Atlas Copco

# Portable Charging Solutions

Fast recharging power brought to your site.

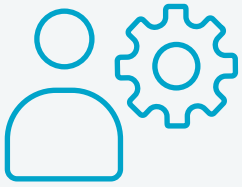
# Transform how you provide power

## The key to superior worksite efficiency

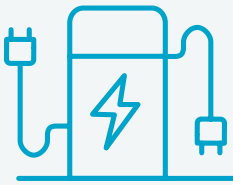
Our portable FCS charger is the portable charging solution of the future. The towable Lithium-ion battery powered charger provides an efficient way to charge both vehicles and electric equipment. Up to 220 kW DC output in standalone mode split across the two guns and up to 240 kW DC in the simultaneous Charge-to-Recharge mode make the FCS the charger of the future.

Perfectly suited for rental companies that target both construction and event industries. Whether you need power for your electric construction equipment or temporary power for events, the FCS is the easy choice. With simple setup and control through the ECOController and full 2-way communication, you can enjoy a true peace of mind operation.

The FCS provides superior jobsite efficiency. Rather than having to move each machine to a dedicated charging port, you can charge the machine during breaks and get back to work without any delays. Boost productivity by up to 200% which ensures faster completion of projects and superior operational efficiency. Take advantage of less than an hour of recharge time and setup of the charging operation in around 10 seconds to boost productivity to new levels.



On-the-fly user managment enables the operator on site to add and manage users, create accounts or issue RFID authentification tags. A guided user interface then guarantees access only to the assigned security level.



### Charge to discharge

The charge-to-discharge functionality allows to combine the internal battery capacity with additional external AC or DC sources to achieve output power exceeding the standalone rating.

# Your all in one charging solution

Construction

Events

Renewables

Recharging points

## Benefits

**IP55**
Harsh environments

**70 kW / 1s**
AC Power Boost

**<1** Hour
**Fast Recharge**

**2x** Increased
**Productivity**

**<3.5t**
Safe and easy transport

Payment and Authetification via
**OCCP** possible

Fast set up
**10s**

Fast **User Management**
at the machine

# FCS 220-240

## 240 kW DC + 50 kW AC

## 240 kWh

## Key features

### Connections

- CEE In- and Output sockets
- 2x CCS2 guns with 9m cable
- CCS2 Input port
- Diesel Generator control

### Service

- Extended Warranty and TRP
- Fleetlink Monitoring and Access
- Low Maintenance
- Predefined Service offerings

### Safety

- Smoke, Fire, H2 detection
- Visual and audible alarm
- FSS + Water inlet
- Lockable doors (Daily / Service)
- Emergency Stop

### Customize

- Dedicated One color design (RAL)
- Dedicated Special color (RAL)
- Sustainability branding

# ECO Controller, the brain of the solution

The ECO ControllerTM by Atlas Copco, is a human- machine interface (HMI) that provides operators with full control over their temporary power applications by optimizing energy generation, distribution, and consumption through advanced data management.

## Why ECO Controller?

- Fully flexible and customizable
- Provides remote control and is open to communicate with third party monitoring systems

## Flexible and consistent software

- In-house development
- Same user experience in all products
- Scalable for global solutions and future applications

## What does it do?

- It controls and monitors the power output integrating the collected data
- Centralizes all hybrid energy sources

## Connected

- Manual and automated controls
- Ensures optimal performance
- Increases component lifetime

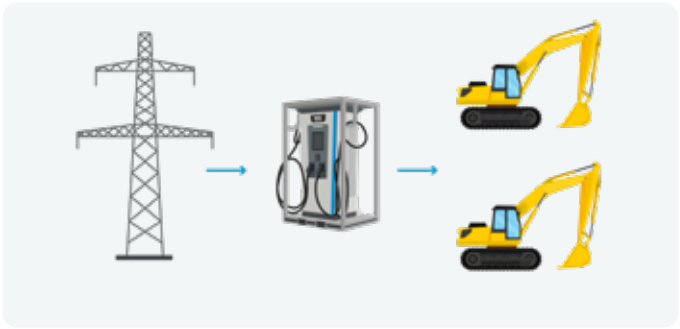
## Frictionless

- User friendly
- Dedicated for Rental Industry
- Ensures seamless interface
- Client driven software

## Versatility

- The “conductor” that orchestrates energy sources with a demand side craving cleaner solutions

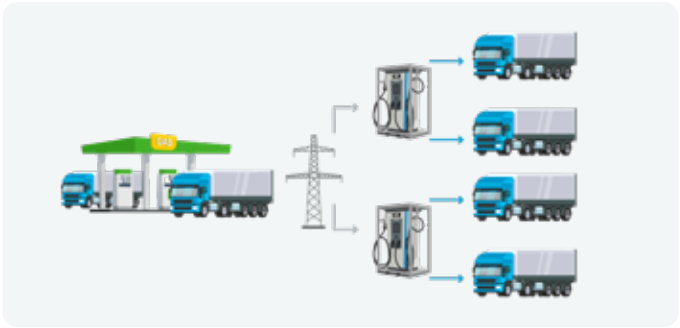
# Boosting power on site



## Machinery electrification

**Boosting the grid**

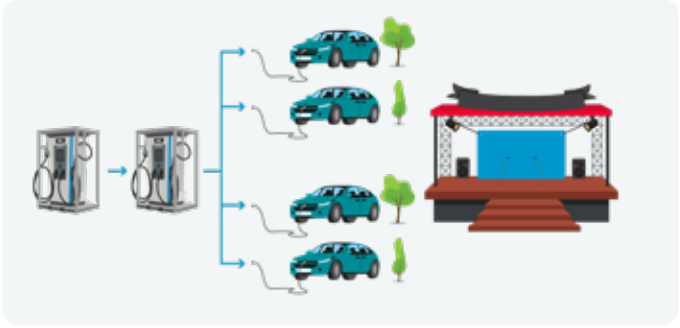
- No need of extending the grid
- Decrease construction project timeline
- Increase operational hours



## Temporary recharging station

**High demand**

- No need of fix installation investment
- Cover seasonal or trend needs
- Scalable



## Events

**Remote, no access to the grid**

- Remote areas with no grid access
- Perfect match with Mobile renewables (solar)
- Mobile around the site for convenience

## EV charging station and grid booster

The electrification of the equipment calls for compliant and efficient recharging stations. Providing a full portfolio of and the Fast Charger ensure flexible performance on site. Atlas Copco's F range increases the charging rate of battery-driven heavy machinery, equipment and vehicles.

The modularity of this solution will allow the end user to design the best set up for every application. And, when the grid available is limited, and the electric and battery-driven loads are peaking, a ZBC is ideal to boost the grid to cover that high demand.

# Technical specifications

| General data | | FCS 220-240 |
|---|---|---|
| Nominal output pover DC | kW | 220 (240 assisted) |
| Nominal output power AC | kW | 50 |
| Nominal voltage / frequency (AC) | V / Hz | 400 / 50 |
| Output voltage (DC) | VDC | 200-950 |
| Output current (DC) | A | 250 |
| Input Power DC / AC | kW | up to 192 / 90 |
| **Energy Storage** | | |
| Nominal energy storage capacity | kWh | 233 |
| Net energy storage capacity* | kWh | 209.7 |
| Battery system voltage | VDC | 768 |
| Rated current discharge | A | 302 |
| Recharge time DC / AC | h | 0,9 / 2,3 |
| Depth of discharge (DoD%) | % | 90% |
| Total energy through output up to | MWh | 869,7 |
| Expected cycle life | | 4000 (@DoD 80%,EOL 70%,25°C) |
| Protection degree | | IP 54 |
| Operating temperature** | °C | -20 to 50 |
| Dimensions (L x W x H) | mm | 4,670 × 2,200 × 2,520 (W/ trailer) |
| Weight | kg | 3500 |
| Sound level (LvA / LpA 7 meter) | dB(A) | <70 |

| Battery | | |
|---|---|---|
| Quantity | | 5 |
| Battery type | | LiFePo4 |
| Nominal voltage | VDC | 153.6 |
| Rated capacity (@25°C) | Ah | 304 |
| C-rate discharge | | 1(3C 30s) |
| End of Life (EoL%) | % | 70 |
| Weight (unit/total) | kg | 305 / 1525 |

| Inverter | | |
|---|---|---|
| Quantity | | 4 |
| Nominal power Inverter | kVA/kW | 15 / 15 |
| Peak efficiency | % | 96% |
| Input DC voltage range | VDC | 0 |
| Build in transformer | | no |
| Bi-directional | | no |
| Power factor | | -1…1 |

| Performance | | |
|---|---|---|
| Max Passthrough current | A | n/a |
| Maximum peak power/time | kW/s | 70 / 1s |
| Continuous mode pover/time | kW/min | 50 / - |
| Generator size recommended | kVA | 120 |
| Balance batteries | | automatic/ 6 months |
| Heating and cooling system | | Liquid cooling + Cell level heating |
| **Connections** | | |
| Input Connection (AC) | 1x 125A CEE / 1x 32A CEE | |
| Input Connection (DC) | 1x CCS2 | |
| Output Connection (AC) | 1x 63A CEE; 1x 32A CEE; 1x 16A 1ph | |
| Output Connection (DC) | 2x CCS2 (9m cable) | |
| **Cycle duration** | | |
| Discharge h | Power % | Recharge h |
| 0,8 | 100% | 3,1 |
| 1,1 | 75% | 3,9 |
| 1,6 | 50% | 6,2 |
| 2,9 | 25% | 14,9 |
| **Derating** | | |
| Minimum altitude w/o derating | m | 2000 |
| Min temperature w/o derating | °C | 0 |

| ECO controller | | |
|---|---|---|
| Max. Auxiliary Consumption | kW | tbc |
| Communication ports | | Ethernet (WAN/LAN), OCCP |
| Min/Max operating temperature | °C | -20°C - +55°C |
| Screen size | | 10 inch |
| SerialMode | | |
| Standard | | |

| Features and Options | | |
|---|---|---|
| HVAC system kW | Standard | included / liquid cooling |
| Trailer option (weight) | Option | included |
| Status LED | Option | 5 segment SOC + Warnings |
| Fire alarm | Option | Smoke, Heat, $H^2$ |
| FSS (type of component) | Option | included |
| Water input connection | Standard | included |
| Fleetlink / 2-Way Comm | Standard | yes |

Nominal values are considered under standard reference environmental conditions of: 25 °C, 100 kPa and 30% relative humidity. For nominal values efficiencies, deratings and DoD are not considered and tested parameter related to PF=1 as steady state operation conditions (and not continuous power operation), following IEC62933 definitions. **To avoid derating, options for Cold weather (heaters) might be needed. Atlas Copco will keep the rights to change any data when necessary due to any reason.

# FCP 160 - FCP 480

## 160 kW - 480 kW

## Benefits

**IP55**
Harsh environments

Up to **1000VDC**
Harsh environments

**Easy**
Power connections

**Compatible**
with payment systems.

**Robust**
Crash frame

**7X**
Faster compared to wall charger

*Considering average electric car with 70kWh battery

**Versatile**
Crash frame

**Connected**
Monitoring trough Fleet link

# Technical information

| General technical data | | FCP 160 | FCP 240 | FCP 360 | FCP 480 |
|---|---|---|---|---|---|
| Rated power input/output (PF=0,99) | kW | 160 | 240 | 360 | 480 |
| Connector type | | 2 x CCS 2 | | | |
| Number of ouputs / cable length | | 2 / 7 Meters | | | |
| Charging Current | A | 200 | 300 | 500A (liquid cooled) 200A (Air cooled) | |
| Rated input voltage (50Hz) | VAC | 380 VAC +/-15% | | | |
| Ouput voltage range | VDC | 200-1.000 | | | |
| Input Type | | 4x Powerlock receptacle 400A | | | |
| Ingress Portection IP | | 55 | | | |
| Peck effeciency | | 96% | | | |
| Cooling methode for AC / DC | | Forced Air cooling | | | |
| Operating temperature | °C | -25°C to 50 °C | | | |
| Communication interface | | Ethernet/GPS/3G/4G/WIFI | | | |
| Sound power level at 1m | dB(A) | <70 | <70 | <65 | <65 |
| **Dimensions and weight** | | | | | |
| Dimensions (LxWxH) | mm | 1.408x1.308x2.376 | 1.408x1.308x2.376 | 2.000x2.600x2.343 | 2.000x2.600x2.343 |
| Weight | kg | 750 | 850 | 1.900 | V2.000 |

| General technical data | | FCP 240 |
|---|---|---|
| Rated power input/output (PF=0,99) | kW | 240 |
| Connector type | | 2 x CCS 2 |
| Number of ouputs / cable length | | 2 / 7 Meters |
| Charging Current | A | 300 |
| Rated input voltage (50Hz) | VAC | 480 VAC +/-15% |
| Ouput voltage range | VDC | 200-1.000 |
| Input Type | | 4x Powerlock receptacle 400A |
| Ingress Portection IP | | 55 |
| Peck effeciency | | 96% |
| Cooling methode for AC / DC | | Forced Air cooling |
| Operating temperature | °C | -25°C to 50 °C |
| Communication interface | | Ethernet/GPS/3G/4G/WIFI |
| Sound power level at 1m | dB(A) | <70 |
| **Dimensions and weight** | | |
| Dimensions (LxWxH) | Inch | (55.4x51.5x93.5 in) |
| Weight | kg | 850 |

# Product portfolio

## Energy Storage Systems

### Portable
2–6 kVA

### Mobile
15-150 kVA

### Container
250–1000 kVA

### Fast Charging Station

## Light Towers

### Hybrid
StageV

### Solar

### Electric

### Diesel
StageV

## Generators

### Hybrid
120 - 200 kVA
StageV

### Specialized
1,6 - 660* kVA
StageV

### Versatile
9-1500* kVA

### Large Power
1350 kVA
StageV

*Multiple configurations available to produce power for any size application

## Dewatering Pumps

### Electric submersible
up to 18 000 l/min

### Electric self-priming centrifugal
833–23.300 l/min

### Self-priming centrifugal
833–23.300 l/min

## Online Solutions

### FleetLink

Intelligent telematics is a system that helps optimize fleet usage and reduce maintenance, ultimately saving time and cutting operating costs.

### Pump sizing calculator

With a few inputs, this pump sizing calculator will help you to compare dewatering submersible models and find the right one for you.

### ECO calculator: Your sizing tool

A useful calculator to help you choose the best solution for your power and light needs.


**Atlas Copco Power Technique**
www.atlascopco.com