

Working Principle of Resistor in Distribution Box



Overview

Consider the voltage V_1 , the simple mathematics shown here shows that $V_1 / V_x =$ the ratio of R_1 to the total resistance R_T . Therefore V_x is divided into $V_1:V_2:V_3$, by $R_1:R_2:R_3$. The higher the resistance R_x , the higher the voltage across it. Variable Resistors: Also known as potentiometers or rheostats, these resistors allow adjustments to their resistance value and are used for tuning and. In electrical power systems, ensuring the protection of personnel and equipment from fault currents is vital. Neutral Grounding Resistors (NGRs) serve this exact purpose by controlling the magnitude of fault current during ground faults, thereby minimising damage and improving safety. Illustration. Resistor Definition: A resistor is defined as a two-terminal passive electrical element that provides electrical resistance to current flow. The colour code is as shown above. It helps control and distribute electricity to different areas. Inside, you'll find parts like circuit breakers and fuses that protect the system from problems like overloads and short circuits.



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