

Motor Parameters		Symbols	Units	WTRM-260-L-035		WTRM-260-L-070		WTRM-260-L-140	
PERFORMANCE	DC Bus Voltage	$V_{DC}$	V	24	48	24	48	24	48
	Rated Torque	$T_r$	Nm	69.1		135.7		201.5	
	Peak Torque	$T_{peak}$	Nm	101.6		199.5		266.9	
	Rated Speed	$N_r$	rpm	65	180	35	110	30	85
	No-Load Speed	$N_{no-load}$	rpm	130	265	85	170	60	120
	Torque Constant	$K_t$	Nm/A	1.82		2.83		4.07	
	Voltage Constant	$K_v$	V/rpm	0.156		0.243		0.348	
	Max. Cogging Torque	$T_{cog}$	%			<1			
	Torque Ripple	$T_{ripple}$	%			<1			
	Number of Pole	$2p$	--			40			
ELECTRICAL	Rated Current	$I_r$	$A_{rms}$	38		48		49.5	
	Peak Current	$I_{peak}$	$A_{rms}$	57		72		66	
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	0.21 ( $\pm 20\%$ )		0.19 ( $\pm 20\%$ )		0.17 ( $\pm 20\%$ )	
	Line Inductance	$L_{LL}@60Hz$	mH	1.04 ( $\pm 30\%$ )		1.18 ( $\pm 30\%$ )		1.15 ( $\pm 30\%$ )	
MECHANICAL & THERMAL	Total Weight	$W_{total}$	kg	9.35		16.56		30.51	
	Mech. Time Constant	$K_{mech}$	ms	1.88		1.47		1.23	
	Thermal Resistance <sup>(2)</sup>	$R_{th}$	$^{\circ}C/W$	0.079		0.042		0.022	
	Inertia	$J$	$kg.m^2$	0.0247		0.0498		0.1000	
	Water Inlet Temp.	$T_w$	$^{\circ}C$			20			
	Water Temp. Diff. Between Inlet-Outlet	$\Delta T_w$	$^{\circ}C$	2.3		2.6		1.6	
	Min. Water Volumetric Flow Rate	$q_w$	l/min	4.4		5.9		9.0	
	Pressure Drop for $q_w$	$\Delta P_w$	bar	0.1378		0.1560		0.0727	
	Environment Temp.	$T_{env}$	$^{\circ}C$			20			
	Rotor ID	$R_{ID}$	mm			178			

Motor Parameters		Symbols	Units	WTRM-260-H-035		WTRM-260-H-070		WTRM-260-H-140	
PERFORMANCE	DC Bus Voltage	$V_{DC}$	V	310	560	310	560	310	560
	Rated Torque	$T_r$	Nm	83.9		166.9		335.3	
	Peak Torque	$T_{peak}$	Nm	142.5		282.8		567.8	
	Rated Speed	$N_r$	rpm	175	365	155	310	110	225
	No-Load Speed	$N_{no-load}$	rpm	285	515	240	435	175	315
	Torque Constant	$K_t$	Nm/A	10.83		12.84		17.65	
	Voltage Constant	$K_v$	V/rpm	0.938		1.112		1.529	
	Max. Cogging Torque	$T_{cog}$	%			<1			
	Torque Ripple	$T_{ripple}$	%			<1			
	Number of Pole	$2p$	--			40			
ELECTRICAL	Rated Current	$I_r$	$A_{rms}$	7.8		13		19	
	Peak Current	$I_{peak}$	$A_{rms}$	14		23.4		34.2	
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	7.56 ( $\pm 20\%$ )		4.1 ( $\pm 20\%$ )		3.16 ( $\pm 20\%$ )	
	Line Inductance	$L_{LL}@60Hz$	mH	35.2 ( $\pm 30\%$ )		24.5 ( $\pm 30\%$ )		22.3 ( $\pm 30\%$ )	
MECHANICAL & THERMAL	Total Weight	$W_{total}$	kg	9.35		16.56		30.51	
	Mech. Time Constant	$K_{mech}$	ms	1.97		1.50		1.23	
	Thermal Resistance <sup>(2)</sup>	$R_{th}$	$^{\circ}C/W$	0.079		0.042		0.022	
	Inertia	$J$	$kg.m^2$	0.0247		0.0498		0.1000	
	Water Inlet Temp.	$T_w$	$^{\circ}C$			20			
	Water Temp. Diff. Between Inlet-Outlet	$\Delta T_w$	$^{\circ}C$	3.7		4.1		4.4	
	Min. Water Volumetric Flow Rate	$q_w$	l/min	4.4		5.9		9.0	
	Pressure Drop for $q_w$	$\Delta P_w$	bar	0.1378		0.1560		0.0727	
	Environment Temp.	$T_{env}$	$^{\circ}C$			20			
	Rotor ID	$R_{ID}$	mm			178			

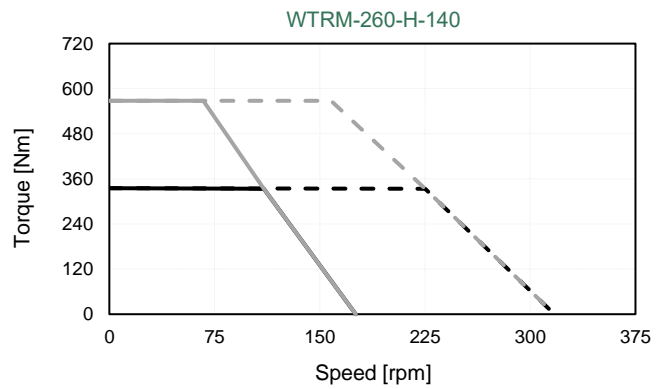
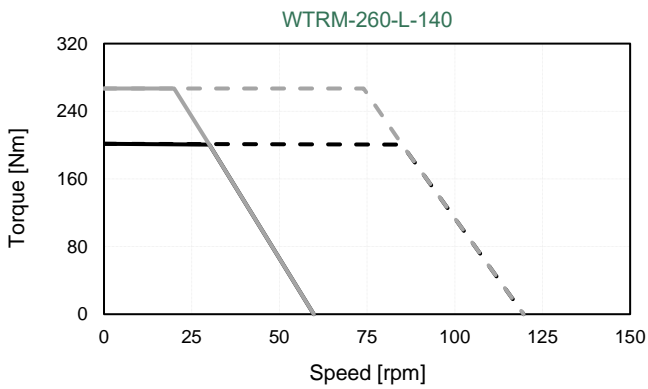
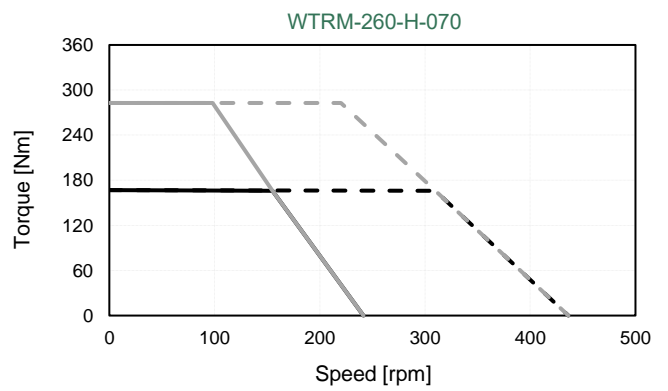
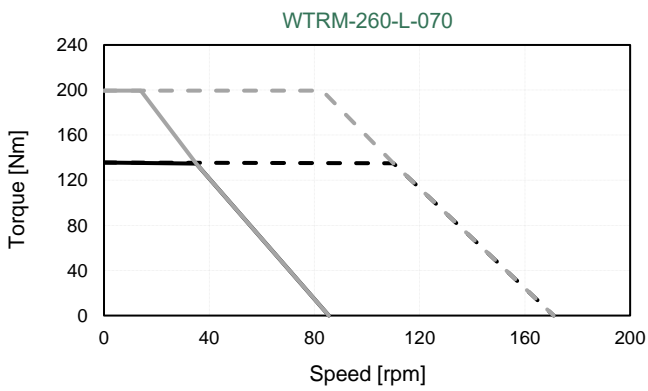
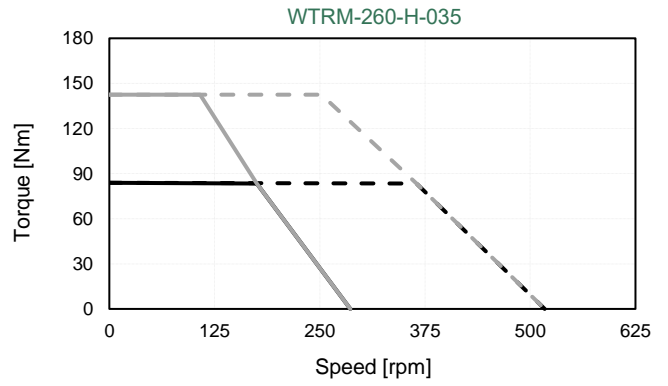
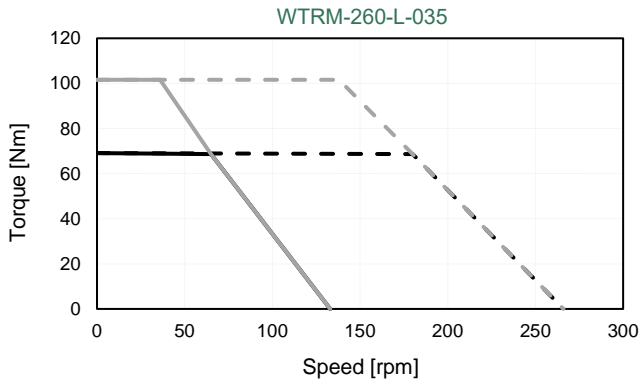
1. All performance and electrical specifications are obtained at 25°C ambient and may change  $\pm 10\%$ . 2. Maximum coil temperature is 130°C. 3. All data referenced to sinusoidal commutation. 4. Higher torque and speed values as well as dimensions on request.

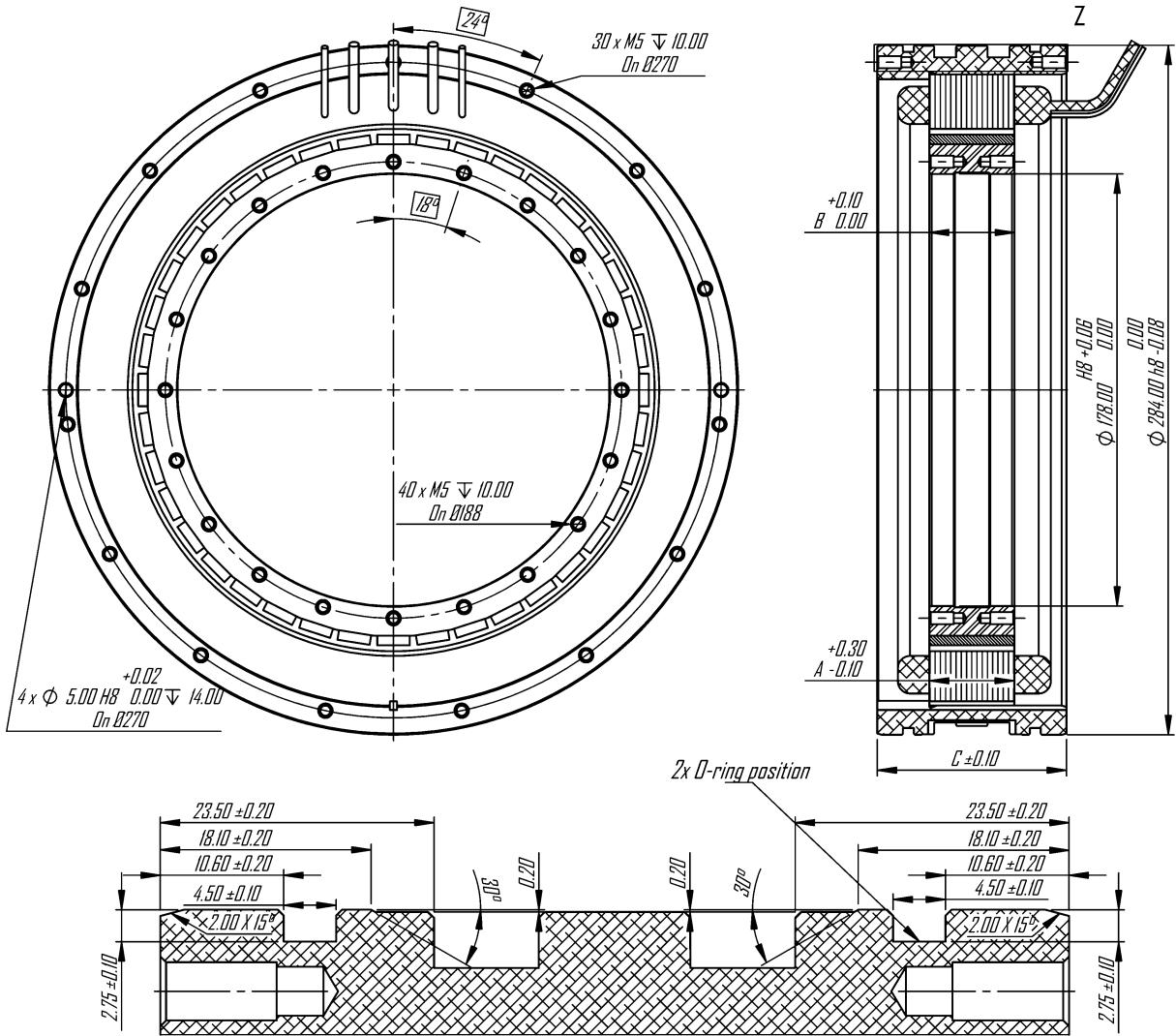
# WTRM-260-(L/H)-Torque-Speed Curves

Tr: Rated Torque  
Tp: Peak Torque

— @Tr 24V    - - - @Tr 48V  
— @Tp 24V    - - - @Tp 48V

— @Tr 310V    - - - @Tr 560V  
— @Tp 310V    - - - @Tp 560V





DETAIL Z  
SCALE 2 : 1

Model	A (mm)	B (mm)	C (mm)
WTRM-(L/H)-260-035	35	35.1	78
WTRM-(L/H)-260-070	70	70.2	113
WTRM-(L/H)-260-140	140	140.4	183

All dimensions in mm

**Notes:**

**MOTOR LEADS:**

WTRM-260-L: #7 AWG Teflon® insulated, 500 mm (optional) length, 1-Red, 1-White, 1-Black.  
 WTRM-260-H: #11 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.

(For detailed mounting information, including tolerances, please contact MDS Motor or refer to the MDS Motor mounting document)