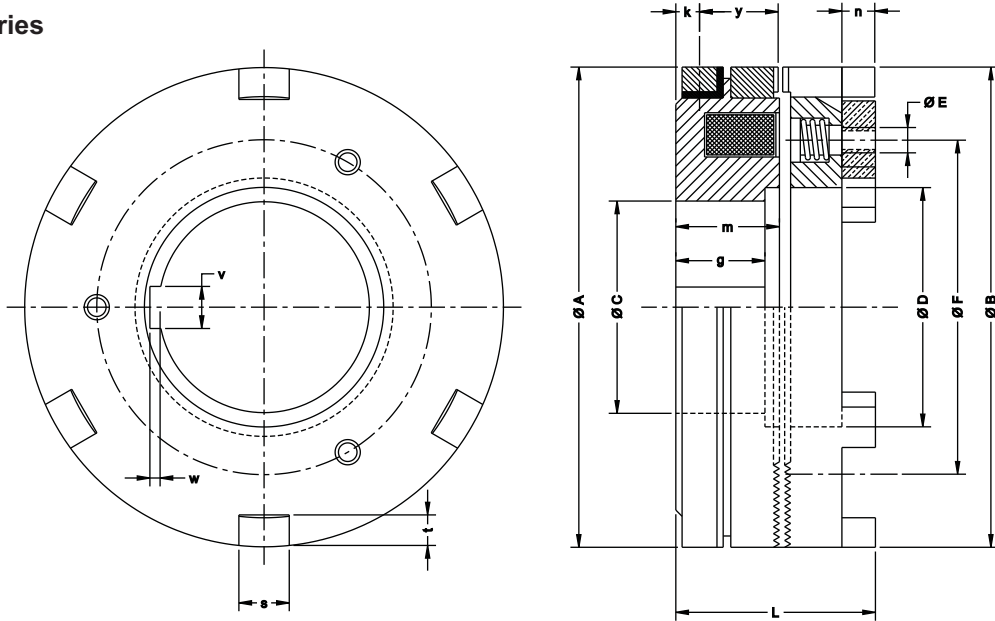


Dimension Data

Toothed Clutches
GP.TC Series



GP.TC-DZ Series



MODEL		GP .25Z	GP .5Z	GP 1Z	GP 2dz	GP 5dz	GP 10dz	GP 10ez	GP 20dz	GP 40dz	GP 40dz	GP 80z	GP 120ez
DIMENSIONAL DATA													
Static Torque	Nm	10	20	50	100	250	500	500	1000	2000	3000	4000	6000
Speed at 10 m per sec.	min ⁻¹	3150	2700	2300	2200	1650	1400	1350	1150	1150	950	750	700
Engagement Time	ms	15	20	22	25	30	40	40	65	75	80	80	90
Disengagement Time	ms	35	46	46	58	80	102	102	115	190	250	270	335
Coil power consumption at 20 ⁰ C	W	7.5	12	24	28	48	57	58	76	83	96	100	127
Mass moment of inertia side X	10 ³ kgm ²	0.16	0.31	0.80	1.38	3.45	6.75	8.54	19.25	41.0	55.0	98.5	154.8
Mass moment of inertia side Z	10 ³ kgm ²	0.06	0.09	0.21	0.50	1.23	3.08	3.68	8.75	21.25	31.75	54.75	71.5
Mass (weight)	kg	0.32	0.48	0.87	1.16	1.98	3.15	3.45	6.20	9.61	11.72	17.56	19.90
L	mm	25	27.5	37	38	43	50	51	60	68	73	81	84
Ø A / Ø B	mm	60	70	82	95	114	134	140	166	195	210	240	258
Ø C (H7)	mm	12	15	20	28	35	40	50	45	65	70	75	85
Ø D + 0.2	mm	23	26	35	45	53	63	70	80	89	100	112	134
Ø E	mm	M3	M3	M4	M4	M4	M5	M5	M6	M6	M6	M6	M6
Ø F ± 0.1	mm	40	45	55	65	80	100	100	120	150	150	150	170
m	mm	15.5	17	23	23	26	29	30	35	38.5	38	42	46
g	mm	12	14	23	20	23	26	26	30	33.5	35	37	42
k	mm	3.5	3.5	5.5	5.5	6	7	7	7	7	8.5	8.5	8.5
n	mm	3.5	4	6	6	7	8	8	9.5	12	14	14.5	16.5
s + 0.05 -> 0.1	mm	6	7	8	8	10	10	10	12	15	18	20	20
t	mm	4	5	7.5	7.5	8	9	9	11	12	12	13	15
v	mm	4	5	6	8	10	12	14	14	18	20	20	22
w	mm	1.1	1.3	1.7	1.7	2.1	2.1	2.6	2.6	3.1	4.1	4.1	4.1
Keyways : number	-	1	1	1	1	1	2	2	2	2	4	4	4
: position	-	-	-	-	-	-	180 ⁰	180 ⁰	180 ⁰	180 ⁰	90 ⁰	90 ⁰	90 ⁰
y	mm	0.3 ^{+0.2}	0.3 ^{+0.2}	0.3 ^{+0.2}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}

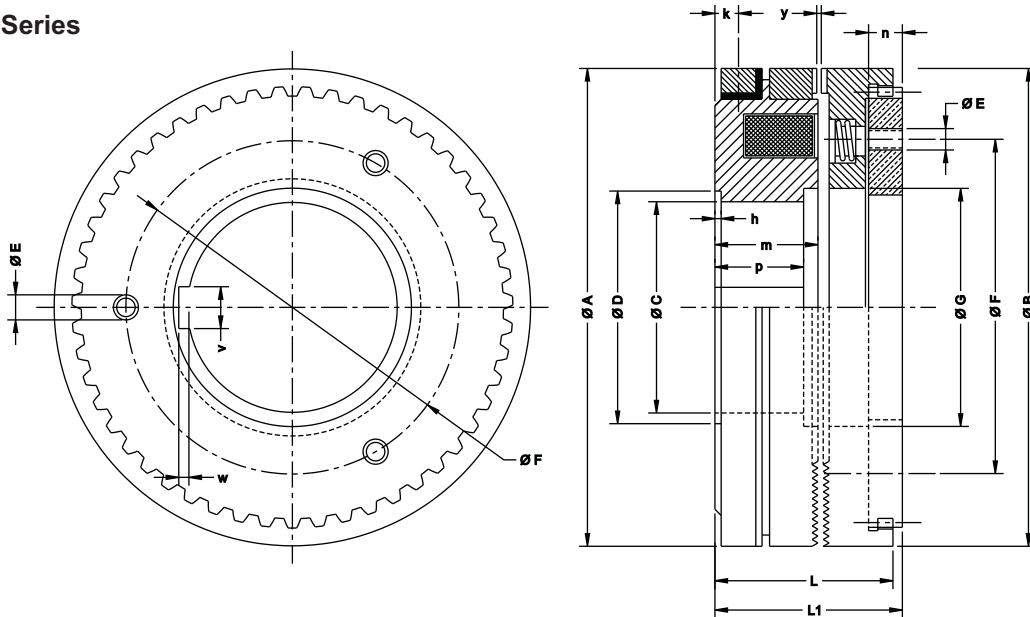
* Optional : Bore available with splines to DIN 5642

Dimension Data

Toothed Clutches
GP.TC Series



GP.TC-DZS Series

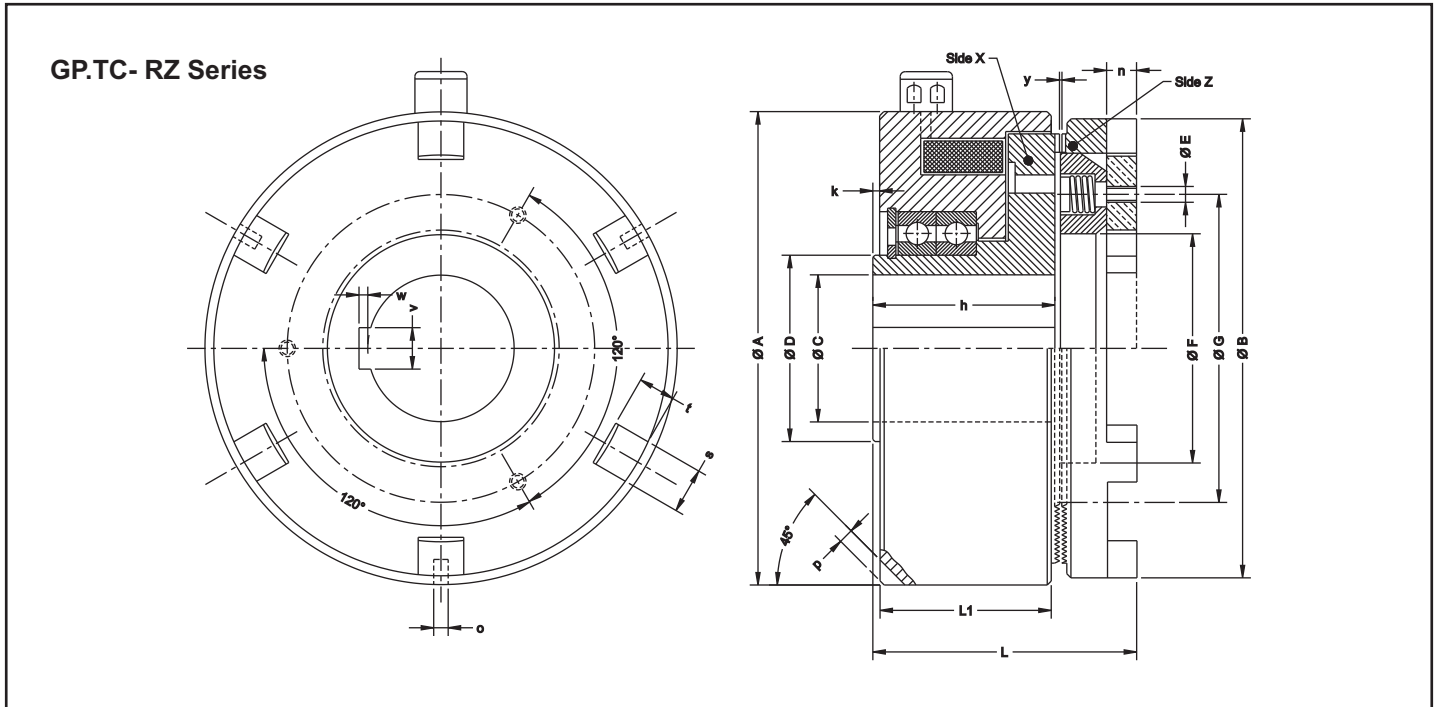


Model		GP .25ZS	GP .5ZS	GP 1ZS	GP 2DZS	GP 5DZS	GP 10DZS	GP 10EZ S	GP 20EZS	GP 20DZS	GP 40DZS	GP 60DZS	GP 80ZS	GP 120EZS	
Dimensional Data															
Static Torque	Nm	20	40	100	200	350	600	600	1200	1200	2200	3000	4000	6000	
Speed at 10 m per sec.	min ⁻¹	3150	2700	2300	2200	1650	1400	1350	1150	1150	950	900	750	700	
Engagement Time	ms	15	20	22	25	30	40	40	65	65	75	80	80	90	
Disengagement Time	ms	55	80	80	90	110	165	165	275	275	440	550	770	1100	
Coil power consumption at 20° C	W	10	12	20	25	45	55	55	70	65	75	90	100	140	
Mass moment of inertia side X	10 ³ kgm ²	0.16	0.31	0.80	1.38	3.45	6.75	8.54	19.25	16.75	41.0	55.0	98.5	154.8	
Mass moment of inertia side Z	10 ³ kgm ²	0.06	0.10	0.23	0.55	1.35	3.38	4.08	9.50	9.05	23.5	35.2	60.5	78.5	
Mass (weight)	kg	0.32	0.48	0.86	1.18	1.93	3.1	3.3	9.95	5.2	9.45	11.5	17.3	20	
L	mm	25	27.5	37	38	43	50	51	60	57	68	73	81	84	
L1	mm	30.5	32.5	40	41	46	53	54	63.5	60.5	71	75	83.5	86.5	
Ø A / Ø B	mm	60	70	82	95	114	134	140	166	166	195	210	240	258	
Ø C (H7)	mm	12	15	20	28	35	40	50	45	50	65	70	75	85	
Ø D (H8)	mm	24	27	36	42	52	60	70	80	90	90	100	110.5	123	
E	mm	M3	M3	M4	M4	M4	M5	M5	M6	M6	M6	M6	M6	M6	
Ø F ± 0.1	mm	40	45	55	65	80	100	100	120	120	150	150	150	170	
Ø G ± 0.2	mm	23	26	35	45	53	63	70	80	89	89	100	112	133	
m	mm	15.5	17	23	20	23	26	26	30	27	33.5	35	37	42	
p	mm	15.5	17	23	23	26	29	30	35	32	38.5	38	42	46	
h ± 0.05	mm	1.5	1.5	1.5	1.5	2	2	2	2.5	2.5	3	3	3	3	
k	mm	3.5	3.5	5.5	5.5	6	7	7	7	7	7	8.5	8.5	8.5	
n	mm	3.5	4	6	6	7	8	8	9.5	9.5	12	14	14.5	16.5	
v	mm	4	5	6	8	10	12	14	14	14	18	20	20	22	
w	mm	1.1	1.3	1.7	1.7	2.1	2.1	2.6	2.6	2.6	3.1	4.1	4.1	4.1	
y	mm	0.3 ^{+0.2}	0.3 ^{+0.2}	0.3 ^{+0.2}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	
Gear DIN5480 Pressure Angle 30°	Number of Teeth	-	26	31	36	42	51	38	38	48	48	34	36	42	46
	Module	mm	2	2	2	2	2	3	3	3	3	5	5	5	5

* Optional : Bore available with splines to DIN 5642

Dimension Data

Toothed Clutches
GP.TC Series



MODEL		GP 1RZ	GP 2RZ	GP 5RZ	GP 10RZ	GP 20RZ	GP 40RZ	GP 60RZ	GP 80RZ	GP 120RZ
DIMENSIONAL DATA										
Static Torque	Nm	50	100	250	500	1000	2000	3000	4000	6000
Speed at oil operation	min ⁻¹	4500	4000	3800	3800	3500	3500	3000	3000	2500
Speed at dry operation	min ⁻¹	2200	2000	2000	2000	1800	1800	1500	--	--
Engagement Time	ms	20	30	40	60	70	90	100	120	130
Disengagement Time	ms	46	58	110	172	265	380	480	630	735
Coil power consumption at 20 ⁰ C	W	42	52	64	85	115	140	170	210	240
Mass moment of inertia side X	10 ³ kgm ²	0.20	0.46	1.15	2.50	6.30	18.70	27.00	51.00	76.00
Mass moment of inertia side Z	10 ³ kgm ²	0.28	0.58	1.30	2.90	8.00	18.70	30.00	60.00	72.50
Mass (weight)	kg	1.3	1.9	3.1	5.4	9.5	15.5	19.7	29.0	36.5
L	mm	54	59	66	80	90	96	111	119	126
L1	mm	36.5	40	43	53	60	51	59	61	68
Ø A	mm	82	95	114	134	166	195	210	240	258
B	mm	80	95	109	127	162	195	210	240	258
Ø C (H7)	mm	25	35	38	46	60	65	68	78	85
Ø D (H8)	mm	35	45	50	60	75	80	85	95	105
E	mm	M4	M4	M4	M5	M6	M6	M6	M6	M6
Ø F ± 0.1	mm	38	46	56	62	79	100	105	115	130
Ø G ± 0.2	mm	52	62	70	85	108	150	150	150	170
k	mm	1	1	1	1	1	2	2	2	2
h -0.2	mm	37	41	44	54	61	65	74	77	85
n	mm	6	6	7	8	9.5	12	14	14.5	16.5
o + 0.2	mm	6	6	8	8	8	12	12	12	12
p	mm	3	4	4	5	6	8	8	10	10
s + 0.05 -> +0.1	mm	8	8	10	10	12	15	18	20	20
t	mm	7.5	8.5	9	10	13.5	12	12	13	15
v	mm	8	10	10	14	18	18	20	22	22
w	mm	1.7	2.1	2.1	2.6	3.1	3.1	4.1	4.1	4.1
y	mm	0.3 ^{+0.2}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}

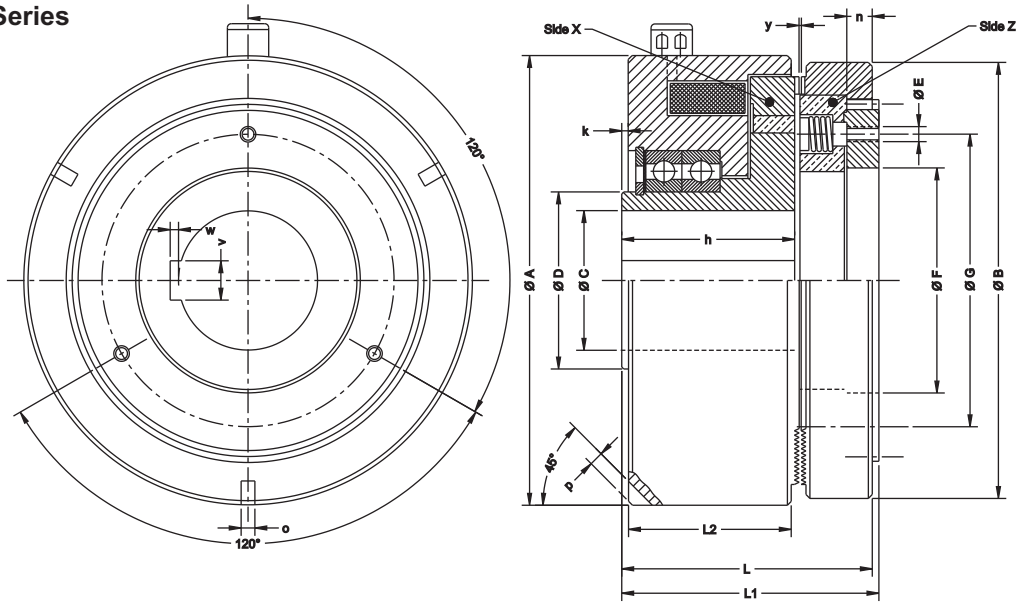
* Optional : Bore available with splines to DIN 5642

Dimension Data

Toothed Clutches
GP.TC Series



GP.TC-RZS Series



MODEL		GP 1ZS	GP 2ZS	GP 5RZS	GP 10RZS	GP 20RZS	GP 40RZS	GP 60RZS	GP 80RZS	GP 120RZS	
DIMENSION DATA											
Static Torque	Nm	100	200	300	600	1400	2000	3000	4000	6000	
Speed at oil operation	min ⁻¹	4500	4000	3800	3800	3500	3500	3000	3000	2500	
Speed at dry operation	min ⁻¹	2200	2000	2000	2000	1800	1800	1500	1500	1500	
Engagement Time	ms	20	30	40	60	70	90	100	120	130	
Disengagement Time	ms	80	90	110	165	275	440	550	800	1100	
Coil power consumption at 20° C	W	36	48	58	87	110	140	180	190	230	
Mass moment of inertia side X	10 ³ kgm ²	0.20	0.46	1.15	2.6	6.3	18.7	27.0	51.0	76.0	
Mass moment of inertia side Z	10 ³ kgm ²	0.35	0.72	1.6	3.5	9.5	21.0	33.4	65.7	79.5	
Mass (weight)	kg	1.4	2.0	3.3	5.7	10.0	16.0	20.5	30.0	38.0	
L	mm	54	59	66	80	90	96	111	119	126	
L1	mm	57	62	69	83	93.5	99	113	121.5	128.5	
L2	mm	36.5	40	43	53	60	51	59	61	68	
Ø A	mm	82	95	114	134	166	195	210	240	258	
Ø B	mm	80	93	109	127	162	195	210	240	258	
Ø C (H7)	mm	25	35	38	46	60	65	68	78	85	
Ø D	mm	35	45	50	60	75	80	85	95	105	
E	mm	M4	M4	M4	M5	M6	M6	M6	M6	M6	
Ø F ± 0.1	mm	38	46	56	62	79	100	105	115	130	
Ø G ± 0.1	mm	52	62	70	85	108	150	150	150	170	
k	mm	1	1	1	1	1	2	2	2	2	
h -0.2	mm	37	41	44	54	61	65	74	77	85	
n	mm	6	6	7	8	9.5	12	14	14.5	16.5	
o + 0.2	mm	6	6	8	8	8	12	12	12	12	
p	mm	3	4	4	5	6	8	8	10	10	
v	mm	8	10	10	14	18	18	20	22	22	
w	mm	1.7	2.1	2.1	2.6	3.1	3.1	4.1	4.1	4.1	
y	mm	0.3 ^{+0.2}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	0.4 ^{+0.3}	
Gear DIN5480	Number of Teeth	--	31	36	42	51	42	32	36	42	46
Pressure Angle 30°	Module	--	2	2	2	2	3	5	5	5	5

* Optional : Bore available with splines to DIN 5642