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NEIL SCLATER • JOHN MARKUS

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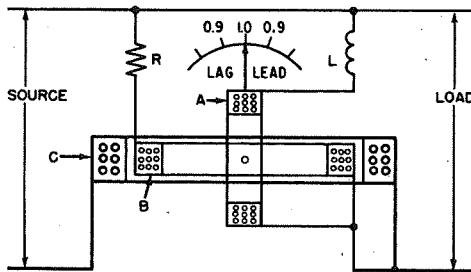


power-factor correction

ating frequency, with the result multiplied by 100. A pure resistor has a power factor of 100%. A pure capacitor has a power factor of 0% leading, and a pure coil has a power factor of 0% lagging. Power factor is equal to the cosine of the phase angle between the current and voltage when both are sinusoidal.

power-factor correction Addition of capacitors to an inductive circuit to increase the power factor. The capacitors offset part or all of the inductive reactance, making the total circuit current more nearly in phase with the applied voltage.

power-factor meter A direct-reading instrument that measures power factor.



Power-factor meter with a crossed-coil construction.

power frequency The frequency at which electric power is generated and distributed. Most power companies in the continental United States are interconnected and operated at exactly the same frequency, which is usually maintained between 59.98 and 60.02 Hz. When the time indicated by electric clocks in this power grid differs more than 3 s from the standard time signals of WWV, steps are taken to bring back the entire power grid to correct time.

power gain 1. The ratio of the power delivered by a transducer to the power absorbed by the input circuit of the transducer. The power gain in decibels is 10 times the logarithm of the ratio of the power values. It is also called power amplification. 2. An antenna rating equal to 12.56 times the ratio of the radiation intensity in a given direction to the total power delivered to the antenna.

power integrated circuit A class of integrated circuits constructed specifically to handle high voltages and currents because of special active-element insulation built into the device. Some combine analog small-signal logic with a power MOSFET switch on the same chip.

power level The amount of power being transmitted past any point in an electric system. When expressed in decibels, it is equal to 10 times the logarithm to the base 10 of the ratio of the given power to a reference power value. It is also expressed in volume units.

power-level indicator An AC voltmeter calibrated to read AF power levels directly in decibels or volume units.

power line Two or more wires conducting electric power from one location to another.

power-line carrier A carrier frequency, generally below 600 kHz, that transmits control signals or information over power lines.

power-line filter *Line filter.*

power-line interference Interference caused by radiation from high-voltage power lines. The interference is generally noticeable only when the receiving antenna is within a few hundred feet of the line.

power loss The ratio of the power absorbed by the input circuit of a transducer to the power delivered to a specified load. It is expressed in decibels and is also called power attenuation.

power MOSFET A MOS field-effect transistor capable of handling more than 1 A without damage or destruction. Some MOSFETs can handle currents as high as 100 A, and others can handle voltage as high as 1200 V. It finds applications in high-frequency switching-regulated power supplies and motor controls.

power output The AC power in watts delivered by an amplifier to a load.

power output tube *Power tube.*

power pack A power supply unit that converts the available power line or battery voltage to the voltage values required by a unit of electronic equipment.

power rating The power available at the output terminals of a component or unit of equipment that is operated according to the manufacturer's specifications.

power relay 1. A relay that functions at a predetermined value of input power. 2. The final relay in a sequence of relays controlling a load or a magnetic contactor.

power semiconductor A semiconductor device that is capable of dissipating power in excess of 1 W in normal operation. It can handle currents of thousands of amperes or voltages up into thousands of volts, at frequencies up to 10 kHz.

power spectrum level The power level for the acoustic power in a band 1 Hz wide, centered at a specified frequency.

power supply A power line, generator, battery, power pack, or other source of power for electronic equipment.

power switch *on/off switch.*

power transformer An iron-core transformer that has a primary winding which is connected to an AC power line and one or more secondary windings which provide different alternating voltage values.

power transistor A MOSFET or bipolar junction transistor capable of handling currents of 1 A or more without self-damage or self-destruction.

power tube An electron tube capable of handling more current and power than an ordinary voltage-amplifier tube. It is used in the last stage of an AF amplifier or in high-power stages of an RF amplifier. It is also called a power-amplifier tube or a power output tube.

power winding A saturable reactor winding that receives power from a local source.

Poynting's vector A vector that represents the direction and amount of energy flow at a point in a wave at a given instant of time.

P-P Abbreviation for *peak-to-peak*.

PPBM Abbreviation for *pulse-polarization binary modulation*.

PPI Abbreviation for *plan-position indicator*.

PPI repeater A radar display that duplicates at a remote location the plan-position-indicator display at the main radar console.

P₊-type semiconductor A

an excess mobile hole con

PPM 1. Abbreviation for

ation for *pulse-position me*

PPPI Abbreviation for *pp*

PPS Abbreviation for *pp*

pps Abbreviation for *puls*

PQFP Abbreviation for *p*

practical system A system

units are convenient mul

units. Practical units are

henry, joule, ohm, volt, wa

preamble The portion of

message that is sent first: i

office of origin, date, and c

the original message.

preamp Abbreviation for

preamplifier [preamp] An

low-level signal source to

matching so the signal ca

appreciable degradation

preamplifier can also perf

precession A change in t

gyroscope or other rotatin

precipitation attenuation

passage through regions

sphere.

precipitation clutter Clut

precipitation within the rang

precipitation static Static

charge of large charges b

vehicle by rain, sleet, snow

precipitator An electronic

dust, oil mist, or other smal

voltage, of the order of 10 k

rectifier and applied to a fin

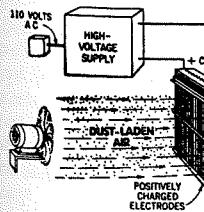
is drawn by a fan. Particles i

and are then drawn throu

plates that attract the partic

It is also called an air clea

electrostatic air cleaner, or



Precipitator o

precision The quality of b

six-place table has great

table. The accuracy of eit

errors in compilation or p

precision guided munitions

to their targets by add-on

packages that can steer

descent to the target. The