

Medium Voltage Variable Frequency Drive

GBP-D Compact design and high performance



Multi-level features

- Very low levels of input current harmonics with high input power factor.
- Sinusoidal current output to motors no significant temperature rise in the motor due to current harmonics.
- No significant motor shaft torque pulsations kind to shaft coupling and mechanical load.
- Lower dV/dt voltage stress imposed on to the motor and cable insulation systems.
- Lower amplitude of PWM switching at the output significantly reduces potential transmission line effects when long output cables are used to the motor.
- Lower amplitude and frequency of PWM switching at the output significantly reduces potential for stray currents through the motor bearings.
- Use of low-voltage IGBTs which are easily obtainable, highly reliable and well-proven.

- Low losses since IGBTs do not need snubber circuits and require little switching power.
- Current can be switched off instantaneously in the event of a fault in the output circuit.
- Modular design.
- Medium voltage output achieved without output transformer

GBP-D Multi-level topology

3/3.3kV VFD System 4.16kV VFD System 6/6.3kV VFD System Cel Cel ontroll Cell B2 ۹⇒HMI ⊢⊳HMI HMI Cell C2 Ce C4 Cell B5 Controll Cell C3 (\underline{M}) (\underline{M}) (\underline{M}) 6.6kV VFD System 11kV VFD System 10kV VFD System Controlle Cell A3 Cell A3 Cell B3 den HM a⊸⊳ HMI طHMI Controllp Cell Cell Cell M M M