



## Frequency converter cooling (AC drives)

An electrical drive or AC drive is a system for controlling the rotational speed of an alternating current (AC) electric motor by controlling the frequency of the electrical power supplied to the motor. AC drives are also known by various other names such as adjustable speed drives (ASD), adjustable frequency drives (AFD), variable frequency drives (VFD), variable speed drives (VSD) and frequency converters (FC).

AC drives are widely used in e.g., speed control and soft starting of fans, pumps, blowers, compressors, rolling

mills, extruders, marine propulsion systems and wind power generators.

Applying an electrical drive to an electrical motor offers major energy saving potential. Small drive systems are mostly air cooled while larger drives are increasingly liquid cooled. The cooling medium used is deionized water or, on older drive systems, tap water.

When using direct air cooling on a drive system the heat dissipates into the surrounding air. Liquid cooling offers a major benefit – the heat will be

dissipated in the water and the heat loss to the surroundings will be practically eliminated.

### For drives cooling

#### Alfa Laval offers:

- Gasketed plate heat exchangers
- AlfaNova fusion-bonded plate heat exchangers
- Copper brazed plate heat exchangers

The compact fusion-bonded Alfa Nova in 100% stainless steel is particularly well suited for pure water when space is limited.

### Drives cooling

