

MSO 60D Oscillator / Microstepping Driver

- Compact size using ASIC and SMT Technology
- 24 - 75 Vdc Rated Supply Input
- 0.625 - 5 Arms Rated Phase Current, Up to 7.1 Amps Peak
- Adjustable Acceleration and Deceleration rates
- Two independent run speeds
- Optically isolated signal RUN/STOP, LOW SPEED, DIR and ENABLE
- Analog command input (scaleable)
- Internal or External speed command



Drive Performance								
Catalog Number	Voltage Range Vdc	Current Rating		Switch Freq kHz	Steps per revolution (1.8 Degree Two Phase Motor)	Weight		
		RMS Ic	Peak Ip			Kg	Lb	
MSO60D	+24 to 75	0.625 to 5	0.625 to 7.1	20	200, 400, 800, 1k, 1600, 2k, 3.2k, 5k, 6.4k, 10k, 12.8k, 25k, 25.6k, 50k & 51.2k	0.454	1.00	

Holding Torque 2 Phases On		Current Rated / ph Iph Amps DC	Phase Connection Types	Motor Inertia Jm		Motor Diameter		Motor Length Lm		Motor Weight W		Motor Catalog Number Shaft Configuration		Drive Catalog Number
Th - Minimum Ncm	oz-in			g-cm ²	oz-in-s ²	mm	inch	mm	inch	kg	lb	Double	Single	
17	24	1.5	4 lead	18	0.00025	42	1.66	34	1.34	0.2	0.44	IS 17 007	IS 17 003	MSD 60D
24	34	0.8	Parallel Series	55	0.00078	42	1.66	39	1.54	0.3	0.57	IS 17 009	IS 17 016	MSD 60D
34	48	0.6												
31	44	1.0	4 lead	32	0.00045	42	1.66	43	1.69	0.3	0.66	IS 17 005	IS 17 018	MSD 60D
55	78	1.1	Parallel Series	68	0.00096	42	1.66	47	1.85	0.3	0.73	IS 17 011	IS 17 020	MSD 60D
55	78	0.6												
54	76	1.4	Parallel Series	77	0.00109	56	2.20	41	1.61	0.5	1.10	IH 23 008	IH 23 001	MSD 60D
54	76	0.7												
54	76	2.2	4 lead	77	0.00109	56	2.20	41	1.61	0.5	1.10	IH 23 009	IH 23 002	MSD 60D
111	157	1.4	Parallel Series	220	0.00312	56	2.20	55	2.17	0.7	1.54	IH 23 010	IH 23 003	MSD 60D
111	157	0.7												
111	157	4.2	Parallel Series	220	0.00312	56	2.20	55	2.17	0.7	1.54	IH 23 012	IH 23005	MSD 60D
111	157	2.1												
182	258	2.1	4 lead	340	0.00482	56	2.20	77	3.03	1.0	2.20	IH 23 013	IH 23006	MSD 60D
182	258	4.2	Parallel Series	340	0.00482	56	2.20	77	3.03	1.0	2.20	IH 23 014	IH 23 007	MSD 60D
182	258	2.1												
319	452	2.0	Parallel Series	660	0.00935	86	3.39	67	2.64	1.7	3.75	IH 34 108	IH 34 101	MSD 60D
319	452	1.0												
319	452	4.0	Parallel Series	660	0.00935	86	3.39	67	2.64	1.7	3.75	IH 34 109	IH 34 102	MSD 60D
319	452	2.0												
319	452	3.0	Series	660	0.00935	86	3.39	67	2.64	1.7	3.75	IH 34 110	IH 34 103	MSD 60D
538	762	4.0	Parallel Series	1200	0.01699	86	3.39	94	3.70	2.5	5.51	IH 34 111	IH 34 104	MSD 60D
538	762	2.0												
538	762	3.0	Series	1200	0.01699	86	3.39	94	3.70	2.5	5.51	IH 34 112	IH 34 105	MSD 60D
920	1303	4.9	Parallel Series	1800	0.02549	86	3.39	126	4.94	3.8	8.27	IH 34 113	IH 34 106	MSD 60D
920	1303	2.5												
920	1303	4.5	Series	1800	0.02549	86	3.39	126	4.94	3.8	8.27	IH 34 114	IH 34 107	MSD 60D

Notes: Visit www.mcg-net.com for more individual CAD drawings & data Warning: Maximum Bus Voltage for the IS17 is 48 Vdc

The MSO 60D is an economical and compact size microstepping driver for use with MCG Step Motors. These Drives require an unregulated DC power supply. These Models interface with typical PLC or Motion Control Cards

Protection / Diagnostics

- Thermal
- Phase to ground
- Phase to Phase
- Voltage to Phase
- Enable LED indicator
- Internal power supply under-voltage

Adjustments

- 15 microstep resolutions, dip switch selectable both in decimal and binary
- Step filter response (digital filter to reduce noise on the step input)
- Adjustable output current (per phase) via dip switch setting (fixed 0.625 amp increments)
- Adjustable idle current reduction time response(0.05, 0.1 or 1.0 sec). Automatically reduces idle currents at dwell
- Enable Sense Control can be changed via a jumper setting

General Features

- No minimum motor inductance required
- Single power supply
- Built in Mid-range instability circuit (electronic damping) to maintain torque at high speeds

