

Proposed modifications of the M Group rules of in connection with transfer to new sources.

Separate basic sets for classes ECO, FSRE, MONO, HYDRO:

NiMh : maximum number of cells: 7; size Sub C; neither the connection, nor the weight has been specified

LiPol : maximum set weight, including all firmly connected parts: 280 g; the number and connection of cells have not been specified; maximum set voltage: 43 V.
The set must be protected by means of a solid packaging covering the whole set, including contacts (e.g. made of plastics, carbon or, as a minimum, shrinking foil)

LiFePo : maximum number of sets: 6; the connection has not been specified; maximum set weight: 510 g

Separate basic sets for classes ECO M:

NiMh : maximum number of cells: 7; size 2/3A; neither the connection, nor the weight has been specified

LiPol : maximum set weight, including all firmly connected parts: 110 g; the number and connection of cells have not been specified; maximum set voltage: 43 V.

The set must be protected by means of a solid packaging covering the whole set, including contacts

LiFePo : maximum number of cells: 4; no connection has been specified; maximum set weight: 195 g

Sources for separate classes:

F3E maximum set voltage: 43 V
NiMh maxim voltage of the driving source: 43 V
LiPol maxim voltage of the driving source: 43 V
LiFePo maxim voltage of the driving source: 43 V

F1E ± 1kg maximum set voltage: 43 V
NiMh maxim voltage of the driving source: 43 V
LiPol maxim voltage of the driving source: 43 V
LiFePo maxim voltage of the driving source: 43 V

ECO M ST., ECO M EXP.	<p>maximum set voltage: 43 V <i>NiMh</i>. maximum 7 cells 2/3 A <i>LiPol</i> maximum set weight, including all firmly connected parts: 110g; any type of connection <i>LiFePo</i> maximum 4 cells; maximum set weight, including all firmly connected parts: 195g; any type of connection</p>
ECO EXP., MONO 1, HYDRO 1	<p>maximum set voltage: 43 V <i>NiMh</i> 7 cells; size Sub C; neither the connection, nor the weight has been specified <i>LiPol</i> maximum set weight, including all firmly connected parts: 280 g; any type of connection <i>LiFePo</i> maximum 6 cells; maximum set weight, including all firmly connected parts: 510 g; any type of connection</p>
MONO 2, HYDRO 2	<p>maximum set voltage: . 43 V <i>NiMh</i> maximum 14 cells; size Sub C <i>LiPol</i> maximum set weight, including all firmly connected parts: 560 g; any type of connection <i>LiFePo</i> maximum 12 cells; maximum set weight, including all firmly connected parts: 1020 g; any type of connection</p>
FSRE	<p>maximum total voltage of sets: 43 V <i>NiMh</i> maximum 21 cells sized Sub C per run; replacement of individual driving sets in the course of the driving time is allowed (e.g. 3 times 7 batteries) <i>LiPol</i> maximum total weight of cells per run, including all firmly connected parts: 840; replacement of individual driving sets in the course of the driving time is not allowed!!! <i>LiFePo</i> maximum 18 cells with a total weight equal to 1,530g per run; replacement of individual driving sets in the course of the driving time is allowed. (e.g. 3 times 6 batteries)</p>

Justification:

The source output in the case of LiPol is restricted by the specification of its maximum weight. Connection of separate cells should not be restricted in view of the efficiency of the whole driving unit and also in respect of the possibility to adapt the source to the existing equipment. Another reason is the impossibility to check the connection of enclosed sets of products, e.g. REEDY, LRP or NOVAK.

In case of multiple-cell classes the upper limit of voltage equal to 43 V must be maintained. The set weight is always specified, including all firmly connected parts, such as cables, connectors and the packaging itself. The packaging should cover the cells, including their connectors.

LiFePo cells are restricted by their number and weight and moreover the voltage in case of multiple cell classes. No packaging is required there. At the present time these cells are currently available from suppliers, such as Graupner, Pelikán and others.

This modification of rules has been recommended mainly because of the problematic service life of NiMh cells; separate sets within the classes are roughly comparable as regards their output.