

ZERO
MOTORCYCLES®



TAKE CHARGE™

2016
POLICE / SECURITY

POLICE AND SECURITY MOTORCYCLES

10 REASONS TO RIDE ELECTRIC:

1. No shifting; instant torque from 0 rpm
2. Lightweight and highly maneuverable
3. About a penny-per-mile “fuel” cost
4. Maintenance-free powertrain
5. Life of motorcycle power pack
6. Top speed of 98 mph
7. Maximum 189 miles city range
8. Regenerative braking
9. Options for on- or off-road use
10. Go “green” with no tailpipe emissions



BENEFITS OF ELECTRIC PATROLLING

With no gears, clutch or noise, officers can focus on patrolling. They can perform highly technical maneuvers during intense situations where performance and agility are essential. While in crowds or indoors, the absence of exhaust eliminates ventilation concerns and opens up new, or improves current, patrolling scenarios.

- » Patrolling and investigating public lands: parks, beaches, dirt trails, running paths
- » Event safety and crowd control: concerts, parades, sporting events
- » General city patrols: dense pedestrian areas, city streets, local emergency calls
- » Stealth patrols: drug enforcement, burglary, security, campus environments, other situations where silence is an advantage

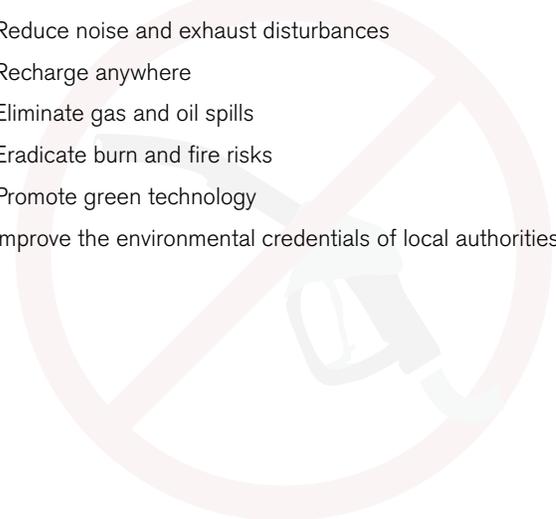


NEW TACTICAL ADVANTAGES:

- » Accelerate instantly from a silent idle
- » Extremely lightweight for greater maneuverability
- » Ride without needing to shift
- » Silently idle while among crowds
- » Pursue subjects without engine noise
- » Stealthily take off from a hideout
- » Ride indoors or in close confines
- » Leverage the advantage of surprise
- » Socially responsible vehicle use

ELIMINATE GASOLINE COMPLICATIONS:

- » Reduce noise and exhaust disturbances
- » Recharge anywhere
- » Eliminate gas and oil spills
- » Eradicate burn and fire risks
- » Promote green technology
- » Improve the environmental credentials of local authorities



POLICE AND SECURITY MOTORCYCLES



POLICE AND SECURITY MOTORCYCLES PROGRAM OVERVIEW

Zero Motorcycles offers a range of police and security models with customizable options to meet the specific needs of a wide variety of patrol applications. More than 60 government agencies from the USA, Europe, South America and Asia have integrated Zero Motorcycles into their patrol fleets.

With the ability to cover both on- and off-road areas, Zero Motorcycles police and security models present unique advantages over internal combustion driven machines. They are highly maneuverable and ideal for patrolling a diverse range of areas: urban centers, city streets, tight quarters, parks, beaches and dirt trails. The 100% electric powertrain is nearly silent, exhaust free, produces minimal heat, has instant torque from 0 rpm and is essentially maintenance-free.

With a "fuel" cost of about a penny-per-mile and maintenance cost reductions of up to 85%, a patrol fleet of Zero motorcycles saves police and security agencies time and money, while providing a tactical advantage. In certain regions, grants and incentives may be available specifically for both public and private organizations when purchasing electric patrol vehicles.

PRODUCT FEATURES

Zero Motorcycles engineered the patrol lineup from the popular Zero S, Zero DS and Zero FX motorcycles. Beginning with already robust and proven platforms, Zero customizes each to meet the demands of law enforcement, security agencies, firefighting departments and more.

The Zero SP is designed for street use. The Zero DSP is a dual sport model designed for both on- and off-road use. The Zero FXP has increased off-road capability and builds upon the light and highly maneuverable Zero FX. All three models offer a wide array of options that are tailored to suit specific, unique needs.

2016 fleet motorcycles benefit from the same features found on the industry leading consumer models. At the core is the Z-Force® motor and power pack system. The brushless motor is sealed to ensure longevity and operates with such high efficiency that it requires no external cooling systems. Using state-of-the-art cell technology and advanced battery management systems, each motorcycle can travel farther, faster and last longer. With the optional Z-Force® Power Tank, the Zero SP is capable of traveling nearly 189 miles within the city, while the Zero FXP features a modular system that allows power packs to be swapped within seconds.

SUMMARY OF WHAT'S NEW

The 2016 fleet lineup shares all the new features of the consumer motorcycles, including substantial upgrades to the revolutionary Z-Force® powertrain.

All 2016 police/authority models benefit from the new Z-Force® IPM (interior permanent magnet) motor, which is more efficient, cools more rapidly and has higher thermal capacity. Performance is improved, especially during hard riding, and sustained top speeds have increased.

Z-Force® power packs contain new optimized cell chemistry and boast the highest energy density in the electric vehicle industry. With greater capacity and improved efficiency, range is extended for all models, allowing officers to patrol farther and for longer durations.

The Zero SP and Zero DSP are compatible with the new Charge Tank accessory that nearly triples the onboard charging speed. Leveraging the popular J1772 standard, the Charge Tank is designed to work with Level 2 charging stations that are often located in highly trafficked areas or installed where the vehicles are stored. It will charge the new higher capacity ZF13.0 power pack to 95% in about three hours.

Zero improved ergonomics on the full line of patrol motorcycles for 2016. The Zero DSP and Zero FXP are equipped with a taller rise handlebar that provides a more assertive riding position and improved leverage, and all models now feature better brake modulation and increased comfort thanks to new rear brake pedal.

"Zero Motorcycle's offerings for law enforcement include high performance, zero emissions vehicles with low operating costs."

lawofficer.com

"This motorcycle is so quiet that we continuously sneak up on wildlife and suspects while out on patrol, and we continue to receive positive feedback from the public."

**Officer Steve Carbajal,
L.A.P.D. Off-Road Unit**

"Emitting no sound or hydrocarbon emissions makes them less intrusive when patrolling downtown business districts or school campuses."

Motorcycle.com

"It costs us about a dollar a day versus \$15-20 to run a gas-powered motorcycle."

**Lt. Chris Perry,
Ceres, CA Police Dept.**

"Zero is the real deal."

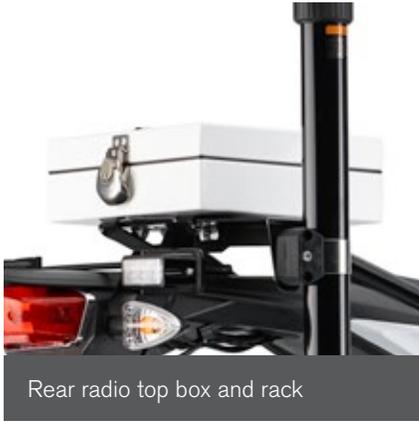
Cycle World

"The ease of use, positive public relations and downright fun has proven invaluable to our department."

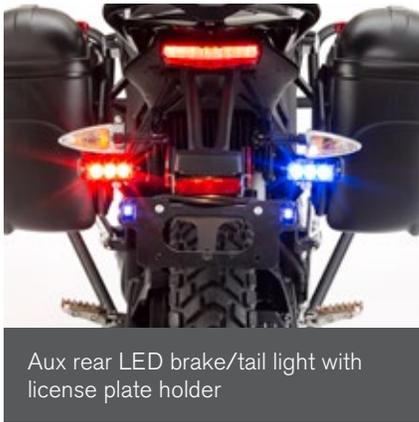
**Sgt. James D. Fincher, Cobb
County (GA) Police Department**

POLICE AND SECURITY MOTORCYCLES

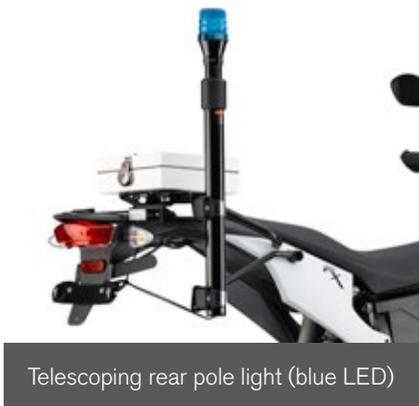
CUSTOM BUILT TO YOUR FLEET SPECIFICATIONS



Rear radio top box and rack



Aux rear LED brake/tail light with license plate holder



Telescoping rear pole light (blue LED)

Detachable wind screen

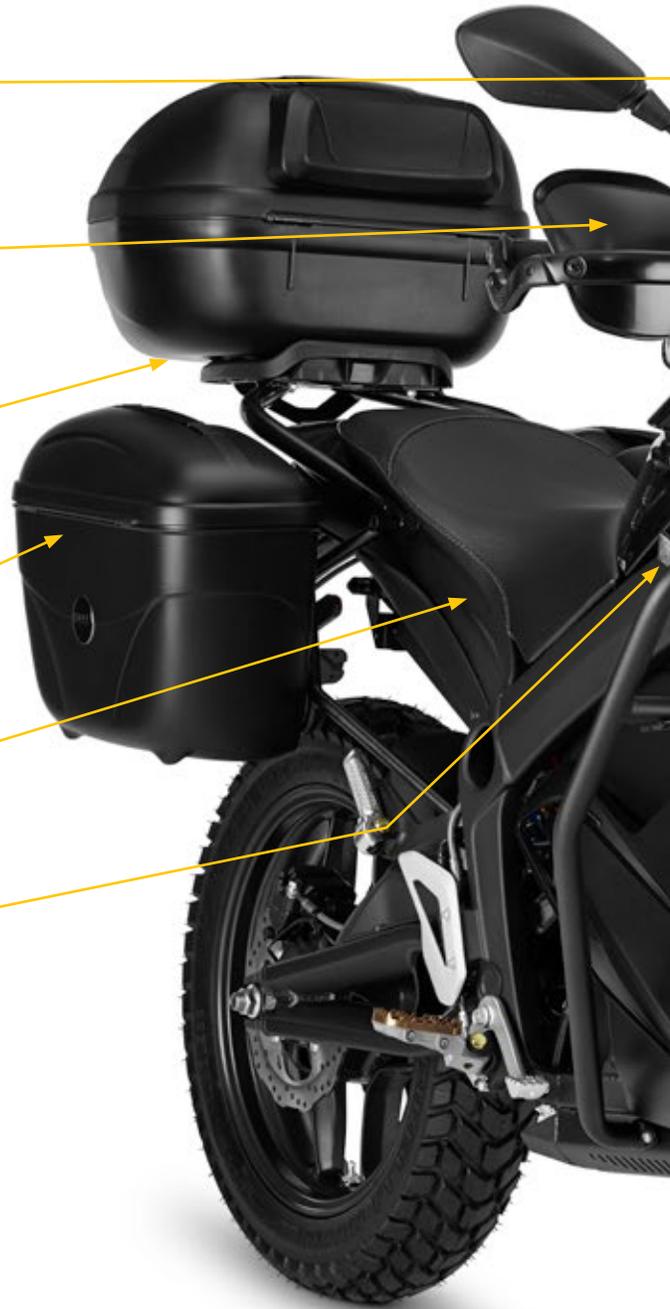
Hand guards

Top box by GIVI and rack

Side cases by GIVI and rack

Heated seats

Whelen TIR3 lights and siren



AVAILABLE CONFIGURATIONS						
MODELS	ZERO DSP		ZERO SP		ZERO FXP	
APPLICATIONS	Police	Security	Police	Security	Police	Security
COLORS						
CAPACITIES	ZF13.0		ZF13.0		ZF3.3	ZF6.5



AVAILABLE FEATURES:

- » Whelen TIR3 forward-facing lights
- » Whelen TIR3 side-facing lights
- » Whelen TIR3 rear-facing lights
- » Programmable Whelen siren system with PA and Microphone
- » Rear rack, top box, side cases
- » Front battery/frame protection bars
- » 12 V accessory outlet
- » Hand guards
- » Heated seat
- » Windscreen
- » Scalable quick charger systems
- » Headlight/taillight cut switch and harness
- » Telescoping Pole Light
- » Power Tank range-extending accessory
- » Charge Tank fast-charging accessory



Model shown: Zero DSP Police motorcycle with available options.
Visit <http://www.zeromotorcycles.com/fleet/police/> for more information.

POLICE AND SECURITY MOTORCYCLES



ZERO FXP™

- » Off-road capable for parks, beaches, etc.
- » Lightweight, rapid acceleration, agile handling
- » Ideal for tight quarters such as arenas and congested areas
- » Modular power packs can be charged either on the motorcycle or elsewhere with optional accessories



ZERO DSP™

- » Extremely versatile dual sport model
- » Perfectly suited for both street and light off-road duty
- » High capacity integrated power pack
- » Over 100 miles combined city/highway range (with optional Power Tank)



ZERO SP™

- » Designed for city and suburban use
- » Quick acceleration, 95 mph top speed
- » Highly customizable to meet a wide variety of needs
- » 189 miles of city range, 82 on the highway at 70 mph

ZERO FXP » SPECIFICATIONS

	ZERO FXP ZF3.3	ZERO FXP ZF6.5
RANGE		
City	39 miles (63 km)	79 miles (127 km)
Highway, 55 mph (89 km/h)	23 miles (37 km)	46 miles (74 km)
» Combined	29 miles (47 km)	58 miles (93 km)
Highway, 70 mph (113 km/h)	14 miles (23 km)	29 miles (47 km)
» Combined	21 miles (34 km)	41 miles (66 km)
MOTOR		
Max torque	70 ft-lb (95 Nm)	70 ft-lb (95 Nm)
Max power	27 hp (20 kW) @ 3,700 rpm	44 hp (33 kW) @ 3,700 rpm
Top speed (max)	85 mph (137 km/h)	85 mph (137 km/h)
Top speed (sustained)	75 mph (121 km/h)	75 mph (121 km/h)
Type	Z-Force® 75-5 passively air-cooled, high efficiency, radial flux, interior permanent magnet, brushless motor	
Controller	High efficiency, 420 amp, 3-phase brushless controller with regenerative deceleration	
POWER SYSTEM		
Est. pack life to 80% (city)	88,000 miles (142,000 km)	178,000 miles (286,000 km)
Power pack	Z-Force® Li-Ion intelligent modular	Z-Force® Li-Ion intelligent modular
Max capacity	3.3 kWh	6.5 kWh
Nominal capacity	2.9 kWh	5.7 kWh
Charger type	650 W, integrated	650 W, integrated
Charge time (standard)	4.7 hours (100% charged) / 4.2 hours (95% charged)	8.9 hours (100% charged) / 8.4 hours (95% charged)
» With one accessory charger	2.1 hours (100% charged) / 1.6 hours (95% charged)	3.8 hours (100% charged) / 3.3 hours (95% charged)
» With max accessory chargers	1.5 hours (100% charged) / 1.0 hour (95% charged)	1.7 hours (100% charged) / 1.2 hours (95% charged)
Input	Standard 110 V or 220 V	Standard 110 V or 220 V
DRIVETRAIN		
Transmission	Clutchless direct drive	Clutchless direct drive
Final drive	132T / 25T, Poly Chain® GT® Carbon™ belt	132T / 25T, Poly Chain® GT® Carbon™ belt
CHASSIS / SUSPENSION / BRAKES		
Front suspension	Showa 41 mm inverted cartridge forks, with adjustable spring preload, compression and rebound damping	
Rear suspension	Showa 40 mm piston, piggy-back reservoir shock with adjustable spring preload, compression and rebound damping	
Front suspension travel	8.60 in (218 mm)	8.60 in (218 mm)
Rear suspension travel	8.94 in (227 mm)	8.94 in (227 mm)
Front brakes	Bosch Gen 9 ABS, J-Juan dual piston floating caliper, 240 x 4.5 mm disc	
Rear brakes	Bosch Gen 9 ABS, J-Juan single piston floating caliper, 240 x 4.5 mm disc	
Front tire	Pirelli Scorpion MT 90 A/T 90/90-21	Pirelli Scorpion MT 90 A/T 90/90-21
Rear tire	Pirelli Scorpion MT 90 A/T 120/80-18	Pirelli Scorpion MT 90 A/T 120/80-18
Front wheel	1.85 x 21	1.85 x 21
Rear wheel	2.50 x 18	2.50 x 18
DIMENSIONS		
Wheelbase	56.6 in (1,438 mm)	56.6 in (1,438 mm)
Seat height	34.7 in (881 mm)	34.7 in (881 mm)
Rake	25.4°	25.4°
Trail	4.1 in (104 mm)	4.1 in (104 mm)
WEIGHT		
Frame	20 lb (9.1 kg)	20 lb (9.1 kg)
Curb weight	260 lb (118 kg)	302 lb (137 kg)
Carrying capacity	370 lb (168 kg)	328 lb (149 kg)
ECONOMY		
Equivalent fuel economy (city)	460 MPGe (0.51 l/100 km)	460 MPGe (0.51 l/100 km)
Equivalent fuel economy (highway)	170 MPGe (1.38 l/100 km)	170 MPGe (1.38 l/100 km)
Typical cost to recharge	\$0.37	\$0.73

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ZERO DSP » SPECIFICATIONS

	ZERO DSP ZF13.0	ZERO DSP ZF13.0 +POWER TANK
RANGE		
City	141 miles (227 km)	172 miles (277 km)
Highway, 55 mph (89 km/h)	79 miles (127 km)	97 miles (156 km)
» Combined	101 miles (163 km)	124 miles (200 km)
Highway, 70 mph (113 km/h)	58 miles (93 km)	71 miles (114 km)
» Combined	82 miles (132 km)	101 miles (163 km)
MOTOR		
Max torque	68 ft-lb (92 Nm)	68 ft-lb (92 Nm)
Max power	54 hp (40 kW) @ 4,300 rpm	54 hp (40 kW) @ 4,300 rpm
Top speed (max)	98 mph (158 km/h)	98 mph (158 km/h)
Top speed (sustained)	85 mph (137 km/h)	85 mph (137 km/h)
Type	Z-Force® 75-7 passively air-cooled, high efficiency, radial flux, interior permanent magnet, brushless motor	
Controller	High efficiency, 420 amp, 3-phase brushless controller with regenerative deceleration	
POWER SYSTEM		
Est. pack life to 80% (city)	317,000 miles (510,000 km)	387,000 miles (623,000 km)
Power pack	Z-Force® Li-Ion intelligent	Z-Force® Li-Ion intelligent
Max capacity	13.0 kWh	15.9 kWh
Nominal capacity	11.4 kWh	14.0 kWh
Charger type	1.3 kW, integrated	1.3 kW, integrated
Charge time (standard)	8.9 hours (100% charged) / 8.4 hours (95% charged)	10.8 hours (100% charged) / 10.3 hours (95% charged)
» With Charge Tank accessory	3.4 hours (100% charged) / 2.9 hours (95% charged)	N/A
» With one accessory charger	5.2 hours (100% charged) / 4.7 hours (95% charged)	6.3 hours (100% charged) / 5.8 hours (95% charged)
» With max accessory chargers	2.6 hours (100% charged) / 2.1 hours (95% charged)	3.0 hours (100% charged) / 2.5 hours (95% charged)
Input	Standard 110 V or 220 V	Standard 110 V or 220 V
DRIVETRAIN		
Transmission	Clutchless direct drive	Clutchless direct drive
Final drive	130T / 28T, Poly Chain® GT® Carbon™ belt	130T / 28T, Poly Chain® GT® Carbon™ belt
CHASSIS / SUSPENSION / BRAKES		
Front suspension	Showa 41 mm inverted cartridge forks, with adjustable spring preload, compression and rebound damping	
Rear suspension	Showa 40 mm piston, piggy-back reservoir shock with adjustable spring preload, compression and rebound damping	
Front suspension travel	7.00 in (178 mm)	7.00 in (178 mm)
Rear suspension travel	7.03 in (179 mm)	7.03 in (179 mm)
Front brakes	Bosch Gen 9 ABS, J-Juan asymmetric dual piston floating caliper, 320 x 5 mm disc	
Rear brakes	Bosch Gen 9 ABS, J-Juan single piston floating caliper, 240 x 4.5 mm disc	
Front tire	Pirelli MT-60 100/90-19	Pirelli MT-60 100/90-19
Rear tire	Pirelli MT-60 130/80-17	Pirelli MT-60 130/80-17
Front wheel	2.50 x 19	2.50 x 19
Rear wheel	3.50 x 17	3.50 x 17
DIMENSIONS		
Wheelbase	56.2 in (1,427 mm)	56.2 in (1,427 mm)
Seat height	33.3 in (846 mm)	33.3 in (846 mm)
Rake	26.5°	26.5°
Trail	4.6 in (117 mm)	4.6 in (117 mm)
WEIGHT		
Frame	23 lb (10.4 kg)	23 lb (10.4 kg)
Curb weight	437 lb (198 kg)	481 lb (218 kg)
Carrying capacity	338 lb (153 kg)	294 lb (133 kg)
ECONOMY		
Equivalent fuel economy (city)	415 MPGe (0.57 l/100 km)	415 MPGe (0.57 l/100 km)
Equivalent fuel economy (highway)	170 MPGe (1.38 l/100 km)	170 MPGe (1.38 l/100 km)
Typical cost to recharge	\$1.46	\$1.78

ZERO SP » SPECIFICATIONS

ZERO SP ZF13.0		ZERO SP ZF13.0 +POWER TANK
RANGE		
City	155 miles (249 km)	189 miles (304 km)
Highway, 55 mph (89 km/h)	89 miles (143 km)	108 miles (174 km)
» Combined	113 miles (182 km)	139 miles (224 km)
Highway, 70 mph (113 km/h)	67 miles (108 km)	82 miles (132 km)
» Combined	94 miles (151 km)	115 miles (185 km)
MOTOR		
Max torque	68 ft-lb (92 Nm)	68 ft-lb (92 Nm)
Max power	54 hp (40 kW) @ 4,300 rpm	54 hp (40 kW) @ 4,300 rpm
Top speed (max)	95 mph (153 km/h)	95 mph (153 km/h)
Top speed (sustained)	85 mph (137 km/h)	85 mph (137 km/h)
Type	Z-Force® 75-7 passively air-cooled, high efficiency, radial flux, interior permanent magnet, brushless motor	
Controller	High efficiency, 420 amp, 3-phase brushless controller with regenerative deceleration	
POWER SYSTEM		
Est. pack life to 80% (city)	349,000 miles (562,000 km)	425,000 miles (684,000 km)
Power pack	Z-Force® Li-Ion intelligent	Z-Force® Li-Ion intelligent
Max capacity	13.0 kWh	15.9 kWh
Nominal capacity	11.4 kWh	14.0 kWh
Charger type	1.3 kW, integrated	1.3 kW, integrated
Charge time (standard)	8.9 hours (100% charged) / 8.4 hours (95% charged)	10.8 hours (100% charged) / 10.3 hours (95% charged)
» With Charge Tank accessory	3.4 hours (100% charged) / 2.9 hours (95% charged)	N/A
» With one accessory charger	5.2 hours (100% charged) / 4.7 hours (95% charged)	6.3 hours (100% charged) / 5.8 hours (95% charged)
» With max accessory chargers	2.6 hours (100% charged) / 2.1 hours (95% charged)	3.0 hours (100% charged) / 2.5 hours (95% charged)
Input	Standard 110 V or 220 V	Standard 110 V or 220 V
DRIVETRAIN		
Transmission	Clutchless direct drive	Clutchless direct drive
Final drive	130T / 28T, Poly Chain® GT® Carbon™ belt	130T / 28T, Poly Chain® GT® Carbon™ belt
CHASSIS / SUSPENSION / BRAKES		
Front suspension	Showa 41 mm inverted cartridge forks, with adjustable spring preload, compression and rebound damping	
Rear suspension	Showa 40 mm piston, piggy-back reservoir shock with adjustable spring preload, compression and rebound damping	
Front suspension travel	6.25 in (159 mm)	6.25 in (159 mm)
Rear suspension travel	6.35 in (161 mm)	6.35 in (161 mm)
Front brakes	Bosch Gen 9 ABS, J-Juan asymmetric dual piston floating caliper, 320 x 5 mm disc	
Rear brakes	Bosch Gen 9 ABS, J-Juan single piston floating caliper, 240 x 4.5 mm disc	
Front tire	Pirelli Sport Demon 110/70-17	Pirelli Sport Demon 110/70-17
Rear tire	Pirelli Sport Demon 140/70-17	Pirelli Sport Demon 140/70-17
Front wheel	3.00 x 17	3.00 x 17
Rear wheel	3.50 x 17	3.50 x 17
DIMENSIONS		
Wheelbase	55.5 in (1,410 mm)	55.5 in (1,410 mm)
Seat height	31.8 in (807 mm)	31.8 in (807 mm)
Rake	24.0°	24.0°
Trail	3.2 in (80 mm)	3.2 in (80 mm)
WEIGHT		
Frame	23 lb (10.4 kg)	23 lb (10.4 kg)
Curb weight	432 lb (196 kg)	476 lb (216 kg)
Carrying capacity	343 lb (156 kg)	299 lb (136 kg)
ECONOMY		
Equivalent fuel economy (city)	460 MPGe (0.51 l/100 km)	460 MPGe (0.51 l/100 km)
Equivalent fuel economy (highway)	200 MPGe (1.18 l/100 km)	200 MPGe (1.18 l/100 km)
Typical cost to recharge	\$1.46	\$1.78



Model shown: Zero SP Police Motorcycle with available options.

ZERO MOTORCYCLES

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