

Stock-types for Groschopp- / Yaskawa- motors

PD 065

M_2 up to 21 Nm

modern, smooth compact-gearbox

planetary gearbox

for AC-, DC-, servo- and stepping motors
(up to shaft- Ø 14 mm)

high output torque for compact models

load balancing between 3 planetary wheels

ratios from 3:1 to 100:1 possible

low backlash

high dynamic due to small moment of inertia

high turning stiffness

high overload reserves

optimal efficiency

many types for Groschopp- / Yaskawa- motors in
stock and deliverable



Certifications



technical data

backlash	1-staged	< 12 arcmin
	2-staged	< 15 arcmin
efficiency factor	1-staged	97% (at nominal torque)
	2-staged	94% (at nominal torque)
torque n_1	nom./ max.	3000/ 6000 min ⁻¹
weight	1-staged	ca. 1,3 kg
	2-staged	ca. 1,7 kg
life expectancy (base on $n_2=100$ min⁻¹)		10.000 h
operation temperature		-25 up to + 90°C (for short intervalls +120°C)
mounting position		adjustable
protection class		IP64
sound emission		≤ 70 dB (A)
case version		powder coated, RAL3020, flange Al

available ratios / nominal torque

The output torque refers to a life expectancy of 20.000 h, nominal- and input torque, operation factor 1 and mode of operation S1 for electric machinery.

1-staged

ratios	i	3:1	4:1	5:1	7:1	10:1
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nominal output torque M_2	[Nm]	13	14	16	15	14
acceleration torque $M_{2B}^{*)}$	[Nm]	25	28	32	28	25
M_2 emergency-stop $^{**)}$	[Nm]	39	42	48	45	42
mass moment of inertia	[kgcm ²]	0,367	0,324	0,314	0,304	0,299

*) maximum 1.000 cycles per hour M_{2B} -portion of total run time < 5%.

**) maximum 1.000-times during the gearbox-lifetime

2-staged

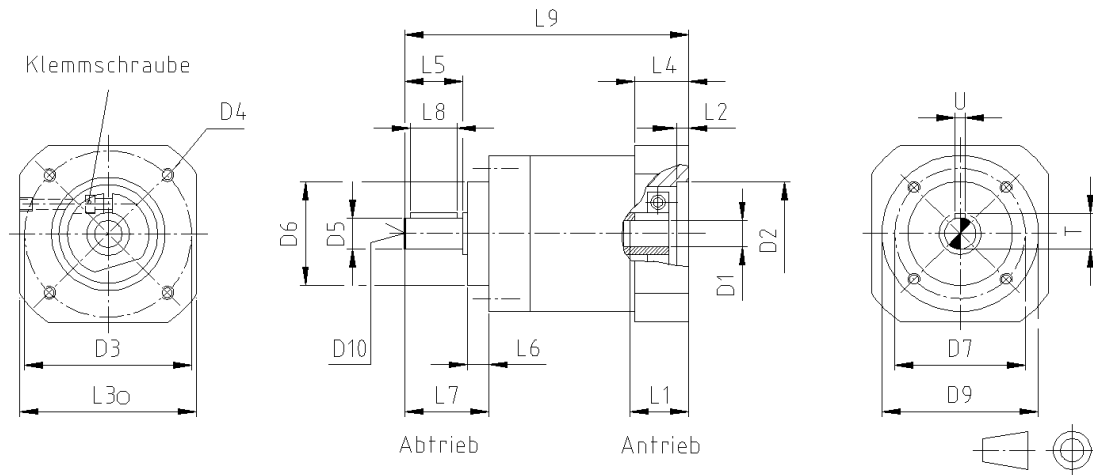
ratios	i	16:1	20:1	25:1	28:1	35:1	40:1	50:1	70:1	100:1
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nominal output torque M_2	[Nm]	19	19	21	21	21	21	21	17	16
acceleration torque $M_2^{*)}$	[Nm]	34	34	40	40	40	40	40	32	29
M_2 emergency-stop $^{**)}$	[Nm]	57	57	63	63	63	63	63	51	48
mass moment of inertia	[kgcm ²]	0,321	0,312	0,311	0,303	0,303	0,299	0,299	0,298	0,298

*) maximum 1.000 cycles per hour M_{2B} -portion of total run time < 5%.

**) maximum 1.000-times during the gearbox-lifetime.

drawings PD 065



axial length L9

1-staged	128	(excl. 3mm for standard types or with BGK65-xx mounting)
2-staged	152	(excl. 3mm for standard types or with BGK65-xx mounting)

flange dimensions	L1	L2	L3	L4	shape	D1	D2	D3	D4
	L-motor-shaft	centering-shaft	flange-dimension	flange width	---	motor-shaftØ	centering Ø	hole-circle Ø	thread/bore hole Ø

Groschopp...

... standard types	shortened	4	72	26	quadr.	8/10	32	63	5,5
...BGK 60-xx NR	77,5	4	72	26	quadr.	9	32	45	5,5
...BGK 80-xx NR	86	4	89	23	quadr.	9	50	65	5,5
...BGK 90-xx NR	91	4			quadr.	11	60	75	

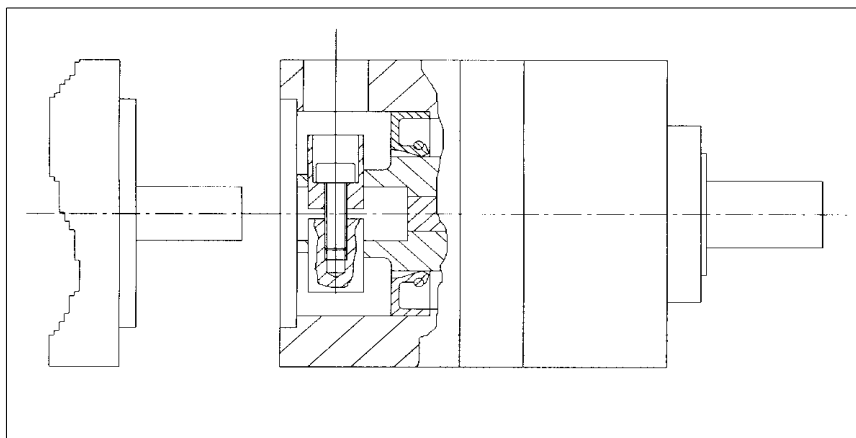
Yaskawa

...SGM(AH) A	25	2,5			round	6	30	46	
...SGM(AH) A5	25	2,5			round	6	30	46	
...SGM(AH) 01	25	2,5			round	8	30	46	
...SGM(AV) 02	30	3	65	23	quadr.	14	50	70	
...SGM(AH) 04	30	3	65	23	quadr.	14	50	70	M5x12

other dimensions	L5	L6	L7	L8	D5	D6	D7	D8	D9	D10	U	T
	shaft	centering bunch	assembly dimension	feather-key length	output-shaft	centering	hole-circle	thread	casing	center DIN332	feather key	height of feather key

1-,2-staged	30	8	39	25	14 k6	40 h7	52	M5x10	65	DM 5	5	16
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simple engine mounting with shaft coupling / clamp ring



tightening torque for the clamp screw

M4: 4,2 Nm (for hollowshaft Ø 11 mm)

M5: 8,3 Nm (for hollowshaft Ø 14 mm)

radial and axial shaft toughness

