



PRODUCT SPOTLIGHT:

Variable Frequency Drives



Using BAC Drives is a Smart Choice

BAC provides **VFDs** engineered to meet your particular application. BAC control packages have been designed to work seamlessly on all BAC products - including cooling towers, closed circuit cooling towers and evaporative condensers.

Variable Frequency Drives (VFDs) offer several benefits to the customer including:

- The ability to increase the green star rating of the building the equipment is installed on.
- Precise leaving fluid temperature control and operational savings provide a more efficient and durable method to vary airflow compared to fan cycling, fan discharge dampers or mechanical speed changers.
- Soft-starts, stops and smooth accelerations prolong the mechanical system life (fans, motors, belts, bearings, etc).
- The soft-start feature minimises start up noise and smooth accelerations make the tower sound less noticeable to the neighbours.

Why are BAC drives so unique? Single source responsibility - who better than the unit manufacturer to provide the functionality for the drives? BAC knows how to effectively run its equipment and what customers expect from their unit:

- Flexibility
- Reliability
- Ease of Installation
- Ease of Use



IP66 VFD Package



Multi-Functional Display

PRODUCT SPOTLIGHT:

Variable Frequency Drives CONTINUED

Flexibility

- Multiple locations on the unit as well as flying leads for remote installation.
- IP66 VFD and terminal box allow for outdoor installation.
- Standard closed loop system but also incorporates multiple embedded fieldbus protocols including FC Protocol, N2 Metasys, FLN Apogee, Modbus RTU and BACnet. Other optional protocols include LonWorks (MCA 108), BACnet (MCA 109), DeviceNet (MCA 104) and Profibus (MCA 101).

Reliability

- Unique cooling concept with no ambient airflow over electronics meaning problem free operation in harsh environments.
- Robust enclosures.
- Ambient temperatures of 50 deg C without derating meaning no external cooling or oversizing necessary.
- All cast aluminium parts are powder coated protecting against aggressive cleaning agents.
- Built in corrosion resistant fan.
- Built in EMC filter.

Ease of Installation

- Copy/paste keypad function allows transfer of parameter settings across multiple drives.
- Factory pre-programmed to meet the design conditions specified.
- Factory fitted to the unit saving installation time.

Ease of Use

- Multi-functional display provides details of RPM, Current, Set Point, Leaving Water Temperature, Motor Frequency and Operating Condition.

Suggested Specifications:

Variable Frequency Drive(s): A variable frequency drive (VFD) shall be provided for each fan motor. The supplier of the VFD shall be the manufacturer of the evaporative cooling equipment. The VFD shall have a removable keypad and a USB-B terminal for PC connection.

