Short Specification

AccuSine PFV+

1. Electronic VAR Control (EVC) shall provide displacement power factor (DPF) correction and mains current balancing. Functions can be operated independently or together as a standard feature with field selection.
2. EVC rated up to 200 amperes shall be fully rated for continuous duty to 45°C when supplied as open chassis (IP00) or in wall mounted NEMA 1 (IP20) enclosures. All floor standing EVC shall be fully rated for continuous duty to 40°C. Derating by 2% per °C to 50°C is required.
3. All EVC provided in floor standing units shall include a door interlocked circuit breaker and top or bottom cable entry. Power connections shall be provided in a power plenum with vertical busbar such that after completion of power terminations there is no access to the termination locations without removal of a safety panel.
4. EVC shall use instrument rated current transformers (CT) rated for 50/60 Hz with any primary voltage and 1 or 5 ampere secondary ratings. Type 1 accuracy is required. CT can be shared with other devices such as metering.
5. The location of the CT shall be on the source (grid) side of the EVC power connections for all EVC systems whether the EVC system is a single unit or multiple units. Use of auxiliary CT mounted on each EVC power feed in the EVC system are not permitted.
6. Closed loop logic shall be shall be provided to optimize correction to unity displacement power factor (DPF) and <0.5% current imbalance when EVC system is rated properly. A set point DPF shall be provided. Cycle-by-cycle correction shall be attained.
7. [Due to the impulse nature of the loads, the EVC must be capable of providing instantaneous injection of reactive current to stop voltage flicker. EVC response time shall be ¼ cycle for full compensation injection.]
8. Paralleling of EVC shall employ the identical units that are used for single EVC installations. Master-Slave or Master-Master sequence control shall be provided. Any unit that receives the CT signal is considered an available master. All units shall be interconnected with a CAN bus. Field commissioning of units can be conducted from any unit in the parallel system. The HMI and communications of one unit can be used to view all units within a parallel system. Up to 10 units of any rating can be used in a parallel system.
9. EVC shall provide ports with RJ45 connectors for remote communications. Communications shall be via Modbus RTU or Modbus TCP/IP. Remote communications shall provide full control and monitoring ability of all EVC functions including all operating parameters and diagnostics.
10. EVC shall provide a USB connection on the face of the base enclosure assembly such that the history and setup of the EVC can be reviewed when the power has been removed from the EVC. Connection to a laptop computer shall be the USB ports.

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