

Harowe™ Resolver Selection Guide

	BRUSHLESS ULTRA-PERFORMANCE RESOLVERS									
	HOUSED			FRAMELESS						
	Heavy-Duty		Mill-Duty	Heavy-Duty					Heavy-Duty High Accuracy	
										
11	R11	Series R25	10	15	21	31	55	HaroMax® 15	HaroMax® 21	
Nominal Size (OD)	1.1 inch	1.1 inch	2.5 inch	1.0 inch	1.5 inch	2.1 inch	3.1 inch	5.5 inch	1.5 inch	2.1 inch
Mounting System	Servo	Servo	Flange/Servo	Flange/Servo	Flange/Servo	Flange/Servo	Flange/Servo	Flange/Servo	Flange/Servo	Flange/Servo
Flux Shield Technology		●	●	●	●	●	●	●	●	●
Shaft/Max Bore Sizes	Shaft Size: 0.120" (3.05mm)	Shaft Size: 0.120" (3.05mm)	Shaft Size: 0.3745" (9.51mm)	Max Bore Size: 0.25" (6mm)	Max Bore Size: 0.472" (12mm)	Max Bore Size: 0.800" (20mm)	Max Bore Size: 1.576" (40mm)	Max Bore Size: 3.651" (93mm)	Max Bore Size: 0.472" (12mm)	Max Bore Size: 0.800" (20mm)
Input Volts (Vrms)	2 to 26	2 to 6	2 to 8	2 to 12	2 to 12	2 to 12	2 to 12	2 to 12	2 to 12	2 to 12
Input Frequency (Hz)	400 to 5K	2K to 10K	2K to 10K	2K to 10K	2K to 10K	2K to 10K	2K to 10K	2K to 10K	2K to 10K	2K to 10K
Transformation Ratio	.39 to 1.75	.45 to 1.4	.25 to 1.0	.25 to 1.0	.25 to 1.0	.25 to 1.0	.25 to 1.0	.25 to 1.0	.25 to 1.0	.25 to 1.0
Resolver Speed (electrical/mechanical cycles)	1X, 2X, 4X or 5X	1X	1X, 2X or 3X	1X	1X, 2X, 3X or 4X	1X, 2X, 3X or 4X	Multi-speeds available (up to 8X)	Multi-speeds available (up to 32X)	1X	1X
Electrical Error (Accuracy) for 1X versions only	±3 arcmin	±6 arcmin	±7 arcmin	±15 arcmin	±10 arcmin	±7 arcmin	±20 arcmin	±30 arcmin	±5 arcmin	±5 arcmin
Bearing Load Ratings	17 lb (static), 44 lb (dynamic)	61 lb (static), 148 lb (dynamic)	303 lb (static), 741 lb (dynamic)							
Max Bearing Radial Play	.0002 to .0005 in	.0003 to .0009 in	.0002 to .0005 in							
Bearing Type	Type ABEC 3	Type ABEC 1	Type ABEC 1							
Shock, Vibration and Radiation Resistance	High shock resistance	High shock resistance	Shock: 200g Vibration: 40g	High shock, vibration and radiation resistance	High shock, vibration and radiation resistance	High shock, vibration and radiation resistance	High shock, vibration and radiation resistance	High shock, vibration and radiation resistance	High shock and vibration resistance	High shock and vibration resistance
Operating Temperature	Up to 125°C	Up to 125°C	Up to 125°C	Up to 200°C	Up to 200°C	Up to 200°C	Up to 200°C	Up to 200°C	Up to 200°C	Up to 200°C
Housing Material	Steel	Steel	Aluminum	Steel	Steel or Aluminum	Steel or Aluminum	Steel	Steel	Aluminum	Aluminum
Enclosure Rating			(IP65)							

*Consult Applications Engineering for any customized needs

SELECTION CRITERION

MECHANICAL				ELECTRICAL			
1	Construction-	Housed or Frameless		1	Primary	Rotor or Stator	
2	Input-	Shaft OD or Bore ID		2	Speed	Single or Multiple	
3	Special Considerations	Operating Temperature		3	Excitation Voltage-	Vrms	
		High Shock		4	Excitation Frequency-	Hz	
		High Vibration		5	Output Voltage-	Vrms	
		Radiation Hardening			or		
		High RPM			Transformation Ratio		
		Other		6	Accuracy	arc min	
				7	Maximum Phase Shift	degrees	