



Empulse R

2014 Brammo Empulse and Empulse R Specifications

Motor	
Motor Type	Permanent Magnet AC (PMAC) – Empulse Parker GVM IPM – Empulse R
Motor Controller	Sevcon Gen 4, Size 6 (650A peak)
Peak Motor Power	40kW, @ 6,000 rpm (54 hp) – Empulse 40kW, @ 4,500 rpm (54 hp) – Empulse R
Peak Torque	63Nm (46.5 foot pounds) – Empulse 90Nm (66 foot pounds) – Empulse R
Final Drive	Direct Chain Drive (14/48) 520 O-ring chain
Transmission	IET™ 6 speed gearbox with multi-plate, hydraulic activated wet clutch.
Emissions	None
Battery Pack	
Battery Type	Brammo Power™ BPM15/90 Lithium-Ion (NCM Chemistry)
Battery Pack Capacity	9.31 kWh (nominal), 10.2 kWh (max)
Battery Pack Voltage	103.6 V (nominal), 117.6 Vdc (max)
Recharge Time	2.0 hrs (typical, Level II charging from 20 to 80% SOC) 3.5 hrs (maximum, Level II charging from 0 to 100% SOC) 8.0 hrs (maximum, Level I charging from 0 to 100% SOC)
Battery Life	1,500 cycles (approx.100,000 miles) to 80% initial capacity
Operating Cost	
Fuel Efficiency	438 MPGe (City) / .54 litre/100km-e MPGe and litre/100km-e are measures that compare electric energy to gasoline. Actual efficiency will vary depending on riding style and other factors.
Performance	
Max Speed	110 mph / 177 km/h
Driving Range	City: 128 miles* / 206 km Highway: 58 miles** / 93 km Combined: 80 miles*** / 129 km *SAE City Riding Range Test Procedure for Electric Motorcycles (variable speed, 19 mph / 30km/h average) **SAE Highway / Constant Speed Riding Range Test Procedure for Electric Motorcycles (70 mph / 113 km/h sustained) *** SAE Highway Commuting Cycle (.5 City weighting, .5 Highway weighting)
Regenerative Braking	Under deceleration, energy is returned to the battery system to both extend driving range and provide familiar rider feedback.
Data Collection	Brammo DDC™ (Dynamic Data Collection) records key motorcycle parameters at 1Hz (1 sample/second) for analysis and service support.

Key Components	
Frame	Brammo E-Beam Aluminum, Fabricated by Accossato in Italy
Sub-Frame	Tubular Steel, Fabricated by Accossato in Italy
Swing Arm	Tubular Steel, Fabricated by Accossato in Italy
Suspension – Front	Fully Adjustable 43mm Marzocchi Forks (Empulse uses Semi-Adjustable 43mm Marzocchi Forks)
Suspension – Rear	Fully Adjustable Sachs Shock (Empulse uses Semi-Adjustable Sachs Shocks)
Brakes – Front	Dual 310mm Brembo floating disk with twin four piston Hydraulic Brembo Brake Calipers, Radial Mount.
Brakes – Rear	Brembo single disk with dual piston Hydraulic Brembo Brake Caliper
Wheels – Front / Back	17" x 3.5" Marchesini / 17" x 5.5" Marchesini
Tires – Front / Back	Continental 120-70 ZR17, 58W / 180-55 ZR17, 73W
Instrumentation	LCD display; speed, tach, odometer, gear position, energy consumption, battery status, estimated range and system status
Dimensions	
Weight	460 lbs / 213 kg
Seat Height	31.5" / 80.0 cm
Width	31.8" (bar end-to-bar end) / 80.77 cm
Height	42.6" (highest portion of the dash) / 108.2 cm
Length	81.3" / 206.5 cm
Ground Clearance	7.3" / 18.54 cm
Rake/Trail	24° / 3.8"
Storage Capacity	Optional Brammo hard side bags by GIVI.
Carrying Capacity	Cargo Capacity 368 lbs / 167 kg (838 lbs / 380 kg total combined motorcycle, rider, passenger and cargo)
Wheelbase	58.0" / 147.32 cm
Warranty	
Two year limited factory warranty. Five year or 50,000 miles, whichever comes first, limited warranty on the battery modules.	
Colors	
Empulse: True Blood Red, Eclipsed Black, Empulse R : True Blood Red, Eclipsed Black, Maillot Jaune Yellow, Neodymium Silver Metallic	

Recharge J1772 Level I and II
110V AC to J1772 Level I Adapter included

Brammo products used for racing do not carry a manufacturer's warranty.
All specifications are subject to change without notice.

Electric vehicle range is affected by a number of factors including; speed, acceleration, number of starts and stops, rider and cargo weight, changes in elevation, head winds and road surface.

The batteries we use have an amazing life cycle and are maintenance free. They're inherently extremely safe and can withstand temperatures without decomposing and, unlike other batteries, can be topped up at any time.



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Energie für die Zukunft.
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