

**LOW-VOLTAGE DISTRIBUTION SYSTEMS AND EQUIPMENT
FOR DESK AND SIMILAR WORK-SURFACE
INSTALLATIONS (PAYN)**

364

Instructions accompanying the low-voltage equipment include a) a product description, b) a statement to identify the low-voltage system, c) a description of the parts intended to be used, and d) instructions describing how the parts are intended to be installed.

PRODUCT MARKINGS

System components are marked with:

1. The Listee's name, trade name, trademark or other descriptive marking by which the manufacturer responsible for the product may be identified.
2. A distinctive catalog number or the equivalent.
3. The electrical rating.
4. The date or other dating period of manufacture of the product not exceeding any three consecutive months.

Low-voltage equipment — In addition to the required markings specified above for system components, each piece of low-voltage equipment is marked with:

1. A product type, and
2. The specific low-voltage system with which it is intended to be used.

Class 2 power supplies — In addition to the required markings specified above for system components, each power supply is marked with the specific low-voltage system with which it is intended to be used.

PRODUCT IDENTITY

One of the following product identities appears on the product:

- Work-surface Low-voltage Distribution System
- Work-surface Low-voltage Equipment

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic requirements used to investigate products in this category are contained in UL 2851, "Outline of Investigation for Low-voltage Distribution Systems and Equipment for Desk and Similar Work-surface Installations."

UL MARK

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

**MANAGEMENT EQUIPMENT, ENERGY
(PAZX)**

USE

This category covers energy management equipment that energizes or de-energizes electrical loads to achieve the desired use of electrical power. This equipment normally controls electrical loads by responding to sensors or transducers monitoring power consumption, by sequencing, by cycling the loads through the use of preprogrammed data logic circuits, or any combination thereof. Devices responding to signals from a utility company may receive the signals over the power lines or as radio signals. This category includes component devices that are part of the smart grid system, other than for industrial applications.

These products are investigated to the inherent safety, and to the operating values, operating times and operating sequence where such are associated with equipment safety. When appropriate, these devices are additionally investigated for functional safety during normal and abnormal operation of the controlled load.

This category also covers controls and components that may form part of building automation systems or subsystems.

Typical loads controlled are space heating, air conditioning, lighting and other similar loads.

Class 2 Output Circuits

A Class 2 output circuit is a device that incorporates a Class 2 transformer or a Class 2 power source with provision for field wiring of the output circuit that is marked to permit wiring as specified in Article 725 of ANSI/NFPA 70, "National Electrical Code" (NEC), for the Class 2 circuit.

Ratings

This equipment has a voltage rating not exceeding 600 V. The input, output, and other environmental ratings of this equipment are based on the manufacturer's declarations and verified through testing. An input/output circuit that fulfills the requirements for both SELV and limited-energy not exceeding 15 W is considered to address the risk of fire and electric shock. An input/output circuit is marked "Class 2" when the electrical characteristics of the circuits meet the requirements in Article 725 of the NEC, specifically Table 11(A) or 11(B) in Chapter 9, under normal and single-component fault operating condition.

MANAGEMENT EQUIPMENT, ENERGY (PAZX)

Classification

Controls are classified based on their unique features, intended applications and environment, level of reliability, etc. These classifications are noted in ANSI/UL 60730-1, "Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements." Two of the more common classifications are:

Type 1 action — Automatic action for which the manufacturing deviation and the drift (calibration) of its operating value, operating time, or operating sequence have not been declared and tested under this standard.

Type 2 action — Automatic action for which the manufacturing deviation and the drift (calibration) of its operating value, operating time, or operating sequence have been declared and tested under this standard.

Type of Disconnection

Full disconnection on operation (Type 1.A or 2.A) — Contact separation in all supply poles other than earth so as to provide the equivalent of basic insulation between the supply mains and those parts intended to be disconnected.

Micro-disconnection on operation (Type 1.B or 2.B) — Adequate contact separation in at least one pole so as to provide functional security.

Micro-interruption on operation (Type 1.C or 2.C) — Interruption of a circuit by contact separation, by a cycling action, or by a noncycling action which does not provide full disconnection or micro-disconnection.

Electronic disconnection on operation (Type 1.Y or 2.Y) — A noncycling interruption by an electronic device of a circuit for functional disconnection and which provides a disconnection other than by means of an air gap by satisfying certain electrical requirements in at least one pole.

Devices are intended to be used only within the manufacturer's brand and product series as indicated in the manufacturer's instructions. Exceptions are specifically identified.

FACTORS NOT INVESTIGATED

The effects of the controls on the performance ratings of the connected loads have not been investigated.

PRODUCT MARKINGS

"Energy Management Equipment Enclosure," "Energy Management Equipment Enclosure Part," "Energy Management Equipment Subassembly," "Energy Management Equipment Accessory" and the like require modular labeling. The marking on the individual subassembly, or smallest container, will make reference to 1) a wiring diagram for interconnection of a system, and 2) the various combinations of subassemblies that may be employed to comprise the system unit.

PRODUCT IDENTITY

One of the following product identities appears on the product:

- Building Management Equipment
- Building Management System
- Enclosed Energy Management Equipment
- Energy Management Equipment
- Energy Management Equipment Accessory
- Energy Management Equipment Enclosure
- Energy Management Equipment Enclosure Part
- Energy Management Equipment Subassembly
- Open Energy Management Equipment

The word "Management" may be abbreviated "Mgmt" or "Mgt" (with or without a period); the word "Equipment" may be abbreviated "Equip" or "Eqpt" (with or without a period).

RELATED PRODUCTS

Signal system units incorporating energy management systems are covered under Signal System Units (UDTZ).

Switching devices operated by a clock mechanism and other similar type products used to energize or de-energize loads are covered under Switches, Clock Operated (WGZR).

Energy-usage-monitoring equipment (not controlling loads directly) is covered under Energy Usage Monitoring Systems (FTRZ).

Measurement equipment is covered under Measuring, Testing and Signal-generation Equipment (PICQ).

Temperature-indicating and -regulating switches are covered under Temperature-indicating and -Regulating Equipment (XAPX) and Controllers, Refrigeration (SDFY).

Nonindustrial photoelectric switches for lighting control and/or motion-sensitive switches intended for nonindustrial applications are covered under Switches, Photoelectric (WJCT).

Plug-in, locking-type photocontrols for use with area lighting intended for parking lot and roadway lighting are covered under Photocontrols, Plug-in, Locking Type (WJFX).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is UL 916, "Energy Management Equipment," or ANSI/UL 60730-1, "Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements."

UL MARK

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

Alternate UL Mark

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and one of the following product names as appropriate: "Building Management System," "Building Management Equipment," "Energy Management Equipment," "Open Energy Management Equipment," "Enclosed Energy Management Equipment," "Energy Management Equipment Enclosure," "Energy Management Equipment Enclosure Part," "Energy Management Equipment Subassembly" or "Energy Management Equipment Accessory."

The word "Management" may be abbreviated "Mgmt" or "Mgt" (with or without a period); the word "Equipment" may be abbreviated "Equip" or "Eqpt" (with or without a period).

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

MANUFACTURED HOME KITCHEN CABINETRY AND BATHTUB AND SHOWER UNITS (PDLT)

GENERAL

This category covers finished units, components, and/or materials have been certified in accordance with the flammability requirements of the Federal Manufactured Home Construction and Safety Standards; Section 3280.203(b)(5) for kitchen cabinet doors, counter tops, back splashes, exposed bottoms, and end panels or Section 3280.203(b)(6) for plastic bathtubs, shower units, and tub or shower doors.

The insulating, acoustical, structural, toxicity of products of combustion and other properties have not been investigated. The certification pertains to the finished units, components, and/or materials themselves, and not to the structures in which they are installed.

ADDITIONAL INFORMATION

For additional information, see Building Materials (AABM).

UL MARK

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

Additional Certification Markings

Products covered under this category are additionally marked with the following information:

**MANUFACTURED HOME KITCHEN CABINETRY
FEDERAL MANUFACTURED HOME
CONSTRUCTION AND SAFETY STANDARDS SECTION
3280.203(b)(5)**

AS TO FLAMMABILITY ONLY

or

**MANUFACTURED HOME BATHTUB AND SHOWER UNIT
FEDERAL MANUFACTURED HOME
CONSTRUCTION AND SAFETY STANDARDS SECTION 3280.203(b)(6)**

AS TO FLAMMABILITY ONLY

Alternate UL Mark

The Classification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service. The Classification Mark for these products includes the UL symbol, the word "CLASSIFIED" above the UL symbol (as illustrated in the Introduction of this Directory), and the following additional information:

**MANUFACTURED HOME KITCHEN CABINETRY
IN ACCORDANCE WITH FEDERAL MANUFACTURED HOME
CONSTRUCTION AND SAFETY STANDARDS SECTION 3280.203(b)(5)
WITH RESPECT TO FLAMMABILITY ONLY**

Control No.

or

MANUFACTURED HOME BATHTUB AND SHOWER UNIT IN ACCORDANCE WITH FEDERAL MANUFACTURED HOME CONSTRUCTION AND SAFETY STANDARDS SECTION 3280.203(b)(6) WITH RESPECT TO FLAMMABILITY ONLY

Control No.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

MANUFACTURED HOMES (PDOV)

GENERAL

This category covers manufactured homes, which are structures, transportable in one or more sections, built on a permanent chassis and designed to be used with or without a permanent foundation.

All manufactured homes include provisions for attachment to anchoring and tie-down devices and suitable piers and footings at the installation site.

Manufactured homes are intended for installation subject to approval by the Authority Having Jurisdiction.

PRODUCT IDENTITY

The following product identity appears on the product:

Manufactured Home

RELATED PRODUCTS

Prefabricated modular buildings are covered under Composite Panels (QRSY).

ADDITIONAL INFORMATION

For additional information, see Building Materials (AABM).

REQUIREMENTS

The basic standard used to investigate manufactured homes intended for use as dwelling units is 24CFR3280, "Manufactured Home Construction and Safety Standards" (December 18, 1975).

UL MARK

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

One Certification Mark is applied near the data plate (single-wide) or near the data plate and at eye level in the largest bedroom closet of each additional transportable section (double- and triple-wide) of each manufactured home intended for use as a dwelling unit. In addition, information concerning the equipment and appliances factory furnished as part of the manufactured home is included on a data plate posted within the building.

Additional Certification Markings

Products covered under this category are additionally marked with the following information:

**SEE HUD LABEL
Alternate UL Mark
UL MARK**

The Classification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service. The Classification Mark for these products includes the UL symbol, the word "CLASSIFIED" above the UL symbol (as illustrated in the Introduction of this Directory), and the following additional information:

**MANUFACTURED HOME
SEE HUD LABEL
No.**

One Classification Mark is applied near the data plate (single-wide) or near the data plate and at eye level in the largest bedroom closet of each additional transportable section (double- and triple-wide) of each manufactured home intended for use as a dwelling unit. In addition, information concerning the equipment and appliances factory furnished as part of the manufactured home is included on a data plate posted within the building.

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

MARINA AND BOATYARD CABLE (PDYQ)

USE

PRODUCT CATEGORIES BY CATEGORY CODE