NEW

FAULHABER

Planetary Gearheads

High Torque

18 Nm

10 000 min^{-1}

Series 42GPT

Values at 22°C

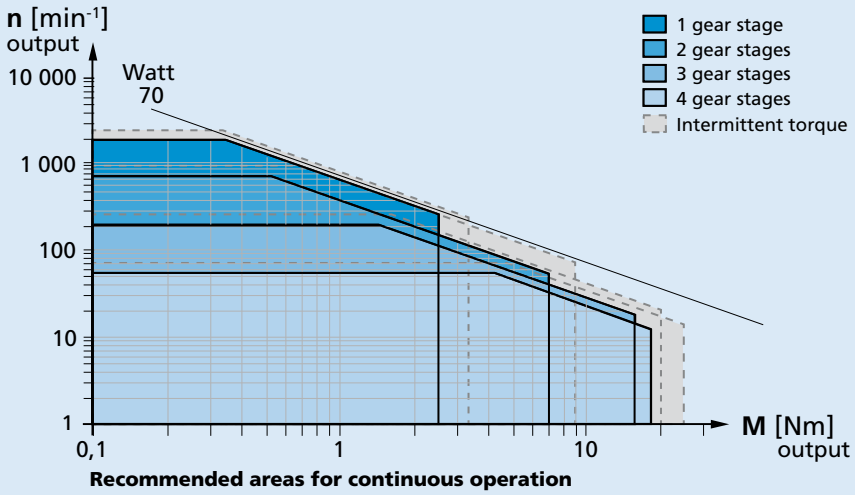
Number of gear stages		**1**	**1**	**2**	**2**	**2**	**3**	**4**	**4**
Reduction ratio (rounded)[1]		**3:1**	**3,6:1 4,5:1 6,6:1**	**9:1**	**11:1**	**14:1 16:1 20:1 24:1 30:1 44:1**	**41:1 49:1 59:1 72:1 89:1 108:1 131:1 158:1 196:1**	**178:1 215:1 267:1 323:1 401:1 474:1 588:1 862:1**	**711:1 1042:1 1294:1**
Continuous torque, max.	Nm	2,5	2,5	7	7	7	15,5	18	15
Intermittent torque, max.	Nm	3,3	3,3	9	9	9	20	25	20
Peak torque	Nm	4	4	11,5	11,5	11,5	25	34	30
Continuous input speed, max.	min^{-1}	5 000	7 000	5 000	7 000	10 000	10 000	10 000	10 000
Intermittent input speed, max.	min^{-1}	7 000	9 000	8 000	8 000	13 000	13 000	13 000	13 000
Continuous output power, max.	W	60	60	40	40	40	30	23	23
Intermittent output power, max.	W	90	90	65	65	65	45	35	35
Efficiency, max.	%	93	93	86	86	86	80	74	74
Input inertia with pinion, max.	gmm^2	2000	1 330	2 000	2 000	920	920	400	355
Torsional stiffness, typical	Nm/°	14	14	22	22	22	22	22	22
Backlash, at no-load, typical	°	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4
Shaft load, max:									
– radial (15 mm from mounting face)	N	200	200	280	280	280	310	390	390
– axial	N	170	170	200	200	200	230	250	250
Shaf press fit force, max	N	250	250	250	250	250	250	300	300
Shaft play:									
– radial (15 mm from mounting face)	mm	≤ 0,07	≤ 0,07	≤ 0,07	≤ 0,07	≤ 0,07	≤ 0,07	≤ 0,07	≤ 0,07
– axial	mm	= 0	= 0	= 0	= 0	= 0	= 0	= 0	= 0
Length withtout motor (L2)	mm	30,8	30,8	43,2	43,2	43,2	55,7	68,1	68,1
Mass without motor and flange	g	310	310	420	420	420	530	640	640
Operating temperature	°C	-30 ... + 120							
Direction of rotation, drive to output		=							
Housing material		stainless steel							
Geartrain material		stainless steel							
Bearings on output shaft		ball bearings, preloaded							

[1] The reduction ratios are rounded, the exact values are available on request or at www.faulhaber.com.

Note:

The display shows the range of possible operation points of the drives at a given ambient temperature of 22°C.

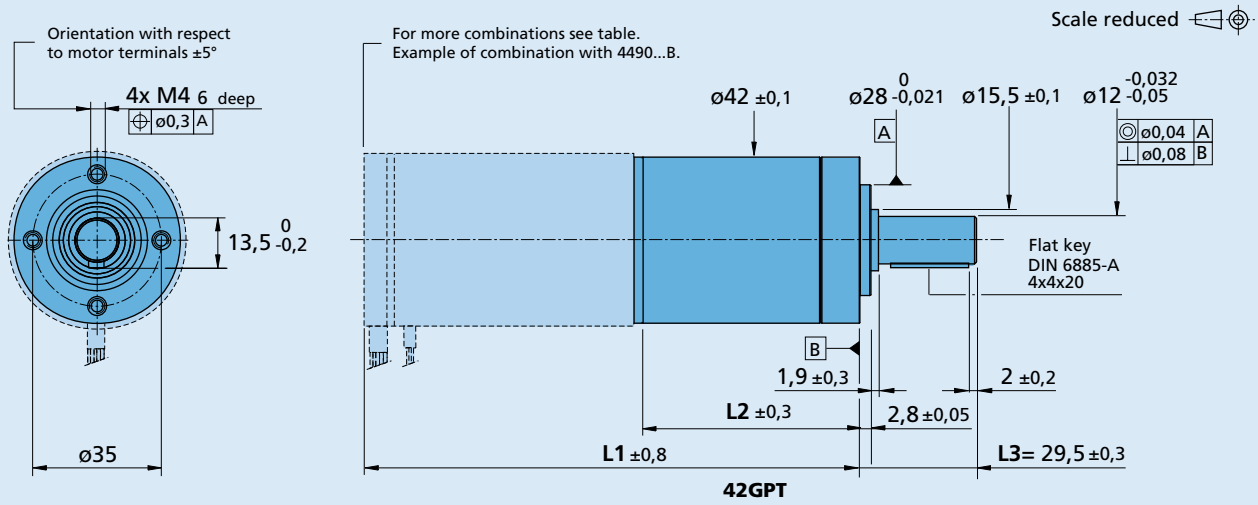
The diagram indicates the recommended output speed in relation to the available torque at the output shaft.



Recommended areas for continuous operation

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

Dimensional drawing



Option information

Example product designation: **42GPT 158:1 KS2KL1**

Option	Type	Description
KS2	Output shaft	Longer round plain shaft, **L3**= 40 mm
KS7	Output shaft	Shaft with 20 mm single flat shape and M5 axial threaded hole, **L3**= 29,5 mm
KL1	Ambient conditions	Low temperature range of -55°C ... +100°C
KL2	Ambient conditions	Vacuum down to 10^{-5} Pa @ 22°C
KL3	Ambient conditions	Temperature range of -55°C ... +150°C and vacuum down to 10^{-9} Pa @ 60°C
KC1	Cable orientation	Motor cable/wires or terminals oriented at 15° CCW vs gearhead front threads
KC2	Cable orientation	Motor cable/wires or terminals oriented at 30° CCW vs gearhead front threads
KC3	Cable orientation	Motor cable/wires or terminals oriented at 45° CCW vs gearhead front threads
KC4	Cable orientation	Motor cable/wires or terminals oriented at 60° CCW vs gearhead front threads
KC5	Cable orientation	Motor cable/wires or terminals oriented at 75° CCW vs gearhead front threads

Note: Specified values may differ from the standard values depending on the option.
Please consult your sales representative for further information.

Product combination

Number of Stages		1	2	3	4
L2 [mm] = length without motor		30,8	43,2	55,7	68,1
L1 [mm] = length with motor	3242X...CR	76,0	88,4	100,9	113,3
	3257X...CR	91,0	103,4	115,9	128,3
	3272X...CR	106,0	118,4	130,9	143,3
	3863X...CR	98,0	110,4	122,9	135,3
	3890X...CR	124,0	136,4	148,9	161,3
	3242X...BX4	78,2	90,6	103,1	115,5
	3268X...BX4	104,2	116,6	129,1	141,5
	3274X...BP4	108,0	120,4	132,9	145,3
	4221X...BXT H	56,0	68,4	80,9	93,3
	4221X...BXT R	55,2	67,6	80,1	92,5
	3564X...B	98,0	110,4	122,9	135,3
	4490X...B	124,0	136,4	148,9	161,3