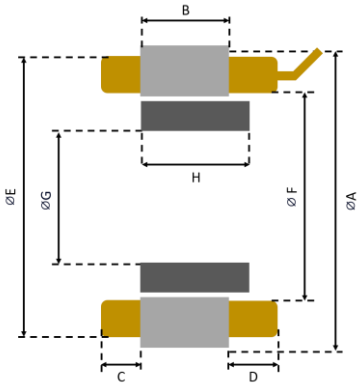
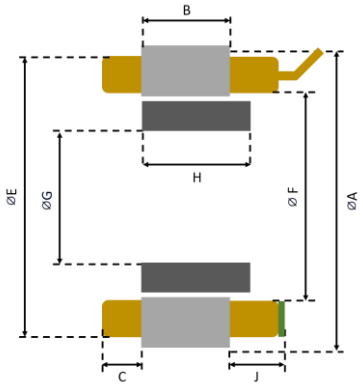
UT-TRM-110 Technical Information

	Motor Parameters	Symbols	Units	UT-TML-110-012		UT-TMH-110-012
PERFORMANCE	DC Bus Voltage	V_{DC}	V	24	48	310
	Rated Torque	T_r	Nm	2.15		2.15
	Peak Torque	T_p	Nm	4.3		5
	Rated Speed	N_r	rpm	310	770	3320
	No-Load Speed	$N_{no\text{-}load}$	rpm	520	1045	3990
	Torque Constant	K_t	Nm/A	0.52		0.88
	Voltage Constant	K_v	V/rpm	0.046		0.078
	Max. Cogging Torque	T_{cog}	%	<1		
	Torque Ripple	T_{ripple}	%	<1		
	Number of Pole	2p	--	16		
ELECTRICAL	Rated Current	I_r	A_{rms}	4.25		2.5
	Peak Current	I_p	A_{rms}	10.6		8.75
	Line Resistance	R_{LL}@25°C	Ohm	1.5 (±20%)		4.4 (±20%)
	Line Inductance	L_{LL}@60Hz	mH	5.5 (±30%)		18.0 (±30%)
MECHANICAL & THERMAL	Stator Weight	W_s	kg	0.74		0.74
	Rotor Weight	W_r	kg	0.19		0.19
	Total Weight	W_{total}	kg	0.93		0.93
	Mech. Time Constant	K_{mech}	ms	0.87		0.87
	Thermal Resistance (2)	R_{th}	°C/W	1.44		1.26
	Inertia	J	$kg.m^2$	1.28E-4		
	Motor Constant	K_m	Nm/√W	0.26	0.16	0.08
	Rotor ID		mm	40		
	Stator OD		mm	110		

1. All performance and electrical specifications are obtained at 25°C ambient and may change ±10%. 2. Housed version of motor mounted to 200 mm sq. x 10 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)-110 Outline Drawing





Hall Effect Sensor Option

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)
UT-TRM-110-012	110	12.5	11	13	105	66	40	15.1	16

Notes:

MOTOR LEADS:
UT-TM(L/H)-110-012: #16 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 or Blue

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

UT-TM(L/H)-110 Torque-Speed Curves

Tr: Rated Torque
Tp: Peak Torque