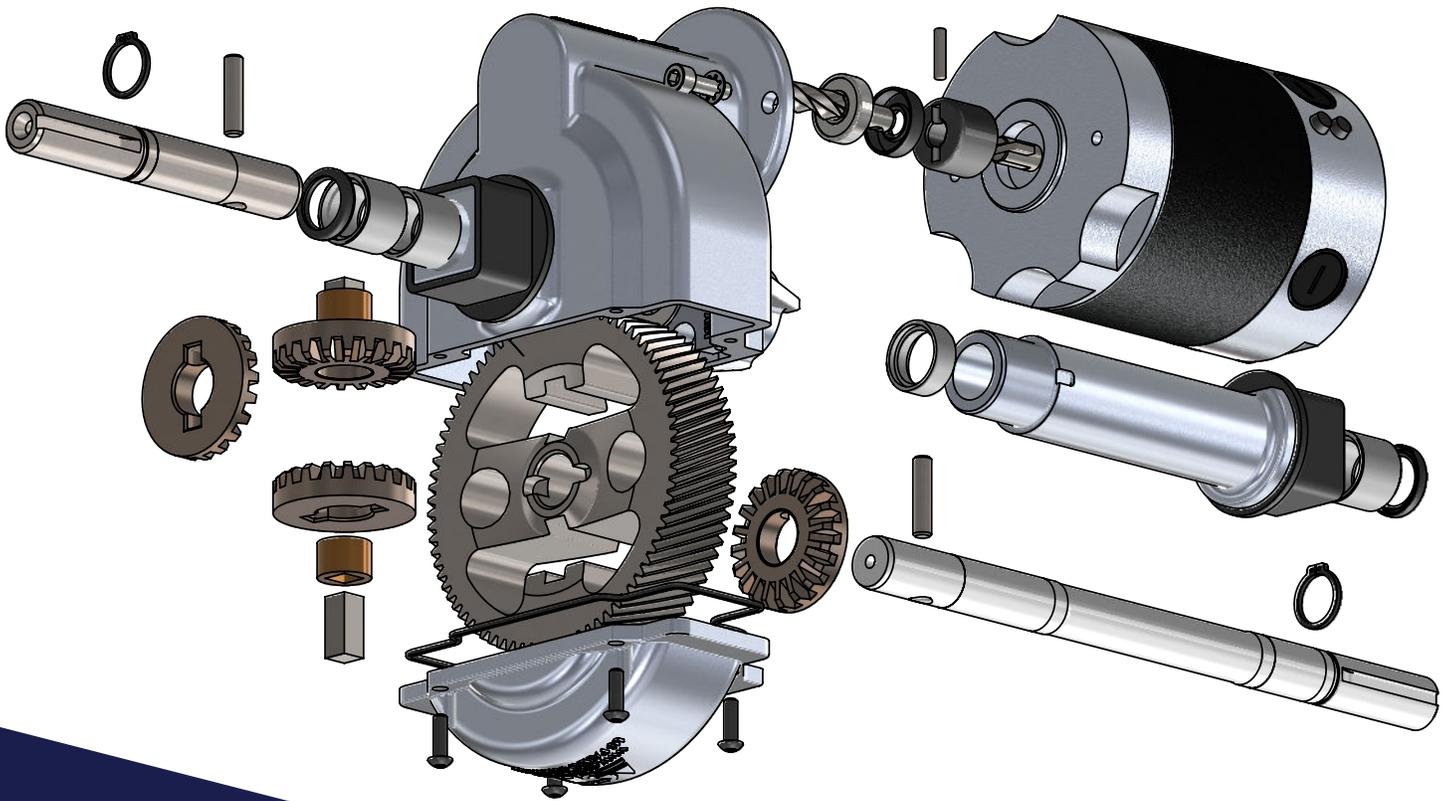




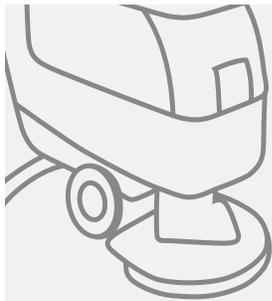
PRODUCT CATALOG



GEAR DRIVES FOR BATTERY POWERED MACHINES

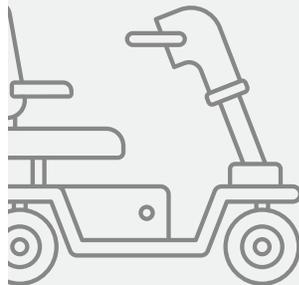
ACHIEVING PEAK PERFORMANCE IN MULTIPLE INDUSTRIES

With over 40 years of experience, our team has developed the expertise to deliver excellence to our customers time and time again. Specifically, we excel in these six industries:



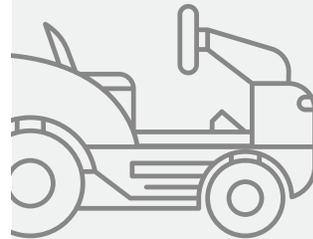
FLOOR CARE

High efficiency drives tailored for low noise and high torque



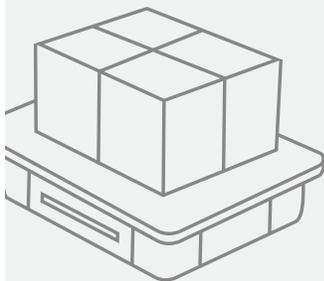
MEDICAL MOBILITY

Powerful solutions for personal scooters, hospital beds, electric wheelchairs, and other mobile equipment



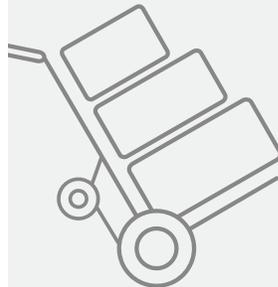
OUTDOOR POWER EQUIPMENT

Transaxles and wheel drives suited to precision farming robots, powered wheelbarrows, and more



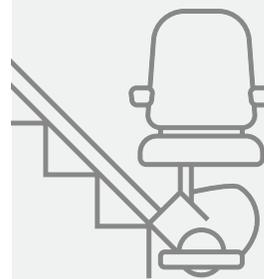
MOBILE ROBOTS AND AGVS

Custom engineered gear drives for both steering and non-steering applications



MATERIAL HANDLING

Ideal products for applications used in manufacturing, warehousing, and distribution



STAIR LIFTS

Flexible options with various output gears for both straight and curved stair lifts

GUIDED BY INNOVATION. DRIVEN TO PERFECTION.

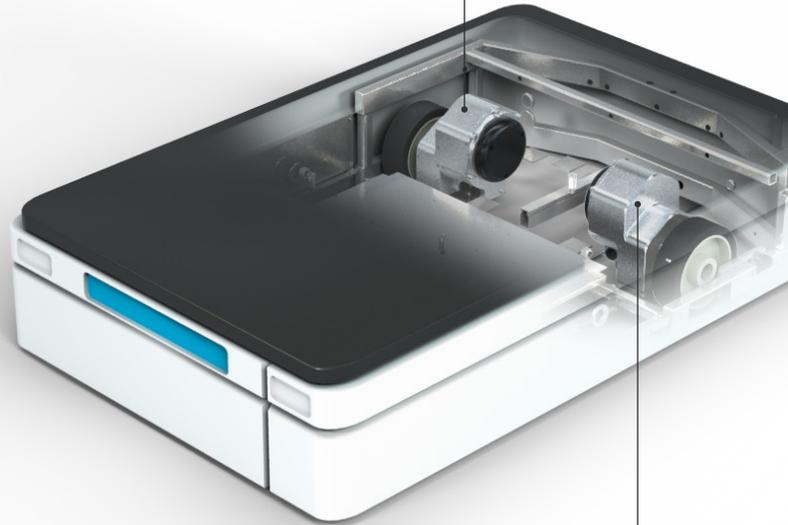


And fully invested
in your success.

For over 40 years, ASI has designed, engineered and manufactured complex wheel drive systems and transaxles recognized globally for their robust construction and worry-free dependability. During that time, we've become the known and trusted partner to companies ranging from small, independent startups to large, multinational organizations. Whether off-the-shelf or fully customized, they know our products will solve their challenges quickly and cost effectively. It's why they turn to ASI first.

- The battery-powered vehicle and machine markets rely on our demonstrated commitment to engineering excellence
- Highly disciplined manufacturing processes keep costs down and quality high
- Custom projects can be taken from concept to working prototype in as few as two weeks
- We scrutinize every detail, from material selection through final computerized inspection
- We're easy to work with, committed to your satisfaction, and fully invested in your success

**Rugged, industry-leading construction
provides years of worry-free performance**



**Compact, high-efficiency
designs move more using less**

**EXPERIENCE THE DIFFERENCE OUR DEDICATION
TO INNOVATION, QUALITY AND SERVICE MAKES.**

Contact us at sales@asidrives.com or (215) 661-1002 to explore how we can quickly solve your challenges.



LASTING SOLUTIONS TO DRIVE YOUR MACHINES.

More than industrial designers and engineers, we're a team of passionate problem solvers. Please see below for an overview of our transaxles and wheel drives, delivering reliable, highly efficient performance.

TRANSAXLES			
	Mark 400	Mark 500	Mark 600
Gross Vehicle Weight (kg)*	450	550	650
Speed (RPM)	Up to 200	Up to 165	Up to 132
Torque (Nm)*	90	175	270
Transaxles per Vehicle	1	1	1

WHEEL DRIVES						
	Lightning 200	Storm 400	Storm 500	Thunder 1500	Gemini 500	Cyclone 700
Gross Vehicle Weight (kg)*	220	400	500	1350	450	680
Speed (RPM)	Up to 135	Up to 250	Up to 180	Up to 120	Up to 200	393 ft/min
Torque (Nm)*	90	80	130	230	180	0.38 kw
Drives per Vehicle	2	2	2	2	1	1

Please contact us for a custom solution.

*Typical Gross Vehicle Weight and typical Torque

MARK 400

Industry-Defining Fully Enclosed Transaxle



Floor
Care



Medical
Mobility



Material
Handling



Mobile
Robots
& AGVs



Outdoor Power
Equipment



FEATURES

Single-piece casting: Improved gear alignment, quiet operation

Reduction ratios: 13:1 to 21:1

Fully enclosed axle: Mounting width flexibility

Optional components: Electromagnetic power-off brake, connectors,
brake cover, IP67 conformity

Mounting widths: 9.37 in [237.9 mm] to 19.32 in [490.8 mm], custom widths available

Motors: Permanent magnet DC 2-pole, 3.28 in [83.2 mm] diameter, or 4-pole, 3.98 in [101 mm] diameter, brushless DC option available

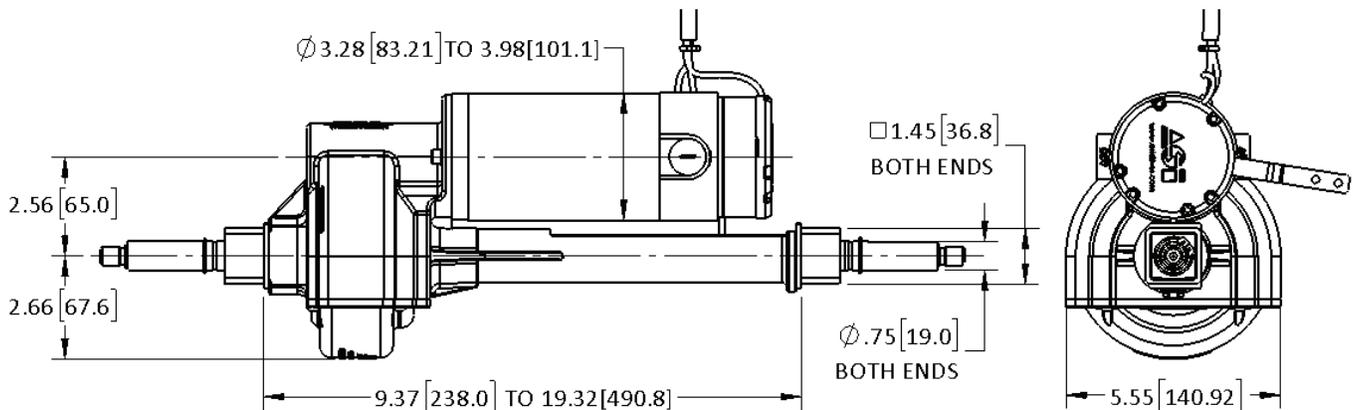
Voltage: 24V to 36V DC

Axle configurations: Custom

PERFORMANCE EXAMPLES

High Torque			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	30	101
Speed, rpm	75	63	37
Current, Amps	2.0	12.2	35.9
Power Out, Watts	0	201	394
Power In, Watts	48	292	861
Efficiency, %	0	69	46

High Speed			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	15	60
Speed, rpm	360	315	180
Current, Amps	3.6	29.5	107.4
Power Out, Watts	0	492	1125
Power In, Watts	85	708	2577
Efficiency, %	0	70	44



MARK 500

Heavy Duty Single-Stage Fully Enclosed Transaxle



Floor
Care



Medical
Mobility



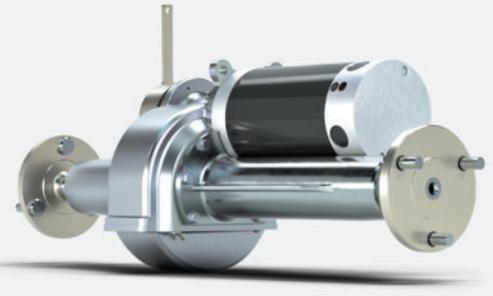
Material
Handling



Mobile
Robots
& AGVs



Outdoor Power
Equipment



FEATURES

Single-piece casting: Improved gear alignment, quiet operation

Reduction ratio: 19.2:1

Fully enclosed axle: Mounting width flexibility

Optional components: Electromagnetic power-off brake, connectors,
brake cover, IP67 conformity

Track width: 22.35 in [567.7 mm], custom widths
available

Motors: Permanent magnet DC 4-pole, 3.98 in
[101 mm] diameter, brushless DC option available

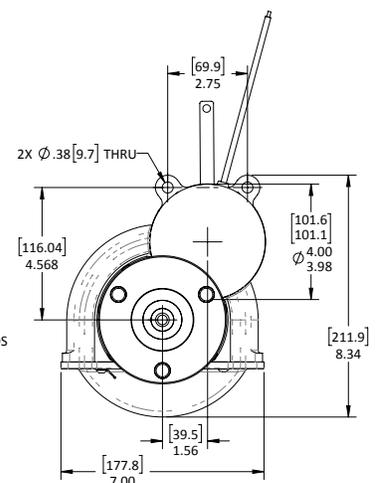
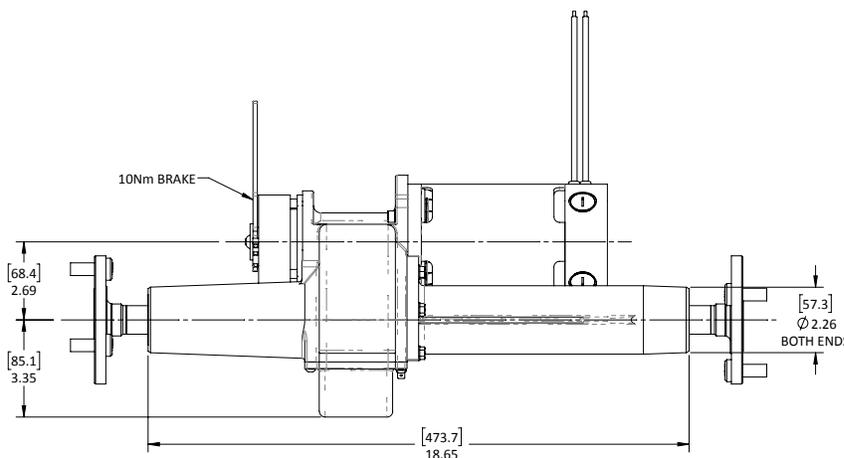
Voltage: 24V to 36V DC

Axle configurations: Hubs and custom

PERFORMANCE EXAMPLES

PMDC Motor			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	31	154
Speed, rpm	120	108	60
Current, Amps	1.0	12.0	55.9
Power Out, Watts	0	348	967
Power In, Watts	36	431	2012
Efficiency, %	0	81	48

BLDC Motor			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	31	155
Speed, rpm	191	172	96
Current, Amps	3.8	29.0	129.7
Power Out, Watts	0	560	1556
Power In, Watts	91	695	3112
Efficiency, %	0	81	50



MARK 600

Heavy Duty Two-Stage Fully Enclosed Transaxle



Material
Handling



Outdoor Power
Equipment



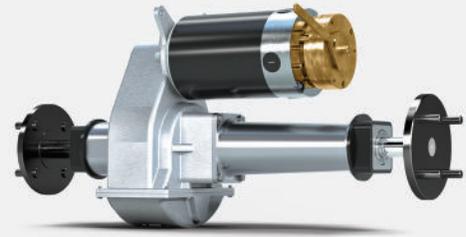
Floor
Care



Mobile
Robots
& AGVs



Medical
Mobility



FEATURES

Single-piece casting: Improved gear alignment, quiet operation

Reduction ratios: 11.5:1 to 36:1

Fully enclosed axle: Mounting width flexibility

Optional components: Electromagnetic power-off brake, connectors,
brake cover, IP67 conformity

Mounting widths: 9.33 in [236.9 mm] to 29.57 in [751.1 mm], custom widths available

Motors: Permanent magnet DC 4-pole, 4.8 in [122 mm] diameter, brushless DC and AC available up to 6.0 in [152 mm] diameter

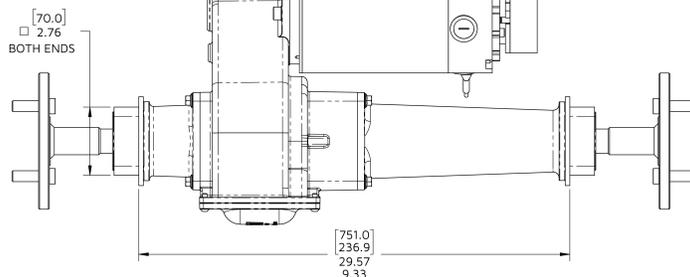
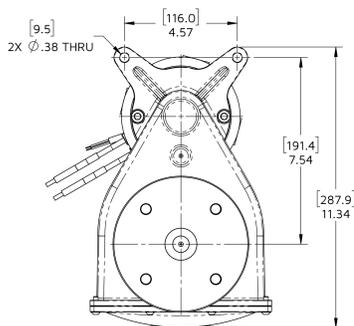
Voltage: 24V to 48V DC

Axle configurations: Hubs and custom

PERFORMANCE EXAMPLES

High Torque			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	100	399
Speed, rpm	90	79	45
Current, Amps	4.3	34.6	125.7
Power Out, Watts	0	823	1881
Power In, Watts	155	1247	4523
Efficiency, %	0	66	42

High Speed			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	19	93
Speed, rpm	318	287	159
Current, Amps	3.8	29	129.7
Power Out, Watts	0	560	1556
Power In, Watts	91	695	3112
Efficiency, %	0	81	50



LIGHTNING 100

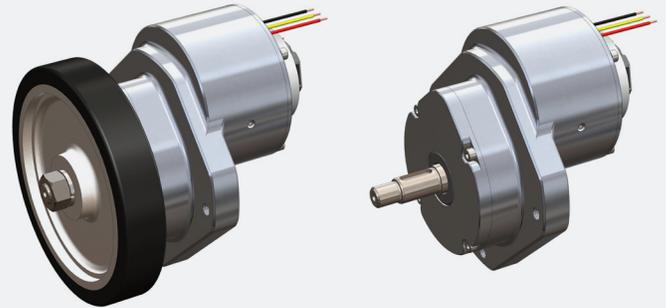
Brushless Wheel Drive



Mobile Robots
& AGVs



Floor
Care



FEATURES

Optional components: Electromagnetic power-off brake, internal encoder, connectors, wheel

Voltage: 24V DC

Motor: Brushless DC

Sealed drive system: Compact, designed for indoor use

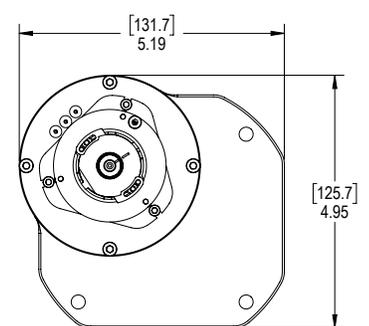
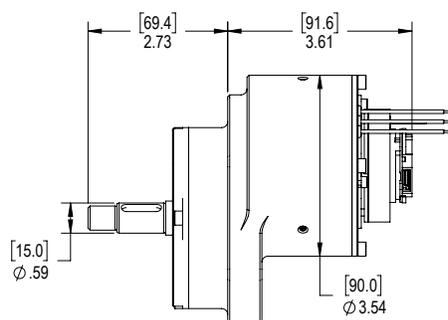
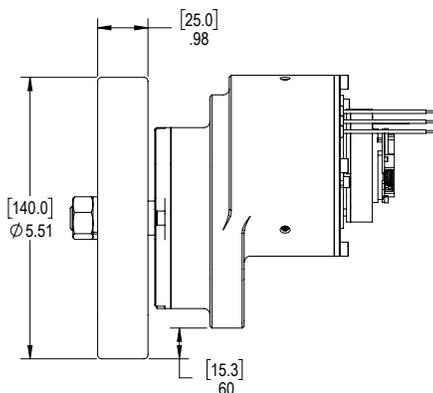
Axle diameter: Up to .67 in [17 mm]

Gear set: Single-stage helical

Reduction ratio: 10:1 or 14:1

PERFORMANCE EXAMPLE

High Speed			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	3	13
Speed, rpm	225	197	112
Current, Amps	0.5	3.7	13.2
Power Out, Watts	0	67	153
Power In, Watts	12	88	318
Efficiency, %	0	76	48



LIGHTNING 200

Right Angle Wheel Drive



Material
Handling



Mobile Robots
& AGVs



Medical
Mobility



Floor
Care



FEATURES

Motors: Permanent magnet DC 2-pole, 3.23 in [82 mm] diameter, and 4-pole, 3.98 in [101 mm] diameter, brushless DC option available

Reduction ratio: 32:1

Optional components: Electromagnetic power-off brake, encoders, connectors, brake cover, IP67 conformity

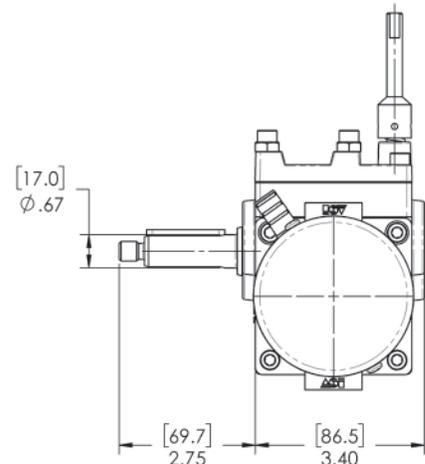
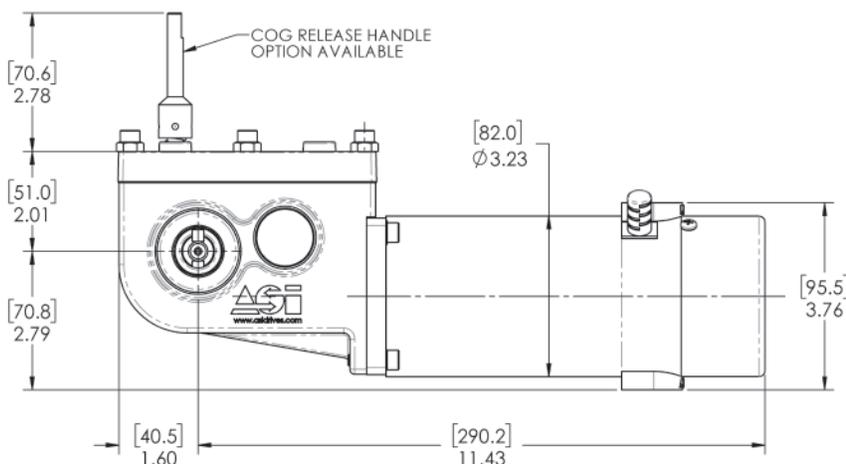
Encoder options available: Digital position and motion information

Voltage: 12V to 36V DC

PERFORMANCE EXAMPLES

	High Speed		
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	15	73
Speed, rpm	141	127	70
Current, Amps	1.5	15.1	69.3
Power Out, Watts	0	193	535
Power In, Watts	36	361	1663
Efficiency, %	0	53	32

	High Torque		
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	31	103
Speed, rpm	49	42	24
Current, Amps	2.0	12.2	35.9
Power Out, Watts	0	135	264
Power In, Watts	48	292	861
Efficiency, %	0	46	31



STORM 300

Brushless Wheel Hub Drive



Mobile Robots
& AGVs



Floor
Care



Material
Handling



Outdoor Power
Equipment

FEATURES

Sealed drive system: Rugged, compact, designed for outdoor use (IP67 Conformity), dual encoders for safety (supports ISO 13849-1)

Optional components: Electromagnetic power-off brake, multiple connectors, temperature sensor, anti-corrosion coatings, encoders

Wheel bearing rated load capacity: Up to 2000 lbs [907kg]

Voltage: 24V to 48V VDC

Motor: Brushless DC

Lead exit: Adjustable based on mounting orientation

Output flange diameter: 4.5 in [115 mm]

Gearbox diameter: 5.3 in [135 mm]

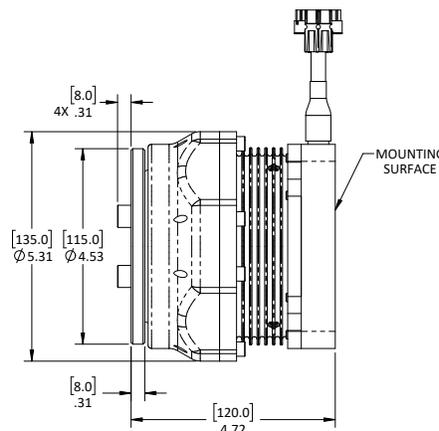
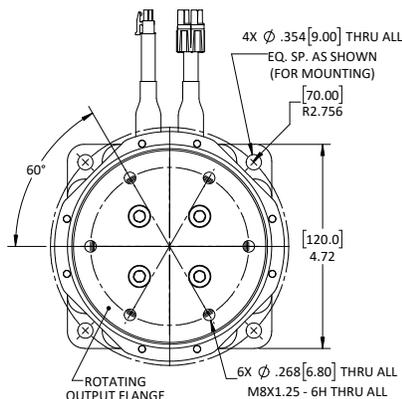
Gear set: Planetary

Reduction ratio: 20:1

PERFORMANCE EXAMPLES

Low Power			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	21	84
Speed, rpm	131	115	66
Current, Amps	4.9	14.9	44.9
Power Out, Watts	0	254	579
Power In, Watts	117	357	1078
Efficiency, %	0	71	54

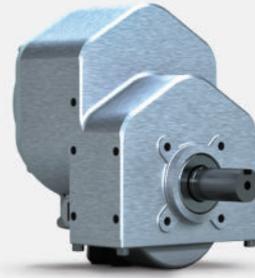
High Power			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	35	139
Speed, rpm	330	289	165
Current, Amps	4.7	28.2	98.8
Power Out, Watts	0	1049	2397
Power In, Watts	224	1353	4741
Efficiency, %	0	78	51



* - Variations to load distribution, duty cycle and application will affect load rating & bearing life.

STORM 400

Brushless Wheel Drive



Mobile Robots & AGVs



Floor Care



Material Handling



Outdoor Power Equipment

FEATURES

Sealed drive system: Rugged, usable outdoors

Optional components: Electromagnetic power-off brake, connectors, brake cover, IP67 conformity

Encoder options available: Input and output encoders available

Voltage: 24V DC

Motor: Brushless DC

Lead exit: 3 location options

Axle material: Stainless steel or hardened carbon steel

Axle diameter: Up to .79in [20 mm]

Gear set: Single-stage helical

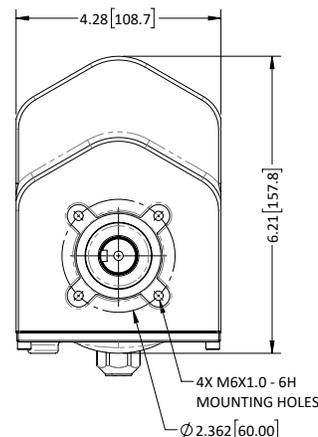
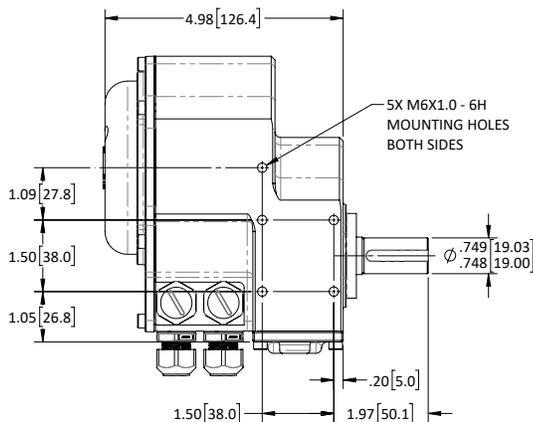
Reduction ratio: 12.2:1 or 25.3:1

Brake options available: 6 Nm, release lever

PERFORMANCE EXAMPLES

	High Torque		
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	25	95
Speed, rpm	119	104	60
Current, Amps	2.4	16.0	54.5
Power Out, Watts	0	270	596
Power In, Watts	58	384	1308
Efficiency, %	0	70	46

	High Speed		
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	12	46
Speed, rpm	248	216	124
Current, Amps	2.4	16.0	54.5
Power Out, Watts	0	271	599
Power In, Watts	58	384	1308
Efficiency, %	0	71	46



STORM 500

Two-Stage Wheel Drive



Mobile
Robots
& AGVs



Medical
Mobility



Material
Handling



Outdoor Power
Equipment



FEATURES

Sealed drive system: Rugged, usable outdoors

Optional components: Electromagnetic power-off brake, encoders, connectors, brake cover, IP67 conformity

Voltage: 24V DC

Motor: Permanent magnet DC 4-pole, 3.97 in [101 mm], brushless DC option available

Axle material: Stainless steel or hardened carbon steel

Axle diameter: Up to 25 mm, hub available

Gear set: Two-stage helical

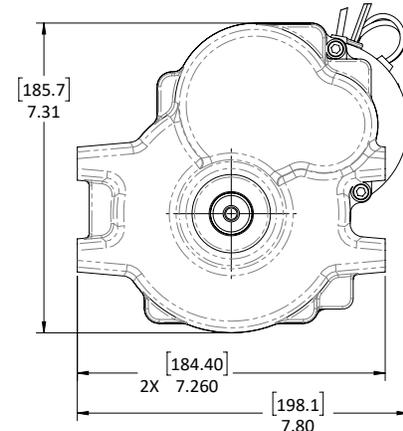
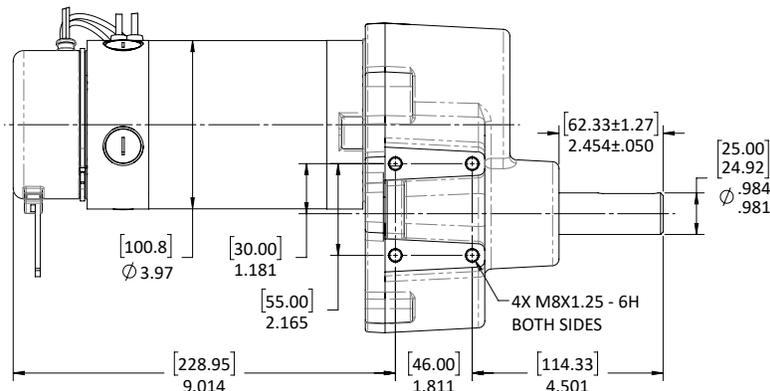
Reduction ratio: 25.4:1

Brake options available: 6 to 12 Nm

PERFORMANCE EXAMPLES

High Speed			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	39	128
Speed, rpm	183	156	92
Current, Amps	6.5	37.0	108.3
Power Out, Watts	0	628	1231
Power In, Watts	156	889	2599
Efficiency, %	0	71	47

High Power			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	80	265
Speed, rpm	131	112	66
Current, Amps	7.6	49.4	147.1
Power Out, Watts	0	930	1824
Power In, Watts	182	1186	3529
Efficiency, %	0	78	52



THUNDER 1500

Heavy Duty Two-Stage Wheel Drive



Mobile Robots
& AGVs



Material
Handling



Outdoor Power
Equipment



FEATURES

Sealed drive system: Rugged, usable outdoors

Optional components: Electromagnetic power-off brake, encoders, connectors, brake cover, IP67 conformity

Motors: Permanent magnet DC 4-pole, 4.8 in [122 mm] diameter, brushless DC and AC available up to 6.0 in [152 mm] diameter

Encoder options available: Digital position and motion information

Axle material: Hardened carbon steel

Gear set: Two-stage helical

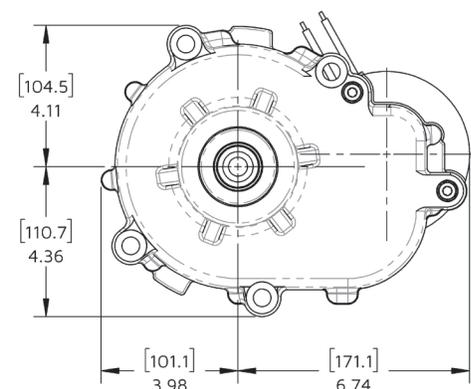
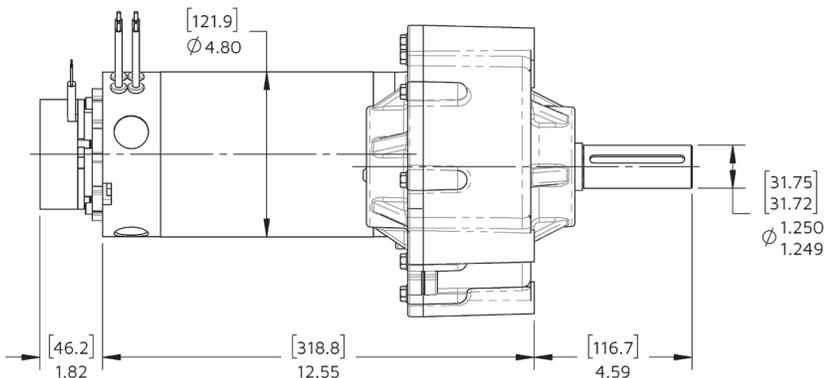
Reduction ratio: 31:1

Voltage: 24V to 48V DC

PERFORMANCE EXAMPLES

	Low Power		
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	90	361
Speed, rpm	118	103	59
Current, Amps	6.4	52.2	189.4
Power Out, Watts	0	974	2227
Power In, Watts	154	1252	4546
Efficiency, %	0	78	49

	High Power		
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	72	480
Speed, rpm	116	108	58
Current, Amps	1.9	20.9	128.6
Power Out, Watts	0	810	2919
Power In, Watts	91	1003	6173
Efficiency, %	0	81	47



THUNDER 1500HD

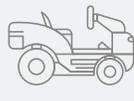
Heavy Duty Two-Stage IPM Motor Wheel Drive



Mobile Robots
& AGVs



Material
Handling



Outdoor Power
Equipment



FEATURES

Sealed drive system: Rugged, usable outdoors

Optional components: Electromagnetic power-off brake

Motor: Interior permanent magnet, 5.5 in [140 mm] diameter, brushless
48 volt with internal encoder and thermal sensor, connectors,
IP69K conformity

Axle material: Hardened carbon steel

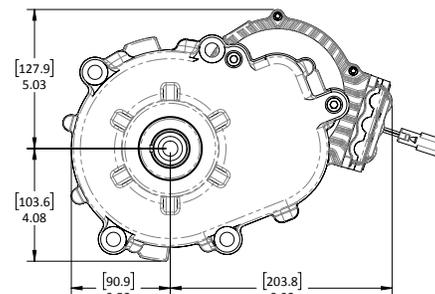
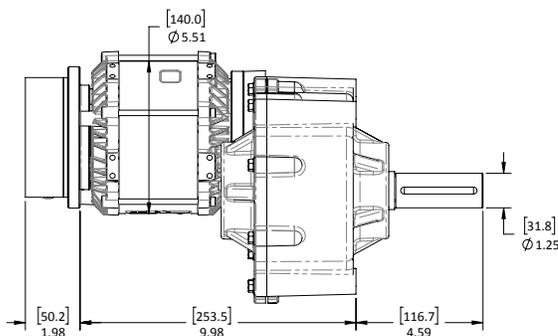
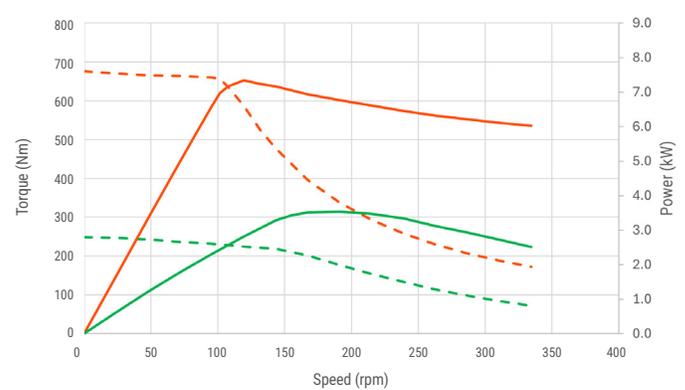
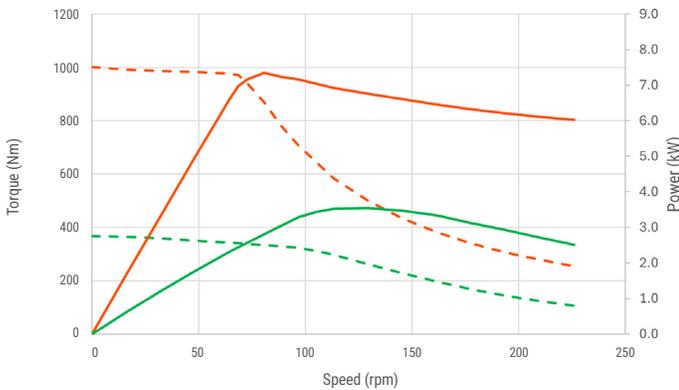
Gear set: Two-stage helical

Reduction ratio: 20.9:1 or 31:1

PERFORMANCE EXAMPLES

High Torque				
Duty Type	S2-2min	S2-10min	S2-30min	S2-60min
Torque, Nm	883	589	368	282
Power, kW	2.98	5.97	4.97	3.34
Speed, rpm	32	97	129	113
Efficiency, %	58	81	86	88
Phase Current, Amps	200	140	100	65
Stator Frequency, Hz	83	250	333	292

High Speed				
Duty Type	S2-2min	S2-10min	S2-30min	S2-60min
Torque, Nm	596	397	248	191
Power, kW	2.98	5.97	4.97	3.34
Speed, rpm	48	143	191	167
Efficiency, %	58	81	86	88
Phase Current, Amps	200	140	100	65
Stator Frequency, Hz	83	250	333	292



CYCLONE 150

Steerable Wheel Drive



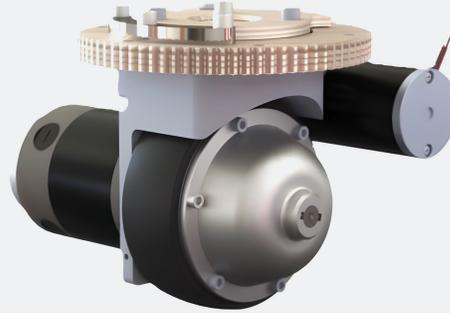
Floor
Care



Mobile Robots
& AGVs



Material
Handling



FEATURES

Sealed drive system: Rugged, compact, integrated steer motor

Optional components: Electromagnetic power-off brake, encoders, connectors

Voltage: 24V to 48V VDC

Wheel: Integral 6 in [152.4 mm] diameter

Gear set: Tow-stage planetary

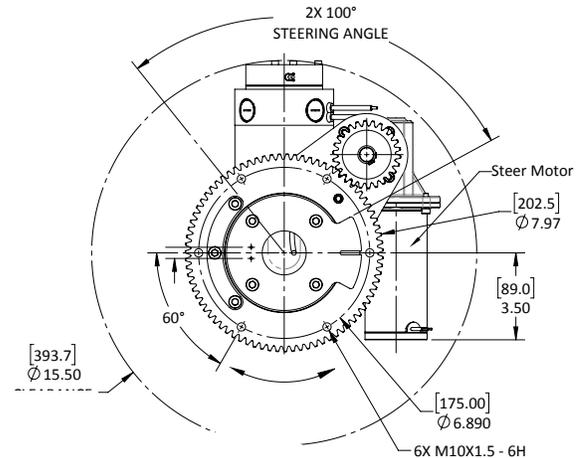
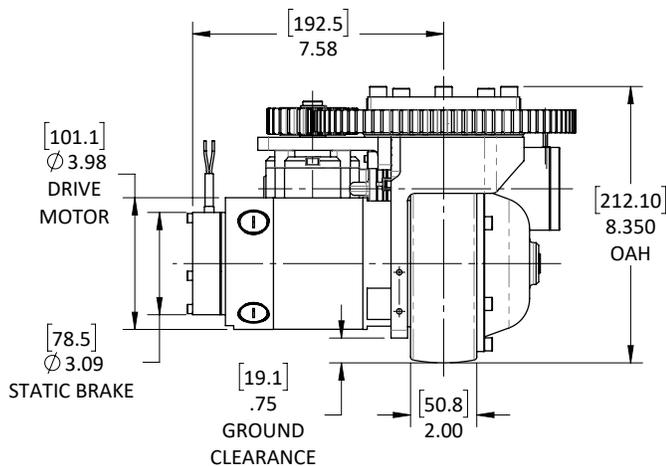
Brake options available: 6 Nm

Motor options available: Permanent magnet DC 4-pole, brushless DC

Reduction ratio: 9:1 to 23.2:1

PERFORMANCE EXAMPLE

Sample Application Data			
Maximum Wheel Load	900 lbs [408 kg]	Motor Type	PMDC
Rated Towing Weight	1720 lbs [780 kg]	Wheel Material	Polyurethane
Maximum Speed	190 ft/min [.97 m/s]	Rated Current Draw (Continuous)	13A



CYCLONE 200

Steerable Wheel Drive



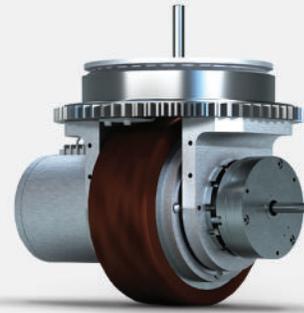
Floor Care



Mobile Robots & AGVs



Material Handling



FEATURES

Sealed drive system: Rugged, compact

Optional components: Electromagnetic power-off brake, encoders, connectors, brake cover, IP67 conformity

Voltage: 48V DC

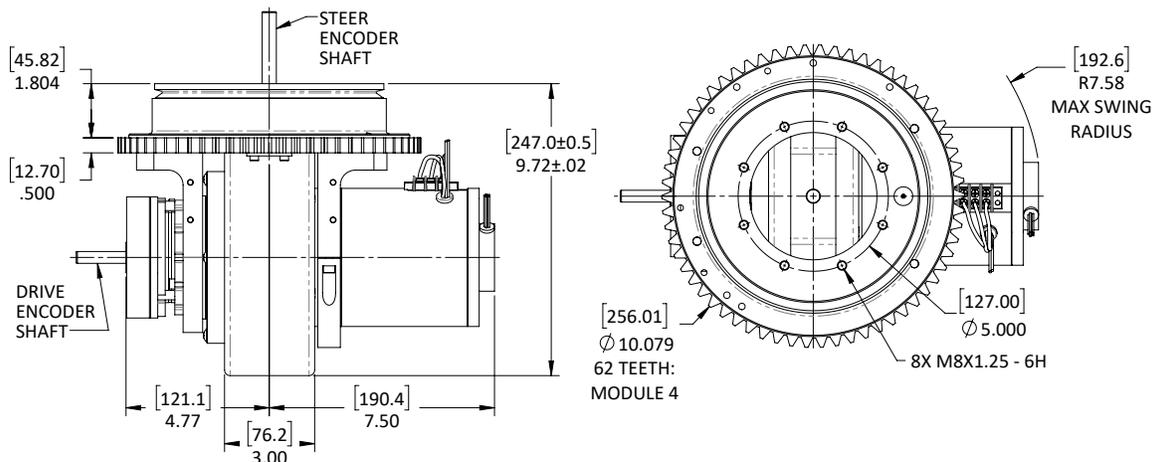
Wheel: Integral 7.9 in [200 mm] diameter

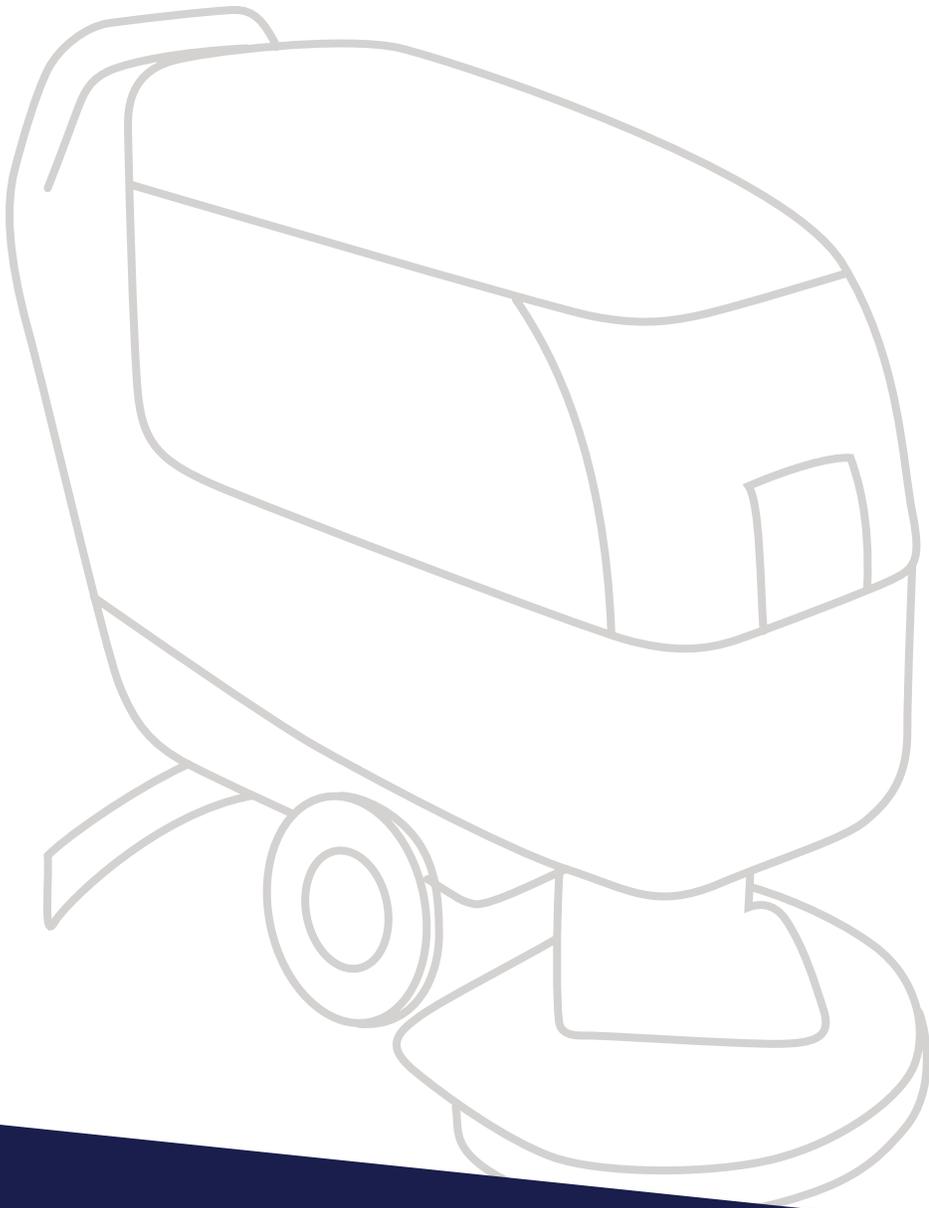
Gear set: Helical compound planetary

Brake options available: Up to 12 Nm

PERFORMANCE EXAMPLE

Sample Application Data			
Maximum Wheel Load	1,500 lbs [680kg]	Motor Type	BLDC with Hall Effects Board
Maximum Grade	7%	Reduction Ratio	20:1
Minimum Speed on Level Ground	393 ft/min [2.0 m/s]	Power Consumption on Level Ground	0.30 kW
Minimum Speed on Grade	300 ft/min [1.5 m/s]	Power Consumption on 7% Grade	1.47 kW





SCRUB BRUSH MOTORS **GEARED FOR SUCCESS**

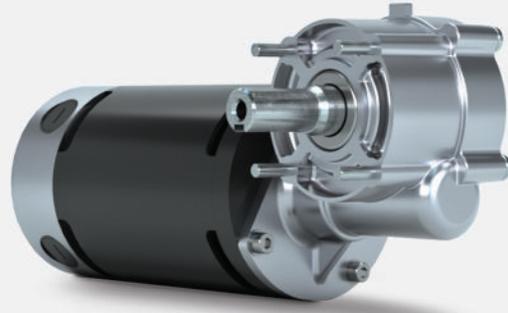
Our geared scrub brush motors deliver high performance for scrub deck applications. These motors are designed to handle the unique requirements of driving disc scrub brushes on floor cleaning machines. Available as a parallel axis design or a right angle design, these drives utilize a gear reduction to match the motor RPM to the intended scrub brush RPM for maximum efficiency.

SPRITE 200

Right Angle Geared Scrub Brush Motor



Floor
Care



FEATURES

Single-piece casting: Improved gear alignment, quiet operation

Reduction ratio: 10:1

Voltage: 24V to 36V DC

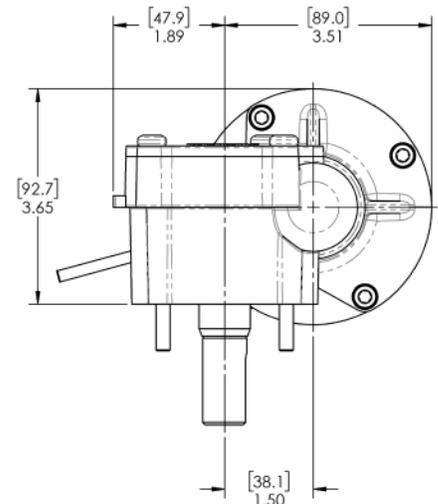
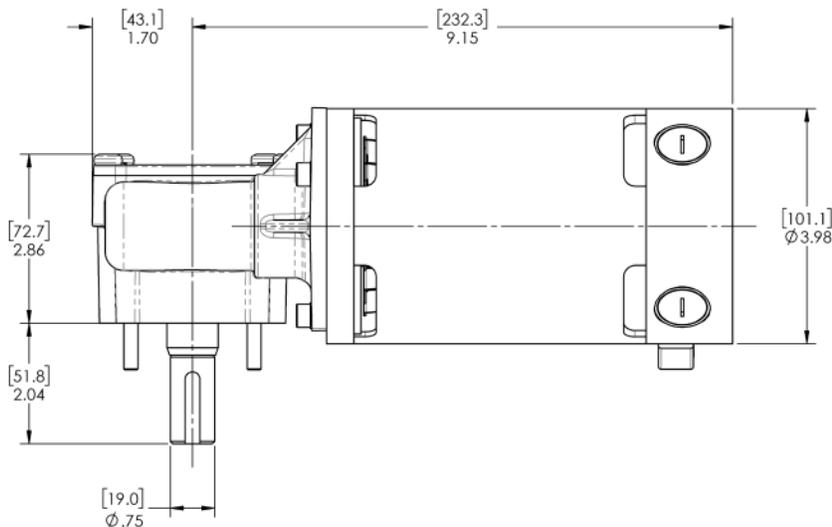
Motors: Permanent magnet DC 4-pole, 3.98 in [101 mm] diameter, brushless DC option available

Shaft configuration: Custom up to .79 in [20 mm] diameter

PERFORMANCE EXAMPLES

	Low Power	
	No Load	1/2 HP
Torque, Nm	0	14
Speed, rpm	318	255
Current, Amps	3.0	23.5
Power Out, Watts	0	373
Power In, Watts	72	564
Efficiency, %	0	66

	High Power	
	No Load	5/8 HP
Torque, Nm	0	16
Speed, rpm	320	285
Current, Amps	2.0	19.3
Power Out, Watts	0	466
Power In, Watts	72	696
Efficiency, %	0	67



ZEUS

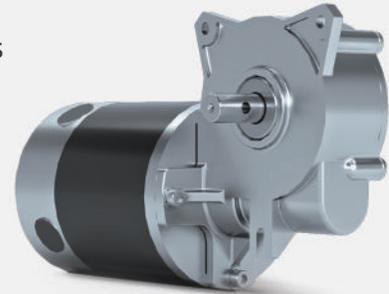
Geared Scrub Brush Motor / Right Angle Worm Drive for Stair Lifts



Floor Care



Stair Lift



FEATURES

Motors: Permanent magnet DC 4-pole, 3.98 in [101 mm] diameter, brushless DC option

Voltage: 24V to 36V DC

Output shaft: Hardened carbon steel

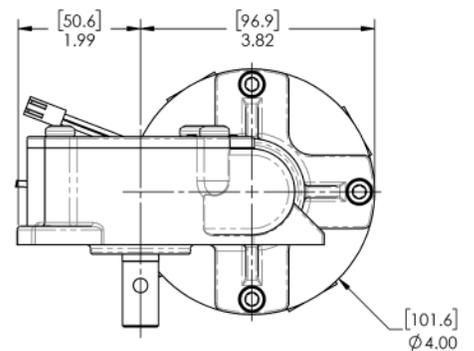
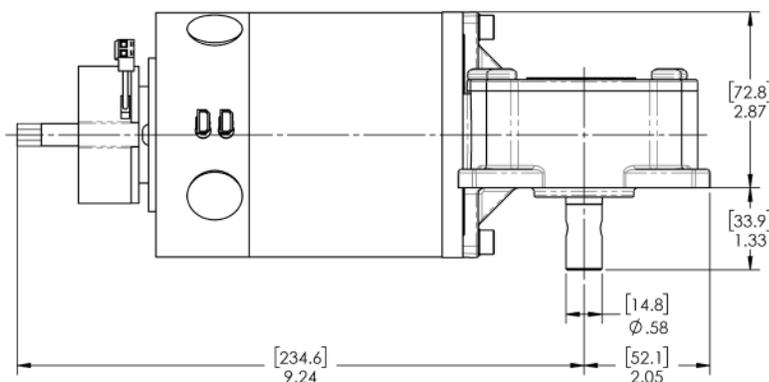
Optional components: Electromagnetic power-off brake, encoder

Reduction ratios: 14:1 to 37:1

PERFORMANCE EXAMPLES

Gear Scrub Brush Motor			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	8	43
Speed, rpm	214	196	107
Current, Amps	2.0	10.6	51.0
Power Out, Watts	0	154	480
Power In, Watts	48	254	1224
Efficiency, %	0	60	39

Stair Lift Drive			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	10	120
Speed, rpm	124	118	60
Current, Amps	0.6	7.0	77.7
Power Out, Watts	0	124	750
Power In, Watts	22	253	2797
Efficiency, %	0	49	27



SD400

Geared Scrub Brush Motor



Floor
Care



FEATURES

Integral motor casting: Improved gear alignment, quiet operation

Construction: All ball bearing, high efficiency

Shaft configuration: Custom up to .79 in [20 mm] diameter

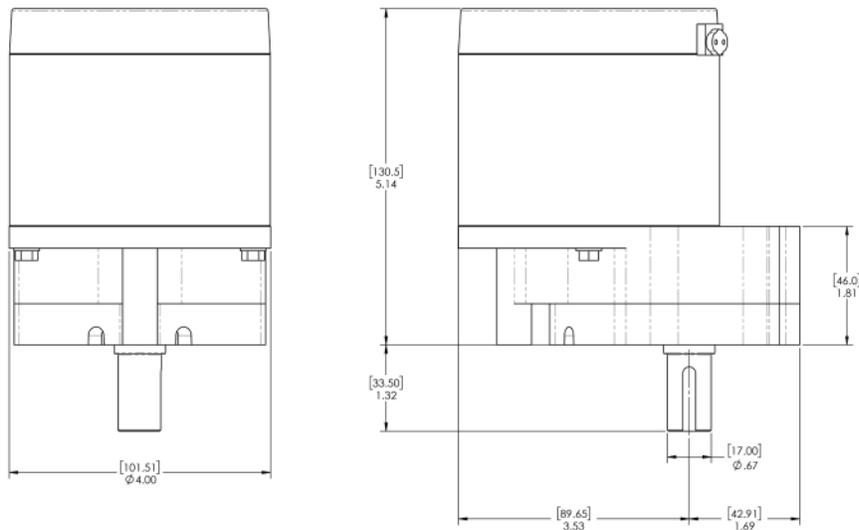
Motor: 4-pole, 3.98 in [101 mm] diameter

Voltage: 24V DC

Reduction ratio: 10:1

PERFORMANCE EXAMPLE

	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	5	22
Speed, rpm	253	220	125
Current, Amps	1.5	7.9	27.3
Power Out, Watts	0	125	285
Power In, Watts	35	191	656
Efficiency, %	0	65	43



SD500

Geared Scrub Brush Motor



Floor
Care



FEATURES

Single-piece casting: Improved gear alignment, quiet operation

Reduction ratios: 8:1 to 13:1

Construction: All ball bearing, high efficiency

Voltage: 24V to 36V DC

Shaft configuration: Custom up to .94 in [24 in mm] diameter

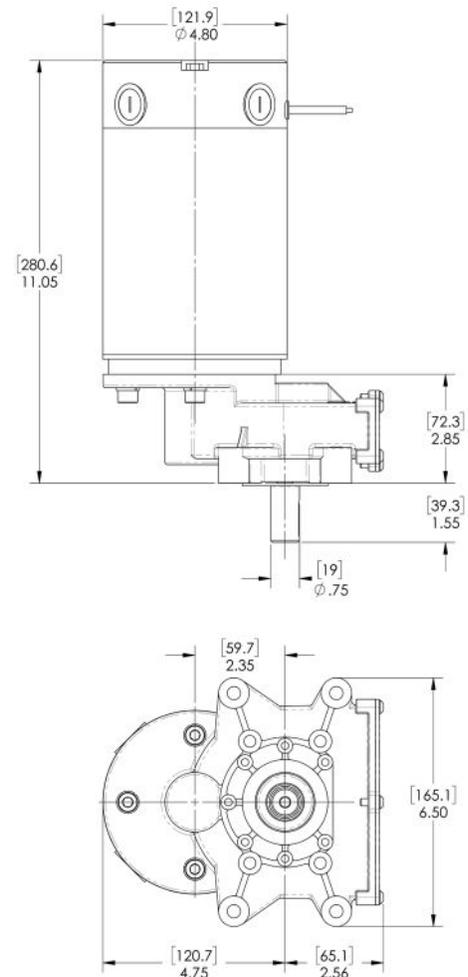
Motors: Permanent magnet DC 4-pole, 4.8 in [122 mm] diameter, brushless DC option available

Mounting options: Multiple mounting options including US-type, Euro-type, and 4 additional through-hole options for bolts, nuts or cap screws

PERFORMANCE EXAMPLES

High Power				
	No Load	3/4 HP	1 HP	1 1/2 HP
Torque, Nm	0	13	18	28
Speed, rpm	437	411	401	381
Current, Amps	3.0	21.2	27.8	42.2
Power Out, Watts	0	560	746	1119
Power In, Watts	108	763	1001	1520
Efficiency, %	0	73	75	74

Low Speed				
	No Load	1/2 HP	3/4 HP	1 HP
Torque, Nm	0	16	25	35
Speed, rpm	242	225	214	203
Current, Amps	5.0	23.3	33.7	45.4
Power Out, Watts	0	373	560	746
Power In, Watts	120	558	809	1090
Efficiency, %	0	67	69	68





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ZEUS

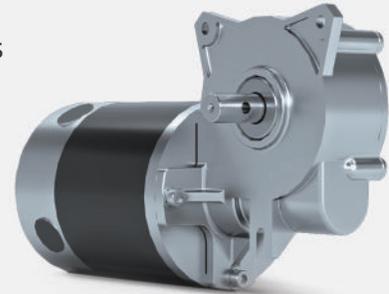
Geared Scrub Brush Motor / Right Angle Worm Drive for Stair Lifts



Floor Care



Stair Lift



FEATURES

Motors: Permanent magnet DC 4-pole, 3.98 in [101 mm] diameter, brushless DC option

Voltage: 24V to 36V DC

Output shaft: Hardened carbon steel

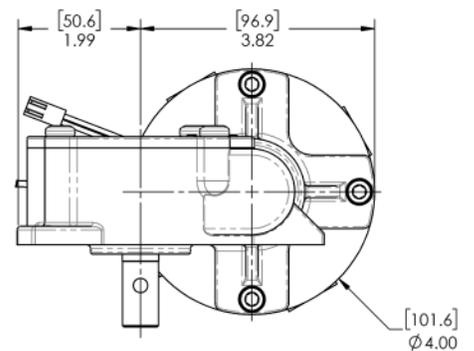
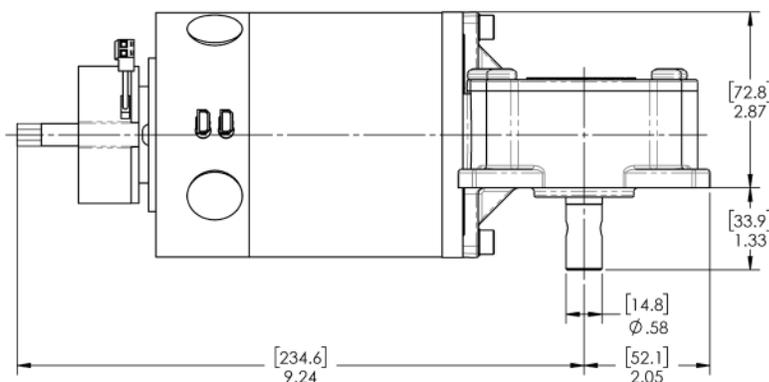
Optional components: Electromagnetic power-off brake, encoder

Reduction ratios: 14:1 to 37:1

PERFORMANCE EXAMPLES

Gear Scrub Brush Motor			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	8	43
Speed, rpm	214	196	107
Current, Amps	2.0	10.6	51.0
Power Out, Watts	0	154	480
Power In, Watts	48	254	1224
Efficiency, %	0	60	39

Stair Lift Drive			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	10	120
Speed, rpm	124	118	60
Current, Amps	0.6	7.0	77.7
Power Out, Watts	0	124	750
Power In, Watts	22	253	2797
Efficiency, %	0	49	27



PLUTO

Right Angle Worm Drive for Stair Lifts



Stair
Lift



FEATURES

Motors: Permanent magnet DC 4-pole, 3.98 in [101 mm] diameter, brushless DC option

Voltage: 24V to 36V DC

Optional components: Electromagnetic power-off brake, internal encoder

Encoder options available: Digital position and motion information

Output shaft: Hardened carbon steel

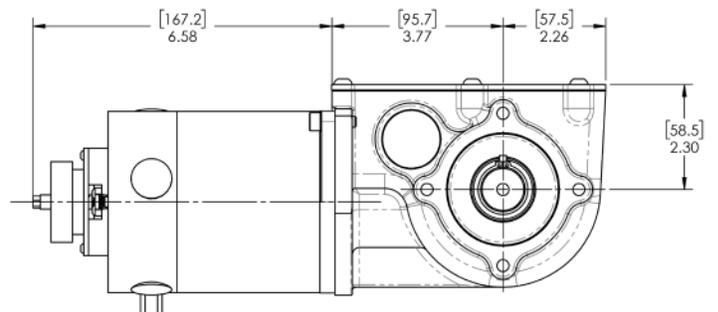
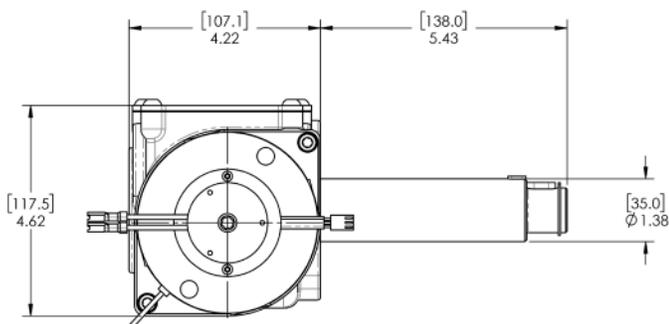
Reduction ratio: 72:1

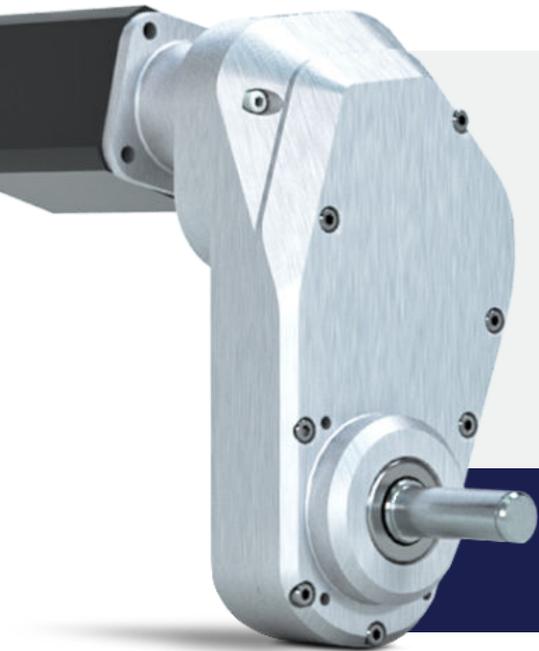
Weight capacity: 350 lbs [159 kg]

PERFORMANCE EXAMPLES

Low Power			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	26	132
Speed, rpm	35	31	17
Current, Amps	1.5	11.3	50.5
Power Out, Watts	0	86	239
Power In, Watts	36	271	1211
Efficiency, %	0	32	20

High Power			
	No Load	Peak Efficiency	Peak Power
Torque, Nm	0	30	100
Speed, rpm	59	50	30
Current, Amps	3.2	16.7	48.1
Power Out, Watts	0	159	314
Power In, Watts	114	600	1732
Efficiency, %	0	27	18





UNIQUE CHALLENGES REQUIRE **UNIQUE SOLUTIONS**

Our deep knowledge of gear technologies allows us to develop custom, high-quality products at the lowest possible cost. To date, we have delivered over 740 tailored engineered solutions — a track record of innovation recognized by 7 awarded patents. Thanks to our in-house gear manufacturing, we produce applications built for reliability and longevity.

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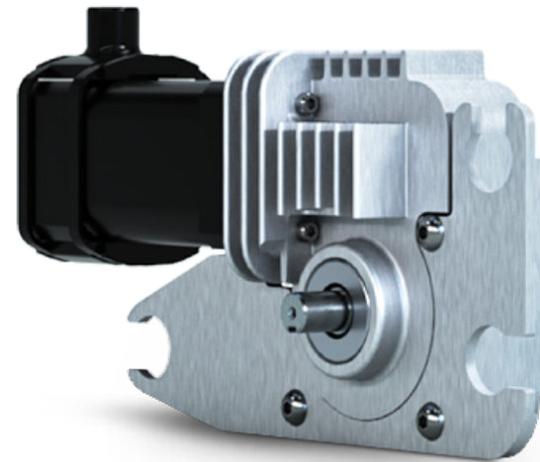
- Provides excellent efficiency and high-power density
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- A variety of existing designs can be quickly adapted to your needs

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- We use computerized stress analysis standards of the American Gear Manufacturers Association
- We analyze bearings, shafts, and other interfacing components
- We can match ratios, center distances, and other special requirements



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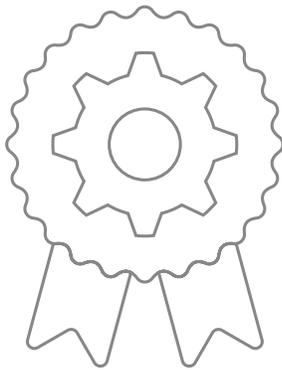
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