



Scorpion X2

Specification Sheet

Image



Color Options

Blue
Black
Lava

Frame Sizes

One Size Step-Thru Frame

Motor

1,000 Watt Motor
Geared Rear Hub Motor
1,300 W / 90 Nm Peak Torque (Standard 25A Controller)
1,800 W / 100 Nm Peak Torque (Optional 35A Controller)
5:1 Geared hub motor for higher torque output
Low-drag freewheeling clutch
Freewheel standard
Robust Left-side motor cable connector

<p>Battery Pack</p>	<p>52 V / 15.6 Ah (G2 Dock-able Battery) Compatible with the PowerShift Docking System Integrated Apple AirTag tracker compartment Built in Battery LED level meter with charge status 35A continuous discharge Performance Carry handle for easier transporting IP65 water resistance Lockable power button to prevent unwanted tampering Fully concealed dual fuse compartment Programmable Battery Management System (BMS) Modular design for easy serviceability Backwards compatible with every 52V Juiced E-bike.</p>
<p>Motor Controller</p>	<p>9 Transistor 25 Amp Peak 1,300 Watts (Included) Throttle Up to 20 mph Pedal Assist Up to 28 mph</p> <p>12 Transistor 35 Amp Peak 1,800 Watts (Optional) Throttle Up to 30 mph Pedal assist Up to 30 mph</p> <p>Key Functions (All Controllers) Sine wave FOC Customized tuning algorithm Thermally managed 52V LED light output Fully potted resistant construction Cruise control function Walk function XT60 connectors Firmware upgradable</p>
<p>Performance</p>	<p>Class 3 Capable: 28 mph (45 km/h) Default Configuration: Class 2 E-Bike 20 mph (32 km/h) Optional Configuration: Class 3 and Class 1 E-Bike Optional Configuration: Race Track Mode: 30 mph in Pedal Assist *Configurations can be adjusted from the LCD display</p>
<p>Throttle Control</p>	<p>Half-Twist Right Side Throttle (included) Right or left side mountable</p> <p>Throttle-Only Performance Standard 25A Controller: 20 mph Optional 40A Controller: 30 mph</p>
<p>Pedal Sensors</p>	<p>Bottom Bracket Cadence Sensor 12 Poles per crank revolution</p>

<p>Display Interface</p>	<p>LCD Advanced Matrix Display (W780) Matrix Display with 120 x 64 Pixels Customized interface with 3-button layout 7 Levels Assist: 0, ECO, 1, 2, 3, SPORT (28 mph), RACE (Unlimited) Basic and Advanced display modes Water resistant IP65 Backlit illuminated display Push button start up</p>
<p>Advanced Display Screen Mode</p>	<p>Advanced Display Screen Mode Toggle Advanced Display Mode to see following real-time metrics: Speed Trip Distance Volts Wh/mi Efficiency Amps Watts Controller Temperature Odometer Amp-Hours Watt-Hours Assist Level Setting</p> <p>*Hold Assist Up + Power button for 2 seconds to toggle Advanced Display Mode. **Hold Assist Down + Power Button for 2 seconds to reset Trip Counter</p>

Assist System's Functions

Active Cruise Control Function

Locks in any speed below 20 mph. Speed will be maintained without pedaling or using the throttle until: the brake is applied, pushing any button or giving additional throttle input. Pedaling can increase the speed, but e-bike will return to the pre-set speed if pedaling stops.

Walk Function

Push-button throttle limited to 6 kmh to assist when pushing or walking bike.

LED Head Light Control

Turn on the LED headlight light from the display console. Option to allow the headlight always stay on.

Display Backlight Control

Turn on the display's backlight to see the screen at night. Option to allow the headlight to always stay on.

Torque Sensor Deactivation Function

Turn off the torque sensor signal. The pedal assist will only use the cadence sensor input.

Speed Limiter

Set the maximum speed limit of the throttle or pedal assist system.

Assist Level Limiter

Set the maximum assist level that can be selected: ECO, 1, 2, 3, Sport or Race

Low Voltage Limiter

Set the lowest voltage allowed by the electric drive system. Used to control how deeply the battery is allowed to discharge.

Display Brightness Level

Set the brightness level of the display

Wheel Circumference Input

Set the precise wheel circumference in mm.

Race Track Mode

Pedal assist is set to the most aggressive setting. The bike is not electronically speed limited. The top speed will be limited only by the power available to the motor. Use this setting on non-public roads only.

Power Off Delay

Set the inactivity duration before the bike automatically turns off.

Charger

52V / 2 Amps Standard Charger (included)

2 Amps max charge rate
6.2 Hours recharge to 80% (15.6 Ah Battery)
3 Pin XLR Connector
UL Certified
On-bike and off-bike charging

52V / 4 Amps Turbo Charger (optional)

3.1 Hours recharge to 80% (15.6 Ah Battery)
4 Amps max charge rate
3 Pin XLR Connector
UL Certified
On-bike and off-bike charging

52V / 8 Amps Advanced Fast Charger (optional)

Grin Tech / Cycle Satiator
8 Amp max charge rate
1.7 Hours recharge to 80% (15.6 Ah Battery)
3 Pin XLR connector
UL Certified
80% Charge setting
Storage charge setting
Fully programmable
Water resistant
On-bike and off bike charging

Range

Battery Range Chart			
Amp Hours (Ah)			15.6 Ah
Volts (V)			51.8 V
Wh			800 Wh
E-bike Class	Riding Style	Efficiency Wh/mi	Range Miles
CLASS 2 <20 mph	Economy Riding	10 Wh/mi	80 Miles
	Medium Speed Riding	15 Wh/mi	53 Miles
	Average Speed Riding	20 Wh/mi	40 Miles
CLASS 3 < 28 mph	Fast Speed Riding	25 Wh/mi	32 Miles
	Aggressive Riding	30 Wh/mi	27 Miles
CLASS 3+ > 28 mph	Race Track Mode	35 Wh/mi	23 Miles
Factors negatively impacting efficiency and range: Frequent starts and stops, Hills, Throttle-only riding, Lower tire pressures, Headwinds Faster average speeds, Heavier Payloads, Increased aerodynamic drag			

Wire Harness	1-to-4 Quick Connect Cable Water resistant connectors Type 1 connectors (with threaded lockring)
Frame	6061 Aluminum Heat Treated Frame Step-Thru frame design Integrated & removable down-tube battery Custom designed hidden cable channel system CNC battery compartment Rear pannier rack mount Fender stay mounts 300 lbs (136 kg) total payload rating
Rear Suspension	Rear Suspension with dual shock absorbers
Rims	Double Walled Aluminum Alloy Rim 36 Hole 19 mm inner wheel width 12G / 13G brass grommets High pressure rim strip Flat Black
Spokes	Heavy Duty Stainless Front: 13G Black 168 mm Rear: 12G Black 116 mm
Tires	Knobby Tires 20" x 4.0" Kenda K1188
Brakes	Front and Rear Hydraulic Disc Brakes HD-E500 Logan Dual Piston Hydraulic Calipers Pad: B01S Style
Transmission	7 Speed Freewheel Transmission Brand ATA Freewheel Cable Length: 1950 mm
Bottom Bracket	English Square Taper Type Axle Length: 164 BB Length: 100 mm

Chain Ring	Pro Wheel 52T Crank Length: Aluminum CNC 160 mm Outside and Inside ABS Chain Guide
Chain	7 Speed Chain Rust Buster 126 Links KMC
Pedals	9/16" Platform Pedals Polymer bearing
Fork	Suspension Double Fork Lockout 100 mm Travel 1-1/8 Threadless EXSHO
Grips	Lock-on grips Clamp Diameter 22.2 mm
Handle Bar & Stem	Custom Tall Moto Handlebar Height: 245mm Width: 710 mm Clamp: 31.8 mm Forged Stem Stem: 28.6 mm (1-1/8 Threadless) Stem Length: 45.2 mm
Seat Post & Seat	Custom Padded Seat Seat Length: 61 cm Seat Height: 8 cm
Mud Guard	Front and Rear Mud Guards (Included) Aluminum Black
LED Head Light	5" Round Motorcycle Style Headlight 4 Light LED Beams 2,000 Lum Halo Ring IP64 Rating 12-80V Wide Voltage Input Optional Upgrade HeadBanger Bluetooth Headlight

LED Tail Light	Rear LED Light (included) Always-On taillight function Brake Light function Mini license plate bracket
Mirrors	Optional
Horn & Bell	Bell (included)
Alarm	Optional
Rear Rack	Custom Designed Rack (included) RelayRack quick release platform compatible Powder-coated aluminum Pannier rail 50 lbs (25 kg) rack payload
Warranty	1 Year Limited Warranty
Weight Limits	Bike Weight Limits: 300 lbs (136 kg) total payload rating Rack Weight Limits: 50 lbs (25 kg) rack payload
Vehicle Weight	E-Bike without battery: 94.0 lbs (42.7 kg) Battery alone: 11.7 lbs (5.3 kg) Bike + Battery: 106 lbs (48.0 kg)
Package Dimensions	Fully Padded Shipping Box Box Dimensions: 58.0" x 13.7" x 35.0" (146 cm x 35 cm x 89 cm) Package Weight: 118 lbs (53.5 kg)
Notes	Due to ongoing supply chain constraints in the e-bike market, components listed are subject to change without prior notification. All new components have been carefully tested and inspected to ensure they meet, and in most cases exceed the performance standard of the item we are replacing.

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