

Motor Parameters		Symbols	Units	HoSM-176-AL		HoSM-176-BL		HoSM-176-CL	
PERFORMANCE	DC Bus Voltage	$V_{DC}$	V	24	48	24	48	24	48
	Rated Torque	$T_r$	Nm	10.8		21.7		30.2	
	Peak Torque	$T_p$	Nm	18		35.8		54.3	
	Rated Speed	$N_r$	rpm	125	315	75	195	65	165
	No-Load Speed	$N_{no-load}$	rpm	220	440	135	275	110	225
	Torque Constant	$K_t$	Nm/A	1.26		2.01		2.42	
	Voltage Constant	$K_v$	V/rpm	0.108		0.172		0.207	
	Max. Cogging Torque	$T_{cog}$	%			<1			
	Torque Ripple	$T_{ripple}$	%			<1			
	Number of Pole	2p	--			24			
ELECTRICAL	Rated Current	$I_r$	$A_{rms}$	8.6		10.8		12.5	
	Peak Current	$I_p$	$A_{rms}$	14.4		18		22.8	
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	0.75 ( $\pm 20\%$ )		0.72 ( $\pm 20\%$ )		0.6 ( $\pm 20\%$ )	
	Line Inductance	$L_{LL}@60Hz$	mH	3.75 ( $\pm 30\%$ )		4.3 ( $\pm 30\%$ )		4.01 ( $\pm 30\%$ )	
MECHANICAL & THERMAL	Total Weight (+Face)	$W_s$	kg	11		14.3		17.8	
	Total Weight (+Flange)	$W_r$	kg	11.4		14.7		18.2	
	Mech. Time Constant	$K_{mech}$	ms	3.42		1.8		1.34	
	Thermal Resistance (2)	$R_{th}$	$^{\circ}C/W$	--		--		--	
	Inertia	$J$	kg.m <sup>2</sup>	0.00538		0.00802		0.01065	
	Friction Torque	$T_f$	Nm			2.8			
	Motor Constant	$K_m$	Nm/ $\sqrt{W}$	0.91	0.57	1.66	1.03	2.11	1.32
	Rotor ID		mm			48			

Motor Parameters		Symbols	Units	HoSM-176-AH		HoSM-176-BH		HoSM-176-CH	
PERFORMANCE	DC Bus Voltage	$V_{DC}$	V	310	560	310	560	310	560
	Rated Torque	$T_r$	Nm	11.2		21.7		29.8	
	Peak Torque	$T_p$	Nm	33.7		65.5		98.8	
	Rated Speed	$N_r$	rpm	325	650	285	555	315	605
	No-Load Speed	$N_{no-load}$	rpm	460	835	375	685	390	715
	Torque Constant	$K_t$	Nm/A	7.79		9.45		9.03	
	Voltage Constant	$K_v$	V/rpm	0.666		0.809		0.775	
	Max. Cogging Torque	$T_{cog}$	%			<1			
	Torque Ripple	$T_{ripple}$	%			<1			
	Number of Pole	2p	--			24			
ELECTRICAL	Rated Current	$I_r$	$A_{rms}$	1.45		2.3		3.3	
	Peak Current	$I_p$	$A_{rms}$	4.8		7.6		12	
	Line Resistance	$R_{LL}@25^{\circ}C$	Ohm	31.6 ( $\pm 20\%$ )		16.5 ( $\pm 20\%$ )		8.4 ( $\pm 20\%$ )	
	Line Inductance	$L_{LL}@60Hz$	mH	155.2 ( $\pm 30\%$ )		103.3 ( $\pm 30\%$ )		60.9 ( $\pm 30\%$ )	
MECHANICAL & THERMAL	Total Weight (+Face)	$W_s$	kg	11		14.3		17.8	
	Total Weight (+Flange)	$W_r$	kg	11.4		14.7		18.2	
	Mech. Time Constant	$K_{mech}$	ms	3.43		1.81		1.34	
	Thermal Resistance (2)	$R_{th}$	$^{\circ}C/W$	--		--		--	
	Inertia	$J$	kg.m <sup>2</sup>	0.00538		0.00802		0.01065	
	Friction Torque	$T_f$	Nm			2.8			
	Motor Constant	$K_m$	Nm/ $\sqrt{W}$	0.58	0.41	0.85	0.58	0.95	0.69
	Rotor ID		mm			48			

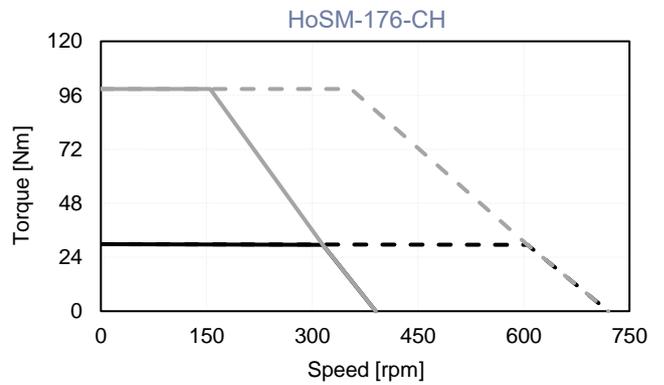
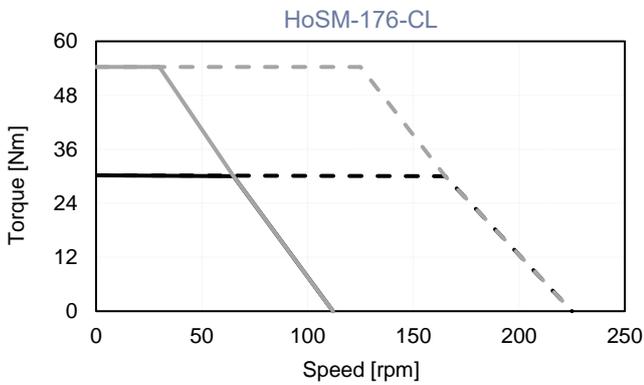
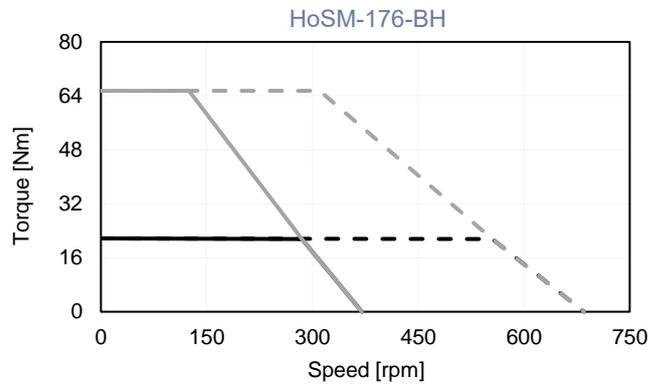
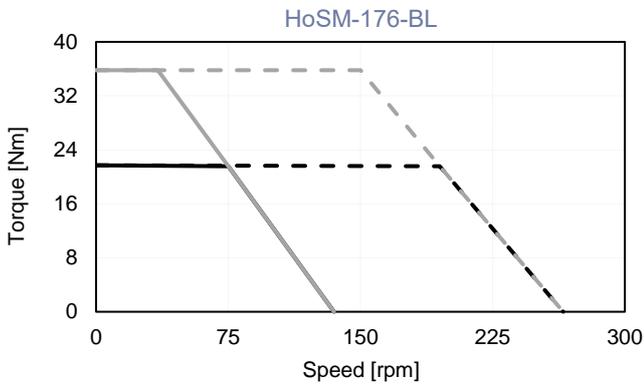
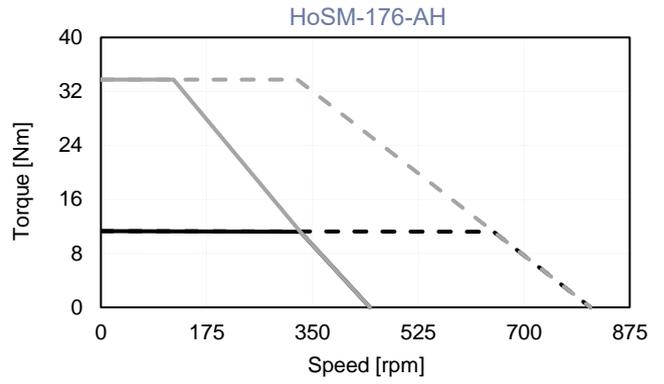
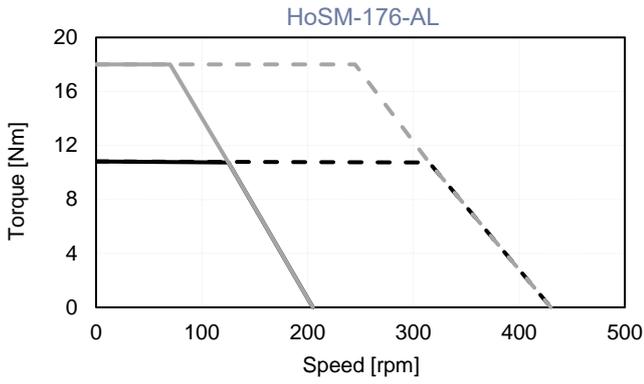
1. All performance and electrical specifications are obtained at 25°C ambient and may change  $\pm 10\%$ .

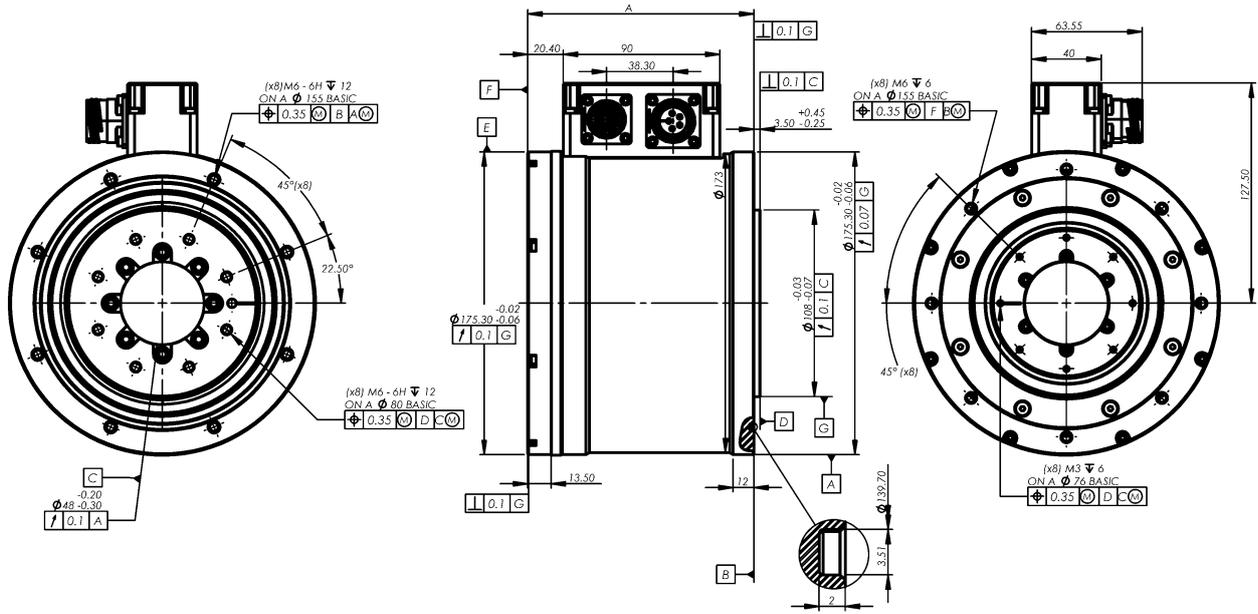
# HoSM-176 Torque-Speed Curves

Tr: Rated Torque  
Tp: Peak Torque

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

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





"O" RING GROOVE

SIGNAL CONNECTOR

POWER CONNECTOR

-FLANGE OPTION-

MODEL	"A"
HoSM-176.A	130 ( $\pm 0,5$ )
HoSM-176.B	154.9 ( $\pm 0,5$ )
HoSM-176.C	180.8 ( $\pm 0,5$ )

- All dimensions in mm
- For different connector sizes please contact MDS Motor

