

# U50 series

## Frameless Torque Motor

Model		U5019	U5024	U5037	U5085
DC voltage (VDC)		48	48	48	48
Rated Output (W)		85	141	220	550
Rated torque(N.m)		0.27	0.45	0.7	1.75
Rated Current (A)		2.5	4	5.8	16
Rated Speed (rpm)		3000	3000	3000	3000
Maximum Speed (rpm)		4500	4500	4500	4500
Instant Max Torque (N.m)		0.8	1.35	2.1	5.25
Instant Max Current(A)		7.5	12	17.5	48
Coil resistance(ohms @20°C)		1.4	0.9	0.45	0.108
Coil Inductance (mH)		0.74	0.55	0.35	0.1
Torque constant (Nm/A)		0.108	0.113	0.120	0.109
Back EMF coefficient (Vrms/KRPM)		7.5	7.5	7.5	6.6
Number of pole-pairs(2P)		10	10	10	10
Rotor inertia(kg.cm <sup>2</sup> )		0.076	0.098	0.163	0.424
Weight(kg)		0.12	0.157	0.266	0.63
Size(mm)	L1(Stator stack height)	13.5	17.5	29.5	77
	L2(Rotor height)	14	18	30	78
	L3(Overall height)	19.9	24.6	37.9	85

### Specification & drawing

