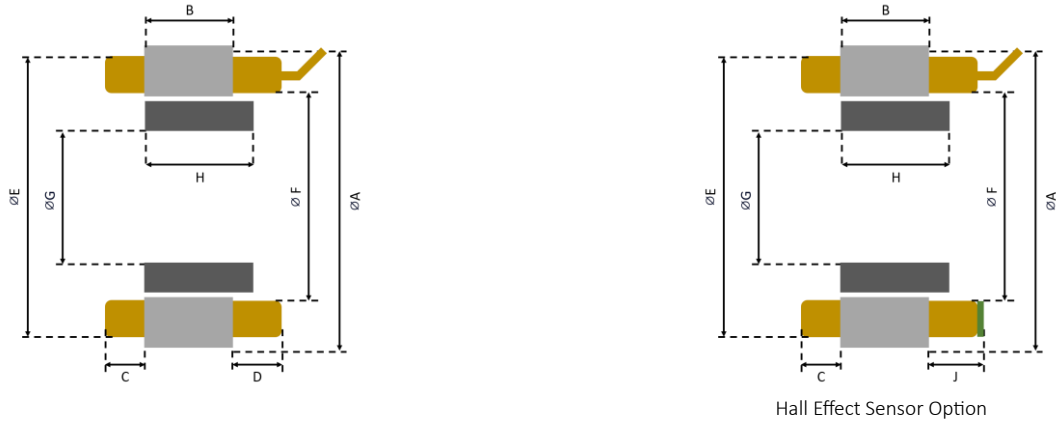


	Motor Parameters	Symbols	Units	UT-TML-175-015		UT-TMH-175-015
PERFORMANCE	DC Bus Voltage	V_{DC}	V	24	48	310
	Rated Torque	T_r	Nm	7.74		7.73
	Peak Torque	T_p	Nm	16.75		20.3
	Rated Speed	N_r	rpm	220	510	2500
	No-Load Speed	$N_{no-load}$	rpm	330	665	2965
	Torque Constant	K_t	Nm/A	0.81		1.19
	Voltage Constant	K_v	V/rpm	0.071		0.104
	Max. Cogging Torque	T_{cog}	%			<1
	Torque Ripple	T_{ripple}	%			<1
	Number of Pole	2p	--			24
ELECTRICAL	Rated Current	I_r	A_{rms}	9.5		6.5
	Peak Current	I_p	A_{rms}	23.75		22.75
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	0.54 ($\pm 20\%$)		1.12 ($\pm 20\%$)
	Line Inductance	$L_{LL}@60Hz$	mH	2.32 ($\pm 30\%$)		5.03 ($\pm 30\%$)
MECHANICAL & THERMAL	Stator Weight	W_s	kg	1.78		1.78
	Rotor Weight	W_r	kg	0.61		0.61
	Total Weight	W_{total}	kg	2.39		2.39
	Mech. Time Constant	K_{mech}	ms	1.6		1.68
	Thermal Resistance ⁽²⁾	R_{th}	$^{\circ}C/W$	0.74		0.63
	Inertia	J	$kg.m^2$			1.642E-3
	Motor Constant	K_m	Nm/\sqrt{W}	0.58	0.38	0.17
	Rotor ID		mm			88
Stator OD		mm			175	

1. All performance and electrical specifications are obtained at 25°C ambient and may change $\pm 10\%$. 2. Housed version of motor mounted to 300 mm sq. x 15 mm aluminum heat sink (maximum winding temperature is 120°C). 3. Higher torque and speed values as well as dimensions on request.

UT-TM(L/H)-175 Outline Drawing



Model	A	B	C	D	E	F	G	H	J
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
UT-TRM-175-015	175	15	11	13	166	120.5	88	17.6	16

Notes:

MOTOR LEADS:

UT-TM(L/H)-175-015: #12 AWG Teflon® insulated, 500 mm (optional) length, 1-Red, 1-White, 1-Black.

THERMISTOR LEADS:

#26 AWG Teflon® insulated, 500 mm (optional) length, 2-Brown.

SENSOR LEADS:

#23 AWG Teflon® insulated, 500 mm (optional) length, 1-Blue, 1-Green, 1-Brown, 1-White, 1-Yellow.

UT-TM(L/H)-175 Torque-Speed Curves

Tr: Rated Torque
Tp: Peak Torque

