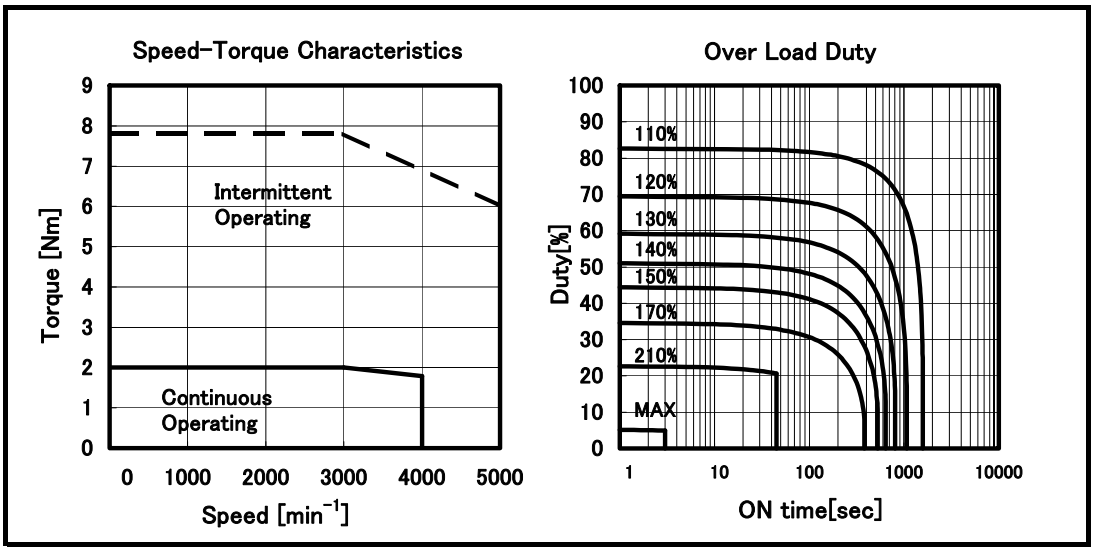
6.2 αiS series (400V)

Model αi S 2/5000 HV Specification A06B-0213-B□0□



Data sheet

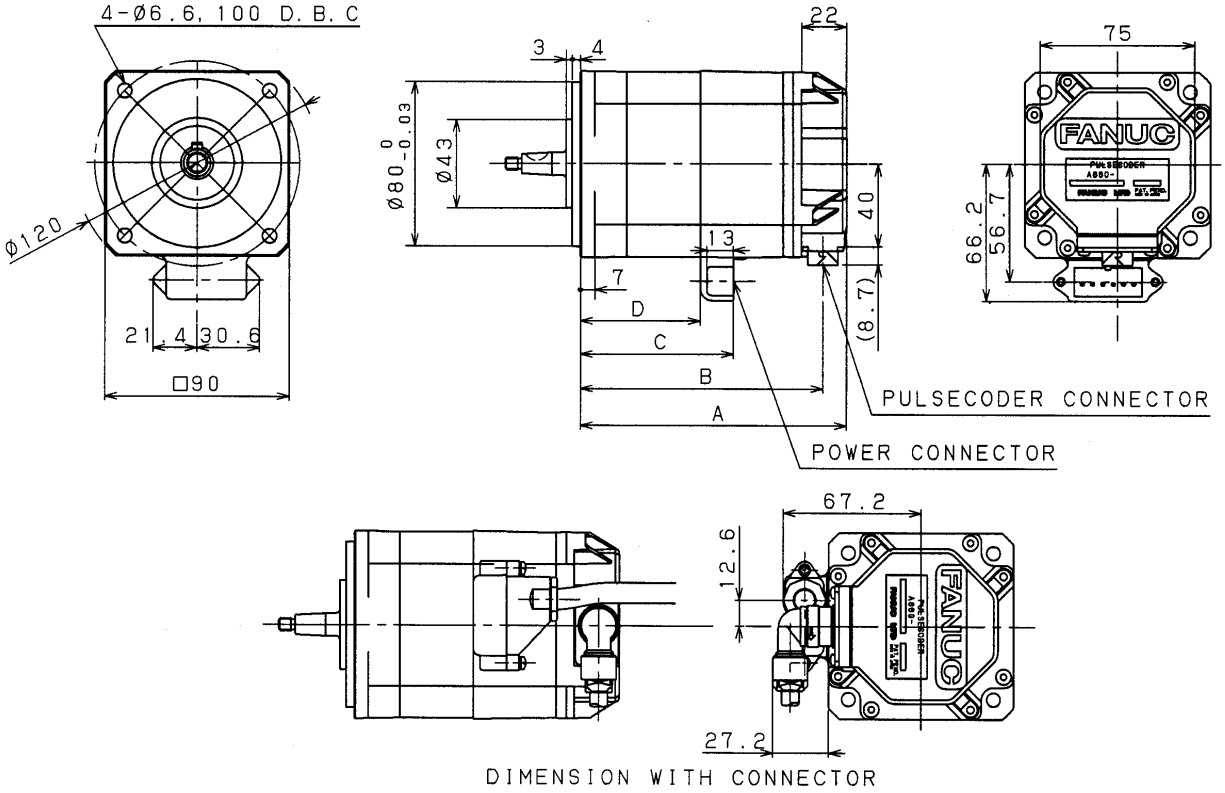
Parameter	Symbol	Value			Unit
Stall Torque (*)	Ts	2.0 20			Nm kgfcm
Stall Current (*)	Is	1.6			A (rms)
Rated Output (*)	Pr	0.75 1.0			kW HP
Rating Speed	Nr	4000			min^{-1}
Maximum Speed	Nmax	5000			min^{-1}
Maximum Torque (*)	Tmax	7.8 80			Nm kgfcm
Rotor Inertia	Jm	0.000291 0.00297			kgm^2 $kgfcms^2$
Rotor Inertia (with Brake)	Jm	0.000311 0.00317			kgm^2 $kgfcms^2$
Torque constant (*)	Kt	1.22 12.4			Nm/A (rms) kgfcm/A (rms)
Back EMF constant (1phase) (*)	Ke Kv	42 0.40			V (rms)/1000 min^{-1} V (rms)sec/rad
Armature Resistance (1 phase) (*)	Ra	5.4			Ω
Mechanical time constant	tm	0.003			s
Thermal time constant	tt	15			min
Static friction	Tf	0.1 1			Nm kgfcm
Weight	w	2.8			kg
Weight (with Brake)	w	3.8			kg
Max. Current of Servo Amp.	Imax	10			A (peak)

(*) The values are the standard values at 20℃ and the tolerance is ±10%.
The speed-torque characteristics very depending on the type of software, parameter setting, and input voltage of the digital servo software. (The above figures show average values.)

7.1 MODELS αiS 2 to αiS 4, αiS 2HV to αiS 4HV, AND αiF 1 to αiF 2

7.1.1 Outline Drawing of the Motors

Outline drawing of the motors (standard)



MODEL	A	B	C	D
αiS 2, αiS 2HV, αiF 1	130	119	75	59
αiS 4, αiS 4HV, αiF 2	166	155	111	95

7.1.2 Shaft Shape

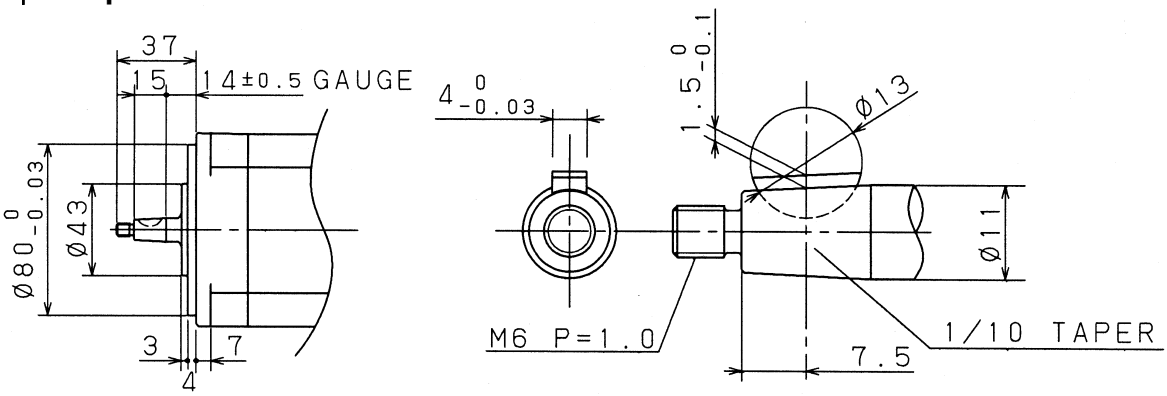
Shaft shape types

The shafts of the motors have the following shapes:

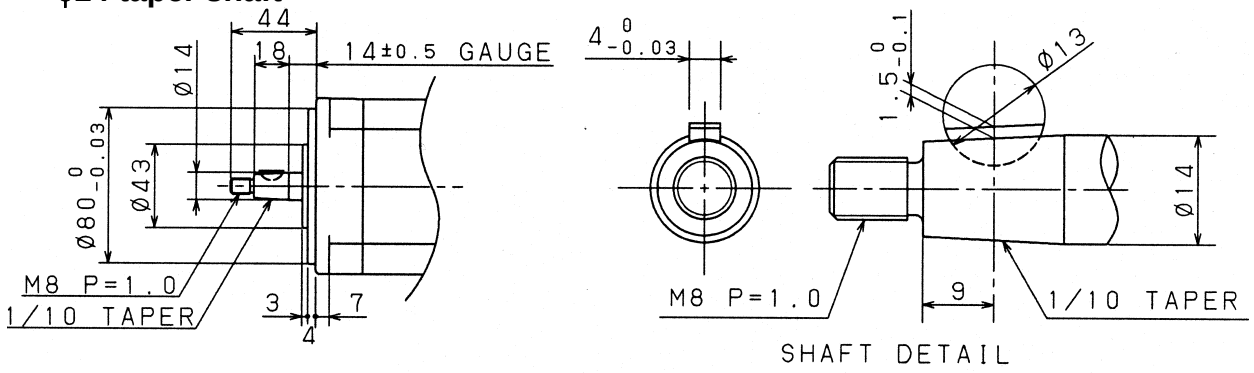
	Taper shaft	Straight shaft	Straight shaft with key way
α*i*S 2/5000	φ11	φ10	φ10
α*i*S 2/6000	φ11	φ10	φ10
α*i*S 4/5000	φ14	φ14	φ14
α*i*S 4/6000	φ14	φ14	φ14
α*i*S 2/5000 HV	φ11	φ10	φ10
α*i*S 2/6000 HV	φ11	φ10	φ10
α*i*S 4/5000 HV	φ14	φ14	φ14
α*i*S 4/6000 HV	φ14	φ14	φ14
α*i*F /5000	φ11	φ10	φ10
α*i*F 2/5000	φ11	φ10	φ10

Shaft details

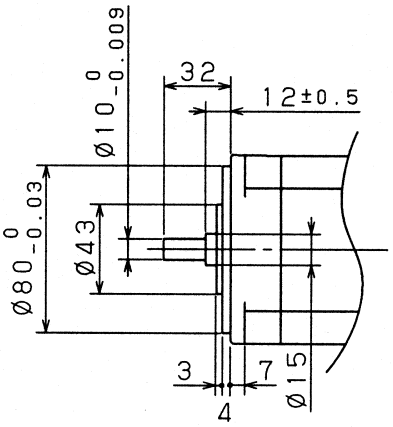
- **φ11 taper shaft**



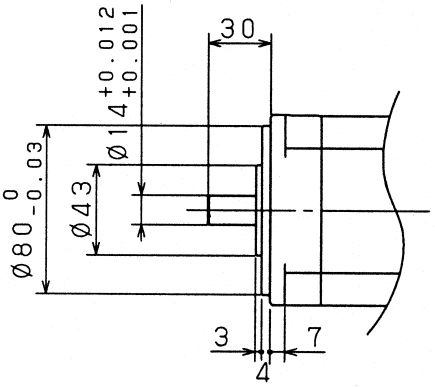
- **φ14 taper shaft**



- **ϕ10 straight shaft**



- **ϕ14 straight shaft**



- **ϕ10 straight shaft with key way**