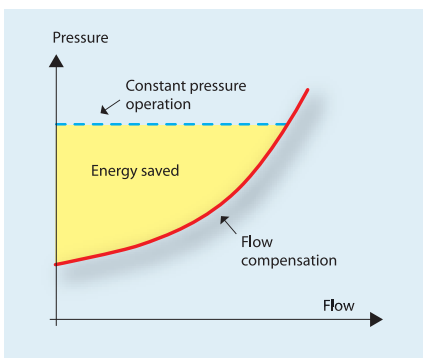
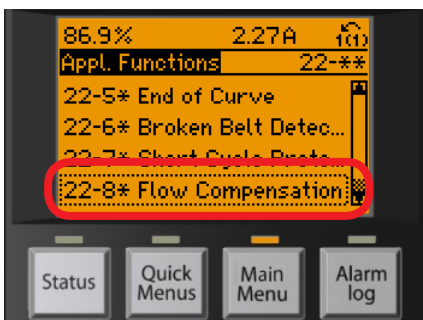


VLT® Flow Compensation Feature



The perfect solution for

- Intelligent control
- HVAC system efficiency improvement
- Energy Savings



The drive software makes programming the Flow Compensation feature quick and easy by choosing Application Functions Group 22, under the Main Menu and selecting 22-8* Flow Compensation.

The VLT® HVAC Drive provides a special flow compensation feature for pump systems to reduce energy consumption. This feature is useful when it is not possible for a pressure transducer to be placed at the most distant significant load in the system and it can only be located close to the pump.

Flow compensation based on pressure reset

A pressure sensor for control of the pump speed is normally placed at the most distant significant load in the system to maintain constant system pressure at all flows. With traditional variable speed control, the drive reduces the pump speed to produce a constant pressure at the remote location in the system.

It is not always practical to put the pressure sensor in this ideal location. With traditional variable speed control, when a pressure sensor is located near a pump discharge, the drive controls the pump speed to produce a constant pressure at the outlet of the pump, needed for maximum flow, regardless of the

requirements of the system. At reduced flow, the energy that went into producing this excess pressure is wasted.

The VLT® HVAC Drive efficiently controls such conditions by calculating the control curve of the system and electronically reducing the pressure required at the pump's outlet. This significantly reduces the power required to provide reduced flows. Flexibility to adjust this control curve is provided to handle a wide variety of hydraulic systems.

(Flow compensation can also be used with the built-in Cascade Controller. See the Programming Guide parameter group 25 for using flow compensation.)

| Features | Benefits |
|--|--|
| • Eliminates placing an external pressure sensor in a distant location | • Reduced installation cost |
| • Eliminates wiring for external sensors | • Reduce installation cost |
| • Can be used in combination with Energy Box software | • Provides estimate of additional energy savings |
| • Programming is quick and easy with pre-programmed software | • Saves time |

