

Servo Motors for SIMOVERT MASTERDRIVES

Gearboxes for 1FT6 Standard Type Motors

Single-Stage SP Series Planetary Gearbox

Selection and Ordering Data

Ordering data: 1FT6 ...-A.7.-...  -Z



G 0
H 1
2
6

Order No. of the motor (standard type) with code “-Z” and code for mounting the planetary gearbox assigned to the motor, Requirement for mounting of planetary gearbox:
Keyless motor shaft and vibration severity grade N

Motor Self-Cooling	Planetary Gearbox Single-Stage Torsional backlash ¹⁾ ≤ 4 arcmin	Gearbox Weight, Approx.	Available Gear Ratios $i =$				Max. Permissible Input Speed	Max. Permissible Output Torque	Max. Permissible Drive Shaft Load ²⁾	Moment of Inertia Gear Unit
Type	Type	kg (lb)	4	5	7	10	n_{G1} rpm	M_{G2} Nm (lb _f -ft)	F_r N (lb _f)	J_G where $i = 4$ 10 ⁻⁴ kgm ² (lb _f -in-s ²)
1FT6 024	SP 060-MF1	1.5 (3.3)	○	○	○	○	6000	40 (29.5) [32 (23.6) for $i = 10$]	2600 (584.5)	0.17 (0.00015)
1FT6 031			○	○	○	○				0.17 (0.00015)
1FT6 034			○	○	○	○				0.17 (0.00015)
1FT6 034	SP 075-MF1	2.8 (6.2)				○	6000	100 (73.8) [80 (59) for $i = 10$]	3800 (854.3)	0.57 (0.0005)
1FT6 041			○	○	○	○				0.63 (0.00055)
1FT6 044			○	○	○	○				0.63 (0.00055)
1FT6 044	SP 100-MF1	6.2 (13.7)				○	4500	250 (184.4) [200 (147.5) for $i = 10$]	6000 (1348.9)	2 (0.0018)
1FT6 061			○	○	○	○				2.7 (0.0024)
1FT6 062			○	○	○	○				2.7 (0.0024)
1FT6 064			○	○	○	○				2.7 (0.0024)
1FT6 081	SP 140-MF1	11.5 (25.4)	○	○	○	○	4000	500 (368.8) [400 (295) for $i = 10$]	9000 (2023.3)	8.4 (0.0074)
1FT6 082			○	○	○	○				
1FT6 084			○	○	○	○				
1FT6 086			○	○	○	○				
1FT6 086	SP 180-MF1	27 (59.6)				○	3500	1100 (811.4) [880 (649.1) for $i = 10$]	14000 (3147.3)	30.6 (0.0271)
1FT6 102			○	○	○	○				31.7 (0.0281)
1FT6 105			○	○	○	○				31.7 (0.0281)
1FT6 108			○	○	○	○				31.7 (0.0281)
1FT6 105	SP 210-MF1	53 (116.9)				○	2500	1900 (1401.4) [1520 (1121.2) for $i = 10$]	18000 (4046.6)	75.8 (0.0671)
1FT6 108						○				
1FT6 132			○	○	○	○				
1FT6 134			○	○	○	○				
1FT6 136			○	○	○	○				
1FT6 132	SP 240-MF1	80 (176.4)				○	2200	2720 (2006.3)	27000 (6069.9)	146.3 (0.1295)
1FT6 134						○				
1FT6 136						○				

Order codes

• Gear shaft with key	V02	V03	V05	V09
• Gear shaft without key	V22	V23	V25	V29

1) For SP 060 and SP 075: ≤ 6 arcmin.

2) Guide values for maximum permissible drive shaft load in center of shaft at a speed of $n_{G2} = 300$ rpm.
Axial load $F_a = 0.5 \times F_r$ for SP 060 to SP 180. $F_a = F_r$ for SP 210 and SP 240.

Servo Motors for SIMOVERT MASTERDRIVES

Gearboxes for 1FT6 Standard Type Motors

Two-Stage SP Series Planetary Gearbox

Selection and Ordering Data

Ordering data:

1FT6 ...-A.7.-...

V

G

H

0

1

2

6

Order No. of the motor (standard type) with code “-Z” and code for mounting the planetary gearbox assigned to the motor, Requirement for mounting of planetary gearbox: Keyless motor shaft and vibration severity grade N

Motor Self-Cooling	Planetary Gearbox Two-Stage		Available Gear Ratios $i =$					Max. Permissible Input Speed	Max. Permiss. Output Torque	Max. Permiss. Drive Shaft Load ²⁾	Moment of Inertia Gear Unit
Type	Type	Gearbox Weight, Approx. kg (lb)	16	20	28	40	50	n_{G1} rpm	M_{G2} Nm (lb _f -ft)	F_r N (lb _f)	J_G where $i = 16$ 10 ⁻⁴ kgm ² (lb _f -in-s ²)
1FT6 024	SP 075-MF2	3.1 (6.8)	○	○	○	○	○	6000	100 (73.8)	3800 (854.3)	0.52 (0.0005)
1FT6 031			○	○	○	○	○				0.52 (0.0005)
1FT6 034			○	○							
1FT6 034	SP 100-MF2	7.1 (15.7)			○	○	○	4500	250 (184.4)	6000 (1348.9)	1.7 (0.0015)
1FT6 041			○	○	○	○					1.8 (0.0016)
1FT6 044			○	○							2.5 (0.0022)
1FT6 061			○	○	○						
1FT6 062			○	○							
1FT6 041	SP 140-MF2	14.5 (32)			○	○	○	4000	500 (368.8)	9000 (2023.3)	4.4 (0.0039)
1FT6 044						○	○				5.1 (0.0045)
1FT6 061					○	○	○				
1FT6 062					○	○					
1FT6 064			○	○							
1FT6 062	SP 180-MF2	29 (63.9)			○	○	○	4000	1100 (811.4)	14000 (3147.3)	5.5 (0.0049)
1FT6 064					○	○	○				8.2 (0.0073)
1FT6 081			○	○	○	○	○				
1FT6 082			○	○	○	○					
1FT6 084			○	○							
1FT6 086			○	○							
1FT6 082	SP 210-MF2	48 (105.8)			○	○	○	3500	1900 (1401.4)	18000 (4046.6)	34.5 (0.0305)
1FT6 084					○	○					
1FT6 086					○						
1FT6 102			○	○	○						35.6 (0.0315)
1FT6 105			○								
1FT6 084	SP 240-MF2	70 (154.3)				○	○	3500	3400 (2507.8)	27000 (6069.9)	43.1 (0.0381)
1FT6 086						○	○				44.2 (0.0391)
1FT6 102						○	○				
1FT6 105				○	○						
1FT6 108			○	○							

Order codes	V12	V13	V15	V16	V17
• Gear shaft with key					
• Gear shaft without key	V32	V33	V35	V36	V37