

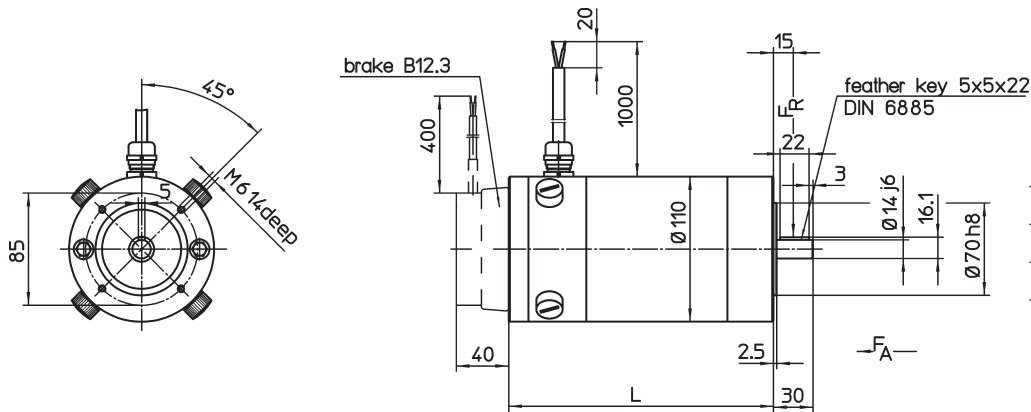


GNM 80

DC Motors

with permanent magnet field

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

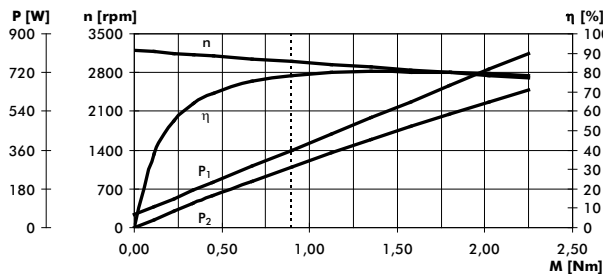


Type	Dimension L
GNM 8035/4	147
GNM 8070/4	202

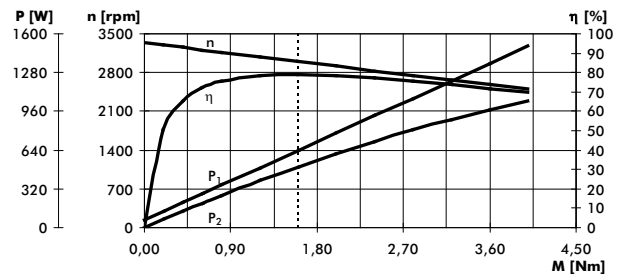
Operation characteristics:

n - Speed
 η - Efficiency
 P_1 - Input power
 P_2 - Output power

GNM8035/4, 24V, 3000rpm



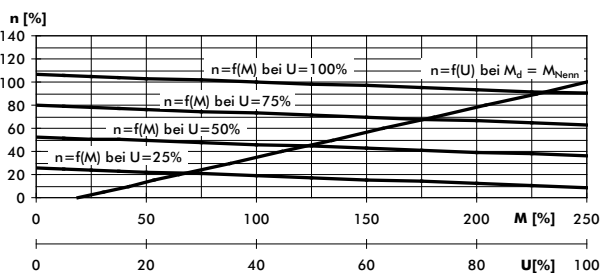
GNM8070/4, 24V, 3000rpm



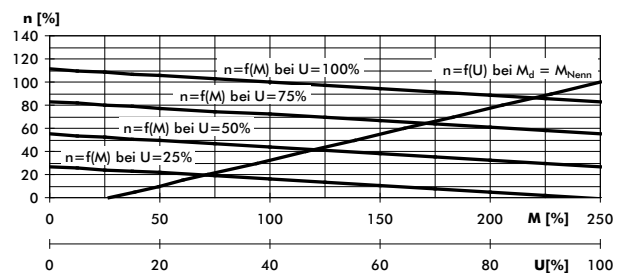
Control characteristics :

$n=f(M)$ - 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	
Motor design:				
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).				
Rotating direction:				
The rotating direction can be changed by inverting the connections.				
1. Order example				
2. Order example				
Motor				
GNM 8070/4				
GNM 8035/4				
24 V, 3000 rpm, 500 W				
24 V, 3000 rpm, 280 W				
- parking brake				
- B 12.3				
- 24 V				
Special designs on request.				