

Abstract

The invention relates to a grounded socket (10) and to a method for insulation fault location in an ungrounded power supply system (2) including insulation monitoring by a standard insulation monitoring device (4) superimposing a measuring voltage (U_m) on the ungrounded power supply system (2) for determining an insulation resistance (R_f) of the ungrounded power supply system (2).

The grounded socket (10) comprises a housing (16) having electrical contacts (17), a signaling device (14) for signaling an insulation state, and a current measuring device (12) for detecting and evaluating a differential current (I_d , I_{dm} , I_{df}), the current measuring device (12) having a measuring current transformer (20) and evaluating electronics (22), and the current measuring device (12) being configured for high-resolution detection and evaluation of a measuring current (I_m) driven by the measuring voltage (U_m) as a differential measuring current (I_d , I_{dm}).

(Fig. 1)