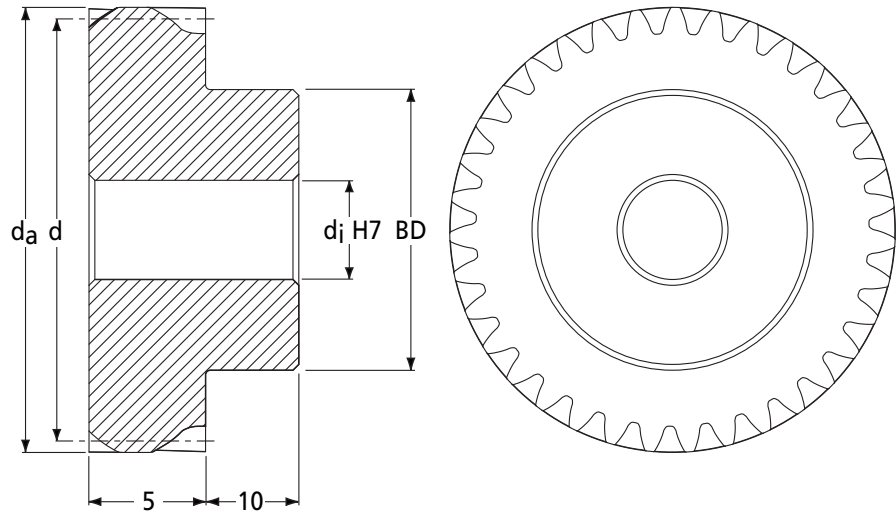


PHG
0.5m_n

PRECISION GEARS

0.5 Module 15° Parallel Helical Gear α 20° PA

Quality Grade 7e DIN 3961/58405 (AGMA Q10)



DIN 58405 Tooth Thickness tol.

Part Number	No. of Teeth z	Ref. Dia. d	Tip Dia. d _a	Bore H7 d _j	Max. Bore H7 d _j	Hub Dia. BD	Backlash (mm)		I Inertia kgm ²	Mass kg
							j _{t,e} (max)	j _{t,i} (min)		
PHG0.5-20R	20	10.35	11.35	4	4	8	0.079	-0.037	8.25 x 10 ⁻⁸	0.006
PHG0.5-21R	21	10.87	11.87	4	4	8	0.079	-0.037	9.20 x 10 ⁻⁸	0.007
PHG0.5-22R	22	11.39	12.39	4	4	8	0.079	-0.037	1.03 x 10 ⁻⁷	0.007
PHG0.5-23R	23	11.91	12.91	4	4	8	0.079	-0.037	1.16 x 10 ⁻⁷	0.007
PHG0.5-24R	24	12.42	13.42	5	5	10	0.091	-0.044	1.62 x 10 ⁻⁷	0.009
PHG0.5-25R	25	12.94	13.94	5	5	10	0.091	-0.044	1.79 x 10 ⁻⁷	0.009
PHG0.5-26R	26	13.46	14.46	5	5	10	0.091	-0.044	1.97 x 10 ⁻⁷	0.009
PHG0.5-27R	27	13.98	14.98	5	5	10	0.091	-0.044	2.17 x 10 ⁻⁷	0.010
PHG0.5-28R	28	14.49	15.49	5	5	10	0.091	-0.044	2.40 x 10 ⁻⁷	0.010
PHG0.5-29R	29	15.01	16.01	6	6	13	0.091	-0.044	4.37 x 10 ⁻⁷	0.015
PHG0.5-30R	30	15.53	16.53	6	6	13	0.091	-0.044	4.65 x 10 ⁻⁷	0.015
PHG0.5-32R	32	16.56	17.56	6	6	13	0.091	-0.044	5.30 x 10 ⁻⁷	0.016
PHG0.5-35R	35	18.12	19.12	6	6	13	0.092	-0.043	6.54 x 10 ⁻⁷	0.018
PHG0.5-38R	38	19.67	20.67	6	10	18	0.092	-0.043	1.37 x 10 ⁻⁶	0.028
PHG0.5-40R	40	20.71	21.71	6	10	18	0.092	-0.043	1.50 x 10 ⁻⁶	0.030
PHG0.5-42R	42	21.74	22.74	6	10	18	0.092	-0.043	1.65 x 10 ⁻⁶	0.031
PHG0.5-45R	45	23.29	24.29	6	10	18	0.092	-0.043	1.92 x 10 ⁻⁶	0.033
PHG0.5-48R	48	24.85	25.85	6	10	18	0.092	-0.043	2.25 x 10 ⁻⁶	0.036
PHG0.5-50R	50	25.88	26.88	6	10	18	0.100	-0.047	2.51 x 10 ⁻⁶	0.037
PHG0.5-52R	52	26.92	27.92	6	12	25	0.100	-0.047	5.00 x 10 ⁻⁶	0.057
PHG0.5-55R	55	28.47	29.47	6	12	25	0.100	-0.047	5.51 x 10 ⁻⁶	0.060
PHG0.5-58R	58	30.02	31.02	6	12	25	0.102	-0.046	6.10 x 10 ⁻⁶	0.063
PHG0.5-60R	60	31.06	32.06	6	12	25	0.102	-0.046	6.55 x 10 ⁻⁶	0.065
PHG0.5-62R	62	32.09	33.09	6	12	25	0.102	-0.046	7.05 x 10 ⁻⁶	0.067
PHG0.5-65R	65	33.65	34.65	6	12	25	0.102	-0.046	7.89 x 10 ⁻⁶	0.070
PHG0.5-68R	68	35.20	36.20	6	12	25	0.102	-0.046	8.86 x 10 ⁻⁶	0.073
PHG0.5-70R	70	36.23	37.23	6	12	25	0.102	-0.046	9.59 x 10 ⁻⁶	0.075
PHG0.5-72R	72	37.27	38.27	6	12	25	0.102	-0.046	1.04 x 10 ⁻⁵	0.078
PHG0.5-75R	75	38.82	39.82	6	12	25	0.102	-0.046	1.17 x 10 ⁻⁵	0.081
PHG0.5-78R	78	40.38	41.38	8	16	35	0.102	-0.046	2.17 x 10 ⁻⁵	0.119
PHG0.5-80R	80	41.41	42.41	8	16	35	0.102	-0.046	2.28 x 10 ⁻⁵	0.122
PHG0.5-82R	82	42.45	43.45	8	16	35	0.102	-0.046	2.39 x 10 ⁻⁵	0.125
PHG0.5-85R	85	44.00	45.00	8	16	35	0.102	-0.046	2.59 x 10 ⁻⁵	0.129
PHG0.5-90R	90	46.59	47.59	8	16	35	0.102	-0.046	2.95 x 10 ⁻⁵	0.136
PHG0.5-100R	100	51.76	52.76	8	16	35	0.115	-0.097	3.90 x 10 ⁻⁵	0.151
PHG0.5-120R	120	62.12	63.12	8	16	35	0.115	-0.097	6.85 x 10 ⁻⁵	0.188
PHG0.5-130R	130	67.29	68.29	12	25	45	0.115	-0.097	1.10 x 10 ⁻⁴	0.251
PHG0.5-140R	140	72.47	73.47	12	25	45	0.115	-0.097	1.37 x 10 ⁻⁴	0.273
PHG0.5-150R	150	77.65	78.65	12	25	45	0.115	-0.097	1.71 x 10 ⁻⁴	0.297
PHG0.5-200R	200	103.53	104.53	14	30	55	0.139	-0.066	5.11 x 10 ⁻⁴	0.498
PHG0.5-230R	230	119.06	120.06	16	40	65	0.139	-0.066	9.08 x 10 ⁻⁴	0.673

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Product information updated 1st April 2011 and subject to change. Please contact Sales for the latest prices and availability.

PRECISION GEARS

0.5 Module 15° Parallel Helical Gear α 20° PA

Quality Grade 7e DIN 3961/58405 (AGMA Q10)

PHG
0.5m_n

Standard Part PHG 0.5-50 R [] [] [] []
Modified Part PHG 0.5-50 L H 8 K T

PHG - Precision Helical Gear
Quality Grade 7e DIN 3961/58405
Other Quality Grades available.
See page 293

m_n Module - Cut with DIN 867 1.25/0.20/1.0
Ref. Tooth Profile Topping WD = 2.25 x m_n

Number of Teeth z

Right Hand Helix (R) runs with
Left Hand Helix (L)

Standard Material = 817M40T (28HRC)
H = 805M20 Case Hardened (58HRC)

T = 1 x Tapped hole 2T = 2 x Tapped holes.
P = 1 x Pin Hole PT = 1 x Pin Hole thru.
All threads metric as standard,
refer to page 308 for sizes and prices.

K- Keyway supplied to
DIN 6885 - Js9 tolerance.
For prices see page 308

To specify different bore enter size required
Example: 8 = 8mm H7 etc
For prices see page 308

Quality Grades and Tolerances stated prior to heat treatment processes.

η Efficiency approx. 98%

Discounts: 6+ -5% 19+ -10%

Part Number	817M40T (28HRC)		Case Hardened 805M20 (58HRC)#		
	T ₂ Nm n ₂ 100min ⁻¹	Price Each 1 - 5	Part Number	T ₂ Nm n ₂ 100min ⁻¹	Price Each 1 - 5
PHG0.5-20R	0.34	£12.03	PHG0.5-20RH	1.25	£19.86
PHG0.5-21R	0.36	£12.15	PHG0.5-21RH	1.31	£20.07
PHG0.5-22R	0.37	£12.36	PHG0.5-22RH	1.37	£20.41
PHG0.5-23R	0.39	£12.48	PHG0.5-23RH	1.43	£20.60
PHG0.5-24R	0.41	£12.65	PHG0.5-24RH	1.50	£20.86
PHG0.5-25R	0.43	£12.76	PHG0.5-25RH	1.56	£21.07
PHG0.5-26R	0.56	£12.96	PHG0.5-26RH	1.79	£21.40
PHG0.5-27R	0.58	£13.08	PHG0.5-27RH	1.86	£21.59
PHG0.5-28R	0.60	£13.26	PHG0.5-28RH	1.92	£21.90
PHG0.5-29R	0.62	£13.31	PHG0.5-29RH	1.99	£21.97
PHG0.5-30R	0.73	£13.35	PHG0.5-30RH	2.05	£22.03
PHG0.5-32R	0.78	£13.65	PHG0.5-32RH	2.19	£22.52
PHG0.5-35R	0.85	£14.12	PHG0.5-35RH	2.39	£23.29
PHG0.5-38R	0.93	£14.60	PHG0.5-38RH	2.60	£24.11
PHG0.5-40R	1.25	£14.87	PHG0.5-40RH	3.04	£24.54
PHG0.5-42R	1.31	£15.15	PHG0.5-42RH	3.19	£25.01
PHG0.5-45R	1.40	£15.62	PHG0.5-45RH	3.42	£25.78
PHG0.5-48R	1.50	£16.09	PHG0.5-48RH	3.65	£26.56
PHG0.5-50R	1.95	£16.39	PHG0.5-50RH	4.12	£27.03
PHG0.5-52R	2.03	£16.63	PHG0.5-52RH	4.29	£27.43
PHG0.5-55R	2.15	£16.97	PHG0.5-55RH	4.53	£28.03
PHG0.5-58R	2.27	£17.31	PHG0.5-58RH	4.78	£28.58
PHG0.5-60R	2.67	£17.56	PHG0.5-60RH	5.15	£28.99
PHG0.5-62R	2.76	£17.75	PHG0.5-62RH	5.32	£29.29
PHG0.5-65R	2.89	£18.11	PHG0.5-65RH	5.58	£29.89
PHG0.5-68R	3.03	£18.32	PHG0.5-68RH	5.84	£30.25
PHG0.5-70R	3.11	£18.41	PHG0.5-70RH	6.01	£30.38
PHG0.5-72R	3.20	£18.62	PHG0.5-72RH	6.18	£30.72
PHG0.5-75R	3.34	£18.76	PHG0.5-75RH	6.44	£30.95
PHG0.5-78R	3.47	£19.08	PHG0.5-78RH	6.69	£31.50
PHG0.5-80R	4.60	£19.18	PHG0.5-80RH	7.20	£31.64
PHG0.5-82R	4.71	£19.35	PHG0.5-82RH	7.38	£31.93
PHG0.5-85R	4.89	£19.55	PHG0.5-85RH	7.65	£32.25
PHG0.5-90R	5.17	£19.91	PHG0.5-90RH	8.10	£32.86
PHG0.5-100R	5.89	£20.22	PHG0.5-100RH	9.21	£33.35
PHG0.5-120R	7.07	£24.46	PHG0.5-120RH	11.05	£40.37
PHG0.5-130R	7.66	£27.84	PHG0.5-130RH	11.97	£45.94
PHG0.5-140R	8.25	£29.25	PHG0.5-140RH	12.89	£48.27
PHG0.5-150R	9.03	£32.31	PHG0.5-150RH	14.11	£53.31
PHG0.5-200R	12.17	£39.33	PHG0.5-200RH	19.01	£64.89
PHG0.5-230R	13.99	£44.00	PHG0.5-230RH	21.86	£72.61

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