

Motor Parameters		Symbols	Units	HoSM-135-AL		HoSM-135-BL		HoSM-135-CL		
PERFORMANCE	DC Bus Voltage	$V_{DC}$	V	24	48	24	48	24	48	
	Rated Torque	$T_r$	Nm	4		7.1		10		
	Peak Torque	$T_p$	Nm	7.5		15		22.4		
	Rated Speed	$N_r$	rpm	210	540	160	400	125	315	
	No-Load Speed	$N_{no-load}$	rpm	375	755	260	530	200	410	
	Torque Constant	$K_t$	Nm/A	0.73		1.05		1.33		
	Voltage Constant	$K_v$	V/rpm	0.063		0.09		0.115		
	Max. Cogging Torque	$T_{cog}$	%			<1				
ELECTRICAL	Torque Ripple	$T_{ripple}$	%			<1				
	Number of Pole	$2p$	--			16				
	Rated Current	$I_r$	$A_{rms}$	5.5		6.9		7.5		
	Peak Current	$I_p$	$A_{rms}$	10.6		14.9		17.5		
	Line Resistance	$R_{Ll}@25^{\circ}C$	Ohm	1.28 (±20%)		0.92 (±20%)		0.8 (±20%)		
	Line Inductance	$L_{Ll}@60Hz$	mH	5.42 (±30%)		5.3 (±30%)		5.7 (±30%)		
	MECHANICAL & THERMAL	Total Weight (+Face)	$W_s$	kg	6.3		7.6		9.5	
		Total Weight (+Flange)	$W_r$	kg	6.5		7.8		9.7	
Mech. Time Constant		$K_{mech}$	ms	2.35		1.1		0.77		
Thermal Resistance (2)		$R_{th}$	$^{\circ}C/W$	--		--		--		
Inertia		$J$	kg.m <sup>2</sup>	0.000819		0.00107		0.00132		
Friction Torque		$T_f$	Nm			1.5				
Motor Constant		$K_m$	Nm/ $\sqrt{W}$	0.43	0.27	0.65	0.41	0.87	0.55	
Rotor ID			mm			19				

Motor Parameters		Symbols	Units	HoSM-135-AH		HoSM-135-BH		HoSM-135-CH		
PERFORMANCE	DC Bus Voltage	$V_{DC}$	V	310	560	310	560	310	560	
	Rated Torque	$T_r$	Nm	4		7.1		10.2		
	Peak Torque	$T_p$	Nm	12.4		24.9		37.5		
	Rated Speed	$N_r$	rpm	1010	1910	885	1650	780	1465	
	No-Load Speed	$N_{no-load}$	rpm	1275	2315	1075	1950	935	1690	
	Torque Constant	$K_t$	Nm/A	2.79		3.33		3.81		
	Voltage Constant	$K_v$	V/rpm	0.24		0.28		0.33		
	Max. Cogging Torque	$T_{cog}$	%			<1				
ELECTRICAL	Torque Ripple	$T_{ripple}$	%			<1				
	Number of Pole	$2p$	--			16				
	Rated Current	$I_r$	$A_{rms}$	1.45		2.15		2.7		
	Peak Current	$I_p$	$A_{rms}$	5.55		9.35		12.25		
	Line Resistance	$R_{Ll}@25^{\circ}C$	Ohm	16.4 (±20%)		9.6 (±20%)		6.8 (±20%)		
	Line Inductance	$L_{Ll}@60Hz$	mH	95.0 (±30%)		53.7 (±30%)		45.4 (±30%)		
	MECHANICAL & THERMAL	Total Weight (+Face)	$W_s$	kg	6.3		7.6		9.5	
		Total Weight (+Flange)	$W_r$	kg	6.5		7.8		9.7	
Mech. Time Constant		$K_{mech}$	ms	2.08		1.12		0.75		
Thermal Resistance (2)		$R_{th}$	$^{\circ}C/W$	--		--		--		
Inertia		$J$	kg.m <sup>2</sup>	0.000819		0.00107		0.00132		
Friction Torque		$T_f$	Nm			1.5				
Motor Constant		$K_m$	Nm/ $\sqrt{W}$	0.20	0.14	0.28	0.20	0.36	0.26	
Rotor ID			mm			19				

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

# HoSM-135 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



