

BECKHOFF MODULE'S LOAD SHARING IMPROVEMENT

Analysis and improvement of load sharing of Beckhoff I/O racks.

An insightful approach

Beckhoff I/O racks are equipped with a head station module, analog and digital I/O modules. Head stations modules can supply 2000mA to the E-bus till 50°C. Analog & digital modules consume current through the E-bus.

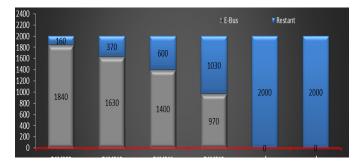
80% consumption of the nominal supply (1600mA) is recommended as the cabinet temperature may vary according to environment conditions. Overloading of E-bus may lead to a head station failure. Hence, Power Conversion & Storage (PCS) - a GE Vernova's business - recommends to add extra power supply (PS) modules at appropriate location of Beckhoff rack based on the power consumption analysis of E-bus to avoid the head station failure.

Benefits

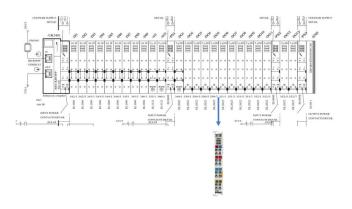
- Power consumption of E-bus will be calculated and analyzed.
- Extra PS module(s) will be added to improve the E-bus load sharing.
- Head station will be prevented from overloading.
- · Continuous operation of drives will be improved.

PCS's services for a lifetime

PCS offers bespoke service support in the form of spares and replacement parts, onsite and remote technical support, maintenance services, upgrades, customized trainings and service agreements aimed at supporting customers based on their unique needs.



Power consumption analysis



Addition of PS modules to improve E-bus based on analysis

Salient points

- It is applicable to all MV7K & SD7K drives with Beckhoff racks.
- Field Service Engineer (FSE) completion time at site will be 1 FSE / 0.5 day / converter (addition of module(s) is depending on the analysis).
- PCS recommends to go with this upgrade during the next maintenance/dry dock or in operation.

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