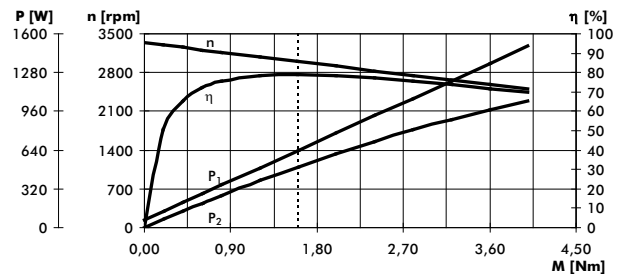
Type	Dimension L
GNM 8035/4	147
GNM 8070/4	202

Operation characteristics: n - Speed
 η - Efficiency P₁ - Input power
P₂ - Output power

GNM8035/4, 24V, 3000rpm

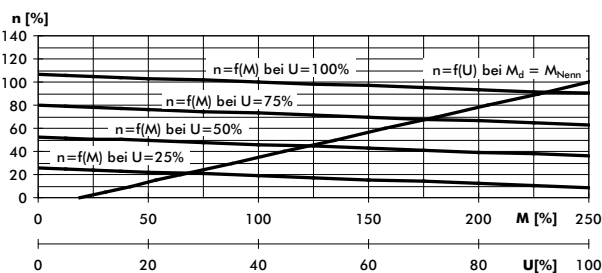


GNM8070/4, 24V, 3000rpm

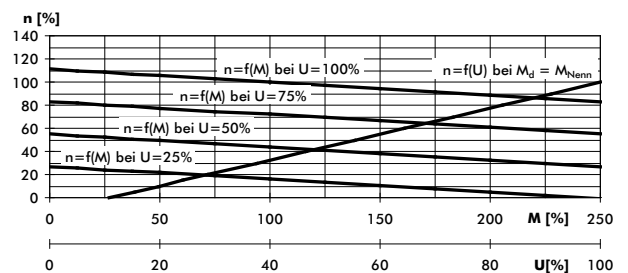


Control characteristics : n=f(M) - Speed as a torque function
n=f(U) - Speed as a supply voltage function

GNM8035/4, 24V, 3000rpm



GNM8070/4, 24V, 3000rpm



type series		GNM 8035/4	GNM 8070/4
nominal speed	rpm	3000	3000
nominal voltage	V	24	24
nominal current	A	15,2	27
nominal power	W	280	500
operation acc. to VDE 0530			S1
protection acc. to VDE 0530			IP 54
connection			light plastic-sheathed cable
rotating direction			reversible
design			B 14
mechanical data:			
mass moment of inertia	kgm ²	0,92*10 ⁻³	1,55*10 ⁻³
nominal torque	Nm	0,9	1,6
starting torque	Nm	6,5	9
max. continuous torque at stall	Nm	1,05	1,9
speed regulation constant	N ⁻¹ cm ⁻¹ rpm	2,2	2,1
mechanical time constant	ms	21,3	34
friction torque	Nm	0,18	0,18
rotor weight	kg	1,6	2,5
motor weight	kg	4,6	6,6
motor weight incl. parking brake	kg	5,6	7,6
ball bearings		6203/6201	
F _r (allowable radial shaft load)		200	
F _A (allowable axial shaft load)		80	
electrical data:			
armature resistance	Ω	0,07	0,03
armature inductance	mH	0,27	0,1
terminal resistance	Ω	0,12	0,098
voltage constant	V/1000 rpm	7,57	7
torque constant	Nm/A	0,072	0,067
starting current	A	160	195
max. peak current ¹⁾	A	103	150
electrical time constant	ms	2,3	1,02
thermal data:			
max. ambient temperature	°C	40	40
insulation class acc. to VDE 0530		F	F
thermal time constant	min	45	45
temperature-rise without cooling	K/W	1	0,71
parking brake B 12.3:			
nominal voltage	V		24
nominal current	A		1
static break torque (motor shaft)	Nm		5
max. number of operations per hour			2000
Tolerances acc. to standard VDE 0530. ± 10 % is valid for not VDE mentioned tolerances.			Motor design:
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.			Brushed 4-pole DC motor with permanent magnet field.
			Brush holder opening will be accessible by removing the screw caps.
			Flange mounting with 4 threads (see drawing).
¹⁾ The values are valid for operation in temperature-ranges from 0 up to 40°C and it is not allowed to excess them, even not for a short-time, to avoid magnet-weakening.			Rotating direction: The rotating direction can be changed by inverting the connections.
			1. Order example Motor GNM 8070/4 24 V, 3000 rpm, 500 W
			2. Order example Motor GNM 8035/4 24 V, 3000 rpm, 280 W - 24 V
			Special designs on request.