Project Ilyushin

IL62M

Electrical System Manual

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Summary

1. Explanation of the Batteries
   1. Operation of the 115/200V AC-Bus
2. - Explanation of the Batteries

The Batteries get recharged by the 27V-DC Bus. Upon loading the Aircraft, your Batteries will have a semi-random capacity. The rule here is:

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| battery\_charge = 25 – random() \* 1.5 |

What is seen above is the formula for the initial battery capacity. 25 is the usual maximum capacity. However, this can change as a result of environmental impacts like the cockpit temperature.

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| --- |
| battery\_capacity = 45 + cockpit\_temperature |

Considering that the maximum capacity is always 25, your capacity will start to reduce once reaching -20°C. This value is always updated, so even if the plane for example starts in Dubai, the battery capacity would still be impacted if the destination airport has temperatures below -20°C. Although not currently implemented, it is on the roadmap to also reduce capacity in hot areas, aswell as reducing the capacity over time (between flight cycles).

The batteries lose charge over the duration of your flight, which is why you should always turn your rectifiers on as soon as you connect an AC-Source (Generator, APU, GPU). Once your rectifiers are enabled, your batteries get recharged and your DC-Systems get powered by the rectifiers.

1.1 – Operation of the 115V/200V AC-Bus