

Sunfab ePOWER



ePOWER Flow Cube

Electric power solutions for your hydraulics



The Sunfab ePower Flow Cube by FTS is a portable, highly efficient standalone ePTO offering power outputs from 30kW to 120kW.

Flow Cube is a standalone system that can be powered from most available AC and DC power sources.



Read more at: www.sunfab.com/epower

SUNFAB
THE SOURCE OF HYDRAULIC POWER

Form and function

ePOWER Flow Cube system information and benefits.



Internal batteries (Sunfab ePower Energy Storage), allows for pure battery operation, with battery capacity adapted to the need for both peak power and operational autonomy. With the Sunfab ePower Flow Cube you will no longer be limited to low power, power losses in long electric cables or availability of electric grid outlets. Solutions with higher power needs, without batteries are obsolete. With the Sunfab ePower Flow Cube the drivability of your equipment will be equal or better than with fossil fuel powered solutions thanks to the benefits of electric drive.

Designed to meet market demands, the Sunfab ePower Flow Cube supports custom solutions across various applications with a compact design and high energy density. With options for single or dual hydraulic flow, the Flow Cube delivers flexibility, reduced emissions, fuel savings, and low operating noise.

The Sunfab ePower Flow Cube comes plug and play ready for easy installation and operation independent of chassis OEM. Quick connectors, with low pressure losses, and a smart control system allow for simple and fast connection of any hydraulic equipment. If different types of equipment use the same Flow Cube we can recommend the NFC option that automatically adapts the flow and pressure needed for each specific equipment connected.

SYSTEM INCLUDES

- Electric motor, options with peak power from 30kW to 120kW
- Sunfab fixed or variable hydraulic pump, options from 12cc to 130cc gives hydraulic outlet flow up to 300L/min and pressure up to 400 bar
- Inverter
- Batteries, Sunfab ePower Energy Storage, according to need
- Battery charger. AC charging options range from 2kW up to 2 times 63A (400V)
- Smart control system, with Electronic Load Sensing Hydraulics

- Hydraulic quick connectors
- Safety systems
- Box material, paint, cover and shape can be adapted to the customers available space, demand for protection against harsh environments and esthetics

FUNCTIONS

- Incoming electrical power, includes most of the available electrical grid connections
- Easy transportation – Flow Cube is well balanced and can be lifted from 1 centrally positioned lifting eye, no risk from tipping over when lifted. There are also 4 attachment loops easy strapping down, during transport
- Operational temperature minus 30 degrees Celsius up to plus 50 degrees Celsius, depending on solution.
- System operation controlled through:
 - Display or buttons mounted on dashboard, exterior or on ePTO
 - Wireless operation through Mobile app
 - Integrated into a OEM truck chassis switches and dashboard

OPTIONS – SYSTEM MONITORING & SERVICES

- Over the air connectivity
- Software and system parameter updates
- Alerts via the mail, messages and sms in case of fault codes
- Battery charging and status, if delivered with a Sunfab Energy Storage Battery
- Usage and load on the electrical system
- Flow, pressure, and temperature in hydraulic systems and key components
- Energy measurement for billing consumed energy
- Remaining drive time (during pure battery operation)
- Integration with the customer's existing Fleet Management System

PRODUCT BENEFITS



Lower emissions



Low noise



High energy efficiency



Precise and reliable
power control



Long life due to high
demands on materials



Easy transport & storage



Electric power

APPLICATION EXAMPLES



OTHER OPTIONS INCLUDE

- Quick connectors CEIJN
- 16A or 32A cable reel integrated in Flow Cube 10m CEE
- Work lights
- NFC reading - Automatic detection of equipment and adjustment of max pressure and flow
- Battery charging from the chassis during driving
- Theft protection
- 24V supply to chassis or consumers
- 15 pole connector to truck and crane



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CERTIFICATIONS & SAFETY

The Sunfab ePower Flow Cube is compliant with the certification requirements for automotive mounted parts and subassemblies. CE-compliant, EMC and noise requirements.

For the complete Sunfab ePower range there is an extensive offer of safety features and the solution can easily be adapted according to need and application, such as:

- HVIL High Voltage Interlock Loop
- Emergency stop
- Crash frame
- BMS always active
- Redundant HV contactors
- Contactor monitoring
- MSD Monitoring
- Isolation monitoring
- Separate fuses to Inverter, DC/DC converters and chargers
- Blockage from driving away when the charger cable is connected

ePOWER

ADVANTAGES OF THE ePOWER FLOW CUBE

Scalability and Versatility

The Flow Cube adapts to various applications, from construction to agriculture, with flexible power outputs that meet diverse operational needs.

Efficient & Quiet Operation

With high system efficiency and low noise, the Flow Cube optimizes power use while providing a quieter work environment. Its low operating noise ensures compliance with local noise regulations, making it ideal for use in noise-sensitive areas.

Electrification made Fast and Easy

The portable Flow Cube allows quick installation or retrofitting on trucks, flatbeds, and other machinery, enabling efficient hydraulic power without complex modifications.

Automatic Equipment Adaptation

The Flow Cube automatically identifies connected equipment and adjusts its settings accordingly, ensuring seamless integration with a wide range of vehicles and machinery.

Easy Transport & Storage

Its portable design makes the Flow Cube easy to move between locations and store when not in use, increasing flexibility and reducing downtime.

Hybrid Capability and Flexibility

The Flow Cube offers a parallel hybrid solution, enabling operation with both electric and diesel power. This flexibility allows for quick transitions and reduced downtime. It is designed to operate efficiently in diverse environments, whether in urban areas with strict emission and noise regulations or rural settings requiring robust performance.

Optimized for Sunfab Hydraulic Pumps

Tailored to work with Sunfab's hydraulic pumps, the ePower Pump system ensures optimal performance, offering an efficient and powerful solution for hydraulic power needs. This seamless integration extends the lifespan of the hydraulic system and reduces maintenance requirements.

Extended Operating Hours

The Flow Cube widens the operating window, allowing for extended working hours and enhanced productivity across job sites.

Lower Total Cost of Ownership

Using the Flow Cube reduces fuel consumption, wear and service need as well as extends the life of your vehicles. Running equipment on electricity, lowering operational costs can lead to significantly lower Total Cost of Ownership.



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