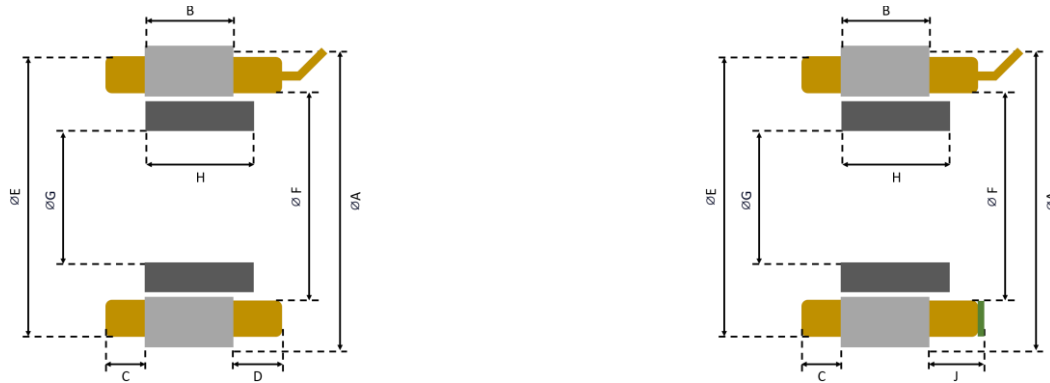


Motor Parameters		Symbols	Units	UT-TML-160-012		UT-TMH-160-012
PERFORMANCE	DC Bus Voltage	$V_{dc}$	V	24	48	310
	Rated Torque	$T_r$	Nm	5.8		5.7
	Peak Torque	$T_p$	Nm	12.55		15.1
	Rated Speed	$N_r$	rpm	220	525	2765
	No-Load Speed	$N_{no-load}$	rpm	350	700	3275
	Torque Constant	$K_t$	Nm/A	0.78		1.08
	Voltage Constant	$K_v$	V/rpm	0.068		0.094
	Max. Cogging Torque	$T_{cog}$	%			<1
	Torque Ripple	$T_{ripple}$	%			<1
	Number of Pole	$2p$	--			24
ELECTRICAL	Rated Current	$I_r$	$A_{rms}$	7.5		5.3
	Peak Current	$I_p$	$A_{rms}$	18.75		18.55
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	0.76 ( $\pm 20\%$ )		1.4 ( $\pm 20\%$ )
	Line Inductance	$L_{LL}@60Hz$	mH	2.82 ( $\pm 30\%$ )		5.5 ( $\pm 30\%$ )
MECHANICAL & THERMAL	Stator Weight	$W_s$	kg	1.2		1.2
	Rotor Weight	$W_r$	kg	0.48		0.48
	Total Weight	$W_{total}$	kg	1.68		1.68
	Mech. Time Constant	$K_{mech}$	ms	1.68		1.68
	Thermal Resistance <sup>(2)</sup>	$R_{th}$	$^{\circ}C/W$	0.82		0.69
	Inertia	$J$	$kg.m^2$			1.11E-4
	Motor Constant	$K_m$	$Nm/\sqrt{W}$	0.58	0.38	0.17
	Rotor ID		mm			80
Stator OD		mm			160	

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)-160 Outline Drawing



Hall Effect Sensor Option

Model	A	B	C	D	E	F	G	H	J
UT-TRM-160-012	160	12.5	11	13	154	112.3	80	15.1	16

### Notes:

MOTOR LEADS:  
UT-TM(L/H)-160-012: #13 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)-160 Torque-Speed Curves

Tr: Rated Torque  
Tp: Peak Torque

