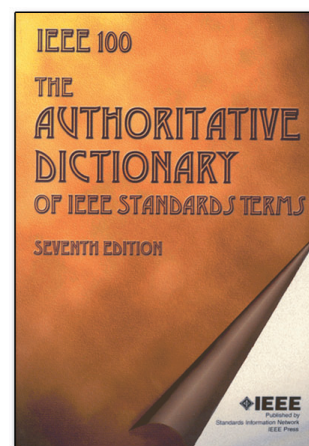


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The Authoritative Dictionary of
IEEE Standards Terms

Seventh Edition



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normal operating conditions that it may encounter. *Notes:* 1. The maximum operating overload is to be considered six times normal full-load current for alternating-current industrial motors and control apparatus; four times normal full-load current for direct-current industrial motors and control apparatus used for reduced-voltage starting; and ten times normal full-load current for direct-current industrial motors and control apparatus used for full-voltage starting. 2. It should be understood that these overloads are currents that may persist for a very short time only, usually a matter of seconds.

(IA/PKG) 333-1980w

operating period (thyristor) The time between starting instants of successive controller ON-state intervals in the ON-OFF control mode.

(IA/IPC) 428-1981w

operating point (working point) The point on the family of characteristic curves corresponding to the average voltages or currents of the electrodes in the absence of a signal. *See also:* quiescent point.

(ED) [45]

operating range (1) (navigation aid terms) The maximum distance at which reliable service is provided by an aid to navigation.

(AES/GCS) 172-1983w

(2) (plutonium monitoring) The region between the limits within which a quantity is measured.

(NI) N317-1980r

operating reserve (1) Generating capability above firm system demand available to provide for regulation, load forecasting error, equipment-forced and scheduled outages, and local area protection. It consists of spinning and non-spinning reserve.

(PE/PSE) 858-1993w

(2) (electric power supply) That reserve above firm system load required to provide for: regulation within the hour to cover minute to minute variations; load forecasting error; loss of equipment; local area protection. The operating reserve consists of spinning or nonspinning reserve, or both.

(PE/PSE) 346-1973w

operating speed range The range between the lowest and highest rated speeds at which the drive may perform at full load. *See also:* electric drive.

(IA/IAC) [60]

operating system (software) A collection of software, firmware, and hardware elements that controls the execution of computer programs and provides such services as computer resource allocation, job control, input/output control, and file management in a computer system.

(C) 610.12-1990

operating system device driver A device driver intended for use by a primary operating system. *Contrast:* firmware device driver. *See also:* device driver.

(C/BA) 1275-1994

operating system software Application-independent software that supports the running of application software and manages the resources of the application platform.

(C/PA) 14252-1996

Operating Systems Simulation Language (OSSL) A simulation language used to simulate hardware and software aspects of computer systems.

(C) 610.13-1993w

operating tap voltage (capacitance potential devices) Indicates the root-mean-square voltage to ground at the point of connection (potential tap) of the device network to the coupling capacitor or bushing. This is the voltage on which certain insulation tests are based. *See also:* outdoor coupling capacitor.

31-1944w

operating temperature (T_{op}) (1) (power supplies) The range of environmental temperatures in which a power supply can be safely operated (typically, 20 to 50 degrees Celsius).

(AES) [41]

(2) (accelerometer) (gyros) The temperature at one or more gyro or accelerometer elements when the device is in the specified operating environment.

(AES/GYAC) 528-1994

(3) The temperature at which a unit under test operates. It is often specified over a range and can have various definitions. Definitions include ambient temperature, baseplate temperature, inlet air temperature, etc.

(PEL) 1515-2000

operating temperature limits (attenuator) Maximum temperature in degrees Celsius at which attenuator will operate with full input power. *Note:* Derating function for maximum power

versus temperature must be specified to show maximum temperature in degrees Celsius at which attenuator will operate 10 dB below full input power.

(IM/HFIM) 474-1973w

operating temperature, maximum (electrical insulation tests) The stabilized temperature obtained from operation of the equipment at rated load and duty cycle in the maximum ambient temperature specified for the device under test.

(AES/ENSY) 135-1969w

operating temperature range (Hall effect devices) The range of ambient temperature over which the Hall effect device may be operated with nominal control current and a specified maximum magnetic flux density.

(MAG) 296-1969w

operating temperature, room (electrical insulation tests) The temperature of the equipment expected at rated load and duty cycle in an ambient temperature of $20^{\circ}\text{C} \pm 5^{\circ}$ ($68^{\circ}\text{F} \pm 9^{\circ}$). An equipment item that has been operated through its normal duty cycle or has stabilized to the approximate normal running temperature may be assumed to be at room ambient operating temperature.

(AES/ENSY) 135-1969w

operating time (1) (reliability data for pumps and drivers, valve actuators, and valves) The period of time that an active item or equipment is functioning effectively.

(PE/NP) 500-1984w

(2) The part of up time during which a functional unit is performing useful operations. *Contrast:* idle time. *See also:* miscellaneous time; rerun time.

(C) 610.10-1994w

(3) (of a relay) The time interval from occurrence of specified input conditions to a specified operation.

(SWG/PE/PSR) C37.100-1992, C37.98-1977s

operating voltage (1) The actual voltage applied to the heating cable when in service.

(IA/PC) 515.1-1995, 515-1997

(2) The voltage of the system on which a device is operated. *Note:* This voltage, if alternating, is usually expressed as an rms value.

(SWG/PE) C37.100-1992

operating voltage range (hybrid computer linkage components) The minimum and maximum values of the analog input voltage which can be represented by the output to within a given accuracy.

(C) 166-1977w

operation (1) (FASTBUS acquisition and control) A primary address cycle followed by zero or more data cycles and a termination sequence.

(NID) 960-1993

(2) (train control) The functioning of the automatic train-control or cab-signaling system that results from the movement of an equipped vehicle over a track element or elements for a block with the automatic train-control apparatus in service, or which results from the failure of some part of the apparatus. *See also:* automatic train control.

(PE/EEC) [119]

(3) (elevators) The method of actuating the control. *See also:* control.

(4) (A) A defined action, namely, the act of obtaining a result from one or more operands in accordance with a rule that completely specifies the result for any permissible combination of operands. **(B)** The set of such acts specified by such a rule, or the rule itself. **(C)** The act specified by a single computer instruction. **(D)** A program step undertaken or executed by a computer, for example, addition, multiplication, extraction, comparison, shift, transfer. The operation is usually specified by the operator part of an instruction. **(E)** The event of specific action performed by a logic element. **(F)** Loosely: command.

(C) 162-1963

(5) (A) (computers) The action specified by an operator on one or more operands. For example, in the expression $A = B + 3$, the process of adding B to 3 to obtain A . *Note:* Unlike the mathematical meaning, such an operation may not involve an operator or operands; for example, the operation Halt. **(B) (programming)** A defined action that can be performed by a computer system; for example, addition, comparison, branching. **(C)** The process of running a computer system in its intended environment to perform its intended functions.

(C/Std100) 610.12-1990