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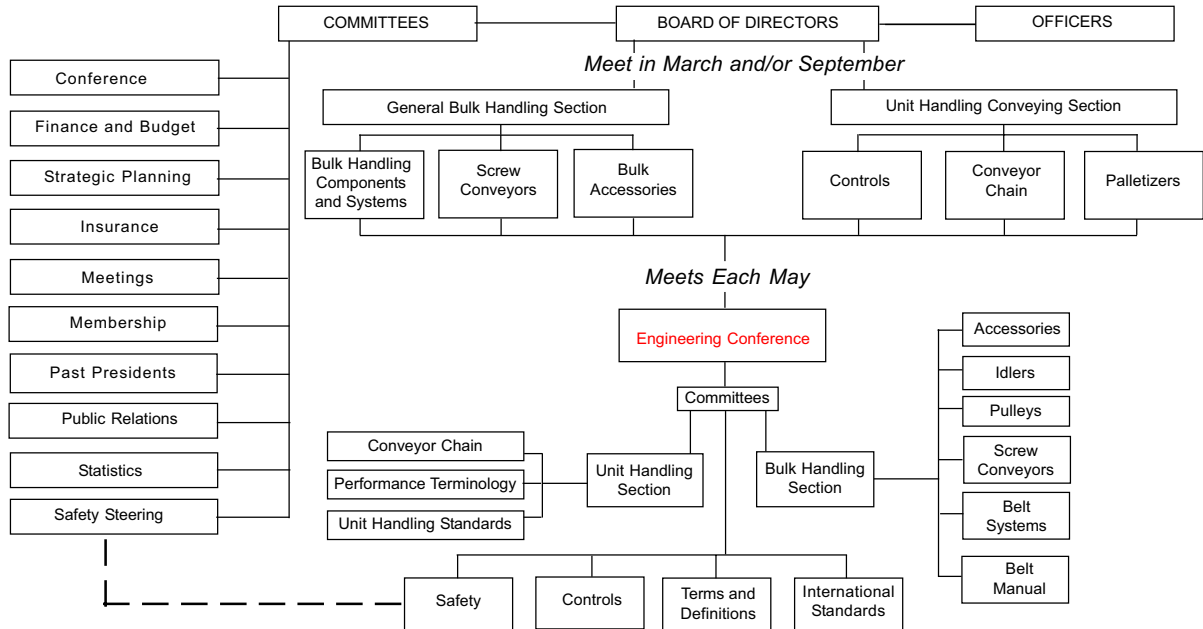
**Electrical  
Terms and Definitions**



**Conveyor Equipment  
Manufacturers Association**

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## CEMA ORGANIZATIONAL CHART



For Information on Company Membership  
visit the CEMA Web Site at  
<http://www.cemanet.org>

### SAFETY NOTICE

The Conveyor Equipment Manufacturers Association has developed Industry Standard Safety Labels for use on the conveying equipment of its member companies.

The purpose of the labels is to identify common and uncommon hazards, conditions, and unsafe practices which can injure, or cause the death of, the unwary or inattentive person who is working at or around conveying equipment.

The labels are available for sale to member companies and non-member companies.

A full description of the labels, their purpose, and guidelines on where to place the labels on typical equipment, has been published in CEMA's *Safety Label Brochure* No. 201. The Brochure is available for purchase by members and non-members of the Association. Safety Labels and Safety Label Placement Guidelines, originally published in the Brochure, are also available free on the CEMA Web Site at [http://www.cemanet.org/CEMA\\_Safety\\_Pg.htm](http://www.cemanet.org/CEMA_Safety_Pg.htm)

**PLEASE NOTE:** Should any of the safety labels supplied by the equipment manufacturer become unreadable for any reason, the equipment USER is then responsible for replacement and location of these safety labels.

Replacement labels and placement guidelines can be obtained by contacting your equipment supplier or CEMA.

## **FOREWORD AND ACKNOWLEDGMENTS**

This publication, Electrical Terms and Definitions has been prepared by the Electrical Terms and Definitions Committee of the CEMA Engineering Conference. The objective and purpose for publishing this standard include:

A. Encourage uniform usage and understanding of electrical and electronics terminology utilized in the conveying field.

B. Assist in providing appropriate information for the selection and application of proper engineering practice in the field of materials handling as accomplished through usage of conveyor equipment.

C. Provide a source or basis of information related to characteristics, features and conditions inherent to the practices of materials handling through usage of conveying equipment.

Throughout this standard, preferred terms are followed by their definitions. Alternate terms in common usage are listed and cross-indexed back to the preferred term in each case.

Utilization of Electrical Terms and Definitions, as published herein, is completely voluntary. This publication may be adhered to in its entirety, in part, or not at all, dependent upon agreement of the parties involved.

For definitions of terminology which are not included herein, review the following references:

A. CEMA Terms and Definitions (Standard No. 102).

B. CEMA Classification and Definitions of Bulk Materials (Book No. 550).

C. CEMA Conveyor Performance Terminology (Standard No. 705).

D. ANSI/ASME B20.1, Safety Standard for Conveyors and Related Equipment.

Legal terms and definitions are not within the scope of this publication.

The Conveyor Equipment Manufacturers Association gratefully acknowledges the advice, assistance and constructive criticisms afforded by the members of the committee and their companies. Without their respective contributions, preparation of this standard would not have been possible.

### **CONVEYOR EQUIPMENT MANUFACTURERS ASSOCIATION**

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# ELECTRICAL TERMS AND DEFINITIONS

Prepared by  
The Electrical Terms and Definitions Committee  
of the  
CEMA Engineering Conference

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## A

**ALTERNATING CURRENT CONTACTOR** - a contactor for the specific purpose of establishing and interrupting an alternating current power circuit.

**AMBIENT CONDITIONS** - the condition of the atmosphere adjacent to the electrical apparatus. The specific reference may apply to temperature, contamination, humidity, etc.

**AMBIENT TEMPERATURE** - the temperature of the medium such as air, water, or earth into which the heat of the equipment is dissipated. The temperature of the surrounding cooling medium, such as gas or liquids, which comes into contact with the heated parts of the apparatus. Notes:

(a) For self-ventilated equipment, the ambient temperature is the average (\*) temperature of the air in the immediate neighborhood of the equipment.

(b) For air- or gas- cooled equipment with forced ventilation or secondary water cooling, the ambient temperature is taken as the temperature of the in-going air or cooling gas.

(c) For self-ventilated enclosed (including oil-immersed) equipment considered as a complete unit, the ambient temperature is the average (\*) temperature of the air outside of the enclosure in the immediate neighborhood of the equipment.

(\*) The average of temperature readings at several locations.

**AMPACITY** - current-carrying capacity expressed in amperes.

**ANALOG SIGNAL** - a continuous signal that depends directly on magnitude (voltage or current) to represent some condition. For example, a voltage could represent the speed of a motor (e.g. 5 V corresponding to 200 rpm; 10 V corresponding to 400 rpm, etc.).

**ANALOG-TO-DIGITAL CONVERTER** - circuit that converts a continuous signal that depends directly on magnitude to a discrete signal that represents magnitude by a coded number. For example: a 0 through 10 V signal can be represented by a set of binary signals whose numerical values from 0 through 4095 are proportional to the voltage (e.g., 0V=0 5V=2048 10V=4095).

**ANTIHUNT** - see Damping.

**ANTI-PLUGGING PROTECTION** - the effect of a control function or a device which operates to prevent application of counter-torque by the motor until the motor speed has been reduced to an acceptable value.

**APPLICATION TESTS** - those tests performed by a manufacturer to determine those operating characteristics which are not necessarily established by standards but which are of interest in the application of devices.

**AUTOMATIC RESET** - a function which operates to automatically reestablish specific conditions.

**AUXILIARY CONTACTS** - auxiliary contacts of a switching device are contacts in addition to the main-circuit contacts and function with the movement of the latter.

**AUXILIARY DEVICE** - any electrical device other than motors and motor starters necessary to fully operate the machine or equipment.

## B

**BACKPLATE** - see SUBPANEL.

**BAR CODE** - an automatic identification technology which encodes information into an array of varying width parallel rectangular bars and spaces.

**BAR CODE LABEL** - a label which carries a bar code symbol and is suitable to be affixed to an article.

**BAR CODE READER** - see SCANNER - a device to retrieve data by passing a wand scanner or sensor across a set of variable width lines or bars printed on a label.

**BARRIER** - a partition for the insulation or isolation of electric circuits or electric arcs.

**BAUD** - the measure of the number of bits per second that can be transmitted in a data communications system.

**BCD** - an abbreviation for Binary Coded Decimal. BCD is a system of representing decimal data in binary code. For example: in BCD, 16 is represented as 0001 (for 1) and 0110 (for 6).