

60101 Is this Switched Mode Power Pack Only Suitable for 1 Gauge?

In the instructions for the 60101 switched mode power pack there is a note that this power unit is only suitable for 1 Gauge, taking into account several additional factors. The question from many customers is why this unit was not approved for use in H0 operation.

This switched mode power pack as is generally known delivers a current of up to 5 amps. Current of this magnitude requires skill and knowledge when using it with H0. The problem here is the wiring on the layout. The overwhelming majority of layouts are built with wire with a cross section of 0.14 to 0.19 square millimeters / 0.00022 to 0.0003 square inches. With longer lengths these wires have a resistance that cannot be ignored. Bad contact spots can make this problem even worse. In extreme cases this can lead to these wires minimizing the current on a layout to such an extent in the event of a short circuit that the short circuit protection no longer reacts to the situation. For example, if a car were to cause a short circuit on a turnout, the high current would flow continuously and would damage the car or the turnout.

With our customers we must assume that most of them do not have any knowledge about electricity. Our products must be trouble-free for these customers too and must be usable without hidden safety gaps. For reasons of product liability we can therefore only approve this product for 1 Gauge, as it does not have this problem due to its much larger size.

H0 specialists who are familiar with the material, who use suitable wire (minimum cross section of 0.5 square millimeters / 0.0008 square inches), good plugs and sockets, and who operate their layout in a proper environment so that a short circuit is clearly recognized by the system under all circumstances, these people may possibly shake their heads at this limitation. They will use this power supply at their own risk. We hope you will understand that for legal reasons we have no other option here and can therefore not approve this use or support it.

Sincerely yours,
Gebr. Märklin & Cie. GmbH