



Light Workover Rigs

VFD-BESS System

Battery energy storage solution

VFD-Battery Energy Storage System

Light workover rig application



Application

The VFD-BESS system replaces the Diesel Engine to drive the mobile light workover rigs, which can reduce the air pollution and noise pollution caused by the Diesel Engine to the environment. The Variable Frequency Drive can make the whole operation process more efficient and safer, and the Battery Energy Storage System (BESS) can make the whole system more cost effective and save the operating costs for the clients.



Benefits

- + High quality and reliability
- + Small footprint to match different vehicle platform
- + Easy to operate and maintain
- + Cost and energy saving
- + More environmentally friendly
- + Much safer

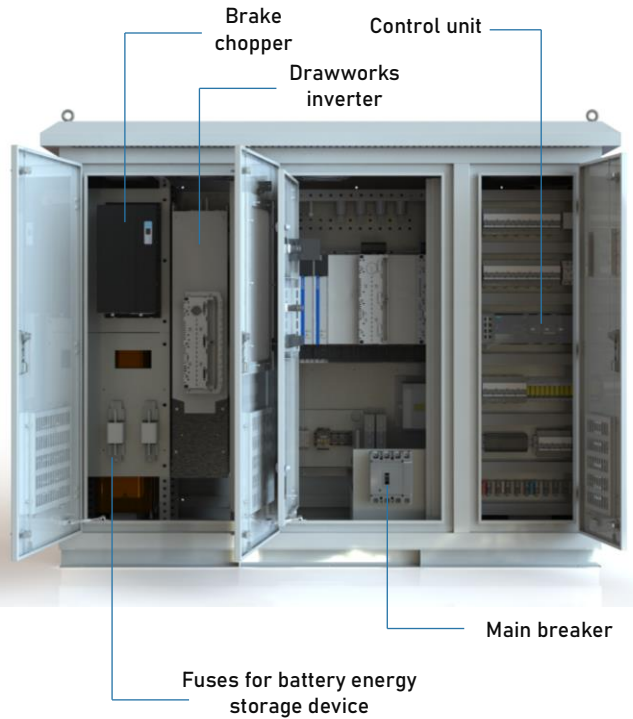
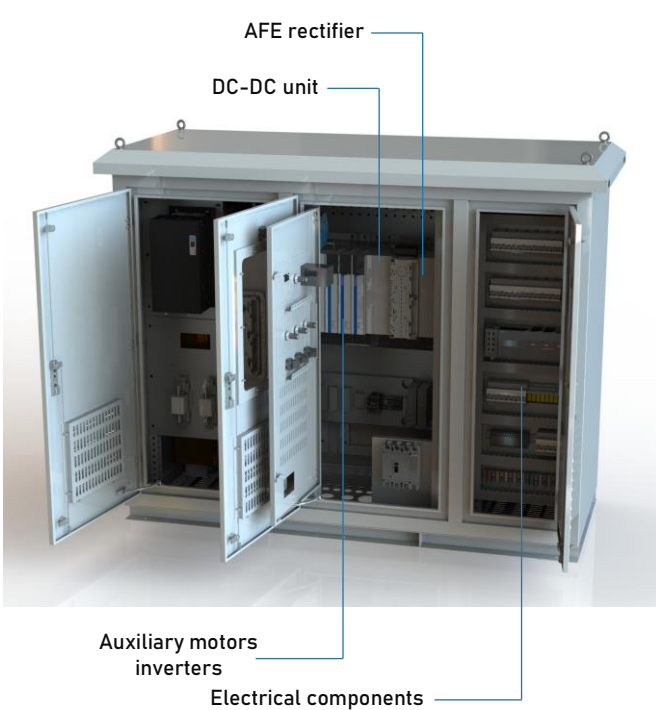
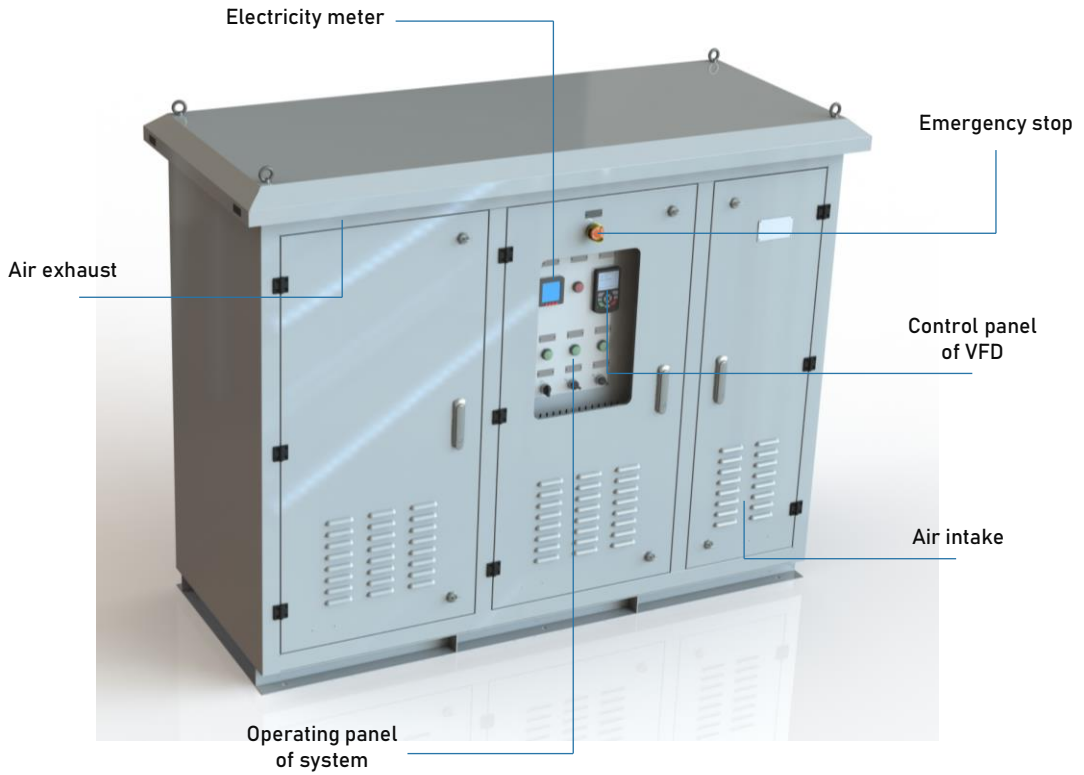
Features

- + Outdoor-ready design for harsh environment. Enclosure rating is IP54 conforming of IEC60529.
- + Ambient temperature is from -30 degC to 50 degC.
- + Anti-vibration design for mobile workover rig platform installation.
- + IT and TN system design for all working conditions.
- + Low voltage control system, 380V or 480V power supply. Low voltage electrician serviceable.
- + Active Front End (AFE) rectifier of VFD with LCL filter. The regenerative energy can be cleaned and fed back to the grid.
- + Multi-drive VFD units can drive all the motors of the light workover rigs e.g. drawworks motor, fans motors, Hydraulic Station motor, oil pump motor etc.
- + Workover rigs control program provides the control and protect functions when the workover rigs operating.
- + Lithium iron phosphate battery energy storage device.
- + Power management program used to control the charging and discharging of the energy storage device.
- + The vision system facilitates data acquisition, comparison and analysis, making the total system more intelligent.
- + Friendly operating interface make the onsite working much safer and easier.
- + Optional IoT module for real-time monitoring in Control Center

Scope of supply of total VFD-BESS system

- + Variable Frequency Drive Box
 - AFE rectifier with LCL filter
 - Inverters for motors control of workover rigs
 - Brake choppers built-in the VFD box
 - Master PLC module with workover rigs control program and power management program
 - DC-DC unit
 - Low voltage distribution components
 - CAN communication module
 - Optional IoT module
- + Battery Energy Storage Device Box
 - Battery packs
 - Battery Management System (BMS)
- + Brake Resistors Box
 - Brake resistors for double protection of workover rig running
- + Operating Box
 - Mounted in the driller room
 - Touched control panel with friendly operating interface
 - Indication LEDs
 - Meters for data reading and acquisition
- + Vision System Device
 - Data acquisition, comparison and analysis







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