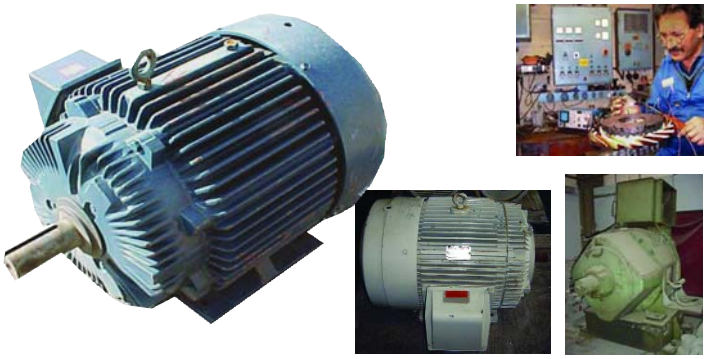
Testing Rebuilt Electric Motors

A210 Power Meter – Motor Repair Shop

When a motor is received for service or rebuilding, this major electric motor rebuilding facility operates the motor and measures and records Watts, VAR, Power Factor plus other variables.

After the motor is rebuilt or serviced, they test the motor again and measure the same variables. This way they can demonstrate to their customer how much less energy the motor consumes and its higher operating efficiency. They can also establish a historical record of operating parameters for motors that are serviced regularly.



Power Meter Applications

A210 or A230s kW-Hour or Watt-Hour Meter

Use an A210 or A230s Instead of a metering-grade energy meter to measure power consumption (Active Power) in kWh or Watt-hours.

The meters can be set up to measure and display readings with up to 8 digits. This is done by linking two of the three 4-digit displays to give 8-digit readings. Set-up of the **A210** is very easy with just 3 push buttons at the front of the meter.

It is easy set up for a single phase or 3-phase installations. PT and CT ratios can be programmed from the front panel. The power meter can easily be mounted in a NEMA enclosure, on a DIN rail, or in a panel.

Accuracy is sufficient for many monitoring applications where the cost of a revenue-grade power meter is not justified.

A210 Inductive Furnace Power Factor Monitors

A major valve manufacturer monitors the Power Factor of their inductive heating furnaces with **A210** Power Meters. Electric energy consumption is optimized which lowers operating costs while at the same time maintaining product quality.

A210 Glass Plant Power Consumption

A major float glass plant in California monitors electric energy consumption throughout their plant with **A210** Power Meters. They are mounted with DIN-rail adapters in locations where the electric supply lines enter the buildings.

A210 or A230s for Sub-Metering

Both meters are designed to perform sub-metering (kWh) on an 8-digit display. The top 2 displays are combined in this function. The **A210** does sub-metering with an accuracy of ±1.0%. The **A230** and **A230s** do it with ±0.5% accuracy.

Typical applications are in a plant or shopping center to measure the energy consumption of individual buildings, tenants etc. The measuring function would be locked with the jumper setting at the back of the meter, which disables the front panel controls. With the optional EMMOD 201 module, the readings can also be transmitted via MODBUS. In most cases, the meters would be mounted in the optional NEMA 4 housing for protection.

A210 DIN Rail Installation

A210 NEMA Housing Installation

A210 Kilowatt-Hours for City Lights

A Minnesota city uses **A210** Power Meters installed in sub-distribution panels throughout the downtown area to monitor the power consumption of Christmas lighting. This is for informational purpose only, not for billing. The meters also provide the city managers with information on efficiency of the various light sources installed throughout the downtown area.

The **A210** Power Meters are installed in weatherproof NEMA 4 housings with clear plastic cover and held by an aluminum bracket for mounting. They are set up to log the Active Power consumption (kWh) on the 8-digit display. The meters are set up to count 1 pulse per kWh.

The **A210** Power Meter has accuracy of ±0.5% for voltage and current and ±1.0% for Watt and Wh energy consumption. This accuracy is sufficient for monitoring applications.

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For Your Local Area Representative See *www.api-usa.com*

API maintains a constant effort to upgrade and improve its products. Specifications are subject to change without notice. Consult factory for your specific requirements.

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