

BMW Group

Memo

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Recipient(s) Norman Traub/DELPHI
cc
Date 1.9.2000
Subject **BMW requirements for 42V-Battery terminal**

Dear Mr. Traub,

Following the line of the "Specification for 42V battery connections" dated March 23,2000 and discussions with the involved persons within BMW here is our input:

BMW plans to introduce the 42V voltage level in existing package conditions for the battery. Hence, we would like to stick to DIN designs as closely as possible, at least for the time being:

1. Separate connections for positive and negative terminals.
2. Centerline distance between positive and negative pole like DIN-12V battery according to DIN 72311-15 Appendix A.
3. Location of terminal like DIN -12V battery according to DIN 72311-15 Appendix A. (on top, on the same long side, in the corners)
4. Terminal countersunk like DIN -12V battery according to DIN 72311-15 Appendix A to prevent accidental shorts with metal tools.
5. No screw connections but sockets and plugs with the sockets presumably on the battery side to prevent direct connection of standard automotive ("alligator" type) jumper cables.
6. Terminal should be inaccessible when mated.
7. Connectors are to be indexed to prevent connecting batteries of different voltages and technologies, and to prevent reverse polarity installation.
8. Spaces of 70x70 mm cross-section and 50 to 40 mm in height should be left in both terminal corners to allow the installation of electronic components like circuit breakers.
9. The terminals have to be able to carry the current without harmfully warming up. The current profile is yet to be defined. The maximum allowable resistance presumably is 0.5 mOhm for each terminal.

Best Regards

Herbert Kranz