



Up to 50 % Cost Savings¹

M2M Interface

On Battery Level

No maintenance / 3–4 times more operating hours / constant discharge profile / increased reliability

On Tractor Level

5 times higher utilization / opportunity charging / 75 % fewer batteries / partial charging in 15–120 minutes / less weight – reduced spare parts (tires, ...)

On Fleet Level

Fewer tractors / fewer charging stations / increased availability / eliminate battery maintenance and charging areas

On Airport Level

Smaller maintenance workshops / reduced maintenance staff / improved ramp safety / eliminates off gassing / eliminates acid handling and disposal

Improve Utilization by knowing

- Where is my BTU located?
- Is my BTU in use?
- Is it idle or running?
- Which routes did it take?
- What's my state of charge?
- What's my energy consumption?



The Lithium Battery



Tested and proven with leading GSE brands



Over 10,000 hours in 3-shift operations



Proven reliability in rough tarmac conditions with temperatures from -15°F (-20°C) to +135°F (+55°C) and 100 % humidity



Reference customers in the Middle-East, Asia, Europe, and North America

Traction Model	Traction Power	Traction Power Plus
Capacity	Nominal Capacity	275 Ah ² / 400 Ah ³
Voltage	Nominal	80 V
	Voltage Range	68 VDC–86 VDC
	Max. Voltage	86 VDC
Charging	Recommended charge current	135 A / 200 A
	Max. Chargecurrent	275 A (1C) / 400 A (1C)
	Loading curve	U/I; CC/CV
	End-of-discharge voltage	72 VDC
Discharging	Continuous discharge current	275 A (1Cc) / 400 A (Cc)
	Max. discharge current	500 A (short term peak) / 500 A (short term peak)
	Operating temperature	32°F to 135°F
Environment	Charging temperature	-15°F to 135°F
	W × H × D	1015 × 550 × 682 mm
Dimensions and Weight	Weight, gross	ca. 420 kg / ca. 485 kg
	Protection	IP 65
	Transportation / Abuse	UN 38,3
Safety	Temperature protection	Integrated
	Over-voltage protection	Integrated

1 When compared to typical lead acid GSE traction batteries
 2 Equivalent capacity to 650 Ah lead acid battery due to higher depth of discharge
 3 Equivalent capacity to 1000 Ah lead acid battery due to higher depth of discharge



COLIBRI ENERGY Game Changer in the GSE Market

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Intelligent Charging

Accelerate your conversion



Fast Charger

Our high frequency, regulated chargers are programmed with optimized charging curves which extends battery life and optimizes system performance. Opportunity charging is always available and charging can be interrupted at any time, guaranteeing high vehicle availability when you need it.

Indoor charger

Easy installation: only mains connection and floor/wall fixation required

Outdoor charger

Controls located outside the housing for simple operation
Easily exchangeable air-filters, low maintenance in extreme temperature and humidity environments

Charging start or stop at any state of charge

Colibri Energy Power Charger 2.0 systems

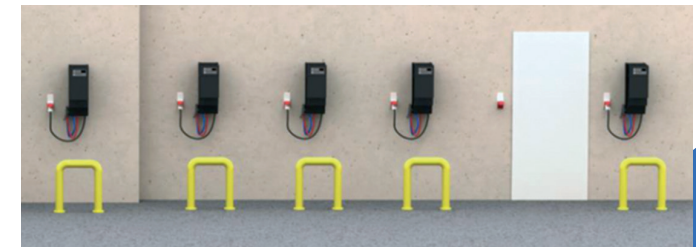
- automatically recognizes which Power Traction 2.0 product is attached and optimizes charging performance for the unit.
- will charge between 10 % and 40 % faster than the previous charger models.
- an intelligent charging solution that delivers high performance and ultimate flexibility for operators with both Power Traction 2.0 products installed.
- optional outdoor housing available that provides active cooling for top performance in hot climates and protects the system from foreign debris.

System voltage:	80V
Current (A):	200 A
Charge time:	up to max. 120 Minutes, partial / opportunity charging
Mains connection:	3 × 380–415 V; 50–60 Hz AGV
Battery type:	Colibri lithium polymer based high performance battery
Included:	Primary cable 4 × 6 + CEE32, 5m, 50mm 2sec. cable and REMA 320, Remote start input

Charger Model	Traction Power	Traction Power Plus
DC		
Battery Voltage	80 V nominal	
Battery technology	Colibri Traction Power / Power Plus Lithium Batteries	
Charging current	135 A	200 A
Integrated DC Fuse	Yes	Yes
AC		
AC voltage	3ph 400 VAC / 440 VAC / 480 VAC 50–60 Hz	
AC max. Power	16,5 kW / 17,3 kVA	20,5 kW / 21,6 kVA
AC connection	Screw terminals 5 × 6–16 mm ²	
AC required circuit	32 A (min. 5×6 mm ²)	40 A (min. 5×10 mm ²)
Integrated AC circuit breaker	Yes	Yes
Mechanical		
Dimesions (W × H × D)	ca. 680 × 1200 × 650 mm	
Weight	ca. 195 kg	
Environment		
Temperature	-15°F to 135°F ambient, no direct sun exposure, automatic temperature based derating	
Humidity	up to 100 % non-condensing	
Protection class	IP 54, exchangeable air-filters	
Mounting requirements	Only for mounting under outdoor roof	

We help rapidly convert your vehicle fleet from Diesel, Lead Acid or Hybrid to Lithium powered vehicles and support the installation of effective charging infrastructure. We provide:

- Requirements analysis
- Charging infrastructure design and specification
- Installation and commissioning
- Go-live planning and conversion support
- Post-go live optimization



- ✓ High efficiency, up to 94 %
- ✓ Fault finding and statistics
- ✓ Low weight and small volume
- ✓ High power factor permits low mains fuse
- ✓ Individual adjustments of display and keyboard
- ✓ Advanced recharging control – best battery lifetime.