

# **BVM Torkel parallel connections**

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This document gives additional information about the battery voltage monitoring system BVM and how those units are connected in parallel battery strings.

Max voltage for 1 BVM loop is 300 V

If 2 loops used and connected to Torkel 900, and total voltage exceeds 300 V.

Then the opto couplers have to be used.

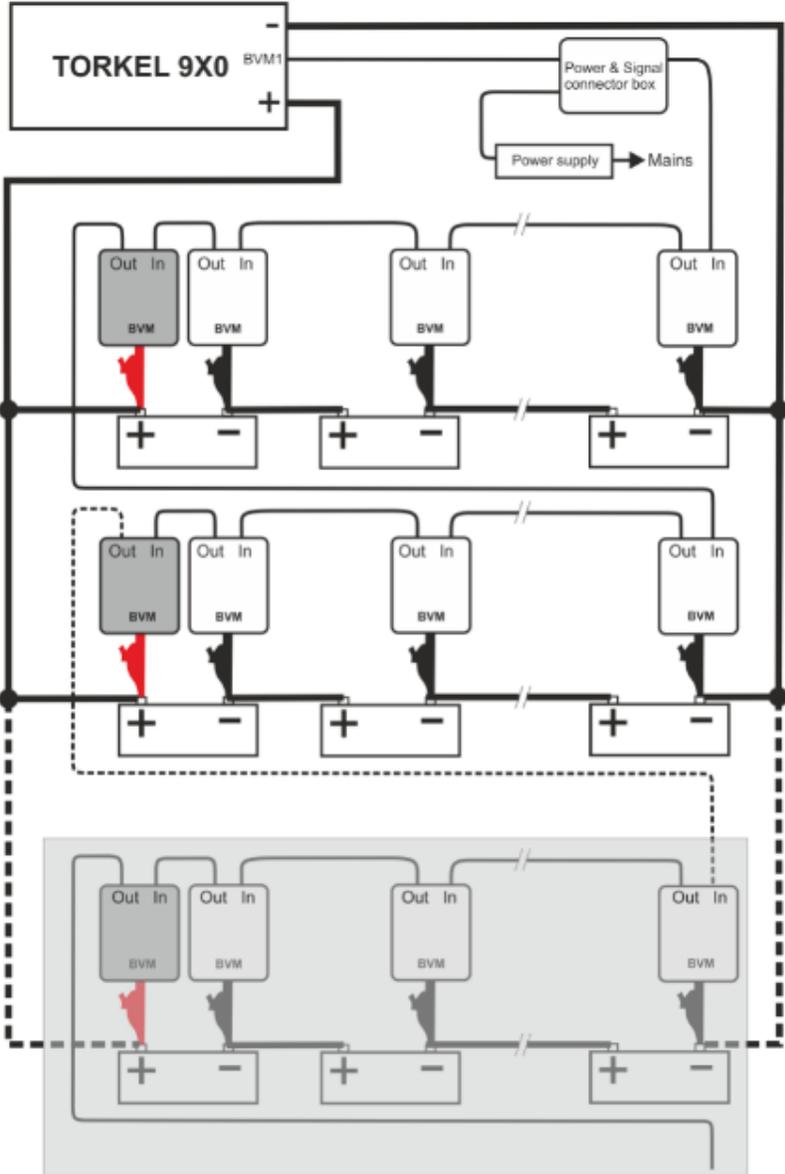
See picture on next pages about parallel connection for both Torkel 800 and Torkel 900.

If more than 61 BVM used in 1 loop, the last BVM unit shall also be connected to the "Power & Signal connector"

Note. The BVM module can measure a voltage up to 20 V. When the BVM modules are connected in parallel as this application note describes. It will be a negative measured voltage between the parallel strings. That is not a problem as long as it doesn't exceed 300 V.



1. Connection examples with Torkel 900



## 2. Connection examples with Torkel 800

Torkel 800 and parallel battery string

The report in Torkel Win will show a missing cell bar for each of the strings. As it's an extra BVM for each string to cover up for the parallel connection.

