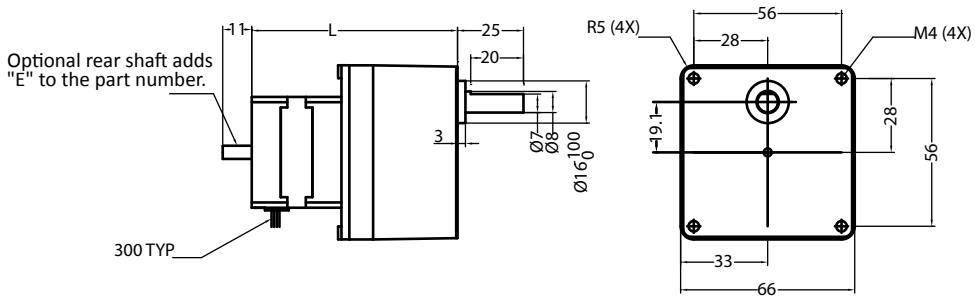
MRIG-HSX series - Geared Hybrid Stepper Motors

The combination of the MRIG gearhead and HSX series hybrid stepper motor provides excellent performance together with high resolution. The units are therefore ideally suited to a wide variety of high performance instrumentation and light industrial applications.

- Low cost due to advanced design and manufacturing techniques
- Wide range of motor options including encoder feedback and brakes
- High continuous and peak torque capability.
- Wide range of gear ratios
- Non-standard customised executions available to special order
- A wide range of matched drives and controls available

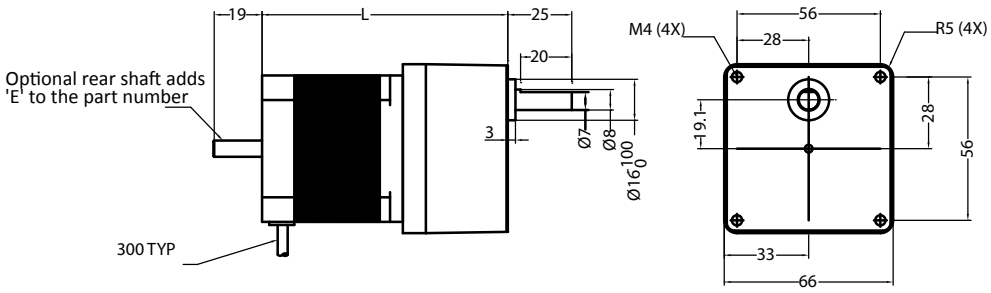
Outline dimensions (mm)

MRIG-XX/17HS-XXX



A Ballrace Bearing adds "B" to the part number.

MRIG-XX/23HSX-XXX



A Ballrace Bearing adds "B" to the part number.

MRIG/17HS-020 Geared Hybrid Stepper Motor

17HS-020 motor specifications		
Resistance per phase	Ohm	5.6
Current per phase	A	1
Inductance per phase	mH	8.5
Number of leads		4

MRIG/17HS-020 Geared Hybrid Stepper Motor specification and part numbers

Order code	Length (L) mm	Ratio	Holding Torque on Output Ncm	Continuous Output Torque at 6000 half-steps per sec Ncm	Maximum Continuous Torque Ncm	Mass kg	Efficiency %
MRIG02-S/17HS020(E)	78	5:1	70	27	300	0.66	95
MRIG06-S/17HS020(E)	78	25:2	175	67	300	0.66	95
MRIG11-S/17HS020(E)	78	25:1	350	121	450	0.68	90
MRIG17-S/17HS020(E)	78	50:1	700	243	450	0.68	90
MRIG22-S/17HS020(E)	78	100:1	1400	435	450	0.70	85
MRIG23-S/17HS020(E)	78	125:1	1750	543	450	0.70	85
MRIG27-S/17HS020(E)	78	250:1	3500	975	600	0.72	80
MRIG34-S/17HS020(E)	78	500:1	7000	1950	600	0.72	80
MRIG39-S/17HS020(E)	78	1000:1	14000	3900	600	0.72	80

MRIG/17HS-240 Geared Hybrid Stepper Motor

17HS-240 motor specifications		
Resistance per phase	Ohm	0.72
Current per phase	A	2.3
Inductance per phase	mH	0.83
Number of leads		4

MRIG/17HS-240 gearhead specification and part numbers

Order code	Length (L) mm	Ratio	Holding Torque on Output Ncm	Continuous Output Torque at 6000 half-steps per sec Ncm	Maximum Continuous Torque Ncm	Mass kg	Efficiency %
MRIG02-S/17HS240(E)	90	5:1	145	64	300	0.76	95
MRIG06-S/17HS240(E)	90	25:2	362.5	162	300	0.76	95
MRIG11-S/17HS240(E)	90	25:1	725	292	450	0.78	90
MRIG17-S/17HS240(E)	90	50:1	1450	585	450	0.78	90
MRIG22-S/17HS240(E)	90	100:1	2900	1044	450	0.80	85
MRIG23-S/17HS240(E)	90	125:1	3625	1305	450	0.80	85
MRIG27-S/17HS240(E)	90	250:1	7250	2340	600	0.82	80
MRIG34-S/17HS240(E)	90	500:1	14500	4680	600	0.82	80
MRIG39-S/17HS240(E)	90	1000:1	29000	9360	600	0.82	80

MRIG/23HSX-102 Geared Hybrid Stepper Motor

23HSX-102 motor specifications		
Resistance per phase	Ohm	4.6
Current per phase	A	1
Inductance per phase	mH	4.6
Number of leads		8

MRIG/23HSX-102 Geared Hybrid Stepper Motor specification and part numbers

Order code	Length (L) mm	Ratio	Holding Torque on Output Ncm	Continuous Output Torque at 6000 half-steps per sec Ncm	Maximum Continuous Torque Ncm	Mass kg	Efficiency %
MRIG02-S/23HSX-102(E)	85	5:1	185	118	300	1.0	95
MRIG06-S/23HSX-102(E)	85	25:2	462	297	300	1.0	95
MRIG11-S/23HSX-102(E)	85	25:1	925	536	450	1.0	90
MRIG17-S/23HSX-102(E)	85	50:1	1850	1072	450	1.0	90
MRIG22-S/23HSX-102(E)	85	100:1	3700	1914	450	1.0	85
MRIG23-S/23HSX-102(E)	85	125:1	4625	2392	450	1.0	85
MRIG27-S/23HSX-102(E)	85	250:1	9250	4290	600	1.2	80
MRIG34-S/23HSX-102(E)	85	500:1	18500	8580	600	1.2	80
MRIG39-S/23HSX-102(E)	85	1000:1	37000	17160	600	1.2	80

MRIG/23HSX-202 Geared Hybrid Stepper Motor

23HSX-202 motor specifications		
Resistance per phase	Ohm	6.2
Current per phase	A	1
Inductance per phase	mH	8.8
Number of leads		8

MRIG/23HSX-202 gearhead specification and part numbers

Order code	Length (L) mm	Ratio	Holding Torque on Output Ncm	Continuous Output Torque at 6000 half-steps per sec Ncm	Maximum Continuous Torque Ncm	Mass kg	Efficiency %
MRIG02-S/23HSX-202(E)	98	5:1	375	234	300	1.1	95
MRIG06-S/23HSX-202(E)	98	25:2	937	585	300	1.1	95
MRIG11-S/23HSX-202(E)	98	25:1	1875	1056	450	1.1	90
MRIG17-S/23HSX-202(E)	98	50:1	3750	2112	450	1.1	90
MRIG22-S/23HSX-202(E)	98	100:1	7500	3770	450	1.1	85
MRIG23-S/23HSX-202(E)	98	125:1	9375	4712	450	1.1	85
MRIG27-S/23HSX-202(E)	98	250:1	18750	8450	600	1.2	80
MRIG34-S/23HSX-202(E)	98	500:1	37500	16900	600	1.2	80
MRIG39-S/23HSX-202(E)	98	1000:1	75000	33800	600	1.2	80

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MRIG/23HSX-206 Geared Hybrid Stepper Motor

23HSX-206 motor specifications		
Resistance per phase	Ohm	0.7
Current per phase	A	3.0
Inductance per phase	mH	0.9
Number of leads		8

MRIG/23HSX-206 Geared Hybrid Stepper Motor specification and part numbers

Order code	Length (L) mm	Ratio	Holding Torque on Output Ncm	Continuous Output Torque at 6000 half-steps per sec Ncm	Maximum Continuous Torque Ncm	Mass kg	Efficiency %
MRIG02-S/23HSX-206(E)	98	5:1	375	234	300	1.1	95
MRIG06-S/23HSX-206(E)	98	25:2	937	585	300	1.1	95
MRIG11-S/23HSX-206(E)	98	25:1	1875	1056	450	1.1	90
MRIG17-S/23HSX-206(E)	98	50:1	3750	2112	450	1.1	90
MRIG22-S/23HSX-206(E)	98	100:1	7500	3770	450	1.1	85
MRIG23-S/23HSX-206(E)	98	125:1	9375	4712	450	1.1	85
MRIG27-S/23HSX-206(E)	98	250:1	18750	8450	600	1.2	80
MRIG34-S/23HSX-206(E)	98	500:1	37500	16900	600	1.2	80
MRIG39-S/23HSX-206(E)	98	1000:1	75000	33800	600	1.2	80

MRIG/23HSX-306 Geared Hybrid Stepper Motor

23HSX-306 motor specifications		
Resistance per phase	Ohm	1.1
Current per phase	A	3.0
Inductance per phase	mH	1.7
Number of leads		8

MRIG/23HSX-306 gearhead specification and part numbers

Order code	Length (L) mm	Ratio	Holding Torque on Output Ncm	Continuous Output Torque at 6000 half-steps per sec Ncm	Maximum Continuous Torque Ncm	Mass kg	Efficiency %
MRIG02-S/23HSX-306(E)	98	5:1	625	360	300	1.1	95
MRIG06-S/23HSX-306(E)	98	25:2	1562	900	300	1.1	95
MRIG11-S/23HSX-306(E)	98	25:1	3125	1625	450	1.1	90
MRIG17-S/23HSX-306(E)	98	50:1	6250	3250	450	1.1	90
MRIG22-S/23HSX-306(E)	98	100:1	12500	5800	450	1.1	85
MRIG23-S/23HSX-306(E)	98	125:1	15625	7250	450	1.1	85
MRIG27-S/23HSX-306(E)	98	250:1	31250	13000	600	1.2	80
MRIG34-S/23HSX-306(E)	98	500:1	62500	26000	600	1.2	80
MRIG39-S/23HSX-306(E)	98	1000:1	125000	52000	600	1.2	80

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