

Planetary Gearheads

High Torque

18 Nm

10 000 min⁻¹

Series 42GPT

Values at 22°C

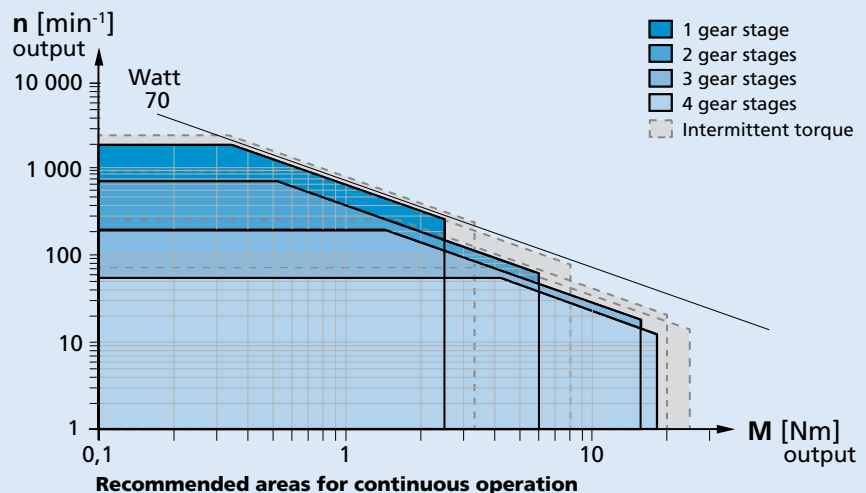
Number of gear stages		1	1	2	2	2	3	4	4
Reduction ratio ¹⁾ (rounded)		3:1	3,6:1 4,5:1 6,6:1	9:1	11:1	14:1 16:1 20:1 24:1 30:1 44:1	41:1 49:1 59:1 72:1 89:1 108:1 131:1 158:1 196:1	178:1 215:1 267:1 323:1 401:1 474:1 588:1 862:1	711:1 1 042:1 1 294:1
Continuous torque, max.	Nm	2,5	2,5	6	6	6	15,5	18	15
Intermittent torque, max.	Nm	3,3	3,3	8	8	8	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	9 000	10 000	10 000	10 000
Intermittent input speed, max.	min ⁻¹	7 000	9 000	8 000	8 000	12 000	13 000	13 000	13 000
Continuous output power, max.	W	60	60	37	37	37	26	20	20
Intermittent output power, max.	W	90	90	56	56	56	39	30	30
Efficiency, max.	%	93	93	86	86	86	80	74	74
Input inertia with pinion, max.	gmm ²	2 000	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
Shaft 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 without 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 range	°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.

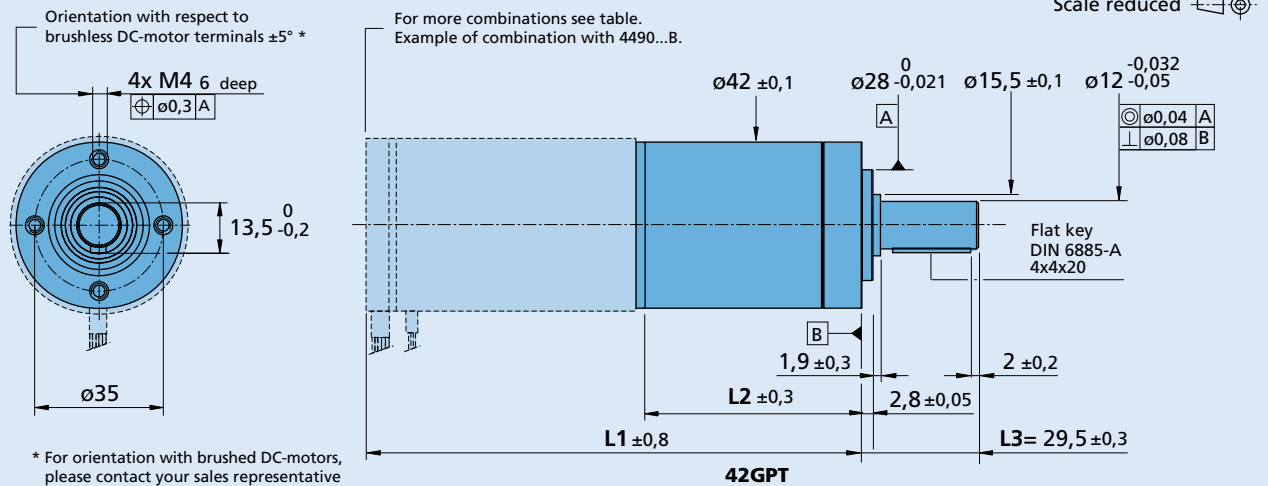
Note:

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.



Dimensional drawing



Options

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

Option	Type	Description
KS2	Output shaft	Longer round plain shaft, L3= 40 mm
KS4	Output shaft	Shaft diameter 10 mm with key DIN 6885-A with dimensions 4x4x18 mm, L3= 26 mm (compatible with 44/1)
KS7	Output shaft	Shaft with 20 mm single flat shape and M5 axial threaded hole, L3= 29,5 mm
KS9	Output shaft	Standard shaft (DIN 6885-A keyway and mating key with dimensions 4x4x20 mm) and with M5 axial threaded hole, L3= 29,5 mm
KP1	Ingress Protection	Gearhead with IP54 ingress protection rating (to be combined with specific protected motor)
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 ⁻⁵ 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 gear stages	1	2	3	4
L2 [mm] = length without motor	30,8	43,2	55,7	68,1
L1 [mm] = length with motor	76,0	88,4	100,9	113,3
3242X...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
3564X...B	98,0	110,4	122,9	135,3
4221X...BXTH	56,0	68,4	80,9	93,3
4221X...BXTR	55,2	67,6	80,1	92,5
4490X...B	124,0	136,4	148,9	161,3