Press Release

For your business and technology editors

Straightforward installation and silent running with ABB's new liquid-cooled industrial drives

Helsinki – June 6, 2007. The new liquid-cooled drives join ABB's premium ACS800 industrial drives product series. The low voltage liquid-cooled drives cover 200-5600 kW. Liquid cooled drives are used for paper machine drive systems.

Liquid-cooled drives are the natural choice when adequate supplies of clean cooling air are not available, or where limited space means large air ducts cannot be installed. Other advantages of liquid-cooled drives include silent operation and up to 50% reduced space requirements.

ABB's liquid-cooled industrial drives are an excellent solution for harsh environments where dust or other airborne impurities are present. Conventional air-cooled drives can only be used in these conditions if special filtering arrangements are provided, making installation more complicated and expensive.

Even in 'normal' environments, liquid-cooled drives can offer important benefits. If a number of air-cooled drives are installed in a limited space, measures have to be taken to ensure that the air temperature does not rise too high, preventing the cooling air from recirculating effectively. This generally means installation of air conditioning, which is not only expensive to install and operate, but also requires a cooling air arrangement. In addition, air conditioning equipment produces a significant level of noise and can be unreliable. These drawbacks can be avoided by using liquid-cooled drives.

The packaged control rooms (containers) supplied for heavy industry, cranes, offshore, and similar uses are a good example of the type of application where liquid cooled drives provide significant benefits. These control rooms include all the necessary power control equipment in a rugged steel container, but provide only limited space – and air volume – inside. Liquid-cooled drives represent a cost-effective option as they avoid the cost and complexity of air conditioning, and allow the cooling system to be located outside the steel housing.

The compact ACS800 liquid-cooled drives are built into robust, totally enclosed cabinets. In line with ABB's "everything inside" product philosophy, the cabinets can house a wide selection of features and options. IP42 protection class is offered as standard, with IP54 as an option. Ease of maintenance has been a special focus of development from the outset. Features such as the capability to use regular tap water as the cooling liquid help to simplify maintenance tasks. Availability through inbuilt redundancy

The new liquid-cooled industrial drives combine advanced technology and inbuilt redundancy to deliver extremely high reliability. High technology solutions include ABB's world-class DTC (Direct Torque Control) motor control platform for superior performanceRedundancy is provided by a modular hardware solution which is unique to the ACS800 product range. The modules – each of which contains a complete, three-phase inverter - are connected in parallel. As a result the system can

still run with a partial load even when one of the modules is not operating. This ensures higher drive availability and greater process uptime.

The new drives cover the 200-5600 kW power range with 380-690 V supply voltage. They offer precise, responsive control of both induction and permanent magnet motors. As they form an integral part of the ACS800 product series, they offer extensive software and hardware compatibility with ABB's other industrial drives. For users with a number of drives this can result in significant savings in equipment costs and training.

Full service and support network

With ABB drives, users get much more than the most reliable equipment and systems. All ABB drives are backed by ABB's full service and support network, which covers field service and training as well as spare parts. This ensures reliable, cost-effective operation under all conditions.

'Compact and easy' are the key watchwords of the entire ACS800 liquid-cooled drive range. These new drives demonstrate how technology enables ABB to add more and more features into a shrinking space while still giving the benefits of easy installation, access and use.

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 109,000 people.

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