

## ABB – Rittal Co-operation

Proven and easy to use combinations for system integrators, OEMs and panel builders.



ABB Automation



# ABB – Rittal Co-operation

The long term co-operation between ABB and Rittal has flourished for a long time. Now it has reached a new level with shared testing and documentation of the ABB ACS 600 Modules and Rittal TS cabinets for both single and system drives. This joint effort is a remarkable step forward for customers allowing them to easily combine the leading drives technologies of ABB with the advanced cabinet solutions of Rittal.

The partners built up a combined prototype for stringent testing and together made the documentation. This ensures a selection of tried, ready documented, high standard combinations for various customers needs. Together with easy engineering and ready-made shopping lists, this enables system integrators, OEMs and panel builders to provide a fast response to their customers.

## Benefits

The advantages of this closer co-operation to system integrators, OEMs and panel builders are

- Tested equipment combinations
- Easy to engineer and integrate with customers' machinery
- Easy to offer
- Easy to order
- Ready made assembly documentation
- Engineering CD-rom.

## All these features ensure

- **Best solutions for end customers needs**



# Testing



The ABB ACS 600 Modules and Rittal TS cabinets were assembled for testing in ABB's Lampertheim factory, Germany. Some mechanical parts were also designed and tested to make it easier to use the ACS 600 product combinations. Several strict performance tests were made on the combinations in ABB's Helsinki factory. In particular, the cooling of the cabinet was thoroughly tested and measured.

## Temperature test

In the temperature test the equipment was loaded with nominal current. The temperatures of all the critical components were recorded with a thermal recorder. During the measurement there were 15 temperature probes located at the most critical components. These were either pasted or drilled to the surface of the components.

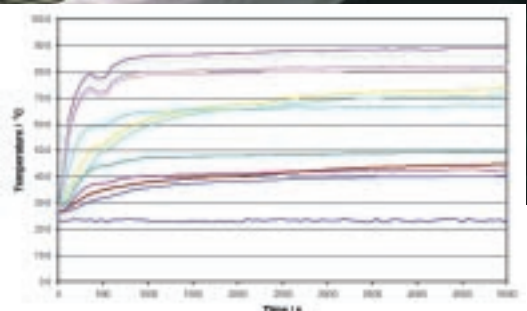
The requirement is to withstand continuous nominal current and the cycle overload period so that the thermal rise of all the critical components is within their limits. The equipment must also react in an overheating situation without any impairment to its functionality.

## Results

The results show that the cooling conditions of the ABB Module and Rittal cabinet combination are within design tolerances. The equipment passed all the thermal and electrical tests clearly and fulfilled all the planned design requirements. This leads to a longer lifetime for the whole system.



Proper temperature of all the critical components always leads to a longer lifetime of the drive itself.





# ABB Inverter Modules



ABB's wide selection of standardised high technology modules provide customers all the benefits of the ACS 600 product family combined with the flexibility of cabinet design and assembly according to customers needs.



The tried and well known benefits of ACS 600 family are:

- ABB global presence and resources
- Direct torque control (DTC), fast, robust and protective
- Good accuracy without pulse encoder
- Excellent accuracy with pulse encoder
- Versatile standard software
- Application macros available

- Communication modules with major fieldbuses
- Savings in energy - regenerative braking
- Compact integrated design.
- Easy to use
- Excellent documentation

In the ACS 600 family there are two hardware platforms, an optimum solution for all different applications:

- ACS 600 SingleDrive Modules (for 55 to 630 kW motors, 6-pulse/12-pulse)
- ACS 600 MultiDrive Modules (drive units 2.2 to 1120 kW, 6-pulse/12-pulse supply units 12 to 3150 kW).

## Rittal products



Rittal's aim is, and always has been, to offer its customers service and benefits which will help them to be faster and better than their competitors.

One indication of this is the Rittal software service, with 11 software packages for simple planning, project management and ordering, as well as the Rittal Catalogue on CD-ROM, providing rapid access to all Rittal products.

Today, the Rittal product range comprises 6 strategic business units which either supplement the application scope of our enclosures, or were developed for new markets:

- Enclosure systems
- Electronic systems
- Climate control components
- Power distribution components
- Data communication components
- Outdoor enclosures.



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