

# WASHDOWN STEPPER MOTORS

## IP65 RATED STEPPER MOTORS FOR WET AND DUSTY ENVIRONMENTS

**NEW**

### OMHW SERIES



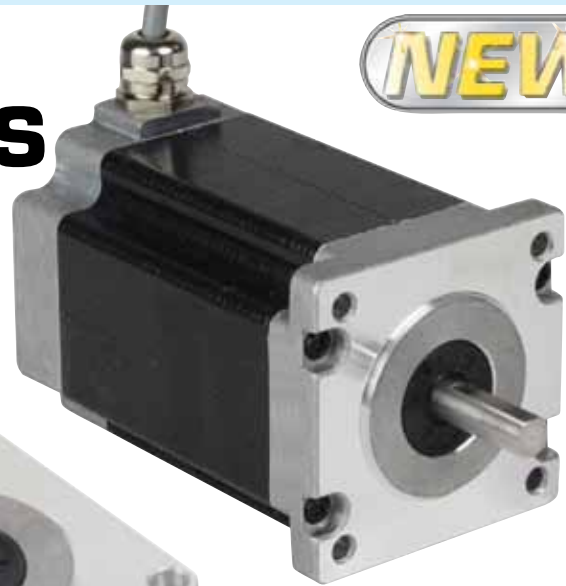
- NEMA 23, 24 and 34 Frame Sizes Available
- Integral 3 m (10') Shielded Cable with Cable Gland
- Sealed Laminations
- Front Shaft Seal

TRODEKS® is pleased to announce the addition of NEMA size 23, 24 and 34 stepper motors with IP65 ratings for operation in severe environmental conditions.

The OMHW series are dust proof and resistant to low pressure water jets, and are ideal for applications in wet factory environments such as the food and beverage industry or outdoor use. Key features include a nickel plated brass cable gland, sealed laminations, and front shaft contact seal. All models have an internal corrosion-resistant film coating as standard.

IP65 specifies a product that is dust tight (no ingress of dust; complete protection against contact) and protected against water jets (water projected by a nozzle from any direction shall have no harmful effects).

OMHW24-108 shown smaller than actual size.



OMHW23-601 shown smaller than actual size.



OMHW23-598 shown smaller than actual size.

#### DESIGN TIPS

- Series connect lead wires for best torque at low speeds.
- Center tap to end or parallel connect lead wires for best torque at higher speeds.
- Keep motor case temperature below 100°C. This can be achieved by lowering the motor current or limiting the duty cycle.
- Allow sufficient time to accelerate load.
- Size motor with 100% safety factor for required torque @ speed.
- Do not disassemble motors. A significant reduction in motor performance will result.
- Do not disconnect motor from drive while in operation.
- Do not use holding torque/detent torque of motor as fail safe brake.

#### MOTION INSTALLATION TIPS

- Mount the motor securely against a surface with good thermal conductivity such as steel or aluminum.
- Properly align the motor with the load using a flexible coupling.
- Protect the motor shaft from excessive thrust, overhang and shock loads.

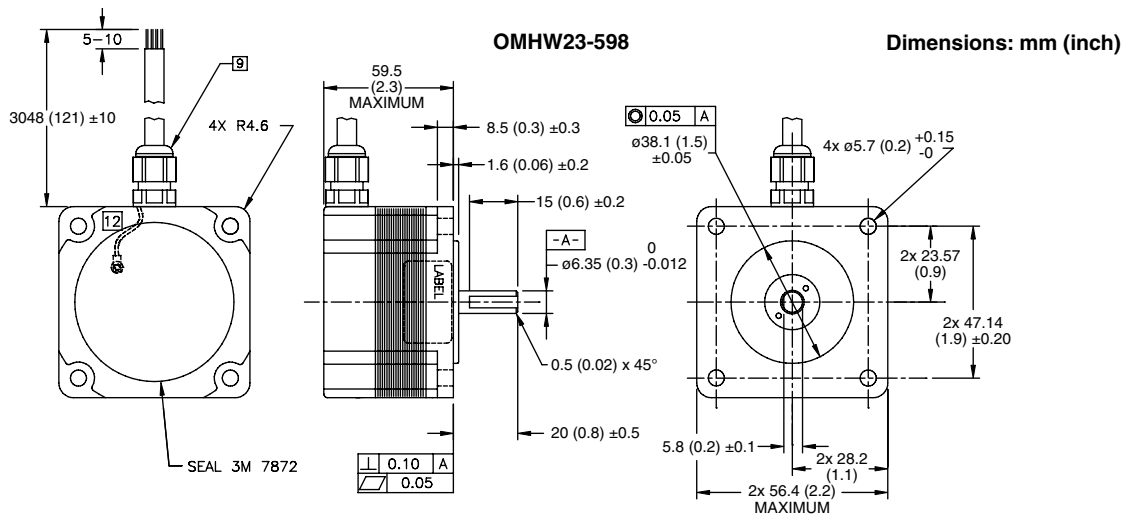


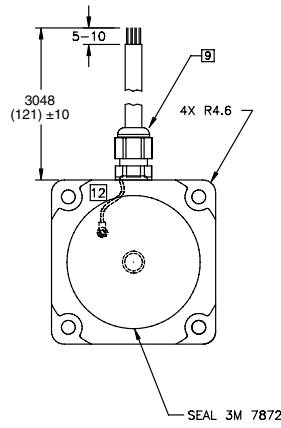
**ELECTRICAL SPECIFICATIONS**

MODEL NO.	MOTOR CONNECTION 1=SERIES 2=PARALLEL 3=UNIPOLAR	MOTOR LENGTH mm (inch)	MINIMUM HOLDING TORQUE (oz-in)	LEADS	STEP ANGLE (DEG)	VOLTS	AMPS	OHMS	mH	ROTOR INERTIA g- cm <sup>2</sup> (oz-in <sup>2</sup> )	MOTOR WEIGHT g (lbs)
OMHW23-598	1	59.5 (2.34)	158	8	1.8	4.2	2.12	2.0	5.6	1.42	599 (1.32)
	2					2.1	4.24	0.5	1.4		
	3		3.0			3.00	1.0	1.4			
OMHW23-601	1	81.5 (3.21)	269	8	1.8	4.7	2.12	2.2	6.8	2.51	998 (2.2)
	2		3.0			4.24	0.7	1.7			
	3		3.3			3.00	1.1	1.7			
OMHW23-753	1	55.5 (2.18)	153	8	1.8	9.9	0.71	14.0	51.2	1.20	549 (1.21)
	2		4.9			1.41	3.5	12.8			
	3		7.0			1.00	7.0	12.8			
OMHW23-754	1	82 (3.23)	227	8	1.8	11.8	0.71	16.6	60.8	2.51	998 (2.2)
	2		5.8			1.41	4.15	15.2			
	3		8.3			1.00	8.3	15.2			
OMHW24-108	2	94.5 (3.72)	354	4	1.8	3.6	4.0	1.0	2.1	4.91	1361 (3)
OMHW34-506	1	127 (5.00)	1260	8	1.8	7.3	2.8	2.6	2.6	14.94	3810 (8.4)
	2		3.6			5.6	0.65	5.4			
	3		5.2			4.0	1.29	5.4			
OMHW34-696	1	116.5 (4.59)	1062	8	1.8	9.7	2.03	4.8	43.2	14.94	3810 (8.4)
	2		4.9			4.06	1.2	10.8			
	3		7.0			2.90	2.4	10.8			

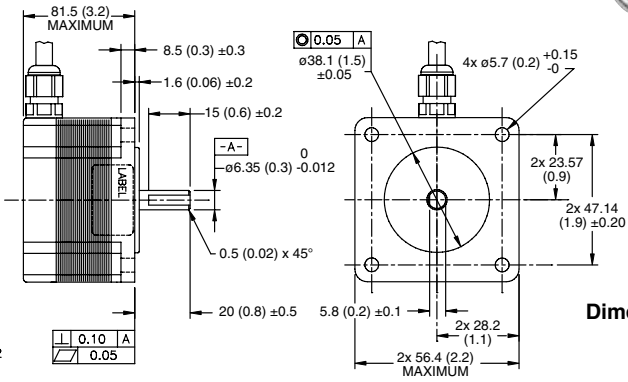
**MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS**

	SIZE HW23	SIZE HW24	SIZE HW34
SHAFT RUN-OUT (inches)	0.002	0.0012	0.002
RADIAL PLAY (inch/Lbs) @ 1.1 lb	0.0008 maximum @ 1.1 lb	0.0008 maximum @ 1.1 lb	0.001 maximum @ 1.1 lb
END PLAY (inch/lbs)	0.003 maximum @ 2.2 lbs	0.003 maximum @ 2.2 lbs	0.003 maximum @ 2.2 lbs
OPERATING TEMPERATURE RANGE	>-20 to 50°C (-4 to 122°F)		
INSULATION CLASS	130°C (266°F) Class B		
LEAD WIRE GAUGE	22 AWG		
MAXIMUM RADIAL LOAD (lbs)	15	15	28
MAXIMUM THRUST LOAD (lbs)	25	25	50

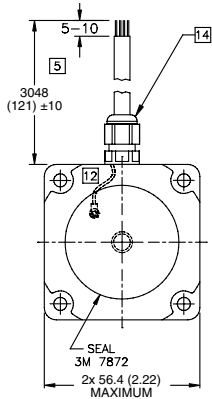




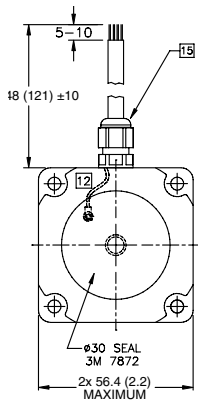
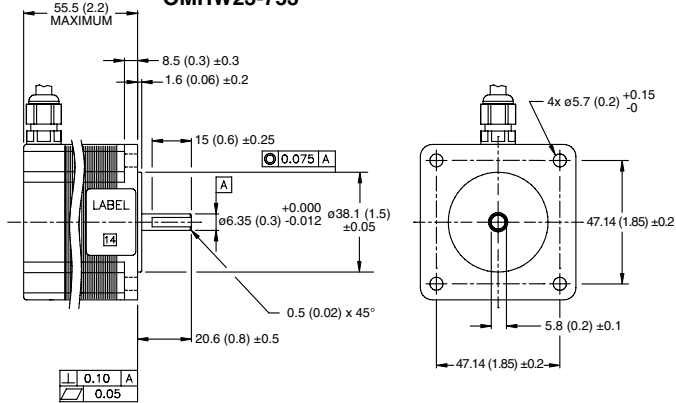
**OMHW23-601**



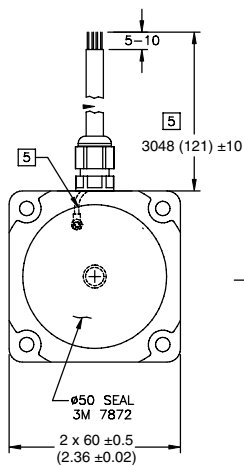
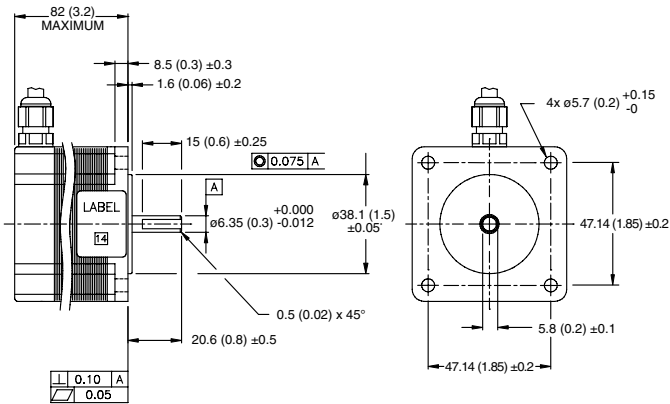
Dimensions: mm (inch)



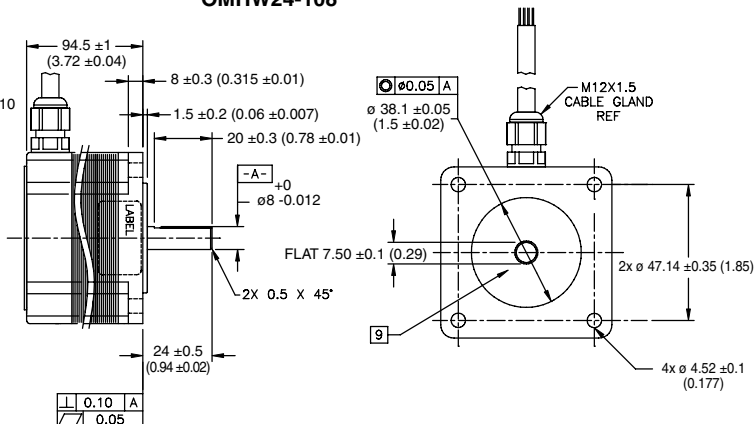
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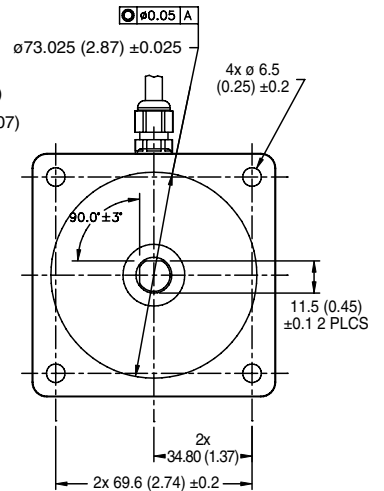
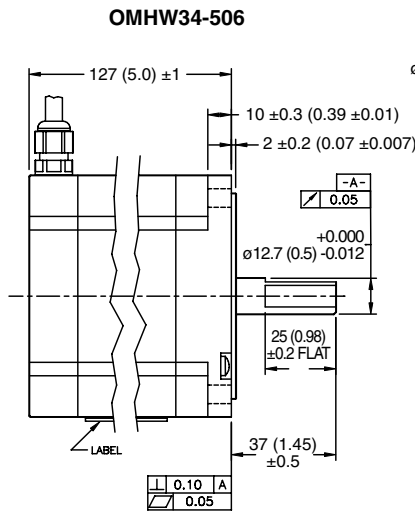
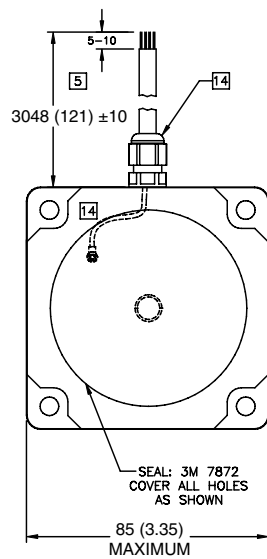


**OMHW23-754**

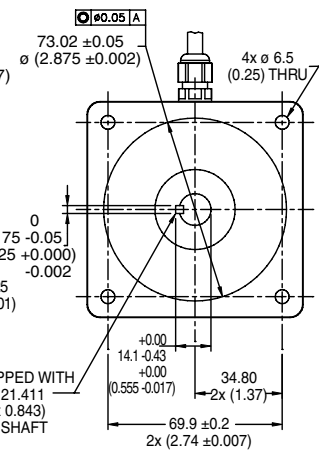
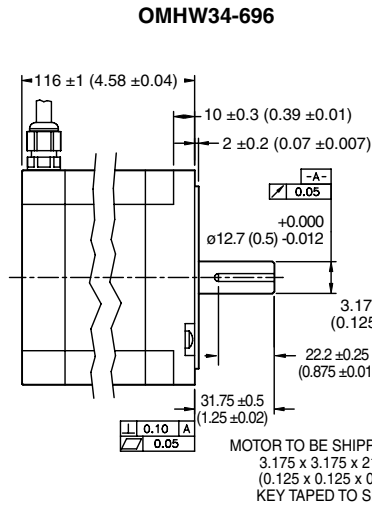
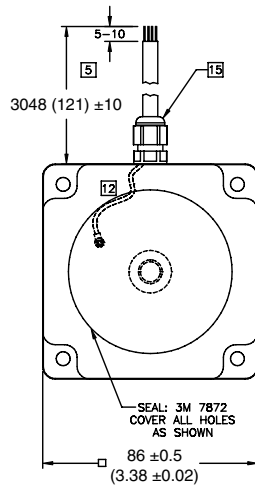


**OMHW24-108**





Dimensions: mm (inch)



**OPTIMAL DRIVE/MOTOR COMBINATIONS**

MODEL NO.	OPTIMAL DRIVE
OMHW23-753	2035, 3540i, 3540M/MO, Si3540, STR2, ST5, STAC6
OMHW23-754	2035, 3540i, 3540M/MO, Si3540, STR2, ST5
OMHW23-598	STR8, ST5
OMHW23-601	STR8, ST5
OMHW24-108	STR8, ST5
OMHW34-506	STR8, ST10
OMHW34-696	STR8, ST5

To Order	
MODEL NO.	DESCRIPTION
OMHW23-598	NEMA 23 step motor, 158 oz-in minimum holding torque, 4.24 A/phase (parallel)
OMHW23-601	NEMA 23 step motor, 269 oz-in minimum holding torque, 4.24 A/phase (parallel)
OMHW23-753	NEMA 23 step motor, 153 oz-in minimum holding torque, 1.41 A/phase (parallel)
OMHW23-754	NEMA 23 step motor, 227 oz-in minimum holding torque, 1.41 A/phase (parallel)
OMHW24-108	NEMA 24 step motor, 354 oz-in minimum holding torque, 4.0 A/phase (parallel)
OMHW34-506	NEMA 34 step motor, 1260 oz-in minimum holding torque, 5.6 A/phase (parallel)
OMHW34-696	NEMA 34 step motor, 1062 oz-in minimum holding torque, 4.06 A/phase (parallel)

Ordering Example: OMHW23-598, NEMA 23 step motor with 158 oz-in minimum holding torque.