

MARINE PRODUCTS DIRECTORY 2010

This Directory contains all Listings and Classifications in effect as of June 11, 2010 for product categories covered.

UL Online Certifications Directory Listings and Classifications are updated daily. To confirm the current status of any UL record, consult UL's Online Certifications Directory at www.ul.com/database.

OFFICES AND TESTING FACILITIES IN THE UNITED STATES

CORPORATE HEADQUARTERS

Underwriters Laboratories Inc.
333 Pfingsten Rd.
Northbrook,
IL 60062-2096
Customer Service:
Phone: +1-877-ULHELPS (1-877-854-3577)
Fax: +1 847-407-1395
E-mail: cec.us@us.ul.com

Underwriters Laboratories Inc.
San Jose Division
455 E. Trimble Rd.
San Jose,
CA 95131-1230
Customer Service:
Phone: +1-877-ULHELPS (1-877-854-3577)
Fax: +1 408-556-6207
E-mail: cec.us@us.ul.com

Underwriters Laboratories Inc.
New York Division
1285 Walt Whitman Rd.
Melville,
NY 11747-3081
Customer Service:
Phone: +1-877-ULHELPS (1-877-854-3577)
Fax: +1 631-439-6464
E-mail: cec.us@us.ul.com

Underwriters Laboratories Inc.
North Carolina Division
12 Laboratory Dr.
Research Triangle Park,
NC 27709-3995
Customer Service:
Phone: +1-877-ULHELPS (1-877-854-3577)
Fax: +1 919-547-6100
E-mail: cec.us@us.ul.com

Underwriters Laboratories Inc.
Camas Division
2600 N.W. Lake Rd.
Camas, WA 98607-8542
Customer Service:
Phone: +1-877-ULHELPS (1-877-854-3577)
Fax: +1 360-817-6137
E-mail: cec.us@us.ul.com

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Marine Products

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Introduction

Part I of this Directory contains the names of companies authorized to use the UL Mark on or in connection with products that have been investigated by UL and found to be in compliance with UL's requirements. These companies, as well as the manufacturers and submitters of the products, have entered into an Agreement with UL to use the UL Mark only on or in connection with products manufactured in compliance with UL's requirements. It should be noted that UL certified products of different makes or model designations are not necessarily equivalent in quality or performance.

The appearance of catalog or model numbers or other specific product designations in this Directory signifies that: (1) representative samples of these products have been submitted to UL and found to comply with the applicable requirements, and that (2) the manufacturer has been authorized to use the appropriate UL Mark on production that continues to comply with UL's requirements and is subject to UL's Follow-Up Service. Since manufacturers are not obligated to apply the UL Mark on all of their production, products that do not bear the UL Mark are not required by UL to comply with UL's requirements. Accordingly, the appearance of a company's name or a specific product designation in this Directory does **not** in itself ensure that products so specified or identified are subject to UL's Follow-Up Service. The manufacturer's products are not subject to UL's Follow-Up Service unless they bear the UL Mark. **Only those products bearing the appropriate UL Mark and the company's name, trade name, trademark or other authorized identification should be considered as being covered by UL's Listing or Classification and Follow-Up Service. The UL Mark provides evidence of listing or labeling, which may be required by installation codes or standards.**

Many of the products bearing the UL Mark incorporate components that bear the UL Recognized Component Mark . The Recognized Component Mark is applicable to components that are incomplete in construction features or limited in performance capabilities. **The Recognized Component Mark does not provide evidence of listing or labeling, which may be required by installation codes or standards.**

This Directory contains Listings and Classifications in effect as of June 11, 2010. Records of Listings and Classifications issued or withdrawn after this date will be found in UL's Listing Information database. In addition, Listings and Classifications issued after the effective date will be found in UL's Online Certifications Directory at www.ul.com/database and will appear in the next annual printed Directory.

Note: At the back of this Directory is important information about UL services for manufacturers and other clients, Authorities Having Jurisdiction, and consumers.

Installation and Use of Products Bearing the UL Mark

Authorities Having Jurisdiction should be consulted as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, systems, devices and materials.

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.

Use of this Directory

This Directory includes the following:

- General Guide Information for each product category that includes references to the requirements used for the investigation of the products and the UL Mark to be used on the product;
- Information relating to limitations or special conditions applying to the product;
- Names of companies that are authorized to provide products bearing the UL Mark.

The companies whose names appear in this Directory may not be the manufacturer of the product, but are qualified to provide products that bear the UL Mark.

UL Listings and Classifications are arranged alphabetically in this Directory by product category and alphabetically by company name under each category. The four-letter code (shown in parentheses) following each category title is the product category guide designation.

Under individual product categories, each company is assigned an alphanumeric file number (starting with letters such as AU, BP, E, EX, MH, MP, MQ, R, S or SA). This number may not be required to be marked on the product. The file number can be used to identify a particular company and the associated product category.

To assist in the use of the Directory, an Index of Product Categories, an Index of Companies and a List of Company Identifications are provided (see Table of Contents). The List of Company Identifications contains the trade names or trademarks of companies authorized to use such identification in place of the company name.

UL's General Guide Information at the beginning of each product category provides important information regarding the scope and limitation of UL's certification of the product and a general description of the UL Marks authorized for products in that category.

This information may include the identification of published standards that have been used to investigate products in that category. There may not be a published standard against which a product can be tested and evaluated to determine its acceptability for the UL Mark. If no applicable standard is available, UL will exercise its judgment in the selection of applicable requirements from standards and other sources and will develop requirements to cover uses and conditions for which specific requirements did not previously exist.

The scope of each UL Standard for Safety and Outline of Investigation can be accessed at <http://ulstandardsinfo.net.ul.com>.

The information in the individual Listing or Classification varies from category to category depending on the needs of the users of the Directory. Certain Listings or Classifications contain specific model or catalog designations, others contain general types of products, and others include the company name only.

For some product categories, UL's Online Certifications Directory may include additional product information that does not appear in this Directory. To obtain additional information for a particular Listing or Classification or information on UL Listed and Classified products and Recognized Components, contact the Customer Experience Center by telephone: +1-877-ULHELPS (854-3577) or e-mail at CustomerExperienceCenter@us.ul.com.

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Look for the UL Mark Identification of UL Listed and Classified Products

The symbol  and the name "Underwriters Laboratories Inc." in various forms and abbreviations are registered with the U.S. Patent and Trademark Office, and in numerous other countries. Subject to the terms of UL's Follow-Up Service Agreement, companies are permitted to use the symbol  or other specified forms of UL's name as part of the UL Mark on products that are Listed or Classified and that comply with UL's requirements.

The product name as indicated in the General Guide Information for each product category is generally included as part of the UL Mark, but may be omitted when, in UL's opinion, the use of the name is unnecessary and the UL Mark is directly and permanently applied to the product by stamping, molding, ink-stamping, silk screening or similar processes.

A separable UL Mark (not part of a nameplate and in the form of decals, stickers or labels) will always include the following four elements: UL's symbol , the word "LISTED" or "CLASSIFIED," the product or category name, and a control number assigned by UL.

The complete UL Mark will appear on the product unless otherwise indicated in the General Guide Information for a specific product category.

When a UL Listed product is of such a size, shape, material or surface texture that, in UL's opinion, it is impossible to apply legibly the complete marking to the product, the complete UL Listing Mark will appear on the smallest unit container in which the product is packaged. In these cases UL may authorize the use of the UL symbol  on the product in addition to the complete UL Mark on the package.

When a UL Classified product is of such a size, shape, material or surface texture that, in UL's opinion, it is impossible to apply legibly the complete marking to the product, the complete UL Classification Mark will appear on the smallest unit container in which the product is packaged. In these cases there shall be no reference to UL on the product.

Refer to the General Guide Information for each product category for additional information on the specific UL Mark for the products in the category.

Identification of UL Listed Products

The UL Listing Mark generally includes the UL symbol or it may include other registered forms as authorized by UL. The UL Listing Mark includes: (1) the UL symbol shown below; (2) the word "LISTED" ; (3) the product identity; and (4) a control number assigned by UL.



Identification of UL Listed Gas-Fired Products

The UL Listing Mark for gas-fired products certified to UL Standards includes: (1) the UL symbol with the words "GAS-FIRED" above the UL symbol as shown below; (2) the word "LISTED" below the UL symbol; (3) the product identity; and (4) a control number assigned by UL.



The UL Listing Mark for gas-fired products certified to ANSI Z21 or Z83 Series Standards includes: (1) the UL symbol with the words "GAS-FIRED" above the UL symbol as shown below; (2) the word "LISTED" below the UL symbol; (3) the ANSI/CSA or ANSI/CGA Standard designation; and (4) a control number assigned by UL.



Identification of UL Listed Environmental and Public Health (EPH) Products

The UL Listing Mark for Environmental and Public Health (EPH) products certified to UL Standards includes: (1) the UL symbol with the letters EPH inside a triangular background as shown below; (2) the word "LISTED" below the UL symbol; (3) the product identity; and (4) a control number assigned by UL.



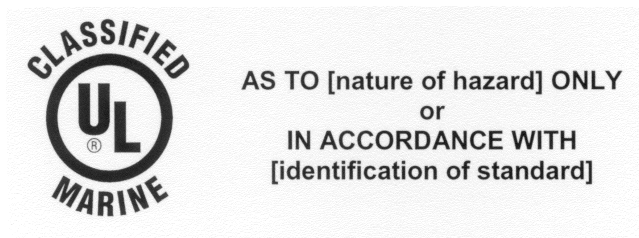
The UL Listing Mark for Environmental and Public Health (EPH) products certified to standards of other organizations for foreseeable hazards includes: (1) the UL symbol with the letters EPH inside a triangular background as shown below; (2) the word "LISTED" below the UL symbol; (3) the product identity; (4) the standard designation; and (5) a control number assigned by UL.



[identification of standard]

Identification of UL Classified Products

The UL Classification Mark may appear in various forms as authorized by UL. The UL Classification Mark includes: (1) the UL symbol; (2) the word "CLASSIFIED" above the UL symbol; (3) the product identity; (4) a control number assigned by UL; and (5) indication of the extent of UL's evaluation of the product, e.g. "AS TO [nature of hazard] ONLY" ; rating or classification as specified in the General Guide Information pertaining to the product category; "IN ACCORDANCE WITH [designation and title of standard published by other organization]" ; or "FOR USE WITH [identification of specified product]." A typical Classification Mark is shown below:



IN ACCORDANCE WITH
USCG [Regulation] _____

Identification of UL Classified Environmental and Public Health (EPH) Products

The UL Classification Mark for Environmental and Public Health (EPH) products certified to standards of other organizations for EPH evaluations only includes: (1) the UL symbol with the letters EPH inside a triangular background, as shown below; (2) the word "CLASSIFIED" above the UL symbol; (3) the product identity; (4) the standard designation; and (5) a control number assigned by UL.

Additional information regarding the UL Marks for Environmental and Public Health (EPH) can be found at the back of this directory under **Other UL Services** and online at www.ul.com/eph.



[identification of standard]

Identification of UL Listed Products that are Also Classified in Accordance with International or Regional Standards

The UL Listing Mark and Classification Mark shown above can be combined for products that not only meet the applicable UL requirements but also comply with the requirements of the applicable international or regional standards. For these products the combination UL Listing and Classification Mark is shown below:



**ALSO CLASSIFIED
IN ACCORDANCE WITH**
[identification of standard]

Identification of Products Classified in Accordance with International or Regional Standards Only

UL provides a service for the Classification of products that have been determined to comply with the appropriate requirements of the applicable international or regional standards only. For these products, the Classification Mark may appear in various forms as authorized by UL. A typical form which may be authorized is shown below. When the complete Classification Mark cannot be applied to the product, no reference to "Underwriters Laboratories Inc." on the product is permitted.



[product identity]
IN ACCORDANCE WITH
[identification of standard]

Products Listed by Report

Certain products are Listed under a special service designated as "Listed by Report." These are usually products or constructions for which there are no generally recognized installation requirements. The description of this type of product or construction and information concerning proper field assembly and/or installation are contained in a Report identified by the reference and date shown by the Listing. Products Listed by Report are eligible to bear a UL Mark, which includes a reference to the Report number and date. Copies of the Report may be obtained upon application to the company whose product is Listed.

Specifying UL Listed and Classified Products

Specifying UL Listed and Classified products up front is one of the best methods used by designers, consultants, insurers and others to help gain jurisdictional acceptance. A typical specification reads: "The [product] must bear the UL Mark." Or, if the specification cannot be that precise, an alternate wording would read: "The [product] must meet the requirements of Underwriters Laboratories Inc.® The UL Mark on the product will be accepted as evidence of compliance."

Products, equipment and materials evaluated by UL in accordance with international or regional standards only are intended for installation and use where the specified standards have been adopted.

2010 PART I

Listed and Classified Marine Products

Marine Products (AAMP)

GENERAL

Marine products are specifically investigated and certified for use aboard marine vessels. Such equipment has been investigated in accordance with the applicable requirements of UL, the United States Coast Guard (USCG), the American Boat and Yacht Council Inc. (ABYC), and the National Fire Protection Association (NFPA). For additional information, see the general Guide Information for the specific product category. Equipment bearing UL's Marine Mark is suitable for use only with stranded copper wire.

INVESTIGATION REQUIREMENTS AND STANDARDS

The scope of product sizes and ratings appearing in the general Guide Information for some product categories is intended to indicate the current range of Listed products, however, it is not necessarily indicative of limitations for those Listed products.

The standards used to investigate products are identified in the general Guide Information for each product category. There may not always be a published standard for investigating a product to determine its acceptability for Listing or Classification. If no applicable standard is available, UL will exercise its judgment in the selection of applicable requirements from related standards and other sources to develop the requirements to cover uses and conditions for which specific requirements did not previously exist.

Products, equipment and construction materials certified by UL in accordance with international or regional standards only (e.g., products Classified to an IEC or ISO Standard) are intended for distribution, installation and use in areas of the world where the specified standards have been adopted and are in effect as national or regional standards.

INSTALLATION REQUIREMENTS

The limitations for the equipment as specified in the general Guide Information for each product category such as voltage and temperature limits, markings, special descriptions and installation provisions need to be noted prior to installation and use.

Equipment has been investigated with reference to risks to life and property and for potential conformity to the installation and use provisions of the applicable installation codes and standards of the National Fire Protection Association, and applicable model codes identified in the general Guide Information for each product category.

In addition, certain products have been investigated with reference to environmental and public health effects and for potential conformity to the installation and use provisions of applicable environmental and public health requirements, if so indicated in the general Guide Information for each product category.

Some products are certified for uses not within the scope of nationally recognized installation codes and standards. Such products are investigated for the specifications or use conditions indicated in the general Guide Information for each product category.

These products are intended for installation subject to approval by the Authority Having Jurisdiction. Authorities Having Jurisdiction should be consulted before installation.

INSTRUCTIONS AND PRODUCT MARKINGS

These products are intended to be installed in accordance with the installation instructions provided with the product. It is critical that the cautionary statements and installation and operating instructions on the product and in accompanying literature be followed.

FIELD MODIFICATIONS

The UL Mark applies to the product as it is originally manufactured when shipped from the factory. Authorized use of the UL Mark is the manufacturer's declaration that the product was originally manufactured in accordance with the applicable requirements. UL does not know what the effect of a modification may have on the safety of the product or the continued validity of the UL certification mark unless the field modifications have been specifically investigated by UL. Unless UL investigates a modified product, UL cannot indicate that the product continues to meet UL's safety requirements.

The only exception for a field modification authorized by UL is when the product has specific replacement markings. For example, a switchboard may have specific grounding kits added in the field. The switchboard is marked with a list of specific kit numbers that have been investigated for use in that particular switchboard. Only grounding kits that are included on the product have been investigated for use in that product.

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.

ALTERNATORS, GENERATORS AND MOTORS, ELECTRIC, MARINE (ARDY)

USE AND INSTALLATION

This category covers marine electric motors, generators and alternators, including motor-actuating solenoids, generator and alternator voltage regulators, rated less than 50 V dc. These products include connecting wiring harnesses provided by the product manufacturer as part of the device.

These devices are intended for installation in accordance with the manufacturer's specifications, the applicable United States Coast Guard Regulations, the applicable requirements of the American Boat and Yacht Council, and/or ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft."

All products and components are ignition protected, except that voltage regulators, reverse-current relays or similar devices may not be of ignition-protected construction if marked with a warning placard stating that they must be mounted outside of areas requiring ignition-protected equipment.

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is UL 1112, "Marine Electric Motors and Generators (Cranking, Outdrive Tilt, Trim Tab, Generators, Alternators)."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and one of the following product names as appropriate: "Alternator," "Cranking Motor," "Solenoid," "Generator," "Outdrive Tilt Motor," "Trim Tab Motor" or "Voltage Regulator."

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.

C E NIEHOFF & CO

MQ1174

2205 LEE ST, EVANSTON IL 60202

Alternators. Model A1-101 with Voltage Regulator A2-101 or A2-103.
Model A1-102 with Voltage Regulator A2-102.
Model A1-103 with Voltage Regulator A2-101 or A2-103.
Model A1-104 with Voltage Regulator A2-102.
Model A1-105 with Voltage Regulator A2-108.

CHARLES INDUSTRIES LTD

E202645

5600 APOLLO DR, ROLLING MEADOWS IL 60008

Alternator regulators. Models 9#-12 Preg-#, 9#-24 Preg-#, 9A-12 Preg-# and 9A-24 Preg-# where # represents alpha-numeric combinations.
Alternators. Models 23-114, 23-115, 23-116, 23-116, 23-117, 23-118, 23-119, 23-120, 23-121, 23-122, 23-123.

PRESTOLITE ELECTRIC VEHICLE SYSTEMS DIV (EVSD)

MM19

SUITE 300 2100 COMMONWEALTH BLVD, ANN ARBOR MI 48105

Alternators. Models A 001-2301 JB, A 001-2302 JB with integral regulators.
Models A 001-2303 JB, A 001-2509 JB.
Model MR12ZN451D with Regulator 8RG2010A.
Model MR12N600D with Regulator 8RG2010A.
Models 8EM2001FA, -2FA, -6KA, -7KA, -13NA, -16KA with Regulator 8RC2009A.
Model 8EM20014KA, -17KA with Regulator 8RC2008A.
Model 8EM3003GA with Regulator 8RC3012A.
Model 8EM2028N with regulator 8RC2009A.
Models 8EN2002KA, -3KA.
Model 8HC3026G with Regulator 8RG3039.
Model 8MR2013L with Regulator 8RG2062.
Models 8MA2015G, 8MR2016K with Regulator 8RG2010A.
Model 8MR2022K with Regulator 8RG2035A.
Model 8MR2044K with Regulator 8RG2027.
Models 8MR2048K, 8MR2049K, 8MR2050F, 8MR2051F with Regulator 8RG2010A.
Models 8MR2048KA, 8MR2049KA, 8MR2050FA, 8MR2051FA with Regulator 8RG2069.
Model 8MR2058P with Regulator 8RG2035A.
Model 8MR2058PA with Regulator 8RG2069.



Documents
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Model 8MR2072L(s) with Regulator 8RG2046.
 Model 8MR2072LA(s) with Regulator 8RG2069.
 Model 8MR2070T with Regulator 8RG2043.
 Model 8MR2070TA with Regulator 8RG2043.
 Models 8MR2175F, 8MR2185L with Regulator 8RG2060A.
 Model 8MR2401UA with Regulator 8RG2043.
 Models Y3N3S, Y5N3S with Regulator 8RH2004B.
 Kits, Models MA40N12Y, MA55N12Y.
 Models 8MR2090K, 8MR2091K(s), 8MR2092L, 8MR2093L with Regulator 8RG2061.
 Models 8MR2084K, 8MR2085K, 8MR2086L with Regulator 8RG2062.
 Model 8MR3088KA with Regulator 8RG3076.
 Model 8MR2087VA with Regulator 8RG2075.
 Model 8MR3188K with Regulator 8RG3076.
 Model 8MR3404G with Regulator 8RG3063.
 Model 8MR2199K with Regulator 8RG2062.
 Model 8MR2198L with Regulator 8RG2064.
 Model 8MR2069TA with Regulator 8RG2043.
 Model 8MR2070TB with Regulator 8RG2102.
 Model 8MR2406K with Regulator 8RG2062.
 Model 8MR2406KA with Regulator 8RG2062.
 Note: The suffix (s) may be added to models if indicated.

BATTERY CHARGERS, MARINE (BBJY)

GENERAL

This category covers semi-automatic and automatic marine battery chargers intended for fixed installation aboard boats.

These battery chargers are intended for installation and operation in accordance with the manufacturer's instructions and the applicable requirements of the American Boat and Yacht Council and/or ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft."

This category does not cover portable battery chargers except that the chargers may be equipped with demountable brackets for removal when not in use.

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 1236, "Battery Chargers for Charging Engine-Starter Batteries," and ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft."

Battery chargers marked "Ignition Protection" have additionally been investigated to UL 1500, "Ignition-Protection Test for Marine Products."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and the product name "Battery Charger," "Battery Charger, Marine" or "Marine Battery Charger."

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.

CHARLES INDUSTRIES LTD 5600 APOLLO DR, ROLLING MEADOWS IL 60008 Battery chargers.	ME200
LA MARCHE MFG CO 106 BRADROCK DR, DES PLAINES IL 60018 Battery chargers.	ME9
MASTER CONTROL SYSTEMS INC 910 NORTH SHORE DR PO BOX 276, LAKE BLUFF IL 60044 Battery chargers.	MQ419
MINNKOTA MOTOR OPERATIONS, DIV OF JOHNSON OUTDOORS INC 1531 E MADISON AVE PO BOX 8129, MANKATO MN 56002 Battery chargers.	MQ1956
PROFESSIONAL MARINER L L C, DBA PRO MARINER 200 INTERNATIONAL DR SUITE 195, PORTSMOUTH NH 03801 Marine battery chargers.	MQ6024
SCHUMACHER ELECTRIC CORP 801 E BUSINESS CENTER DR, MT PROSPECT IL 60056 Battery chargers.	MQ1849

BLOWERS, MARINE (BCHW)

GENERAL

This category covers continuous-duty electric blowers rated less than 50 V dc, intended to provide ventilation of the galley, engine compartments, and other areas aboard vessels of any size.

These blowers are intended for installation and operation in accordance with the manufacturer's instructions and the applicable requirements of the United States Coast Guard, the American Boat and Yacht Council, Inc., and/or ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft."

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LISTED AND CLASSIFIED MARINE PRODUCTS**

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BLOWERS, MARINE (BCHW)

PRODUCT MARKINGS

Bilge blowers investigated for ignition protection are so marked. Other blowers are marked "Ignition Protected" only if investigated and found to comply with the ignition protection requirements.

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is UL 1128, "Marine Blowers."

Combination pumps and blowers in this category have additionally been investigated to UL 1113, "Electrically Operated Pumps for Nonflammable Liquids, Marine."

Products marked "Ignition Protected" have additionally been investigated to UL 1500, "Ignition Protection Test for Marine Products."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and the product name "Blower."

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.

ITC INC

230 E LAKEWOOD BLVD, HOLLAND MI 49424

MQ1022

BOAT CABLE (BDFX)

GENERAL

This category covers boat cable, which consists of a single insulated conductor without a jacket or two or more insulated conductors with or without an overall nonmetallic jacket, and which is suitable for use in marine pleasure crafts. Boat cable is rated 600 V or less, 60°C (122°F) or 75°C (167°F) wet, 60 to 200°C dry locations and, for cable so marked, 60°C (140°F) and lower temperatures where exposed to oil. The cable employs stranded copper conductors in a size range of 18 to 4/0 AWG inclusive for multiple-conductors, 16 to 4/0 AWG inclusive for single conductors.

Ampacities shall be in accordance with United States Coast Guard Regulations Title 33, Chapter I Parts 183.430 and 183.435 of the CFR.

ADDITIONAL INFORMATION

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

REQUIREMENTS

The basic standard used to investigate products in this category is UL 1426, "Electrical Cables for Boats."

Cable rated 600 V is investigated to UL 1426. Cable rated 50 V is investigated to SAE J1127, J1128, or J378b.

UL MARK

The UL symbol on the product and the Listing Mark of Underwriters Laboratories Inc. on the attached tag, coil, reel or smallest unit container in which the product is packaged 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 the product name "Boat Cable."

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.

ALMO WIRE & CABLE INC

2709 COMMERCE WAY, PHILADELPHIA PA 19154

E315007

ALPHA WIRE CO

128 TOLMAN AVE, LEOMINSTER MA 01453

E146245

ATLAS WIRE CORP

9525 RIVER ST, SCHILLER PARK IL 60176

E215651

BADGER WIRE INC

UNIT B W226 N758 EASTMOUND DR, WAUKESHA WI 53186

E315270

BERKSHIRE ELECTRIC CABLE CO

118 RIVER RD PO BOX 306, LEEDS MA 01053

E86292

BRIDGEWATER TECH INC

2917 INDUSTRIAL DR, FARIBAULT MN 55021

E235919

COBRA WIRE & CABLE INC

WILLOW GROVE INDUSTRIAL COMMONS 2930 TURNPIKE
DR, HATBORO PA 19040

E163980

COLEMAN CABLE INC

1530 SHIELDS DR, WAUKEGAN IL 60085

E125352

CONCORDIA ELECTRIC WIRE & CABLE CO LTD

BENTLEY WOOD WAY NETWORK 65 BUSINESS PARK
HAPTON, BURNLEY BB11 5ST UNITED KINGDOM

E312429

CONTINENTAL WIRE & CABLE INC

PO BOX 2027, YORK PA 17405

E104590



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BOAT CABLE (BDFX)

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DATA GUIDE CABLE CORP ONE ERNRIC PL 560 MAIN ST, GARDNER MA 01440	E328438
DECA CABLES INC 150 N MURRAY ST PO BOX 777, TRENTON, ON K8V 5W6 CANADA	E209646
DIXIE WIRE CO, DIV OF AFL 5901 CALIFORNIA AVE, NASHVILLE TN 37209	E205639
DOMTECH INC 40 E DAVIS ST, TRENTON, ON K8V 6S4 CANADA	E306583
DRAKA CABLETEQ USA INC 22 JOSEPH E WARNER BLVD, NORTH DIGHTON MA 02764	E66316
EAST PENN MFG CO INC DEKA RD PO BOX 147, LYON STATION PA 19536	E86521
ELECTRO CABLES INC 9 RIVERSIDE DR PO BOX 276, TRENTON, ON K8V 5R5 CANADA	E228482
FORMOSA ELECTRIC WIRE & CABLE CO LTD PO BOX 8-1, PAN CHIAO, TAIPEI HSIEN 220 TAIWAN	E252227
GENERAL CABLE INDUSTRIES INC 4 TESSENEER DR, HIGHLAND HEIGHTS KY 41076	E83312
INCOM EGYPT CO AMREYA FREE ZONE, ALEXANDRIA 23512 EGYPT	E179457
ISOTEC INC 1780 BIRCHWOOD, DES PLAINES IL 60018	E314108
JAMES MONROE WIRE & CABLE CORP STERLING RD PO BOX 1203, SOUTH LANCASTER MA 01561	E231303
JMS WIRE INC 1555 APEX RD, SARASOTA FL 34240	E157097
KALAS MFG INC 25 MAIN ST PO BOX 328, DENVER PA 17517	E67078
KEMCOR INC 15925 WOODINVILLE-REDMOND RD PO BOX 387, WOODINVILLE WA 98072	E310271
LAKE CABLE L L C 529 THOMAS DR, BENSENVILLE IL 60106	E251741
MONSTER CABLE PRODUCTS INC 455 VALLEY DR, BRISBANE CA 94005	E245530
NORTHWIRE INC 110 PROSPECT WAY, OSCEOLA WI 54020	E205918
PACIFIC ELECTRIC WIRE & CABLE CO LTD 25TH FL 95 DUNHUA S RD, SEC 2 DA-AN DISTRICT, TAIPEI 106 TAIWAN	E333812
PRESTOLITE WIRE CORP 1 PRESTOLITE DR, PARAGOULD AR 72450	E312510
SIGMA WIRE INTERNATIONAL L L C 4906 HOFFMAN ST, ELKHART IN 46516	E310352
SOUTHWIRE CO 1 SOUTHWIRE DR, CARROLLTON GA 30119	E167397
SOUTHWIRE CO 1 SOUTHWIRE DR, CARROLLTON GA 30119	E69571



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BOAT CABLE (BDFX)

STANDARD MOTOR PRODUCTS 1718 HOME ST, MISHAWAKA IN 46545	E146461
THERM-O-LINK INC 10513 FREEDOM ST, GARRETTSVILLE OH 44231	E116277
TYCAB AUSTRALIA LOCKED BAG 1413, DANDENONG, VIC 3164 AUSTRALIA	E227542
UNIFIED WIRE & CABLE CORP 338 WURLITZER DR, DEKALB IL 60115	E247266

BULKHEAD PANELS, MARINE (CLTZ)

This category covers materials Classified for use in bulkhead panels and intended for use on marine vessels. They are investigated to establish compliance with the U. S. Coast Guard Specification for Bulkhead Panels, 46 CFR Subpart 164.008 and/or International Maritime Organization (IMO) Resolution A.754 (18).

A bulkhead panel assembly is subjected to a fire test to determine its thermal insulation and flame penetration characteristics. Bulkhead panel assemblies having a Class B15 classification have met at least 30 min. passage of flame and 15 min. temperature rise requirements, as described in the specification. Bulkhead panel assemblies having a Class B-0 classification have met the 30 min. passage of flame requirement only, as described in the specification.

Bulkhead panel assemblies having a Class B-15 classification comply with the requirements for and are eligible to be used as components in either Class A-15 or Class A-30 construction. Bulkhead panel assemblies having Class B-15 classification which have met the 60 min. requirement with respect to passage of flame, as described in the individual Classification information, also comply with the requirements for and are eligible to be used as components in Class A-60 construction.

Bulkhead panel material shall meet the requirements for a noncombustible material as defined in the U. S. Coast Guard Specifications for Noncombustible Materials for Merchant Vessels, 46 CFR Subpart 164.009 and/or International Maritime Organization (IMO) Resolution A.799.

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.

METAL-FACED PANELS, MARINE (CLWS)

USE AND INSTALLATION

Metal faced panels, investigated for use in marine bulkhead panel constructions, consist of metal facings bonded to one or both faces of an inorganic proprietary core material. Systems for joining adjacent panels are evaluated as part of the bulkhead construction.

The Classification pertains to the bulkhead panel construction in which the panels are installed. These panels are intended for installation in accordance with the manufacturer's instructions and the applicable requirements of the U. S. Coast Guard.

REQUIREMENTS

The basic standard used to investigate products in this category is 46CFR164.008, "" Bulkhead Panels, and/or IMO A.754 (18).

These Classified materials also meet the requirements for noncombustible material as defined by the U.S. Coast Guard Specifications for Noncombustible Materials for Merchant Vessels 46 CFR Subpart 164.009 and/or International Maritime Organization (IMO) Resolution A.799.

LOOK FOR CLASSIFICATION MARK ON PRODUCT

The Classification Marking of Underwriters Laboratories Inc. with the U.S.C.G. Approval Number on the product is the only method provided by Underwriters Laboratories Inc. to identify products produced under its Classification and Follow-Up Service. The Classification Marking for these products includes the UL symbol, the word "CLASSIFIED" above the UL symbol (as illustrated in the Introduction of this Directory), the product identity "Metal Faced Panels, In Accordance With U.S.C.G. 46 CFR Subpart 164.008 Bulkhead Panels, Class B15 Construction" and/or "Metal Faced Panels, In Accordance With IMO A.754 (18), Bulkhead Panels, Class B15 Construction" and a control 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.

BIP INDUSTRIES CO LTD 35 SOZOO-RI WOONGSANG-EUP, YANGSAN, KYUNG NAM 626-840 REPUBLIC OF KOREA	R13808
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Type BIP W-108 panels, 50 mm thick, for use in Class B-15 construction and as a component in Class A-60 construction.

Type BIP W-102 standard and conduit panels, 50 mm thick, for use in Class B-15 construction and as a component in Class A-30 construction.

MINERAL AND FIBER BOARDS, MARINE (CLYV)

INSTALLATION AND USE

Mineral and fiber boards, intended for use in marine bulkhead panel constructions, consist of proprietary mixes of organic and/or inorganic fibers and binders formed into various sizes and thicknesses.

The Classification pertains to the bulkhead panel construction in which the boards are installed. These boards are intended for installation in accordance with the manufacturer's instructions and the applicable requirements of the U. S. Coast Guard.

REQUIREMENTS

The basic standard used to investigate products in this category is USCG 46 CFR Subpart 164.008 and/or IMO A.754(18).

These Classified materials also meet the requirements for noncombustible materials as defined by the U.S. Coast Guard Specifications for Noncombustible Materials for Merchant Vessels 46 CFR Subpart 164.009 and/or International Maritime Organization (IMO) Resolution A.799.

LOOK FOR CLASSIFICATION MARK ON PRODUCT

The Classification Marking of Underwriters Laboratories Inc. with the U.S.C.G. Approval Number on the product is the only method provided by Underwriters Laboratories Inc. to identify products produced under its Classification and Follow-Up Service. The Classification Marking for these products includes the UL symbol (as illustrated in the Introduction of this Directory), the product identity "Mineral And Fiber Boards, In Accordance With U.S.C.G. 46 CFR Subpart 164.008 Bulkhead Panels, Class B15 Construction" and "Mineral And Fiber Boards, In Accordance With IMO A.754 (18), Bulkhead Panels, Class B15 Construction", and a control number.

Mineral and Fiber Boards, Marine (CLYV)—Continued

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BNZ MATERIALS INC

R3391

IRON HORSE PARK HIGH ST, NORTH BILLERICA MA 01862

Type Marinite ML panels, 3/4 in. (19mm) thick, for use in Class B-15 construction and as a component in Class A-60 construction.

Type Marinite M panels, 3/4 in. (19mm) thick, for use in Class B-15 construction and as a component in Class A-60 construction.

CEILING ASSEMBLIES, MARINE (DAJY)

This category covers materials Classified for use in ceiling assemblies and intended for use on merchant vessels. The materials are investigated to meet the intent of Chapter II of the 1974 SOLAS Convention (1981/83 Amendments), as well as to establish compliance with U.S. Coast Guard (USCG) structural fire protection requirements, as described in Navigation and Vessel Inspection Circular No. 6-80, 2 Apr 1980, "Guide to Structural Fire Protection Aboard Merchant Vessels".

The test method is described in International Maritime Organization (IMO) Resolution A.517(13) and/or Resolution A.754(18).

A ceiling assembly consists of a proprietary ceiling system suspended from a steel deck. Where the ceiling system includes light fixtures and air handling equipment, testing of typical arrangements are conducted.

A description of the proprietary ceiling system and installation details are referenced on the USCG Approval Certificate and become an integral part of such approval. This procedure may vary for other National Marine Safety Administrations.

The steel test deck is specified in the applicable IMO Resolution.

The ceiling assembly is subjected to a fire test to determine its thermal insulation and flame penetration characteristics (structural stability). B-15 ratings are established for ceiling systems which meet the temperature rise requirements for 15 min. and flame penetration and structural stability requirements for 30 min. Ceiling assemblies which meet the passage of flame and temperature rise requirements for 60 min. may be considered by the USCG for use in A-60 construction.

All materials in ceiling assemblies meet the requirements for a noncombustible material as defined in Regulation 3, 1974 SOLAS Convention, and the USCG Specifications for Noncombustible Materials for Merchant Vessels, 46 CFR Subpart 164.009 and/or International Maritime Organization (IMO) A.799.

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.

CEILING UNITS AND ACCESSORIES, MARINE (DAPY)

USE AND INSTALLATION

This category covers ceiling units and accessories intended for use in ceiling assemblies aboard merchant vessels.

The ceiling units and accessories are intended for installation in accordance with the manufacturer's instructions and the applicable requirements of the United States Coast Guard (USCG).

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is 46CFR164.008, "Bulkhead Panels," and/or International Code for Application of Fire Test Procedures (FTP Code), Resolution A.754(18), "Recommendation on Fire Resistance Tests for "A," "B" and "F" Class Divisions."

These products also meet the requirements for noncombustible material as defined by 46CFR164.009, "Incombustible Materials for Merchant Vessels," and/or International Code for Application of Fire Test Procedures (FTP Code), Resolution A.799(19), "Revised Recommendation on Test Methods for Qualifying Marine Construction Materials as Non-Combustible."

UL MARK

The Marine Classification Mark of Underwriters Laboratories Inc. with the U.S.C.G. Approval Number on the product is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service. The Marine Classification Mark for these products includes the UL symbol, the word "CLASSIFIED" above the UL symbol and the word "MARINE" below the UL symbol (as illustrated in the Introduction of this Directory), and the following additional information:

CEILING UNITS AND ACCESSORIES

IN ACCORDANCE WITH U.S.C.G. AND/OR

IMO FIRE PROTECTION REQUIREMENTS FOR CEILING ASSEMBLIES, MARINE TYPE

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.

BIP INDUSTRIES CO LTD

R13807

35 SOZOO-RI WOONGSANG-EUP, YANGSAN, KYUNGNAM

626-840 REPUBLIC OF KOREA

Type C-513 ceiling panels and accessories with 25 mm thick mineral wool batts and an additional layer of a low density, 50 mm thick mineral wool batts for use in Class B-0 construction.

Type C-513 ceiling panels and accessories with 25 mm thick mineral wool batts and an additional layer of a high density, 50 mm thick mineral wool batts for use in Class B-15 construction and as a component of A-60 deck construction.

FIREPROOF TNF PANEL SYSTEM

R15221

HOVEDGADEN 483 2640, HEDEHUSENE DENMARK

Type C55 ceiling panels and accessories for use in Class B-15 construction and as a component in Class A-60 deck construction.

Type C54 ceiling panels and accessories for use in Class B-0 construction and as a component in Class A-30 deck construction.

MARITIME SERVICES CORP

R14761

3457 GUIGNARD DR, HOOD RIVER OR 97031

Type M-300 ceiling panels and accessories with 25 mm thick mineral wool batts for use in Class B-0 construction.



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CEILING ASSEMBLIES, MARINE (DAJY)

Ceiling Units and Accessories, Marine (DAPY)–Continued

Type M-300 ceiling panels and accessories with 25 mm thick mineral wool batts and an additional layer of 50 mm thick mineral wool batts for use in Class B-0 construction and as a component of A-60 deck construction.

PARMA-OYFI-30420

R13148

FORSSA FINLAND

Type PMC1, 50 mm thick panels and accessories for use in Class B-15 construction and as a component in Class A-60 deck construction.

**CHAIN LADDERS/EMBARKATION LADDERS/DEBARKATION
LADDERS, MARINE (DBGU)**

USE

This category covers chain ladders, embarkation ladders and debarkation ladders for pilots and other persons for vessels, lifeboats and life rafts.

RELATED EQUIPMENT

See Pilot Ladders, Marine (QLET).

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is CFR Title 46, Chapter I, Parts 160.017 and 160.117.

UL MARK

The Classification Mark of Underwriters Laboratories Inc. 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:

**CHAIN LADDER/EMBARKATION LADDER/DEBARKATION LADDER
IN ACCORDANCE WITH USCG REGULATION TITLE 46
CHAPTER I, PART +
Control No.**

+ 160.017 or 160.117 as applicable

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APOLLO MARINE SPECIALTIES INC

MQ570

4227 ROYAL ST, NEW ORLEANS LA 70117

Model ADONIC II.

**CIRCUIT BREAKERS, MOLDED-CASE AND CIRCUIT-BREAKER
ENCLOSURES, MARINE (DKTY)**

USE AND INSTALLATION

This category covers circuit breakers specifically designed to provide feeder and branch-circuit protection in a marine environment.

Marine circuit breakers are intended for use with stranded copper wire only.

These circuit breakers are intended for installation and operation in accordance with the manufacturer's instructions and the applicable requirements of the United States Coast Guard, The American Boat and Yacht Council, ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft," and/or IEEE 45, "IEEE Recommended Practice for Electrical Installations on Shipboard."

PRODUCT TYPES

Marine circuit breaker enclosures are classified as "Non-watertight," "Drip-proof" or "Watertight."

- A "Drip-proof" enclosure is so constructed that falling moisture or dirt does not interfere with the successful operation of the equipment.
- A "Watertight" enclosure is so constructed that water does not enter the enclosure when subjected to a stream of water.
- External means are provided for the operation of switches or circuit breakers in a "Watertight" enclosure.

PRODUCT MARKINGS

Marine circuit breakers marked "For Use On Vessels Over 65 Feet" have been investigated in accordance with Title 46 CFR Parts 110-113. Such circuit breakers have not been subjected to shock and vibration tests.

Marine circuit breakers not marked to indicate vessel length are suitable for use on vessels of any length. Such circuit breakers have been subjected to shock and vibration tests.

Marine circuit breakers marked "Ignition Protected" are suitable for use in areas on vessels in accordance with Title 33 CFR Part 183, Sub-part I, Section 183.410.

Enclosures classed as "Drip-proof" or "Watertight" are so marked.

Enclosures intended for use in corrosive locations are marked "Suitable For Use In Corrosive Locations."

RELATED PRODUCTS

See Circuit Breakers (DHJR) and Circuit Breakers, Molded-Case, and Circuit-breaker Enclosures (DIVQ).

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 489, "Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit-Breaker Enclosures."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory) the word "LISTED," a control number, and the product name "Marine Circuit Breaker" or "Marine Circuit Breaker Enclosure." The words "Circuit Breaker" may be abbreviated "C.B." in the product names permitted above (e.g., "Marine C.B. Enclosure").

2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS

CIRCUIT BREAKERS, MOLDED-CASE AND CIRCUIT-BREAKER ENCLOSURES, MARINE (DKTY)

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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.

AMERICAN CIRCUIT BREAKER CORP E86740

442G N 3RD ST PO BOX 1308, ALBEMARLE NC 28001

Marine molded-case circuit breakers: Types HEJ, HFJ, HJL, HM, HN, NE, NEE, NEJ, NFJ, NJJ, NJL, NM, NN, NP, XJL, XM.

EATON E85313

1000 CHERRINGTON PKY, MOON TOWNSHIP PA 15108

Marine molded-case breakers: Types BAB, DK, EB, EHB, EHD, FB, FCL, FD, FDB, HBAX, HFB, HFD, HJD, HKB, HKD, HLB, HQP, JD, JDB, KB, KD, KDB, LB, LCL, QBAX, QC, QCHW, QHXC, QHPX, QPHW, GFCB, QPGF, QBGF, QCGF, SPB, GB, GHB, GC, GHC, GD, GDB, ECB, GI, HGHB, HGHC, GHB-HIC, GHC-HID.

Types CLD, LD, LDB, CHLD, EGB, EBE, EGS, EGH, HLD, HLDB, CLDC, LDC, LDCB, LG, LI, MDL, MDLB, CMDLB, HMDL, HMDLB, CHMDLB, MD, ND, CND, HND, CHND, NDC, CNDC, RD, CRD, RDC, CRDC.

EATON E96643

PARQUE INDUSTRIAL COLONIAL AVE CHAPULTEPEC S/N

88570, REYNOSA, TAMPAS MEXICO

Marine molded case circuit breakers: Types CD1, -2, -3, CE1, -2, -3, CF1, -2, -3, GH3, GJ1, -2, -3, X0411, X0412, X0415.

GENERAL ELECTRIC CO E73257

41 WOODFORD AVE, PLAINVILLE CT 06062

Marine molded-case circuit breaker: Type Q-Line.

SCHNEIDER ELECTRIC INDUSTRIES S A S E63335

ELECTROPOLE/EYBENS, POWER / LV 31 RUE PIERRE MENDES

FRANCE 38050, GRENOBLE CEDEX 9 FRANCE

Marine molded case circuit breakers, Cat. Nos. CM, MF, MP, NSE100, NSF150-250.

SIEMENS INDUSTRY INC E245531

5400 TRIANGLE PKY NW, NORCROSS GA 30092

Marine circuit breakers, molded case, Types HEN, NEN.

SQUARE D CO E85161

3700 6TH ST SW, CEDAR RAPIDS IA 52404

Marine molded-case circuit breaker, for use on vessels over 65 ft in lengths, FA, FAB, FAL, FC, FCL, FI, FIB, FIL, HD, HG, HJ, HL, JD, JG, JJ, JL, KA, KAA, KAAB, KAAL, KAAR, KAB, KAL, KC, KCB, KCL, KI, KIB, KIL, LA, LAB, LAL, LC, LCF, LCL, LCP, LE, LEF, LEL, LEP, LI, LIF, LIL, LIP, LX, LXF, LXI, LXIF, LXIL, LXIP, LXL, LXP, MA, MAL, MAR, ME, MEL, MG, MJ, MX, MXL, NAA, NAAB, NAAL, NC, NCB, NCL, NE, NEL, NT, NW, NX, NLX, PAL, PCL, PEL, PG, PJ, PK, PL, PXL, Q0, Q2, Q2L, Q2MT, RG, RJ, RK, RL.

Marine molded-case circuit breaker, for use on vessels over and under 65 ft in length, QO.

CONDUIT AND FITTINGS, MARINE (EBDJ)

CONDUIT FITTINGS, MARINE (EBGV)

USE AND INSTALLATION

This category covers drip-proof metallic and nonmetallic conduit fittings, such as couplings, connectors and adapters, for use in the assembly of nonmetallic and metallic wiring systems intended to be installed in accordance with United States Coast Guard (USCG) Electrical Engineering Regulations 46CFR110, "General Provisions," 46CFR111, "Electrical Systems - General Requirements," 46CFR112, "Emergency Lighting and Power Systems," and 46CFR113, "Communication and Alarm Systems and Equipment," ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft," and ANSI/IEEE 45, "IEEE Recommended Practice for Electric Installations on Shipboard."

The USCG Electrical Engineering Regulations define marine-type equipment as "drip-proof" if the equipment is so constructed or protected that falling drops of liquid or solid particles striking the enclosure at any angle from 0 to 15 degrees downward from the vertical do not interfere with the operation of the equipment.

PRODUCT MARKINGS

These fittings are identified on the smallest unit carton as "Drip-Proof."

Nonmetallic fittings suitable for use with rigid nonmetallic conduit are identified by the appropriate marking on the carton. Nonmetallic fittings for use with rigid PVC conduit are suitable with wires rated 90°C or less.

Insulating bushings provided either separately or as part of a fitting are suitable for temperatures of 150°C if they are colored black or brown, and for 90°C if any other color unless specifically marked for a higher temperature.

RELATED PRODUCTS

For conduit fittings intended for use in applications other than marine, see Conduit Fittings (DWTT).

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 514B, "Conduit, Tubing, and Cable Fittings."

UL MARK

The UL symbol on the product and the Marine Listing Mark of Underwriters Laboratories Inc. on the smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Conduit Fitting," "Adapter" or "Coupling," or other appropriate product name as shown in the individual Listings.

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.

**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

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CONDUIT AND FITTINGS, MARINE (EBDJ)

Conduit Fittings, Marine (EBGV)–Continued

THOMAS & BETTS CORP

8155 T & B BLVD, MEMPHIS TN 38125

Nonmetallic flexible marine conduit fittings.

E23018

FLEXIBLE NONMETALLIC CONDUIT, MARINE (EBKH)

This Listing covers drip-proof flexible nonmetallic conduit in trade sizes 3/8 inches to 2 inches inclusive, for installation in accordance with the Electrical Engineering Regulations of the United States Coast Guard, Title 46 CFR, Parts 110 to 113; the Fire Protection Standard for Pleasure and Commercial Motor craft, NFPA 302 and "IEEE Recommended Practice For Electric Installations On Shipboard", IEEE 45.

The Electrical Engineering Regulations of the U.S. Coast Guide define Marine type equipment as "Drip-Proof" if the equipment is so constructed or protected that falling drops of liquid or solid particles striking the enclosure at any angle from 0 to 15 degrees downward from the vertical do not interfere with the operation of the equipment.

Marine drip-proof flexible nonmetallic conduit is not intended for use in hazardous or outdoor shipboard locations.

The basic standard used to investigate products in this category is UL 1660 "Liquid-Tight Flexible Nonmetallic Conduit".

For additional information see Flexible Nonmetallic Conduit, Liquid-Tight (DXOQ).

The Listing Mark of Underwriters Laboratories Inc. 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 the product name "Marine Flexible Nonmetallic Conduit".

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AFC CABLE SYSTEMS INC

272 DUCHAINE BLVD, NEW BEDFORD MA 02745

Trade sizes 3/8, 1/2, 3/4, 1, 1-1/4, 1-1/2, 2 in.

E123464

IPEX USA L L C

10100 RODNEY ST, PINEVILLE NC 28134

Trade sizes 72237, -39, -43, -46, -48.

E190865

COOKING APPLIANCES, ELECTRICAL, MARINE (EJOY)

This category covers electrical cooking appliances such as coffee machines, deep fat fryers, ranges, ovens, griddles, stoves, etc. which have been found suitable for a marine environment. They include cord connected, gimbaled, or permanently-installed types. Some of these appliances have been investigated for compliance with the United States Coast Guard Electrical Engineering Regulations 46CFR110, "General Provisions," 46CFR111, "Electric Systems – General Requirements," 46CFR112, "Emergency Lighting and Power Systems," and 46CFR113, "Communication and Alarm Systems and Equipment." These appliances are identified by the Marine Listing Mark which includes the statement "For Use on Vessels Over 65 Feet." See also Commercial Cooking Appliances (KNGT).

Appliance which have been subjected to additional tests such as shock and vibration are identified by the Marine Listing Mark without the length restriction statement. Such appliances may be used in any size vessel.

Appliances listed in this category are suitable for use only with stranded copper wiring.

Appliances listed in this category are intended to be installed in accordance with the Standard for Motor Craft (Pleasure and Commercial), NFPA 302, the Standards and Recommended Practices of the American Boat and Yacht Council, Inc., and the applicable Regulations of the United States Coast Guard.

Some appliances, such as stoves, may have an auxiliary or supplementary liquid fuel heat source. The combination has been investigated for its compatibility and suitability.

If a product is suitable for built-in installation, side-by-side mounting, or stacking, it is indicated in the installation instructions.

In cases where the nature or construction of the equipment is such that special precautions beyond the requirements of the ABYC or NFPA must be observed in installation or use, suitable warnings or special instructions are marked on the equipment itself.

The Listing Mark of Underwriters Laboratories Inc. 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 the product name "Electric Cooking Appliance."

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.

FOOD EQUIPMENT TECHNOLOGIES CO (FETCO)

600 ROSE RD, LAKE ZURICH IL 60047

Marine listing coffee brewers, Model Nos. CBS-51H Maritime, -51H# Maritime, -51H10 Maritime, -51H10# Maritime, -52H Maritime, -52H# Maritime, -52H15St Maritime, -52H15St# Maritime, -52H20 Maritime, -52H20St Maritime, -52H20# Maritime, -52H20St# Maritime, CBS-61H Maritime, -62H Maritime, -61HSt Maritime, -62HSt Maritime, -61H# Maritime, -62H# Maritime, -61HSt# Maritime, -62HSt# Maritime. (Where # represents up to nine digits part number with or without alphabet or symbol).

E317599

HENNY PENNY CORP

1219 US RTE 35 W PO BOX 60, EATON OH 45320

Combination convection/steam ovens, Models 61, 62, 11, 12, 21, 22, 60, 63 may have prefixes and/or suffixes.

E30993

MKN MASCHINENFABRIK KURT NEUBAUER GMBH & CO

HALBERSTADTER STR 2 38300, WOLFENBUETTEL GERMANY

Combination convection/steam ovens, Models 6.1, 6.2, 10.1, 10.2, 20.1, 20.2, may have prefixes and/or suffixes.

E307505

STAR MFG INTERNATIONAL INC

10 SUNNEN DR PO BOX 430129, ST LOUIS MO 63143

Broiler griddles, Models 124TH-XYM, 136TH-XYM, 148TH-XYM, 124BTH-XYM, 136BTH-XYM, 148THS-XYM, 148BTHS-XYM.
Cheese melters, Models 124CM-XYM, 124CMW-XYM, 124CMPT-XYM, 136CM-XYM, 136CMW-XYM, 136CMPT-XYM, 136CMR-XYM, 148CM-XYM, 148CMW-XYM, 148CMPT-XYM.

Convection oven/Range combinations, Models RT30 A thru H, SCR30, SMR30, TCR30, TMR30 followed by -SSM, -HSM, -GSM, -HHM or -GHM.

Deck ovens, Models 36, 54, 75 may have prefixes and/or suffixes. +

Deep fat fryers, Models*a 130F-M, 130F-LM, 130F-TM, 130F-WM, F-28L-M, F-28M, R-28L-M, R-28M.

Griddles, Models*a LG-24M, -24M-1, -24CTM, -24SM, -36M, -36M-1, -36CTM, -36SM, -48M, -48CTM, -48SM, -60M, -60M-1, -60CTM, -60SM, -72M, -72M-1, -72CTM, -72SM.

Ovens, Models*a ECOFL, 4F-6SCHM, 4F-6SM, ECO-6M, -7M, -8M, -9M, ECOF-S5M, -S6M, -S7M, -S8M, -S9M, -SIIM, -XD, ECOH-S1M, -S2M, -S3M, -S4M, F-6SCHM, DO136M-, DO136LM-, DO236LM-, DO336LM-, LA-436SM, S3827BM, S3827RM, S13827BM, S13827RM, S23827BM, S23827RM, S33827BM, S33827RM, S43827BM, S43827RM; Model*a F-11 followed by -M, -1M, -2M, -3M, -M-CLS, -1M-CLS, -2M-CLS, -3M-CLS, -2F-11, followed by -M, -M-CLS.

Ranges, Models*a R30S, R30SS-1M, -2M(G), -2M(H), -3M(G), -3M(H), -4M, 36S-12M, -14M; Models *ab R12-0M, -2M, -3AM, -4M, -5M, -7M, -8AM, -9M, -10M, -11M, -12M, -14M, -20M, -21M, 50S-AM, -BM, -CM, -DM, -EM, -FM, -GM, -HM, RTC36-A thru E with additional suffixes ending in -M; RF42S-AM, -BM, -CM, -DM, -EM, -FM, -GM, -HM, -JM, -KM, -LM, -MM, -NM, -OM, -PM, -RM, RF42SCH-AM, -BM, -CM, -DM, -EM, -FM, -GM, -HM, -JM, -KM, -LM, -MM, -NM, -OM, -PM, -RM; Models R-60S-AM, R-60S-BM, R-60S-CM, R-60S-DM, R-60S-EM, R-60S-FM, R-60S-GM.

*a - With or without suffix A to Z incl.and/or 0 to 9 incl.

*b - With or without suffix XLH.

+ - May be provided in double and triple stack configurations also.

Complementary listed, basic KNGT.

VITALITY FOODSERVICE INC

SUITE 1700 400 N TAMPA ST, TAMPA FL 33602

Coffee dispenser, Model CD-3000.

E78319

DETECTORS, AUTOMATIC FIRE, MARINE (EOLO)

This category covers detectors intended for use on board recreational boats. These are either individual devices or prescribed combinations of devices designed to detect flame, heat, smoke, or combustion gases resulting from a fire and to automatically operate electrical signaling contacts. The signaling contacts may be integral parts of an individual device or parts of a separate device to which the detecting element is connected as an extended component.

The wiring diagram of the transmitter or system control unit with which the detector is used will indicate the circuit application of the detector.

A combination type detector depends upon two or more related but separate pieces of equipment which are designed to be installed together so as to form a complete detector.

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.

HEAT-AUTOMATIC FIRE DETECTORS, MARINE (EONX)

GENERAL

This category covers heat-detecting-type automatic fire detectors intended for use on board recreational boats. These detectors are integral assemblies of heat-responsive elements and noncoded electrical contacts that function automatically under conditions of increase in air temperature. This category covers fire alarm heat detectors only and not the wiring or other appliances of which they form a part.

Fire alarm heat detectors are of the fixed temperature (FT), rate of rise (ROR), combination fixed temperature and rate-of-rise (ROR-FT), or rate compensation (RC) type. There are basically two types: (1) A spot-pattern-type detector is one in which the thermally-sensitive element is a compact unit of small area; (2) a line-pattern-type detector (heat-sensitive cable [HSC]) is one in which the thermally-sensitive element is continuous along a line.

These heat detectors have been investigated for indoor use only unless otherwise indicated in the individual Listings. Ordinarily, heat detectors are intended for locations where normal ceiling temperatures prevail (below 100°F). Locations where temperatures at ceiling are likely to be unduly high (from sources of heat other than fire conditions, such as boiler rooms, dry kilns, etc.) demand special consideration and selection of heat detectors operating normally at higher temperatures, and which are capable of withstanding high temperatures for long periods of time. Care should be exercised to select heat detectors having the proper temperature rating to guard against false alarms from premature operation:

For ceiling temperatures not exceeding 100°F, install 135 to 165°F (ordinary) rating thermostats

For ceiling temperatures exceeding 100°F, but not 150°F, install 175 to 225°F (intermediate) rating thermostats

For ceiling temperatures exceeding 150°F, but not 225°F, install 250 to 300°F (high) rating thermostats

For ceiling temperatures exceeding 225°F, but not 300°F, install 325 to 360°F (extra high) rating thermostats

Low-degree-rated heat detectors are intended only for installation in areas having controlled temperature conditions at least 20°F below rating.

The spacings specified are for flat, smooth-ceiling construction of ordinary height, generally regarded as the most favorable condition for distribution of heated air currents resulting from a fire. Under other forms of ceiling construction reduced spacing may be required. The fire tests conducted to determine the suitability of the spacings are conducted in a 60 x 60 ft room having a 15 ft 9 in. high smooth ceiling and minimum air movement. The test fire (denatured alcohol) is located approximately 3 ft above the floor and of a magnitude so that sprinkler operation is obtained in approximately two minutes. For comparative purposes, automatic sprinklers rated 160°F are installed on a 10 x 10 ft spacing schedule in an upright position with the deflectors approximately 7 in. below the ceiling. At the maximum permissible spacing for the heat detectors they must operate prior to operation of the sprinklers.

The placement and spacing of heat detecting devices should be based on consideration of the ceiling construction, ceiling height, room or space areas, spaced subdivisions, the normal room temperature, possible exposure of the devices to abnormal heat such as may be produced by manufacturing processes or equipment and to draft conditions likely to be encountered at the time of a fire.

These detectors are intended for installation in dry cabin locations in accordance with the manufacturer's instructions and ANSI/NFPA 72, "National Fire Alarm Code," and ANSI/NFPA 90A, "Standard for the Installation of Air-Conditioning and Ventilating Systems." The installation wiring is intended to comply with 33CFR183, Subpart I, "Boats and Associated Equipment; Electrical Systems," and the applicable requirements of the American Boat and Yacht Council, Inc., and ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft."

Authorities Having Jurisdiction should be consulted before installation.

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LISTED AND CLASSIFIED MARINE PRODUCTS

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DETECTORS, AUTOMATIC FIRE, MARINE (EOLO)

Heat-automatic Fire Detectors, Marine (EONX)—Continued

RELATED PRODUCTS

Heat detectors having normally closed contacts and used in special applications are covered under Heat Detectors for Releasing Device Service (SZGU).

ADDITIONAL INFORMATION

For additional information, see Detectors, Automatic Fire, Marine (EOLO) and Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 521, "Heat Detectors for Fire Protective Signaling Systems."

UL MARK

A two-Listing-Mark system is employed for separable detector heads and bases. This permits the separate shipment of bases and heads to facilitate installation and maintenance. The Listing Marks on the separable units, coupled with a marking to cross-reference the head and the base, identify the parts to be used together to form a complete detector assembly.

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and the appropriate product name as follows:

For **nonseparable heads and bases**: "Fire Detection Heat Detector" or "Heat Detector"

For **separable heat detector heads**: "Fire Detection Heat Detector Head for Use with * UL Listed Base" or "Heat Detector Head for Use with * UL Listed Base"

For **separable heat detector bases**: "Automatic Fire Detector Base for Use with * UL Listed Head"

For **separable optional base modules**: "Automatic Fire Detector Subassembly for Use with * UL Listed Automatic Fire Detector Base"

* Company name or File No. (Sxxxx)

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.

TEPG-US

S6651

91 TECHNOLOGY DR, WESTMINSTER MA 01441

Type	Temp Rating F	Smooth Ceiling Spacings-Ft Between Detector	to Wall or Partition	Contact Arrangement	Model No.
RC-FT	135	60	30	N/A	460633

Legend: RC - FT - Combination Rate Compensated- Fixed Temperature.

*For use with Listed TEPG-US Model 430636, 430637 or 430638 bases. Installation limited only to control units with which compatibility was determined by test. Interconnection and compatible models indicated on installation wiring diagram of control unit and/or detector base.

SMOKE-AUTOMATIC FIRE DETECTORS, MARINE (EOQF)

GENERAL

This category covers smoke detectors for use on board recreational boats. These devices are intended for installation in accordance with the manufacturer's instructions in dry cabin locations. Refer to ANSI/NFPA 72, "National Fire Alarm Code," and ANSI/NFPA 90A, "Standard for the Installation of Air-Conditioning and Ventilating Systems," for additional installation and testing guidelines. Installation wiring is intended to comply with USCG Regulation 33CFR183, "Boats and Associated Equipment," the applicable requirements of the American Boat and Yacht Council, Inc., and ANSI/NFPA 302, "Fire Protection Standard for Pleasure and Commercial Motor Craft."

A detecting combination covered under this category is designed to detect smoke particles. Smoke detectors may or may not be designed to be connected to marine Listed fire alarm system control units. Marine smoke detectors should only be used in conjunction with control units and other system components that are marine Listed (see **APPLICATIONS**).

A heat detector and/or an audible-signaling appliance may be provided integral with the detector.

The primary function of duct detectors is to shut down the blowers and/or dampers of air conditioning and ventilating systems in an attempt to prevent a possible panic and smoke damage from distribution of smoke. Duct detectors are not intended as a substitute for open-area protection.

These devices have been investigated for mechanical shock, vibration and corrosion resistance. Only those devices so marked have been investigated for ignition protection.

The level of toxicity produced by the combustibles at which smoke detectors actuate has not been investigated.

DETECTOR TYPES

Photoelectric (P) — Designed to detect an abnormal density of smoke particles, either by obscuration of a projected light path or reflection of light from the smoke particles onto a light-sensitive element.

Ionization (I) — An ionization smoke detector has a small amount of radioactive material that ionizes the air in the sensing chamber, thus rendering it conductive and permitting a current flow through the air between two charged electrodes. This gives the sensing chamber an effective electrical conductance. When smoke particles enter the ionization area, they decrease the conductance of the air by attaching themselves to the ions, causing a reduction in mobility. When the conductance is less than a predetermined level, the detector circuit responds.

Combination Photoelectric/Ionization (P/I) — Employs both principles of detection in one unit.

Projected Beam (PB) — A light beam is projected across the space of area to be protected.

Air Sampling (AS) — Consists of air-sampling ports at the ends of piping or tubing extending from the detector unit to areas to be protected. A pump draws air from the protected area through the ports and tubing to the detector where the air is analyzed for fire products.

APPLICATIONS

Open-area Protection (OAP) — Requires a detector connection to a compatible system control unit for operation.

Releasing Service (RS) — Intended for detector connection only to releasing devices, such as electromagnetic door holders, fire dampers, etc.

Open-area Protection with Releasing Service (OAP/RS) — Incorporates supplementary switching contacts for additional connection to releasing devices.

Duct Detector [D (ST)] — Intended for installation on the side of a duct. Employs sampling tubes that extend into the duct.

Duct Detector [D (I)] — For installation inside a duct.

Smoke-automatic Fire Detectors, Marine (EOQF)—Continued

COMPATIBILITY WITH CONTROL UNITS

Smoke detectors for open-area protection are intended to be connected to the initiating-device circuit of a fire alarm system control unit. Multiple-wire detectors, employing power-supply terminals or leads that do not obtain power from the initiating-device circuit of a system control unit, are compatible with any marine Listed system control unit if failure of the power to the detector is supervised at the control unit.

Compatibility with Listed marine fire alarm system control units has not been investigated.

INSTALLATION

Spacings — Although there are no assigned spacings to these detectors, test fires, using the maximum amount of combustible for the risk involved, may be employed. See ANSI/NFPA 72 for additional guidelines.

Environmental Considerations — Open-area detectors are intended for indoor use only where normal ceiling temperatures (max 100°F) prevail. Care should be used that detectors are not installed in areas where conditions may cause unwanted (false) alarms.

Duct detectors are intended to be installed in ducts of heating, ventilating, and air conditioning systems where temperatures at the detector do not exceed 100°F.

Ionization detectors should not be used in an environment of high-level radiation unless tests in the actual environment have shown that the radiation will not interfere with operation of the detectors.

Effect of Velocity — The velocities indicated in the individual Listings are the maximum and minimum to which the detector has been subjected in performance tests without indication of a false alarm or abnormal shift in sensitivity. The performance of photoelectric-type detectors is not affected by velocity. Velocity limits for duct detectors are based on response to fire tests in ANSI/UL 268A, "Smoke Detectors for Duct Application."

Stability Test — In view of the innumerable environmental conditions that exist in the field, it is recommended that the stability of detectors be monitored prior to connection to a fire alarm system for at least three months or more to screen out locations of detectors where unwanted (false) alarms may occur. Relocation of the detectors, use of a detector with a different principle of operation, or a change in the sensitivity setting where permitted in the marking of the detector may be required.

Authorities Having Jurisdiction should be consulted before installation.

PRODUCT MARKINGS

Each product is marked to indicate its intended use. This consists of one of the following:

For **nonseparable heads and bases** :

1. Smoke Detector (+) for Open Area Protection
2. Smoke Detector (+) for Open Area Protection. Also Suitable for Releasing Device Service.
3. Smoke Detector (+) for Releasing Device Service
4. Smoke Detector (+) for Duct Application

For **separable heads** :

1. Smoke Detector Head (+) for Use with a (*) UL Listed Base
2. Smoke Detector Head (+) for Open Area Protection When Used with a (*) UL Listed Base
3. Smoke Detector Head (+) for Open Area Protection When Used with a (*) UL Listed Base. Also Suitable for Duct Application.
4. Smoke Detector Head (+) for Open Area Protection When Used with a (*) UL Listed Base. Also Suitable for Releasing Device Service.
5. Smoke Detector Head (+) for Releasing Device Service When Used with a (*) UL Listed Base
6. Smoke Detector Head (+) for Duct Application When Used with a (*) UL Listed Base
7. Smoke Detector Head When Used with a (*) UL Listed Smoke Duct Detector Housing

For **separable bases and duct housing** :

1. Detector Base (+) for Use with a (*) UL Listed Head
2. Detector Base (+) for Open Area Protection When Used with a (*) UL Listed Head
3. Detector Base (+) for Open Area Protection When Used with a (*) UL Listed Head. Also Suitable for Duct Application.
4. Detector Base (+) for Open Area Protection When Used with a (*) UL Listed Head. Also Suitable for Releasing Device Service.
5. Detector Base (+) for Open Area Protection When Used with a (*) UL Listed Head. Also Suitable for Releasing Device Service and Duct Application.
6. Detector Base (+) for Releasing Device Service When Used with a (*) UL Listed Head
7. Smoke-Duct Detector Housing for Use with (*) UL Listed Head

For **separable system assemblies** :

1. Smoke Detector Projected Beam System Unit
2. Smoke Detector Air Sampling System Unit
3. Smoke Detector for Duct Application Subassembly

+ To be inserted when applicable: "with Integral Audible Signal," "with Integral Heat Detector" or "with Integral Audible Signal and Heat Detector"

* Company name or File No. (Sxxxx)

Detectors marked with the designation "with Integral Audible Signal" include an audible-signaling appliance in the unit (head or base), which is energized under an alarm condition.

Detectors marked with the designation "with Integral Heat Detector" include a heat detector in the unit, which is connected internally to the smoke detector alarm circuit. Actuation of the head detector results in the same alarm signal as obtained from the smoke detector.

RELATED PRODUCTS

Combination door closers and holders incorporating automatic smoke detection components are covered under Combination Fire Door Closers and Holders (GTIS).

ADDITIONAL INFORMATION

For additional information, see Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate open-area and releasing-service detectors in this category is ANSI/UL 268, "Smoke Detectors for Fire Alarm Signaling Systems."

The basic standard used to investigate duct detectors in this category is ANSI/UL 268A, "Smoke Detectors for Duct Application."

UL MARK

A two-Listing-Mark system is employed for separable detector heads and bases. This permits the separate shipment of bases and heads to facilitate installation and maintenance. The Listing Marks on the separable units, coupled with a marking to cross-reference the head and the base, identify the parts to be used together to form a complete detector assembly.

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL Mark for Canada symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and the product name "Emergency Signaling Equipment" or "Emergency Signaling Subassembly."

Where model numbers are indicated in the individual Listings, 100% of the manufacturer's production for those models is required to be labeled. Where model numbers are not indicated, the manufacturer is not obliged to label 100% of production.



Documents

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**2010 PART I
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DETECTORS, AUTOMATIC FIRE, MARINE (EOLO)

Smoke-automatic Fire Detectors, Marine (EOQF)—Continued

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.

HOCHIKI AMERICA CORP **S1383**
SUITE 100 7051 VILLAGE DR, BUENA PARK CA 90621

Application	Type	Compatibility Restriction	Range Min	(fpm) Max	Model
OAP	P	++	0	4000	SLV-24M

Base Models NS4-220 and NS4-220W are compatible with Model SLV-24M smoke detector head (++)
Base Models NS6-220 and NS6-220W are compatible with Model SLV-24M smoke detector head (++)
++Two-wire detector/base only for use with a control panel with which UL has determined compatibility by a review of circuit parameters.
Codes:
OAP-Open Area Protection
P-Photoelectric

SECUTRON INC **S6487**
25 INTERCHANGE WAY, VAUGHAN, ON L4K 5W3 CANADA

Application	Type	Compatibility Restriction	Range Min	(fpm) Max	Model
OAP	I	**	0	1200	MRD-1451
OAP/D(I)	P	**	0	3000	MRD-2451

Base Model No.	Related Detector	Compatibility Restriction
MRB-B401, MRB-B401B	MRD-1451, MRD-2451	**

**For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.
Codes:
I-Ionization
P-Photoelectric
OAP-Open Area Protection
D/I-Duct Detector-Installation Inside Duct

SIMPLEX TIME RECORDER CO **S1199**
50 TECHNOLOGY DR, WESTMINSTER MA 01441

Application	Type	Compatibility Restriction	Range Min	(fpm) Max	Model
OAP/RS	P	++	0	2000	
OAP	I	**, ++	0	300	4098-9717
D/ST	P	++	400	4000	4098-9752, -9753

**The detector head is used with a separable base where the base determines function and connection.
++For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.
Code:
D(I) Duct Detector Installation inside duct.
D(ST) Duct Detector Sampling Tubes.
I-Ionization
P-Photoelectric
OAP-Open Area Protection
RS-Releasing Service
(h)Includes integral heat detector.

SYSTEM SENSOR UNINCORPORATED, DIV OF **S911**
HONEYWELL INTERNATIONAL INC
3825 OHIO AVE, ST CHARLES IL 60174

Application	Type	Compatibility Restriction	Range Min	Velocity (fpm) Max	Model
OAP	I	**	0	1200	1451
OAP/D(I)	P	**	0	3000	2451, JTY- GD- 2451

Base Model No.	Related Detector	Compatibility Restriction
B401, B401B, B401BH, B401BR, B401BR-750, B402B, B406B, B404B, B404BT	1451, 2451	**

**For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

Smoke-automatic Fire Detectors, Marine (EOQF)—Continued

Code:
I-Ionization
P-Photoelectric
OAP-Open Area Protection
D/I-Duct Detector-Installation Inside Duct

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

The following information and listings relate to Extinguishers and Extinguishing System Units.

Portable extinguishers are classified according to their fire extinguishing potential which is indicated by NUMERAL and LETTER designations. The LETTER designates the general class of fire for which the extinguisher is suitable, and the NUMERAL indicates the approximate relative extinguishing potential of the device.

Class A fires are defined as fires in ordinary combustible materials such as wood, cloth, and paper where the “quenching-cooling” effect of quantities of water or solutions containing large percentages of water is most effective in reducing the temperature of the burning material below the ignition temperature and is, therefore, of first importance.

Class B fires are defined as fires in flammable petroleum products or other similar flammable liquids, greases, etc. where the “blanketing smothering” effect of oxygen-excluding extinguishing agents is most effective.

Class C fires are defined as fires involving electrical equipment where the electrical nonconductivity of the extinguishing agent is of first importance.

The numerical portion of Class A ratings of hand extinguishers is developed on the basis of comparative Fire Tests using various sizes of wood crib, wood panel, and excelsior fires.

For example, 1-A, 2-A, 3-A, and 4-A extinguishers must be capable of consistently extinguishing vertical wood panel fires having areas of 8X8 ft, 10X10 ft, 12X12 ft, and 14X14 ft, respectively. The numerical portion of Class A ratings of wheeled extinguishers is developed on the basis of wood crib fires only. The size of crib is determined by logarithmic plots of enclosed volume and exposed surface area of the lumber used in the test fires versus the Class A rating.

The numerical portion of Class B ratings of extinguishers is developed on the basis of fire tests using square steel pans in specific size increments and a fuel which is essentially equal to ordinary motor fuel (regular gasoline). Indoor test fire sizes are 2-1/2, 5, 12-1/2, 25 and 50 sq ft and outdoor fire sizes are 100, 200, 300, 400, 600, 800, 1200 and 1600 sq ft. The fire extinguishing classification is equivalent to 40 per cent of the area of the fire consistently extinguished by an expert operator. The NUMERAL thus derived is an approximate indication of the area in square feet of deep layer flammable liquid fire of equivalent fuel which can be extinguished by an average operator.

The fire extinguishing classifications of these extinguishers are developed at normal ambient temperature (approximately 70 F) and may be reduced at lower temperatures.

There are no numerical components for Class C ratings of extinguishers, as only the electrical nonconducting characteristics of the agent are significant, and no effort is made to indicate the amount of electrical fire for which an extinguisher is suitable.

These “Marine Type” extinguishers have been investigated in accordance with the applicable sections of the Code of Federal Regulations, Title 46 (shipping), Chapter 1, Subchapter Q, Subparts 162.028 or 162.039, in addition to the usual tests conducted by the Laboratories. Listed “Marine Type” extinguishers are identified by the wording “Marine Type, U.S.C.G. Type _____, Size _____,” in the individual listings and on the Listing Mark.

Prospective users should first ascertain from authorities having jurisdiction under what conditions the various extinguishers will be accepted. Subject to approval by the authorities, the extinguishers should be located on the basis of floor area, or extinguishing potential of the appliances, or specific hazard, or other conditions involved.

Extinguishing System Units are classified according to the types of extinguishing systems in which they are intended to be used.

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.

AQUEOUS FILM-FORMING FOAM EXTINGUISHING SYSTEM UNITS, HAND HOSE LINE, MARINE (GOXZ)

USE AND INSTALLATION

This category covers hand hose line systems, which usually include discharge hoses, shutoff nozzles, hose racks and reels, and couplings connected to agent storage cylinders. These systems terminate into a single or combination of nozzles discharging into a common hazard area. The systems may be fixed in place, and skid or vehicle mounted. The units are intended to be installed in accordance with the applicable requirements of ANSI/NFPA 11, “Standard for Low-, Medium-, and High-Expansion Foam.” These units have been investigated for shock and corrosion resistance with respect to a marine environment.

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are UL 162, “Foam Equipment and Liquid Concentrates,” and ANSI/UL 711, “Rating and Fire Testing of Fire Extinguishers.”

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word “MARINE” above the UL symbol (as illustrated in the Introduction of this Directory), the word “LISTED,” a control number, the product name “Aqueous Film Forming Foam Extinguishing System Unit, Hand Hose Line” and the statement “USCG Type _____, Size _____, Approval No. 162.039/EX_____.”

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.

ANSUL INC

EX3444

1 STANTON ST, MARINETTE WI 54143

Model S-AR-33-D capacity of 33 gals, foam fire extinguishing system unit incorporating the use of one hose reel with 50 ft of Listed 1 in. chemical engine hose. The model may have a CR prefix which designates a Corrosion Resistant finish.

This system is designed to discharge agent for extinguishment of Class A and B fires. Operated by opening the expellant gas cylinder valve and controlling the discharge with a shut-off nozzle.

2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Aqueous Film-forming Foam Extinguishing System Units, Hand Hose Line, Marine (GOXZ)—Continued

This system consists of a tank with premixed foam solution, expellant gas and a discharge assembly.
The models are charged with 28 gal of fresh water and a special 5 gal charge kit Part 69284 supplied by Ansul.

CARBON DIOXIDE EXTINGUISHING SYSTEM UNITS, MARINE (GOYU)

USE AND INSTALLATION

This category covers carbon dioxide extinguishing system units intended for use in carbon dioxide extinguishing systems installed in accordance with the United States Coast Guard Navigation and Vessel Inspection Circular (NVIC) 6-72, "Guide to Fixed Fire-Fighting Equipment Aboard Merchant Vessels," and the manufacturer's installation manual. When so installed, they may form manual or combined manual and automatic systems, with or without remote operation. Such systems in their simplest form consist of one or more storage containers with discharge valves, control heads, piping and discharge nozzles. The systems thus formed may use high-pressure (approximately 850 psia storage) or low-pressure (approximately 300 psia storage) carbon dioxide.

A total-flooding system consists of a fixed supply of carbon dioxide permanently connected to fixed piping and nozzles arranged to discharge carbon dioxide into an enclosed space or volume. The system units are intended for use over a temperature range as specified in the manufacturer's installation and maintenance manual.

Tank assemblies provide a means of storing the carbon dioxide agent and are to have a rated working pressure of 1800 psi or higher.

Actuating assemblies may include pneumatic-release devices, thermostats, break-glass or hinged-door control boxes, trip levers, weight-drop with mechanical linkage and cables and pulleys.

The individual Listings contain information regarding the equivalent length of system units that affect the flow of carbon dioxide in pipelines. This information may be used in computing system flow rates according to the methods described in NVIC 6-72.

Authorities Having Jurisdiction should be consulted before installation.

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/NFPA 12, "Carbon Dioxide Extinguishing Systems."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and the product name "Carbon Dioxide Extinguishing System" (or "Carbon Dioxide Ext System").

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.

ANSUL INC

EX2968

1 STANTON ST, MARINETTE WI 54143

High Pressure, Total Flooding Type, Carbon Dioxide extinguishing system units in the 35, 50, 75, 100 and 120 lb capacities intended for Marine Use (Inspected Vessels Only). The operating temperature limits for these units are 0 F to 130 F. These units have an operating pressure of 850 psig at 70 F.

The following components are covered in this Listing:

Cylinder/Valve assemblies:

Valve Assembly Part No.

Size Lbs	CV-98
35	426243
50	426245
75	426246, 426247
100	426612, 426613
120	428421, 428422

Note: First part No. correlates to enamel cylinder paint system.

Second part No. (or only one part number) correlates to epoxy cylinder paint system.

Cylinder Brackets:

Description	Part No.
35-100 lb Straps	45120, -21, -22
35-100 lb Channels	45244, -45, -61
120 lb Straps	427704
120 lb Channels	427705
Two cylinder back frame assembly	79638
Three cylinder back frame assembly	79639
Four cylinder back frame assembly	79640
Five cylinder back frame assembly	79641
Six cylinder back frame assembly	79462
Single Row or Back-to-Back Row Bracket Foot (Left Side)	73553
Single Row or Back-to-Back Row Bracket Foot (Right Side)	73554
Double Row Bracket Foot (Left Side)	73555
Double Row Bracket Foot (Right Side)	73556
Cylinder Clamp (2 Cylinders)	73091
Cylinder Clamp (3 Cylinders)	73092

Manifold Connections and Control Attachments:

Description	Part No.
CV-98 Valve Flexible Discharge Bend	427082
Connecting Link	42514
Pneumatic Actuation Adaptor	73236
Male Elbow	32334

Control Heads:



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2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

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Carbon Dioxide Extinguishing System Units, Marine (GOYU)–Continued

Model	Type	Valve For Use With	Part No.
Manual-lever	—	CV-98	423309

Check Valves:

Size In.	Type	Part No.
1/4	Threaded check valve	25627
1/2	Threaded check valve	40860
3/4	Threaded check valve	40852
1	Threaded check valve	41470
1-1/4	Threaded check valve	41549
1-1/2	Threaded check valve	41463
2	Threaded check valve	40649
3	Flanged check valve	40672

Globe Valves:

Size In.	Type	Part No.
1/2	Globe valve	41451
3/4	Globe valve	41102
1	Globe valve	41354
1-1/4	Globe valve	41338
1-1/2	Globe valve	41424
1/2	Globe valve manually operated lever	N.C.40238, N.O.40248
3/4 - 1	Globe valve manually operated lever	N.C.40239, N.O.40267
1-1/4 - 1-1/2	Globe valve manually operated lever	N.C.40259, N.O.46393
1/2	Globe valve sector	N.O.40276
3/4 - 1	Globe valve sector	N.O.40279
1-1/4 - 1-1/2	Globe valve sector	N.O. 40281
Selector Valves:		
1	Threaded selector valve	427185
2	Threaded selector valve	427150
3	Flanged selector valve	57433
4	Flanged selector valve	57445

Directional Valve Attachments:

Type	Part No.
Lever release w/handle and pin	427207
Pressure operated stackabe actuator	428566
Selector valve adaptor	430832

Total Flooding Nozzles:

Type	Size In.	Part No.	Marking
Type B, Baffle	1/2	426119 thru 426120	*
Type BL, Baffle	3/4	426121	*
Type RS, Regular Sealed	1/2	426114 thru 426115	*
Type RSF, Regular Flanged	1/2	426116 thru 426117	*
Type RSFL, Regular Flanged	3/4	426118	*
Multi-Discharge, 4 In.	1/2	426106 thru 426108	*
Type D, with strainer, 4 In.	1/2	426100	*
Type D, 4 In.	1/2	426101	*
Type S, Sealed	1/2	426102	*

*Mfg Name, Orifice code, Part No., UL in the circle symbol.

Remote Pressure Actuation Components:

Type	Part No.
Marine Actuation Station, 2 Step (SOLAS)	418731
Marine Actuation Station, 1 Step	67686
LT-20-L Nitrogen Cartridge	7012
3/4 in. Pressure Actuated Valve	41702
Actuation Hose - 16, 20 and 24 in.	31809, 32335, 32336
Pressure Trip	5156
Quartzoid Bulb Actuator-135 F, 175 F, 250 F	42267, 42274, 42276

Pull Cable Components:

Type	Part No.
Type "A" Break Glass Pull Box	41527
Latch Type Pull Box	45062
Type "B" Break Glass Watertight Pull Box	43827
Enclosed Double Cable Pull Box with Microswitch	426312
Dual/Triple Control Box, (Lever Releases)	42784
Dual/Triple Control Box, (Sectors)	43166
Pull Cable Equalizer, (Lever Releases)	42791
Pull Cable Equalizer, (Sectors)	43168
1/16 in. cable	42104, 42109, 42113, 42128



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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Carbon Dioxide Extinguishing System Units, Marine (GOYU)–Continued

Type	Part No.
Cable Clamp	45333
Corner Pulley-Outside Protected Space	42678
Corner Pulley-Inside Protected Space	45515
Flared End Fitting	40060
Right and Left Hand Pulley Adapter	40696
Pair Pull Box Mounting Legs	41542

Time Delays:

Device	Part No.
30 sec	54169
60 sec	54168

Actuation Line Components:

Device	Part No.
Male Elbow	31810
Male Branch Tee	31811
Male Straight Adapter	32338
Male Elbow Adapter	32334

Miscellaneous:

1/2 In. Header Safety Plug	40094
Vent Plug	40309
Selector Valve Pneumatic Actuation Line Kit	436127
Discharge Indicator	40765
Pressure Operated Siren	419700
Pressure Bleeder	42175
Pneumatic Switch-3 Pole	42344
Pneumatic Switch-Watertight	46250
Pneumatic Switch-N.C./N.O.	46251
Hose Reel	41516, 41521, 41142
Hose, 1/2 in., 25 ft. Long	42227
Hose, 1/2 in., 50 ft. Long	42228
Hose, 3/4 in., 25 ft. Long	42220
Hose, 3/4 in., 25 ft. Long	42222
Odorizing Unit-Steel 1" NPT Threading	42278
Ampoule 20 CC Capacity	42284
Nameplate-Odorizer	42280

Discharge Horns:

Device	Part No.
Volume Discharge Horn 1/2 In. Hose	42303

These system units are intended to be designed, installed, inspected and maintained in accordance with the manufacturer's Design, Installation, Operation and Maintenance Manual (P/N 76011-1) dated December 1, 2004, with revisions dated June 1, 2006, February 1, 2007, and January 19, 2009, and NFPA 12. Copies of the Manual are available from the Listee.

The system components are as identified in the Listee's Design, Installation, Operation and Maintenance Manual dated March 1, 1994, with the latest revision October 15, 2001.

These system units are intended to be designed and installed accordance with the Listee's Design, Installation, Operation and Maintenance Manual dated March 1, 1994, with revisions dated October 15, 2001 and June 1, 2006.

CHEMETRON FIRE SYSTEMS

EX1368

3RD FL 4801 SOUTHWICK DR, MATTESON IL 60443

Low pressure carbon dioxide extinguishing system units for marine use designed to discharge carbon dioxide from fixed nozzle(s) for extinguishment of Class A, B and C fires occurring within an enclosed volume.

The engineered extinguishing system units consist of the following:

Storage Units

Component	Part No.
38 Ton Storage Unit	1-009-0306
38 Ton Storage Unit	1-009-0407

Actuation Components

Manual Actuation Cabinet	7-001-0601
Pneumatic Timing Control Cabinet	7-001-0600
1/4 In. NPT 3-Way Ball Valve	3-006-0001
1/4 In. NPT Pneumatic 3-Way Valve	3-006-0222
1/4 In. Brass In line Filter	1-023-0255

Audible Alarm Devices

Pneumatic Siren	4-004-0169
Vibralone Horn, 120 VAC	4-004-0100

Manual Operation Valves

1/4 In. Ball Valve Marine Style	3-006-0058
1/2 In. Ball Valve Marine Style	3-006-0048
3/4 In. Ball Valve Marine Style	3-006-0049
1 In. Ball Valve Marine Style	3-006-0050
1-1/4 In. Ball Valve Marine Style	3-006-0051
1-1/2 In. Ball Valve Marine Style	3-006-0052
2 In. Ball Valve Marine Style	3-006-0053
3 In. Butterfly Valve Marine Style	1-020-0029
4 In. Butterfly Valve Marine Style	1-020-0030



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2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

19

Carbon Dioxide Extinguishing System Units, Marine (GOYU)–Continued

6 In. Butterfly Valve Marine Style	1-020-0031
8 In. Butterfly Valve Marine Style	1-020-0032

Pneumatically Operated Selector Valves

All of these valves are designed to fail closed.

1/2 In. Butterfly Valve Marine Style	1-022-0049
3/4 In. Butterfly Valve Marine Style	1-022-0050
1 In. Butterfly Valve Marine Style	1-022-0051
1-1/4 In. Butterfly Valve Marine Style	1-022-0052
1-1/2 In. Butterfly Valve Marine Style	1-022-0053
2 In. Butterfly Valve Marine Style	1-022-0054
3 In. Butterfly Valve Marine Style	1-022-0055
4 In. Butterfly Valve Marine Style	1-022-0056
6 In. Butterfly Valve Marine Style	1-022-0057
8 In. Butterfly Valve Marine Style	1-022-0058

Pneumatically Operated Master Valves

All of the valves are designed to fail open.

1/2 In. Butterfly Valve Marine Style	1-021-0047
3/4 In. Butterfly Valve Marine Style	1-021-0048
1 In. Butterfly Valve Marine Style	1-021-0049
1-1/4 In. Butterfly Valve Marine Style	1-021-0050
1-1/2 In. Butterfly Valve Marine Style	1-021-0051
2 In. Butterfly Valve Marine Style	1-021-0052
3 In. Butterfly Valve Marine Style	1-021-0053
4 In. Butterfly Valve Marine Style	1-021-0054
6 In. Butterfly Valve Marine Style	1-021-0055
8 In. Butterfly Valve Marine Style	1-021-0056

Miscellaneous Components

1/2 In. Check Valve Marine Style	1-023-0301
3/4 In. Check Valve Marine Style	1-023-0302
1 In. Check Valve Marine Style	1-023-0303
1-1/2 In. Check Valve Marine Style	1-023-0304
2 In. Check Valve Marine Style	1-023-0305
1-1/4 In. Check Valve Marine Style	1-023-0306
1/4 In. Check Valve Marine Style	1-023-0307
3/8 In. Check Valve Marine Style	1-023-0308
1/2 In. Pressure Relief Valve Marine Style 450 PSI	1-023-0005
1/4 In. Pressure Relief Valve Marine Style	1-023-0200
1/4 In. Pressure Operated S/S 3-Way Marine Style	1-023-0404
1/4 In. Shuttle Valve (Brass)	1-023-0200

Discharge Nozzles

1/4 In. Brass	1-010-0500
	1-010-0550
1/4 In. Stainless Steel	1-010-0501
	1-010-0551
3/8 In. Brass	1-010-0600
	1-010-0650
3/8 In. Stainless Steel	1-010-0601
	1-010-0651
1/2 In. Brass	1-010-0700
	1-010-0750
1/2 In. Stainless Steel	1-010-0701
	1-010-0751
3/4 In. Brass	1-010-0800
	1-010-0850
3/4 In. Stainless Steel	1-010-0801
	1-010-0851
1 In. Brass	1-010-0900
	1-010-0950
1 In. Stainless Steel	1-010-0901
	1-010-0951
1-1/4 In. Brass	1-010-1000
	1-010-1050
1-1/4 In. Stainless Steel	1-010-1001
	1-010-1051
1-1/2 In. Brass	1-010-1100
	1-010-1150
1-1/2 In. Stainless Steel	1-010-1101
	1-010-1151
2 In. Brass	1-010-1200
	1-010-1250
2 In. Stainless Steel	1-010-1201
	1-010-1251

CHEMETRON FIRE SYSTEMS

3RD FL 4801 SOUTHWICK DR, MATTESON IL 60443

High pressure carbon dioxide extinguishing system units and automatic devices of the mechanical and/or pneumatically or temperature controlled types, for protection of engine compartment and bilge spaces.

EX3208

**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Carbon Dioxide Extinguishing System Units, Marine (GOYU)–Continued

A description of these extinguishing system units, the limitations of the hazards to be protected are contained in the installation manual dated July 29, 1977 (23 pages and 2 supplementary inspection forms), page 4 revised November 23, 1977, pages 3, 5, 6 revised August 29, 1979, Addendum No. 1 dated March 21, 1984, and Addendum No. 2 dated June 1984.

Copies of the manual are available from the above Listee or Underwriters Laboratories Inc.

FIKE CORP

EX4447

704 S 10TH ST PO BOX 610, BLUE SPRINGS MO 64015

High Pressure Carbon Dioxide Extinguishing System Units in the 50, 75 and 100 lb capacities having an operating pressure of 850 psi at 70 F and an operating temperature range of 0 F to 130 F.

A description of these extinguishing system units and the limitations of the hazards to be protected are contained in the installation manual (P/N C06-019, Rev. 2) dated October 2008. Copies of the manual are available from the above Listee.

KIDDE-FENWAL INC

EX923

400 MAIN ST, ASHLAND MA 01721

High pressure carbon dioxide extinguishing system units for total flooding applications for marine use on inspected vessels. The operating temperature limits for these units are 0 F to 130 F. These units have an operating pressure of 850 psig at 70 F.

The following components are covered in this Listing:

Cylinder/Valve Assemblies:

Cylinder Size Lb	Cylinder Part No.	Valve Size In.	Valve Part No.
25	870486	1/2	981372
35	982547	1/2	981372
50	982548	1/2	981372
75	870287	5/8	840253
100	870269	5/8	840253
100	81-100067-00X	5/8	840253

Cylinder Brackets:

Description	Part No.
25-50 lb Cylinder strap	270014
75 lb Cylinder strap	62669
50-75 lb Dual cylinder strap	241219
100 lb Cylinder strap	270157
100 lb Dual cylinder strap	241254

Control Heads:

Type	Part No.
Manual-Cable	979469
Manual-lever	870652
Manual-lever/pressure	878751
Pressure	872365
Pressure	878737
Pneumatic, 1 in, tandem	872130
Pneumatic, 1 in, 40 s	872318
Pneumatic, 3 in, tandem	872330
Pneumatic, 3 in, 5 s	872335
Pneumatic, 6 in, tandem	872360
Pneumatic, 6 in, 2 s	872362
Pneumatic, 6 in, 5 s	872365

Check Valves:

Size In.	End Config	Part No.
1/4	Threaded	264985
3/8	Threaded	261193
1/2	Threaded	800327
3/4	Threaded	800266
1	Threaded	800443
1-1/4	Threaded	800444
1-1/2	Threaded	870152
2	Threaded	870151
2-1/2	Flanged	870100
3	Flanged	870100

Selector Valves:

Size In.	Part No.
1/2	870023
3/4	870022
1	870122
1-1/4	870032
1-1/2	870123
2	870049
3	890010
4	890208

Total Flooding Nozzles:

Description	Size In.	Part No.
Straight, type S	1/2	803365 thru 803388

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LISTED AND CLASSIFIED MARINE PRODUCTS

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

21

Carbon Dioxide Extinguishing System Units, Marine (GOYU)–Continued

Description	Size In.	Part No.
Flanged, type S	1/2	802974 thru 802990
Intermediate, type M	3/4	842319 thru 842333
Vent, type V	1/2	214721 thru 214729, 803327 thru 803329, 915876, 919309, 929242, 930067

Pull Cable Components:

Description	Part No.
Pull box, watertight	870087
Pull box, break glass	871403
Pull box, flush type	840098
Corner pulley	803808
Dual pull equalizer	840051
Dual pull mechanism	840058
Cable housing, 50 lb cylinder	33157
Cable housing, 75 lb cylinder	202355
Cable housing, 100 lb cylinder	200822

Miscellaneous:

Device	Part No.
Discharge head, grooved nut	872442
Discharge head, plain nut	872450
Time delay (CO ₂), 30 s	871071
Time delay (CO ₂), 60 s	897636
Remote Nitrogen pilot actuator cylinder assembly	877940
Remote Nitrogen pilot actuator cylinder bracket	877845
Ball valve, 1/4 in.	283888
Flexible actuation hose, 1/4 in.	264986, 264987
Pressure operated switch, standard	486536
Pressure operated switch, explosion proof	981332
Pressure trip	874290
Pressure operated siren (CO ₂)	981574
Pressure operated siren (N ₂)	90-981574-001
Nitrogen pilot cylinder siren driver 1040 in3	90-101040-000
Nitrogen pilot cylinder siren driver 2300 in3	90-102300-100
Pneumatic heat detector	841241
Safety outlet	803242
Discharge indicator	967082
Smoke Accumulator	63339
“Y” Check Valve	800759
Throttle Check Valve	934710

Hand Hose Line:

Flexible discharge hose, 1/2 in.	252184
Hose assembly, 1/2 in. by 25 ft	907757
Hose assembly, 1/2 in. by 50 ft	961966
Flexible discharge hose, 3/4 in.	251821
Flexible discharge hose, 3/4 in. by 25 ft	918990
Flexible discharge hose, 3/4 in. by 50 ft	918435
Swivel adapter	934208
Horn and valve assembly	980564
Hose reel	994058

These system units are intended to be designed, installed, inspected and maintained in accordance with the manufacturer's, Design, Installation, Operation and Maintenance Manual (P/N 220610, version 2.3) dated November 2008. Copies of the Manual are available from the Listee.

SOTEC L L C

EX4870

SUITE E 5800 JEFFERSON HWY, NEW ORLEANS LA 70123

High pressure carbon dioxide extinguishing system units for total flooding applications for marine use on inspected vessels. The operating temperature limits for these units are 0 F to 130 F incl. These units have an operating pressure of 850 psig at 70 F.

A description of these extinguishing system units, the limitations of the hazards to be protected are contained in the Design, Installation, Operation and Maintenance Manual (P/N EM-00580-50, Rev(D) dated March 18, 1996).

Copies of the manual are available from the above Listee.

CLEAN AGENT EXTINGUISHING SYSTEM UNITS, MARINE (GOYW)

USE AND INSTALLATION

This category covers clean agent extinguishing system units, which are devices assembled in a system to discharge an extinguishing agent through fixed piping and nozzles for the extinguishment of fires. These units include actuating assemblies designed for automatic and manual operation, tank assemblies for storing the extinguishing agent, discharge assemblies, manifold check valves, selector valves, discharge nozzles and other miscellaneous devices.

Clean agent extinguishing systems are intended to be designed, installed and maintained in accordance with ANSI/NFPA 2001, “Standard for Clean Agent Fire Extinguishing Systems,” USCG Circular No. 6-72, “Navigation and Vessel Inspection,” and the manufacturer's installation and maintenance manual. These units are designed to be used for total-flooding applications unless otherwise indicated in the individual Listings. For total-flooding applications, the hazard is surrounded by a fixed enclosure that enables the required concentration to be built up and maintained for the required period of time to ensure the effective extinguishment of fire in combustible materials.

The total-flooding design concentrations for surface-type Class B fires are specified in the individual manufacturer's design and/or installation, operation and maintenance manual referenced in the individual Listings.

For information regarding safeguards for personnel, products of decomposition, and exposure to the agent, refer to the applicable sections of ANSI/NFPA 2001.

Authorities Having Jurisdiction should be consulted before installation.



Documents

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**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

22

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Clean Agent Extinguishing System Units, Marine (GOYW)–Continued

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are UL 2127, "Inert Gas Clean Agent Extinguishing System Units," and UL 2166, "Halocarbon Clean Agent Extinguishing System Units."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and the product name "Clean Agent Extinguishing System Unit."

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.

ANSUL INC

EX4510

1 STANTON ST, MARINETTE WI 54143

ENGINEERED UNITS

IG-541 (Inergen) Clean Agent Extinguishing System Units, stored pressure type, having nominal storage capacities of 200, 250, 350, 425, 435 cu ft of IG-541 (Inergen). The units are pressurized to 2175 psig (150 Bar) at 70 F with operating temperatures of 32F to 130F. The units are designed for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

A description of these extinguishing system units and the design and installation limitations are contained in the Listee's installation manual P/N 426313 issued December 17, 1999, revised July 4, 2005 and Bulletin 5408a dated February 23, 2009. These installations require the use of the Listee's flow calculation software 150 Bar Inergen Designer Version 2.1.2 for engineered or Inercalc Version 1.3.0 for balanced engineered. Copies are available from the above Listee.

IG-541 (Inergen) Clean Agent Extinguishing System Units, stored pressure type, having nominal storage capacities of 575 cu ft of IG-541 (Inergen). The units are pressurized to 2900 psig (200 Bar) at 70 F with operating temperatures of 32F to 130F. The units are designed for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

A description of these extinguishing system units and the design and installation limitations are contained in the Listee's installation manual P/N 432033 issued March 1, 2003 and Bulletin 5408a dated February 23, 2009. These installations require the use of the Listee's flow calculation software 200 Bar Inergen Designer Version 5.1.3 for engineered. Copies are available from the above Listee.

Sapphire ® Marine Clean Agent Extinguishing System Units containing 3M™ Novec™ 1230 Fire Protection Fluid (FK-5-1-12), stored pressure type, having nominal storage capacities of 20, 50, 90, 140, 280, 390, 480 and 850 lb (9.1, 22.7, 40.8, 63.5, 127, 177, 218 and 386 kg) of Novec™ 1230 Fluid (FK-5-1-12). The units are pressurized to 360 psig (24.8 Bar) at 70 F with operating temperatures of 0F to 130F. The units are designed for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

A description of these extinguishing system units and the design and installation limitations are contained in the Listee's installation manual P/N 433036 issued May 15, 2004, revised December 1, 2004, October 25, 2005, June 1, 2006 and August 1, 2007. These installations require the use of the Listee's flow calculation software Version ANSL3.60. Copies are available from the above Listee.

CHEMETRON FIRE SYSTEMS

EX4655

3RD FL 4801 SOUTHWICK DR, MATTESON IL 60443

ENGINEERED UNITS

Clean Agent Extinguishing System Units for marine use for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard. Models 10481847, 10481848, 10481849, 10481850, 10481854, 10481851, 10481855, 10481852, 10481856, 10481853 and 10481857 stored pressure type, having nominal charging capacities of 40, 55, 95, 150, 150, 250, 250, 400, 400, 550, 550 lb. of HFC-227ea Clean Agent, respectively. The units are super-pressurized to 360 psig at 70 °F with operating temperatures of 32°F to 130°F. The units are designed for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

These system units are intended to be designed and installed in accordance with the Listee's Engineered Installation Operation and Maintenance Manual P/N 30000047 dated August 1, 1999; revised October 24, 2002; or Engineered Installation, Operation and Maintenance Manual P/N 30000064 dated May 1, 2003. These installations require the use of the Listee's Flow Calculation Software, CHEM200 Version 4.2.X* (reference Software User's Manual P/N 30000048 dated August 1, 1999; revised October 24, 2002, included with the installation Manual). Copies of the software and manuals may be obtained from the above Listee.

Clean Agent Extinguishing System Units for marine use for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard. Models 10481819, 10481820, 10481821, 10481822, 10481823, 10481824, 10481825, 10481826, 10481827, 10481828, 10481829, 10481830, 10481831, 10481832, 10481833, 10481834, and 10481835, stored pressure type, having nominal storage capacities of 40, 55, 95, 150, 150, 250, 250, 400, 400, 550, 550, 600, 600, 750, 750, 1000 and 1000 lb of Novec™ 1230 Fluid (FK-5-1-12), respectively. The units are pressurized to 360 psig (24.8 bar) at 70°F with operating temperatures of 0°F to 130°F. The units are designed for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

A description of these extinguishing system units and the design and installation limitations are contained in the Listee's installation manual P/N 30000067, dated November 15, 2004. These installations require the use of the Listee's flow calculation software Agent Hydraulic Calculation Tool Ver. 10.X.X.X* dated January 1, 2008, Math engine: CalculateNovec.dll ver.1.1.0.0-R2 (reference flow calculation manual P/N 30000066, Revision A, dated October 5, 2004). Copies are available from the above Listee.

*Numeric version code, where X may be 0-99.

FIREBOY-XINTEX INC

EX15550

0-379 LAKE MICHIGAN DR NW, GRAND RAPIDS MI 49534

ENGINEERED UNITS

Models FES-8L-227, FES-16L-227, FES-32L-227, FES-52L-227, FES-106L-227, FES-147L-227, FES-180L-227, FES-343L-227 Clean Agent Extinguishing System Units, stored pressure type, having nominal charging capacities of 8 (17.6), 16 (35.3), 32 (70.5), 52 (114.6), 106 (233.7), 147 (324.1), 180 (396.8), 343 (756.2) kg (lb) of FM-200TM (HFC-227ea) Clean Agent, respectively. The units are super-pressurized to 360 psig (25 bar) with operating temperatures of 32°F (0°C) to 130°F (54.4°C). The units are designed for total flooding protection of normally occupied engine compartments of commercial inspected vessels as specified by the USCG against Class B flammable liquid and C fires occurring within an enclosed volume.

These system units are intended to be designed and installed in accordance with the Listee's Marine Engineered System Installation Guide P/N 91044 dated June 6, 2009. These installations require the use of the Listee's Flow Calculation Software, Pro Chem FM-200



**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

23

Clean Agent Extinguishing System Units, Marine (GOYW)–Continued

Version PYCM3.02 (reference Software User's Manual dated January 2002).

KIDDE-FENWAL INC

EX4674

400 MAIN ST, ASHLAND MA 01721

ENGINEERED UNITS

Kidde ECS Series Engineered, Models 90-100010-001, 90-100020-001, 90-100040-001, 90-100070-001, 90-10012X-001, 90-10020X-001, 90-10035X-001, 90-10060X-X0X, 90-10090X-001 HFC-227ea Clean Agent Extinguishing System Units, stored pressure type, having nominal charging capacities of 10, 20, 40, 70, 125, 200, 350, 600, 900 lb of HFC-227ea Clean Agent, respectively. The units are super-pressurized to 360 psig with operating temperatures of 32 F to 130 F. The units are designed for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

A description of these extinguishing system units, and the design and installation limitations are contained in the Listee's installation manual P/N 90FM200M-021 dated January 2003, and manual supplement P/N 06-236225-003, dated March 2004. These installations require the use of the Listee's flow calculation software KID Version 3.01 (reference flow calculation manual P/N 90-FM200M-100 dated March 2002). Copies are available from the above Listee.

X = numeric part number designation, may be 0, 1, or 5.

Kidde Marine Novec™1230™ Engineered Series, Models 45-200010-001, 45-200020-001, 45-200040-001, 45-200070-001, 45-200121-001, 45-200125-001, 45-200200-001, 45-200201-001, 45-200350-001, 45-200351-001, 45-200600-001, 45-200601-001, 45-200900-001, 45-200901-001 Clean Agent Extinguishing System Units, stored pressure type having nominal charging capacities of 10, 20, 40, 70, 125, 125, 200, 200, 350, 350, 600, 600, 900, 900 lb of Novec™ 1230™ Clean Agent, respectively. The units are super-pressurized to 360 psig with operating temperatures of 0°F to 130°F. The units are designed of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

A description of these extinguishing system units and the design and installation limitations, are contained in the Listee's Design, Installation, Operation and Maintenance Manual, P/N 45-NOVMAR-001, dated February 2005. These installations require the use of the Listee's Design and Flow Calculation Software, Version 1.0.X* (reference Users Manual for Kidde Marine Novec 1230 Design and Flow Calculation Software, P/N 45-NOVMAR-100, February 2005). Copies are available from the above Listee.

* Numeric version code, where X may be 0-9.

Kidde FM-200 Marine ADS Engineered Series, Models 90-100225-001, 90-100221-001, 90-100395-001, 90-100391-001, 90-100675-001, 90-100671-001, 90-101010-001, 90-101011-001 Clean Agent Extinguishing System Units, stored pressure type having nominal charging capacities of 225, 225, 395, 395, 675, 675, 1010 and 1010 lb of HFC-227ea Clean Agent, respectively. The units have an operating temperatures of 0°F to 130°F. The units are designed for total flooding protection of normally occupied engine compartments of commercial vessels as specified by the United States Coast Guard against Class B flammable liquid and Class C fires occurring within an enclosure.

A description of these extinguishing system units and the design and installation limitations, are contained in the Listee's Design, Installation, Operation and Maintenance Manual, P/N 90-ADSMAR-001, dated January 2005. These installations require the use of the Listee's Design and Flow Calculation Software, KID Version 3.02 (reference flow calculation manual P/N 90-FM200M-130 dated February 2004). Copies are available from the above Listee.

**PEM-ALL FIRE EXTINGUISHER CORP, DIV OF PEM
SYSTEMS INC**

EX4668

39A MYRTLE ST PO BOX 586, CRANFORD NJ 07016

PRE-ENGINEERED UNITS

Clean Agent Extinguishing System Units for marine use for total flooding protection of normally unoccupied engine compartments of commercial vessels as specified by the United States Coast Guard. Models PCA90035-M, PCA90087-M stored pressure type, having nominal charging capacities of 35 and 87 lb. of FM-200 Clean Agent, respectively. The units are super-pressurized to 360 psig at 70 °F with operating temperatures of 32 °F to 130 °F. The units are designed for protection against Class B flammable liquid and Class C fires occurring within an enclosure.

These units are limited to protection of a maximum of 2000 ft³ gross volume. A description of these extinguishing system units and the design and installation limitations are contained in the Listee's Pre-Engineered Installation Operation and Maintenance Manual P/N PCA90225-M dated April 21, 2000. Copies are available from the Listee.

PYRO CHEM

EX4986

1 STANTON ST, MARINETTE WI 54143

ENGINEERED UNITS

Models 570003, 570004, 570005, 570006, 570007, 570008, 570009, 570346 Clean Agent Extinguishing System Units, stored pressure type, having nominal charging capacities of 8 (17.6), 16 (35.3), 32 (70.5), 52 (114.6), 106 (233.7), 147 (324.1), 180 (396.8), 343 (756.2) kg (lb) of FM-200™ (HFC-227ea) Clean Agent, respectively. The units are super-pressurized to 360 psig (25 bar) with operating temperatures of 32°F (0°C) to 130°F (54.4°C). The units are designed for total flooding protection of normally occupied engine compartments of commercial inspected vessels as specified by the USCG against Class B flammable liquid and C fires occurring within an enclosed volume.

These system units are intended to be designed and installed in accordance with the Listee's Marine Engineered System Installation Guide P/N 433035 dated January 30, 2006, including revisions through September 1, 2008. These installations require the use of the Listee's Flow Calculation Software, Pyro Chem FM-200 Version PYCM3.02 (reference Software User's Manual dated January 2002).

EXTINGUISHERS, CARBON DIOXIDE, PORTABLE, MARINE (GOYZ)

GENERAL

This category covers carbon dioxide extinguishers, which are portable appliances designed and tested for operation over a temperature range of -22°F to 120°F, unless otherwise noted in the individual Listings.

Hand-held portable extinguishers are provided with a self-closing shutoff nozzle or control valve and may also utilize a hose or horn as a means of directing the discharge. They are provided with a carrying handle for portability and a bracket for mounting. Wheeled-type extinguishers are mounted on a carriage for portability and provided with a bracket for mounting, hose and horn to direct the discharge, and shutoff nozzle at the end of the hose.

Carbon dioxide is electrically nonconductive and, in suitable proportions, is effective on Class B and C fires. Carbon dioxide used as an extinguishing agent displaces the air and depletes the available oxygen in the area of discharge. Operators and others in the area of extinguisher discharge should take precautions to avoid the effects, which may be caused by breathing the discharged gas and the gases liberated or produced by the fire, especially in unventilated places such as small rooms, closets or confined spaces.

The fire-extinguishing classifications of these extinguishers are developed at normal ambient temperature of approximately 70°F. Extinguisher effectiveness may be reduced at lower temperatures.

These extinguishers are intended to be selected, installed, inspected, maintained and tested in accordance with the applicable requirements of ANSI/NFPA 10, "Portable Fire Extinguishers."

RELATED PRODUCTS



Documents

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**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Extinguishers, Carbon Dioxide, Portable, Marine (GOYZ)–Continued

See Carbon Dioxide Extinguishers (FXHV).

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 154, "Carbon-Dioxide Fire Extinguishers," and ANSI/UL 711, "Rating and Fire Testing of Fire Extinguishers."

UL MARK

The Listing Mark of Underwriters Laboratories Inc. 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, the product name "Carbon Dioxide Fire Extinguisher," and the statement: "Classification, Marine Type, USCG Type B:C, Size [insert marine size], Approval No. 162.028/EX [insert file number]."

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AMEREX CORP

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

EX2835

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II
50.0	-40	—		Size IV
100.0	-40	—		Size V

ANSUL INC

1 STANTON ST, MARINETTE WI 54143

EX2199

Charge Lb	Min Use Temp *F Halon 1211	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II

BADGER FIRE PROTECTION

1016 CORPORATE PARK DR, MEBANE NC 27302

EX1809

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II

BUCKEYE FIRE EQUIPMENT CO

110 KINGS RD PO BOX 428, KINGS MOUNTAIN NC 28086

EX3146

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II
50.0	-40	—		Size IV
100.0	-40	—		Size V

FLAG FIRE INC

5655 OPPORTUNITY DR, TOLEDO OH 43612

EX4877

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II



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2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

25

Extinguishers, Carbon Dioxide, Portable, Marine (GOYZ)–Continued

POTTER-ROEMER

3100 S SUSAN ST, SANTA ANA CA 92704

EX3697

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II

PYRO CHEM

1 STANTON ST, MARINETTE WI 54143

EX4917

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II

WALTER KIDDE PORTABLE EQUIPMENT INC

1394 S 3RD ST, MEBANE NC 27302

EX966

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
10.0	-40	—		Size I
15.0	-40	—		Size II
20.0	-40	—		Size II

CLEAN-AGENT EXTINGUISHERS, PORTABLE, MARINE (GOZZ)

USE AND INSTALLATION

This category covers clean-agent extinguishers, which are portable appliances intended for operation over a temperature range of -40°F to 120°F unless otherwise noted in the individual Listings.

Fire extinguishing classifications are developed at normal ambient temperature (approximately 70°F) and may be reduced at lower temperatures.

In using extinguishers of this type, especially in unventilated places such as small rooms, closets or other confined spaces, operators and others should take precautions to avoid the effects which may be caused by breathing the gases or vapors liberated or produced.

These extinguishers are intended to be installed, maintained and tested in accordance with the applicable requirements of the United States Coast Guard, ANSI/NFPA 10, "Portable Fire Extinguishers," and the manufacturer's owner's manual.

Clean-agent fire extinguishers are intended to be used in accordance with the United States Environmental Protection Agency's (EPA) proposed rules for chemicals intended to replace stratospheric ozone-depleting substances described in the Significant New Alternatives Policy (SNAP) Program.

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 711, "Rating and Fire Testing of Fire Extinguishers," and ANSI/UL 2129, "Halocarbon Clean Agent Fire Extinguishers."

UL MARK

The Listing Mark of Underwriters Laboratories Inc. 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, the product name "Clean Agent Fire Extinguisher," and the statement "Classification ___, Marine Type, USCG Type ___, Size ___, Approval No. 162.028/EX ___."

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AMEREX CORP

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

EX5035

Charge Lb	Min Use Temp F Halotron I	Type A	USCG Classification	Type B:C
5.0	-40	—		Size I
11	-40	—		Size I
15.5	-40	—		Size II



Documents

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2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Clean-agent Extinguishers, Portable, Marine (GOZZ)–Continued

ANSUL INC EX5083
1 STANTON ST, MARINETTE WI 54143

Charge Lb	Min Use Temp F	Type A	USCG Classification	Type B:C
FE-36				
4.75+	-40	—		Size I
9.50+	-40	—		Size I
13.25+	-40	—		Size I

FAA Approved in accordance with DOT/FAA/AR-01/37.

BADGER FIRE PROTECTION EX5060
1016 CORPORATE PARK DR, MEBANE NC 27302

Charge Lb	Min Use Temp F	Type A	USCG Classification	Type B:C
	Halotron I			
5.0	-40	—		Size I
11	-40	—		Size I
15.5	-40	—		Size II

BUCKEYE FIRE EQUIPMENT CO EX5058
110 KINGS RD PO BOX 428, KINGS MOUNTAIN NC 28086

Charge Lb	Min Use Temp F	Type A	USCG Classification	Type B:C
	Halotron I			
5.0	-40	—		Size I
5.5	-40	—		Size I

KIDDE TECHNOLOGIES INC, DBA KIDDE AEROSPACE & DEFENSE EX15347
& FENWAL SAFETY SYSTEMS 4200 AIRPORT DR, WILSON NC 27896

Stored-pressure-type Extinguishers

Model	Nominal Agent Capacity lb	Min Use Temp, °F	Rating	Type A Size	Marine Classification	Type B:C Size
PRO5-FE36	5.0	-40	5-B:C	—		1
PRO5-FE36	5.0	-40	5-B:C	—		1

WALTER KIDDE PORTABLE EQUIPMENT INC, DBA KIDDE SAFETY EX4924
1394 S 3RD ST, MEBANE NC 27302

Charge Lb	Min Use Temp F	Type A	USCG Classification	Type B:C
Pro Plus 5HM	-40	—		Size I
Pro Plus 11HM	-40	—		Size I
Pro Plus 15.5HM	-40	—		Size I

Carbon Dioxide Extinguishers, Semi-portable, Marine (GPAZ)

GENERAL

This category covers semi-portable carbon dioxide extinguishers, which are intended for operation over a temperature range of minus -22°F to 120°F, unless otherwise noted in the individual Listings.

These extinguishers are commonly skid-mounted for rigid mounting of the frame to the vessel with hand hose lines utilizing racks or reels for storage of the discharge hose and shutoff nozzle assembly at the end of the hose, with the hose line connected by fixed piping to a supply of carbon dioxide. The rack or reel may be located adjacent to or remote from the carbon dioxide cylinder(s). When at a remote location, a means for opening the cylinder valve(s) from the remote location is provided.

Carbon dioxide is electrically nonconductive and, in suitable proportions, is effective on Class B and C fires. Carbon dioxide used as an extinguishing agent displaces the air and depletes the available oxygen in the area of discharge. Operators and others in the area of extinguisher discharge should take precautions to avoid the effects, which may be caused by breathing the discharged gas and the gases liberated or produced by the fire, especially in unventilated places such as small rooms, closets or confined spaces.

These extinguishers are intended to be selected, installed, inspected, maintained and tested in accordance with the applicable requirements of ANSI/NFPA 10, "Portable Fire Extinguishers."

RELATED PRODUCTS

See Dry-chemical Extinguishers (GBAR).

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (GPAZ).

REQUIREMENTS



2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

27

Carbon Dioxide Extinguishers, Semi-portable, Marine (GPAZ)–Continued

The basic standard used to investigate products in this category is ANSI/UL 154, “Carbon-Dioxide Fire Extinguishers,” and ANSI/UL 711, “Rating and Fire Testing of Fire Extinguishers.”

UL MARK

The Listing Mark of Underwriters Laboratories Inc. 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, the product name “Semi-portable Carbon Dioxide Extinguisher,” and the statement: “Marine Type, USCG, Type [insert marine type], Size [insert marine size], Approval No. 162.039/EX [insert 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.

AMEREX CORP

EX2835

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173
Size 100 lb, Marine Type, USCG Type B:C, Size V.

ANSUL INC

EX2970

1 STANTON ST, MARINETTE WI 54143
Size 35 lb, Marine Type, USCG Type B: C, Size III; size 50 or 75 lb, Marine Type, USCG Type B:C, Size IV; size 100 lb, Marine Type, USCG Type B:C, Size V.

CHEMETRON FIRE SYSTEMS

EX2665

3RD FL 4801 SOUTHWICK DR, MATTESON IL 60443
Size 50 or 75 lb, Marine Type, USCG Type B:C, Size IV; size 100 lb, Marine Type, USCG Type B:C, Size V.

DRY-CHEMICAL EXTINGUISHERS, PORTABLE, MARINE (GPCZ)

GENERAL

This category covers hand-held dry-chemical extinguishers, which are portable appliances of the stored pressure, cartridge or cylinder-operated type intended for operation over a temperature range of -40°F to 120°F unless otherwise indicated in the individual Listings. Stored-pressure-type extinguishers have dry air, nitrogen, or other expellant gases stored in a single chamber with the dry chemical. Cartridge or cylinder-operated type have carbon dioxide or nitrogen stored in an expellant gas cartridge or cylinder in a chamber separated from the dry chemical.

Hand-held portable extinguishers are provided with a self-closing shutoff nozzle or control valve and may also utilize a hose as a means of directing the discharge. They are provided with a carrying handle for portability and a wall hook or bracket for mounting.

Dry-chemical extinguishing agents used in these extinguishers include sodium bicarbonate, ammonium phosphate or potassium bicarbonate-based compounds. The dry-chemical agent consists of a specially prepared mixture of finely divided chemicals treated with additives to allow the dry chemical to flow through the extinguisher.

Extinguishers with ammonium phosphate-based chemicals (with the exception of small sizes) are considered “multi-purpose type” and, therefore, classified for use on Class A, B and C fires. Extinguishers with dry chemicals other than ammonium phosphate are classified for use on Class B and C fires. They are not effective on deep-seated fires in ordinary combustible materials (Class A), but may have some value on incipient surface fires in such materials.

Fire extinguishing classifications are developed at ambient temperatures of approximately 70°F. Extinguisher effectiveness may be reduced at lower temperatures.

These extinguishers are intended to be selected, installed, inspected, maintained and tested in accordance with the applicable requirements of ANSI/NFPA 10, “Standard for Portable Fire Extinguishers.”

RELATED PRODUCTS

See Dry-chemical Extinguishers, Hand and Wheeled (GBAR).

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 299, “Dry Chemical Fire Extinguishers,” ANSI/UL 711, “Rating and Fire Testing of Fire Extinguishers,” and ANSI/NFPA 10, “Standard for Portable Fire Extinguishers.”

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word “MARINE” above the UL symbol (as illustrated in the Introduction of this Directory), the word “LISTED,” a control number, the product name “Dry Chemical Fire Extinguisher,” and the statement “Classification [classification letter(s) and number(s)], USCG Type ___, Size ___, Approval No. 162.028/EX [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.

AMEREX CORP

EX2764

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

Stored-pressure-type Extinguishers

Model	Nominal Agent Capacity lb	Min Use Temp, °F	Rating	Marine Classification	
				Type A Size	Type B:C Size
Ammonium phosphate					
B417	2.5	-65	1-A:10-B:C	—	I
B424, B500	5	-65	2-A:10-B:C	II	I
B402	5	-65	3-A:40-B:C	II	I
B461, B443	6	-65	3-A:40-B:C	II	I
B456, B441	10	-65	4-A:80-B:C	II	I



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2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Dry-chemical Extinguishers, Portable, Marine (GPCZ)—Continued

Model	Nominal Agent Capacity lb	Min Use Temp, °F	Rating	Marine Classification	
				Type A Size	Type B:C
592	13.2	-65	4-A:80-B:C	II	II
594	13.2	-65	2-A:40-B:C	II	II
581	20	-65	4-A:40-B:C	II	III
423, 564, A411	20	-65	20-A:120-B:C	II	III
589	30	-65	20-A:160-B:C	II	IV
567	30	-65	4-A:40-B:C	II	IV
Potassium Bicarbonate					
B410	2.5	-65	10-B:C	—	I
B416	5	-65	10-B:C	—	I
B479	5	-65	30-B:C	—	I
B460	10	-65	80-B:C	—	II
595	13.2	-65	40-B:C	—	II
599	13.2	-65	80-B:C	—	II
584	20	-65	20-B:C	—	III
580	20	-65	40-B:C	—	III
566, A413, 415	20	-65	120-B:C	—	III
569	30	-65	40-B:C	—	IV
693	30	-65	120-B:C	—	IV
591	30	-65	160-B:C	—	IV
Sodium bicarbonate					
B403, C403	2.5	-65	10-B:C	—	I
B409	5	-65	10-B:C	—	I
B453	5.5	-65	40-B:C	—	I
B459, B462	6	-65	40-B:C	—	I
B457, B447	10	-65	60-B:C	—	II
593	13.2	-65	40-B:C	—	II
A412, 408	20	-65	120-B:C	—	III
582	20	-65	40-B:C	—	III
568	30	-65	40-B:C	—	IV

ANSUL INC
1 STANTON ST, MARINETTE WI 54143

EX1216

Charge,Lb	Min Use	Type A	USCG Classification	Type B:C
	Temp, F			
	Cartridge Activated Type			
	Ammonium Phosphate			
4.0	-65	—		Size I
4.25	-40	Size II		Size I
8.5	-40	Size II		Size I
17.0	-40	Size II		Size II
18.0	-65	Size II		Size III
25.0	-40, -65	Size II		Size III
	Potassium Bicarbonate			
4.25	-65	—		Size I
4.5	-40	—		Size I
5.0	-65	—		Size I
9.0	-40	—		Size II
18.0	-40, -65	—		Size III
27.0	-40, -65	—		Size IV
	Sodium Bicarbonate			
4.75	-65	—		Size I
5.0	-40	—		Size I
10.0	-40	—		Size II
20.0	-40, -65	—		Size III
30.0	-40, -65	—		Size IV
	Stored Pressure Type			
	Ammonium Phosphate			
2.75	-40	—		Size I
10.0	-40	Size II		Size II
10.0	-65	Size II		Size II
20.0	-40	Size II		Size III
	Potassium Bicarbonate			
5.0	-65	—		Size I
10.0	-40	—		Size II
10.0	-65	—		Size II
20.0	-40	—		Size III
	Sodium Bicarbonate			
2.5	-40	—		Size I
5.0	-65	—		Size I
10.0	-40	—		Size II
10.0	-65	—		Size II
20.0	-40	—		Size III

BADGER FIRE PROTECTION
1016 CORPORATE PARK DR, MEBANE NC 27302

**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

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Dry-chemical Extinguishers, Portable, Marine (GPCZ)—Continued

Charge,Lb	Stored Pressure Type		USCG Classification	
	Min Use Temp, F	Type A	Type B:C	
	Ammonium Phosphate			
2.5	-40	—	Size I	
4.0	-40	Size II	Size I	
4.6	-40	Size II	Size I	
5.0	-40	Size II	Size I	
5.5	-40	Size II	Size I	
6.0	-40	Size II	Size I	
9.5	-40	Size II	Size II	
10.0	-40	Size II	Size II	
18.0	-40	Size II	Size III	
20.0	-40	Size II	Size III	
	Potassium Bicarbonate			
5.0	-40	—	Size I	
10.0	-40	—	Size II	
20.0	-40	—	Size III	
	Sodium Bicarbonate			
2.0	-40	—	Size I	
2.75	-40	—	Size I	
4.0	-40	—	Size I	
5.0	-40	—	Size I	
5.5	-40	—	Size I	
10.0	-40	—	Size II	
20.0	-40	—	Size III	
	Cartridge Operated Type			
	Ammonium Phosphate			
10.65	-40, -65	Size II	Size II	
21.0	-40, -65	Size II	Size III	
25.0	-40, -65	Size II	Size III	
	Potassium Bicarbonate			
10.5	-40	—	Size II	
22.0	-40	—	Size III	
28.5	-40	—	Size IV	
	Sodium Bicarbonate			
12.0	-40	—	Size II	
23.0	-40	—	Size III	
29.0	-40	—	Size III	

BRK BRANDS INC
3901 LIBERTY STREET RD, AURORA IL 60504

EX3622

Charge,Lb	Stored Pressure Type		USCG Classification	
	Min Use	Type A	Type B:C	
	Temp, F			
	Ammonium Phosphate			
2.50	-40	—	Size I	
2.60	-40	—	Size I	
2.90	-40	—	Size I	
3.30	-40	—	Size I	
4.50	-40	Size II	Size I	
5.0	-40	Size II	Size I	
5.0	-65	Size II	Size I	
10.0	-40	Size II	Size II	
	Sodium Bicarbonate			
2.00	-40	—	Size I	
2.05	-40	—	Size I	
2.40	-40	—	Size I	
2.50	-40	—	Size I	

BUCKEYE FIRE EQUIPMENT CO
110 KINGS RD PO BOX 428, KINGS MOUNTAIN NC 28086

EX2480

Charge,Lb	Stored Pressure Type		USCG Classification	
	Min Use	Type A	Type B:C	
	Temp, F			
	Ammonium Phosphate			
2.0	-65	—	Size I	
2.5	-65	—	Size I	
2.75	-65	—	Size I	
4.0	-65	Size II	Size I	
5.0	-65	Size II	Size I	
8.0	-65	—	Size I	
8.0	-65	Size II	Size I	
10.0	-65	Size II	Size II	



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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Dry-chemical Extinguishers, Portable, Marine (GPCZ)—Continued

Charge,Lb	Min Use Temp, F	Type A	USCG Classification Type B:C
16.0	-65	Size II	Size II
20.0	-65	Size II	Size III
30.0	-65	Size II	Size IV
50	-40	Size II	Size V
125	-65	Size II	Size V
Potassium Bicarbonate			
2.5	-65	—	Size I
4.0	-65	—	Size I
5.0	-65	—	Size I
10.0	-65	—	Size II
16.0	-65	—	Size II
20.0	-65	—	Size III
30.0	-65	—	Size IV
50	-40	Size 11	Size V
125	-65	Size 11	Size V
Sodium Bicarbonate			
2.0	-65	—	Size I
4.0	-65	—	Size I
5.5	-65	—	Size I
8.0	-65	—	Size I
10.0	-65	—	Size I
16.0	-65	—	Size II
20.0	-65	—	Size III

FIRE-END & CROKER CORP
7 WESTCHESTER PLAZA, ELMSFORD NY 10523

EX2703

Charge,Lb	Min Use Temp, F	Type A	USCG Classification Type B:C
Stored Pressure Type Ammonium Phosphate			
2.5	-65	—	Size I
5.0	-65	Size II	Size I
6.0	-65	Size II	Size I
10.0	-40	Size II	Size II
20.0	-65	Size II	Size III
Sodium Bicarbonate			
2.5	-65	—	Size I
2.75	-40	—	Size I
5.0	-65	—	Size I
6.0	-40	—	Size I
10.0	-65	—	Size II
20.0	-65	—	Size III

MINIMAX USA INC
SUITE 112 4030 E QUENTON DR, MESA AZ 85215

EX15574

Stored-pressure-type Extinguishers				Marine Classification	
Model	Nominal Agent Capacity lb	Min Use Temp, °F	Rating	Type A Size	Type B:C Size
Ammonium phosphate					
MX5A	5.0	-40	2-A: 40-B: C	II	I
MX10A	10.0	-40	4-A: 60-B: C	II	I

PEM-ALL FIRE EXTINGUISHER CORP, DIV OF PEM SYSTEMS INC
39A MYRTLE ST PO BOX 586, CRANFORD NJ 07016

EX2233

Stored-pressure-type Extinguishers				Marine Classification	
Model	Nominal Agent Capacity lb	Min Use Temp, °F	Rating	Type A Size	Type B:C Size
Ammonium phosphate					
PA27ABC	2.75	-40	1-A:10-B:C	—	I
PA50-2-ABC-H	5.0	-40	2-A:10-B:C	II	I
PA57ABC-H	5.75	-40	2-A:30-B:C	II	I
PA100T-ABC	10.0	-40	4-A:60-B:C	II	II
Potassium Bicarbonate					
PA25PK	2.5	-40	10-B:C	—	I
PA50PK-H	5.0	-40	20-B:C	—	I
PA57PK-H	5.75	-40	30-B:C	—	I



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LISTED AND CLASSIFIED MARINE PRODUCTS**

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

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Dry-chemical Extinguishers, Portable, Marine (GPCZ)—Continued

Model	Nominal Agent Capacity lb	Min Use Temp, °F	Rating	Type A Size	Marine Classification Type B:C Size
Sodium Bicarbonate					
PA27BC	2.75	-40	10-B:C	—	I
PA50BC	5.0	-40	10-B:C	—	I
PA100S-BC	10.0	-40	40-B:C	—	II
PA100T-BC	10.0	-40	40-B:C	—	II

POTTER-ROEMER

3100 S SUSAN ST, SANTA ANA CA 92704

EX3699

Charge,Lb		Min Use Temp, F	Type A	USCG Classification	Type B:C
		Ammonium Phosphate			
2.5		-65	—		Size I
5.0		-65	Size II		Size I
10.0		-65	Size II		Size II
20.0		-65	Size II		Size III
		Potassium Bicarbonate			
2.5		-65	—		Size I
5.0		-65	—		Size I
10.0		-65	—		Size II
20.0		-65	—		Size III
		Sodium Bicarbonate			
2.5		-65	—		Size I
5.0		-65	—		Size I
10.0		-65	—		Size II
20.0		-65	—		Size III

PYRO CHEM

1 STANTON ST, MARINETTE WI 54143

EX4916

Charge,Lb	Min Use Temp, F	Type A	USCG Classification	Type B:C
5.0	-65	—		Size I
5.0	-65	Size II		Size I
10.0	-40	Size II		Size II
20.0	-40	Size II		Size III
5.0	-65	—		Size I

SHANGHAI BERLINDA FIRE-FIGHTING & MECHANICAL

EQUIPMENT CO LTD

618 OASIS LAKESIDE SHANGHAI CENTRE OF MIDDLELING
BUSINESS HARBOR 5 LANE 1628 JINSHAJIANG RD, PUTUO
DISTRICT 200333, SHANGHAI CHINA

EX9128

Stored-pressure-type Extinguishers					
Model	Nominal Agent Capacity lb	Min Use Temp, °F	Rating	Type A Size	Marine Classification Type B:C Size
Ammonium phosphate					
BFM5LB	5.0	-40	2-A: 40-B: C	II	I
BFM10LB	10.0	-40	4-A: 60-B: C	II	I

WALTER KIDDE PORTABLE EQUIPMENT INC

1394 S 3RD ST, MEBANE NC 27302

EX1793

Charge,Lb		Min Use Temp, F	Type A	USCG Classification	Type B:C
		Ammonium Phosphate			
2.0		-40	—		Size I
2.2		-40	—		Size I
2.5		-40	—		Size I



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2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Dry-chemical Extinguishers, Portable, Marine (GPCZ)–Continued

Charge,Lb	Min Use Temp, F	Type A	USCG Classification Type B:C
2.63	-40	—	Size I
2.75	-40	—	Size I
2.86	-40	—	Size I
4.0	-40	Size II	Size I
5.0	-40	Size II	Size I
10.0	-40	Size II	Size II
18.0	-40	Size II	Size III
Sodium Bicarbonate			
2.0	-40	—	Size I
2.06	-40	—	Size I
2.75	-40	—	Size I
4.0	-40	—	Size I
6.13	-40	—	Size I
6.0	-40	—	Size I
10.0	-40	—	Size II
20.0	-40	—	Size III
Potassium Bicarbonate			
2.0	-40	—	Size I
2.06	-40	—	Size I
2.5	-40	—	Size I
5.0	-40	—	Size I
10.0	-40	—	Size II
20.0	-40	—	Size III

Dry-chemical Extinguishers, Semi-portable, Marine (GPEZ)

GENERAL

This category covers semi-portable dry-chemical extinguishers, which are commonly skid-mounted appliances of the stored pressure, cartridge or cylinder-operated type intended for operation over a temperature range of -40°F to 120°F unless otherwise indicated in the individual Listings. Stored-pressure-type extinguishers have dry air, nitrogen, or other expellant gases stored in a single chamber with the dry chemical. Cartridge or cylinder-operated type have carbon dioxide or nitrogen stored in an expellant gas cartridge or cylinder in a chamber separated from the dry chemical.

Semi-portable extinguishers consist of a mounting frame without wheels and a means for rigid mounting of the frame to the vessel, a hose to direct the discharge, and shutoff nozzle at the end of the hose.

Dry-chemical extinguishing agents used in these extinguishers include sodium bicarbonate, ammonium phosphate or potassium bicarbonate-based compounds. The dry-chemical agent consists of a specially prepared mixture of finely divided chemicals treated with additives to allow the dry chemical to flow through the extinguisher.

Extinguishers with ammonium phosphate-based chemicals (with the exception of small sizes) are considered "multi-purpose type" and, therefore, classified for use on Class A, B and C fires. Extinguishers with dry chemicals other than ammonium phosphate are classified for use on Class B and C fires. They are not effective on deep-seated fires in ordinary combustible materials (Class A), but may have some value on incipient surface fires in such materials.

Fire extinguishing classifications are developed at ambient temperatures of approximately 70°F. Extinguisher effectiveness may be reduced at lower temperatures.

These extinguishers are intended to be selected, installed, inspected, maintained and tested in accordance with the applicable requirements of ANSI/NFPA 10, "Standard for Portable Fire Extinguishers." The number and size of semi-portable extinguishers required for protection against specific shipboard hazards is specified in 46CFR118, "Fire Protection Equipment."

RELATED PRODUCTS

See Dry-chemical Extinguishers, Hand and Wheeled (GBAR).

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 299, "Dry Chemical Fire Extinguishers," ANSI/UL 711, "Rating and Fire Testing of Fire Extinguishers," and ANSI/NFPA 10, "Standard for Portable Fire Extinguishers."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, the product name "Semi-portable Dry Chemical Fire Extinguisher," and the statement "USCG Type __, Size __, Approval No. 162.029/EX [file number]."

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AMEREX CORP

EX3517

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

Stored Pressure Type. Sizes 50, 125, 250 lbs, Marine Type USCG, Type A Size II, Type B:C Size V (ABC); Sizes 50, 150, 250 lbs, Marine Type USCG, Type B:C Size V (Sodium bicarbonate); Sizes 50, 125, 250 lbs, Marine Type USCG, Type B:C Size V (Potassium bicarbonate).

Cartridge Activated Type Sizes 125, 300 lbs, Marine Type USCG, Type A Size II, Type B:C Size V (ABC); Sizes 150, 350 lbs, Marine Type USCG, Type B:C Size V (Sodium bicarbonate); Sizes 125, 300 lbs, Type Marine USCG, Type B:C Size V (Potassium bicarbonate).

AMERICAN FIRE EQUIPMENT BURNER FIRE CONTROL

EX2958

INC

301 INDUSTRIAL PKY, LAFAYETTE LA 70505

Sizes 1000, 1500 and 2500 lbs, Marine Type, USCG Type B:C, Size V.

ANSUL INC

1 STANTON ST, MARINETTE WI 54143

Dry-chemical Extinguishers, Semi-portable, Marine (GPEZ)–Continued

Sizes 125, 150, 300, 350, 500, 1000, 1350, 1500, 2000, 2700 and 3000 lb, Marine Type, USCG Type B:C, size V, for all Purple K and sodium bicarbonate Models; USCG Type A, Size II, Type B:L, Size V for all ABC Models.

Following are the base models that are Listed:

S-150C
S-350C
S-500C
S-1000C
S-1500A
S-2000D
S-3000

Model variations:

S models utilize plus 50 C sodium bicarbonate dry chemical.

S-A models utilize Foray ABC dry chemical.

S-K models utilize Ansul purple K dry chemical.

Model designations may also include one or more of the following:

CR designates a corrosion resistant finish.

LR designates a long range nozzle.

Up to a total of six remote hose reels may be connected to the S-K-3000 unit provided the piping to each remote hose reel does not exceed 145 ft of 1 1/2 in. pipe, 3 tees and 5 elbows or 166 ft of 1 1/2 in. pipe, 2 tees and 6 elbows. Maximum elevator of a hose reel above the tank assembly shall not exceed 55 ft. A 1 1/2 in. pneumatic ball valve, P/N 29344, may also be included in the piping to each hose reel.

Dry-chemical Extinguishers, Wheeled, Marine (GPFH)

GENERAL

This category covers wheeled dry-chemical extinguishers, which are portable appliances of the stored pressure, cartridge or cylinder-operated type intended for operation over a temperature range of -40°F to 120°F unless otherwise indicated in the individual Listings. Stored-pressure-type extinguishers have dry air, nitrogen, or other expellant gases stored in a single chamber with the dry chemical. Cartridge or cylinder-operated type have carbon dioxide or nitrogen stored in an expellant gas cartridge or cylinder in a chamber separated from the dry chemical.

Wheeled-type extinguishers are mounted on a carriage for portability and provided with a mounting bracket, a hose to direct the discharge, a shutoff nozzle at the end of the hose, and a bracket for mounting.

Dry-chemical extinguishing agents used in these extinguishers include sodium bicarbonate, ammonium phosphate or potassium bicarbonate-based compounds. The dry-chemical agent consists of a specially prepared mixture of finely divided chemicals treated with additives to allow the dry chemical to flow through the extinguisher.

Extinguishers with ammonium phosphate-based chemicals (with the exception of small sizes) are considered "multi-purpose type" and, therefore, classified for use on Class A, B and C fires. Extinguishers with dry chemicals other than ammonium phosphate are classified for use on Class B and C fires. They are not effective on deep-seated fires in ordinary combustible materials (Class A), but may have some value on incipient surface fires in such materials.

Fire extinguishing classifications are developed at ambient temperatures of approximately 70°F. Extinguisher effectiveness may be reduced at lower temperatures.

These extinguishers are intended to be selected, installed, inspected, maintained and tested in accordance with the applicable requirements of ANSI/NFPA 10, "Standard for Portable Fire Extinguishers."

RELATED PRODUCTS

See Dry-chemical Extinguishers, Hand and Wheeled (GBAR).

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 299, "Dry Chemical Fire Extinguishers," ANSI/UL 711, "Rating and Fire Testing of Fire Extinguishers," and ANSI/NFPA 10, "Standard for Portable Fire Extinguishers."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, the product name "Dry Chemical Fire Extinguisher," and the statement "Classification [classification letter(s) and number(s)], USCG Type ___, Size ___, Approval No. 162.039/EX [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.

AMEREX CORP

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

EX2764

Cartridge-activated-type Extinguishers

Model	Nominal Agent Capacity, lb	Min Use Temp, °F	USCG Classification	
			Type A	Type B:C
Ammonium phosphate 470, 467, 450	125	-65	Size II	Size V
Potassium bicarbonate 452, 469, 472	125	-65	—	Size V
493	300	-65	—	Size V
Sodium bicarbonate 451, 468, 471	150	-65	—	Size V
492	350	-65	—	Size V



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**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Dry-chemical Extinguishers, Wheeled, Marine (GPFH)—Continued

Stored-pressure-type Extinguishers

Model	Nominal Agent Capacity, lb	Min Use Temp, °F	USCG Classification	
			Type A	Type B:C
Ammonium phosphate				
495	50	-40	Size II	Size V
488	125	-65	Size II	Size V
573	250	-40	Size II	Size V
491	300	-65	Size II	Size V
Potassium Bicarbonate				
497	50	-40	—	Size V
689, 690	125	-40	—	Size V
490	125	-65	—	Size V
575	250	-40	—	Size V
Sodium bicarbonate				
496	50	-40	—	Size V
489	150	-65	—	Size V
574, 579	250	-40	—	Size V

ANSUL INC
1 STANTON ST, MARINETTE WI 54143

EX1216

Cartridge Activated Type		USCG Classification	
Charge,Lb	Min Use Temp, F	Type A	Type B:C
	Ammonium Phosphate		
125	-40, -65	Size II	Size V
300	-40, -65	Size II	Size V
	Potassium Bicarbonate		
125	-40, -65	—	Size V
300	-40, -65	—	Size V
	Sodium Bicarbonate		
150	-40, -65	—	Size V
350	-40, -65	—	Size V

BADGER FIRE PROTECTION
1016 CORPORATE PARK DR, MEBANE NC 27302

EX2102

Stored Pressure Type		USCG Classification	
Charge,Lb	Min Use Temp, F	Type A	Type B:C
Ammonium Phosphate			
125	-40	Size II	Size V
Potassium Bicarbonate			
125	-40	—	Size V
Sodium Bicarbonate			
150	-40	—	Size V

BUCKEYE FIRE EQUIPMENT CO
110 KINGS RD PO BOX 428, KINGS MOUNTAIN NC 28086

EX2480

Cartridge Activated Type				
Charge,Lb	Min Use Temp, F	Type A	USCG Classification	
150	-65	—		Type B:C Size V
Stored Pressure Type				
Charge,Lb	Min Use Temp, F	Type A	USCG Classification	
				Type B:C
	Ammonium Phosphate			
30	-65	Size II		Size IV
50	-65	II		V
125	-65	II		V
	Potassium Bicarbonate			
30	-65	—		Size IV
50	-65	—		V
125	-65	—		V

POTTER-ROEMER
3100 S SUSAN ST, SANTA ANA CA 92704

EX3699

2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

35

Dry-chemical Extinguishers, Wheeled, Marine (GPFH)—Continued

Charge,Lb	Stored Pressure Type		USCG Classification
	Min Use Temp, F	Type A	Type B:C
125	Ammonium Phosphate -65	Size II	Size V
125	Potassium Bicarbonate -65	—	Size V
150	Sodium Bicarbonate -65	—	Size V

FOAM FIRE EXTINGUISHERS, HAND AND WHEELED, MARINE (GPFS)

USE AND INSTALLATION

This category covers hand and wheeled foam fire extinguishers and portable appliances of the stored pressure or cylinder operated type. Unless otherwise specified in the individual Listings, they are designed and tested for operation over a temperature range of +35°F to +120°F. Operation of these units may be affected by use at temperatures outside these limits.

In the stored pressure type, the foam liquid is expelled by air, nitrogen, or other expellant gases, stored in a single chamber with the foam liquid. In the cylinder operated type, the foam liquid is expelled by a compressed gas stored in a separate expellant gas cylinder.

The hand units are provided with a self-closing shutoff nozzle or control valve and may utilize a hose as a means of directing the discharge. They are also provided with a carrying handle for portability and a marine type bracket for mounting.

The wheeled units are provided with a hose and shutoff nozzle, and are suitable for use on ship board.

These fire extinguishers are for use on Class A and B fires. They are not intended for use on Class C or D fires.

Operation of these units may be affected by the use of foam concentrates or components other than those specified and furnished by the manufacturer of the device.

Maintenance includes frequent inspection, but not less than once per year, by checking pressure in the cylinder or chamber, ascertaining that the hose, when provided, is unobstructed, and that the shutoff nozzle or control valve are also unobstructed.

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are ANSI/UL 8, "Water Based Agent Fire Extinguishers," and ANSI/UL 711, "Rating and Fire Testing of Fire Extinguishers."

UL MARK

The Listing Mark of Underwriters Laboratories Inc. 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, the product name "Foam Fire Extinguisher, Marine Type," and the statement "Classification ___, USCG Type ___, Size ___, Approval No. ___."

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AMEREX CORP

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

EX3076

Charge Gal	Cylinder Activated Type		USCG Classification
	Min Use Temp F	Type A	Type B
33	35	Size II	Size IV
2-1/2	35	Size II	Size II

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EX3336

Charge Gal	Cylinder Activated Type		USCG Classification
	Min Use Temp F	Type A	Type B
33	35	Size II	Size IV

Foam Fire Extinguishers, Semi-portable, Marine (GPFU)

USE AND INSTALLATION

These extinguishers are foam semi-portable stored pressure or cylinder operated type. Unless otherwise specified in the individual Listings, they are designed and tested for operation over a temperature range of +35°F to +120°F. Operation of these units may be affected by use at temperatures outside these limits.

In the stored pressure type, the foam liquid is expelled by air, nitrogen, or other expellant gases, stored in a single chamber with the foam liquid. In the cylinder operated type, the foam liquid is expelled by a compressed gas stored in a separate expellant gas cylinder.

The units are provided with a hose and shutoff nozzle, and are suitable for use on ship board.

These extinguishers are for use on Class A and B fires. They are not intended for use on Class C or D fires.

Operation of these units may be affected by the use of foam concentrates or components other than those specified and furnished by the manufacturer of the device.

Maintenance includes frequent inspection, but not less than once per year, by checking pressure in the cylinder or chamber, ascertaining that the hose is unobstructed, and that the shutoff nozzle is also unobstructed.

ADDITIONAL INFORMATION

For additional information, see Foam Fire Extinguishers, Hand and Wheeled, Marine (GPFS), Extinguishers and Extinguishing System Units, Marine (GOWZ), and Marine Products (AAMP).

REQUIREMENTS



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2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Foam Fire Extinguishers, Semi-portable, Marine (GPFU)–Continued

The basic standards used to investigate products in this category are ANSI/UL 8, “Water Based Agent Fire Extinguishers,” and ANSI/UL 711, “Rating and Fire Testing of Fire Extinguishers.”

UL MARK

The Listing Mark of Underwriters Laboratories Inc. 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, the product name “Semi-Portable Foam Fire Extinguisher, Marine Type,” and the statement “USCG Type ___, Size ___, Approval No. 162.039/EX___.”

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AMEREX CORP

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

Size 33 gal, marine type USCG Type A Size II, Type B Size IV.

EX4042

FOAM LIQUID CONCENTRATES, MARINE (GPFX)

USE

This category covers foam liquid concentrates that include protein, aqueous film-forming foam (AFFF), or other synthetic materials.

Foam is generally produced by the addition of a foam liquid concentrate to water and mechanically mixing air into the foam solution. Some foam solutions may be discharged through equipment that does not mix air into the solution as indicated in the individual equipment Listings.

Foam is suitable for use on fires involving ordinary hydrocarbon petroleum products, but may not be suitable for use on fires involving polar solvent fuels. Concentrates investigated for use on polar solvent fuels are noted in the individual Listings.

Liquid concentrates may be stored in the original shipping containers or in pressure-proportioning tanks. Liquid concentrates are not intended to be stored at temperatures lower than those for which they have been Listed or above 120°F. They are intended to be stored in locations free of excessive moisture to avoid external corrosion of containers and other equipment.

The quality of foam produced is affected by proportioning and discharge equipment. The individual Listings of liquid concentrates reference all the equipment with which they are intended to be used and the corresponding operating limitations, including foam concentrations.

There are two types of foam discharge outlets:

Type II — Discharge devices designed to minimize submergence of the foam or agitation of the liquid surface, but which do not deliver foam gently onto the liquid surface. Examples include foam chambers, subsurface injection equipment, or applying the foam off a backboard or the wall of a tank.

Type III — Discharge devices that deliver foam directly onto the liquid surface at an angle above the horizontal. Examples include hand held nozzles or monitors.

Unless otherwise stated in the individual Listings, the type of discharge outlet indicated for use with a foam is Type III.

Foam extinguishing systems are intended to be installed in accordance with the applicable requirements of ANSI/NFPA 11, “Standard for Low-, Medium-, and High-Expansion Foam.”

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standards used to investigate products in this category are UL 162, “Foam Equipment and Liquid Concentrates,” and Annex G of ANSI/NFPA 11, “Standard for Low-, Medium-, and High-Expansion Foam.”

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word “MARINE” above the UL symbol (as illustrated in the Introduction of this Directory), the word “LISTED,” a control number, and the product name “Foam Liquid Concentrate.”

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KIDDE FIRE FIGHTING NATIONAL FOAM DIV

SUITE 3900 180 SHEREE BLVD PO BOX 695, EXTON PA 19341

Universal CG 6 percent, nominal 6 percent Alcohol Resistant Aqueous Film Forming Foam, +35F minimum storage and use temperature. Hydrocarbon and polar solvent fuels at 6 percent.

Foam concentrates for use with the following equipment:

UNIVERSAL CG 6 PERCENT, 6 PERCENT
PROPORTIONER - FIXED IN-LINE INDUCTORS

Description	Size In.	Orifice Diam In.	Inlet Pressure psi	Back Pressure psi
National, Model HLP-6	1-1/2	6 percent fixed orifice	197	95

NOZZLE

Description	Size In.	Inlet Pressure psi
National, Model PC-31AP6 self inducting type	1-1/2	125-150

FIXED FOAM DISCHARGE OUTLETS

Description	Fuel	Orifice Diam In.	Inlet Pressure psi
National, Model MBS-3SA/ MBS-3SSA*	Ald, Hydrocarbons	0.250 0.250	100 100



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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

37

Foam Liquid Concentrates, Marine (GPFX)—Continued

Description	Fuel	Orifice Diam In.	Inlet Pressure psi
National, Model MCS-9 Type B	Alc, K, Am, Eth, Mek, AA,	0.504	70
*Pipe Discharge Where:			
Fuel		Min Application Rate GPM/Sq Ft	
Hydrocarbons		0.10	
Alc (Alcohols)		0.15	
K (Ketones)		0.15	
Am (Amines)		0.15	
Ald (Aldehydes)		0.22	
Eth (Ethers)		0.15	
Mek (Methyl Ethyl Ketone)		0.15	

HALOGENATED AGENT EXTINGUISHING SYSTEM UNITS, MARINE (GPFZ)

USE AND INSTALLATION

This category covers halogenated agent extinguishing system units, which are devices assembled in a system to discharge a liquefied gas through fixed piping and nozzles for the extinguishment of fires. These units include actuating assemblies designed for automatic and manual operation, tank assemblies for storing the agent, discharge assemblies, manifold check valves, selector valves, discharge nozzles and other miscellaneous devices. Tank assemblies are super-pressurized with dry nitrogen. They are suitable for use over a temperature range of -40°F to +120°F unless otherwise noted in the individual Listings.

Halogenated systems are intended to be designed, installed and maintained in accordance with ANSI/NFPA 12A, "Standard on Halon 1301 Fire Extinguishing Systems."

These units are designed to be used for total-flooding applications, unless otherwise indicated in the individual Listings. For these applications, the hazard is surrounded by a fixed enclosure which enables the required concentration to be built up and maintained for the required period of time to ensure the effective extinguishment of fire in combustible materials.

The total-flooding design concentrations for Class A and Class B fires are specified in the individual manufacturer's design and/or installation manual referenced in the individual Listings.

It should be noted that fires involving densely packed fibrous materials, such as baled cotton or jute or pressed fiberboard, are special hazards and should be given specific consideration. Extinguishment of materials of this type may require substantially higher concentrations. For additional information, see ANSI/NFPA 12A.

For information regarding safeguards for personnel, products of decomposition, and exposure to the agent, refer to ANSI/NFPA 12A. Authorities Having Jurisdiction should be consulted before installation.

ADDITIONAL INFORMATION

For additional information, see Extinguishers and Extinguishing System Units, Marine (GOWZ) and Marine Products (AAMP).

REQUIREMENTS

The basic standard used to investigate products in this category is UL 1058, "Halogenated Agent Extinguishing System Units."

UL MARK

The Marine Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Marine Listing Mark for these products includes the UL symbol with the word "MARINE" above the UL symbol (as illustrated in the Introduction of this Directory), the word "LISTED," a control number, and the product name "Halogenated Agent Extinguishing System Unit."

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ANSUL INC

1 STANTON ST, MARINETTE WI 54143

EX2671

Engineered units. Halon 1301 Extinguishing system units, stored pressure type, super-pressurized to 360 psig with operating temperatures of -40 degree F to 120 degree F, including the following:

AGENT STORAGE CONTAINER ASSEMBLY

Weight of Agent (Lbs)

12-18; inert
19-33; inert
34-54; inert
60-72; inert
75-90; inert
108-186; inert
108-186 w/LLI; inert
196-340; inert
196-340 w/LLI; inert
350-600; inert
350-600 w/LLI; inert

Part No.

76591-76594; 56447
76595-76602; 56448
76603-76608; 56449
76609-76612; 56450
76613-76616; 75935
76617-76630; 36798
76682-76695; 75942
76631-76655; 36804
76696-76720; 75943
76656-76681; 75936
76721-76746; 75944

DISCHARGE NOZZLES

Inlet Size In.

1/4
1/2
3/4
1

Part No.

32657
32658
32659
32660



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**2010 PART I
LISTED AND CLASSIFIED MARINE PRODUCTS**

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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

Halogenated Agent Extinguishing System Units, Marine (GPFZ)–*Continued*

Inlet Size In.	Part No.
1-1/4	32661
1-1/2	32662
2	32663
2-1/2	32664
3	32665

CHECK VALVES

Type	Size In.	Part No.
Manifold	1	32219
Manifold	2	32100
Manifold	3	67676, 69841
Actuation Line	1/4	25627

SELECTOR VALVES

Size In.	Part No.
1/4	67291, 67014
3/8	67294, 67293
1/2	67018, 67155
3/4	67013, 67150
1	67030, 67311
1-1/4	67364, 67363
1-1/2	76553, 67312
2	76552, 67310
2-1/2	67031, 67303
3	75604, 76418, 76421
4	75605, 76419, 76422
6	75606, 76420, 76423

**CARBON DIOXIDE ACTUATION
COMPONENTS**

Component	Part No.
Max-Valve Cylinder Valve Assembly	76921-76923
AP-8 Cylinder Valve Assembly	76924-76926
Max-Valve Stackable Actuator	70326
AP-8 Remote Pressure Attachment	42508
AP-8 Lever Release	42484-6
Pneumatic Pressure Switch	46250-1, 42344
1/2, 3/4, 1, 1-1/4	41451, 41102,
Globe Valves	41354, 41338
Sectors for Globe Valves	40276, 40279, 40281

MISCELLANEOUS

Device	Part or Model No.
Marine Actuation Station	64505, 67686
Pull box	41527
Dual/Triple Control Box	43166
Pull Cable Equalizer	42791
Corner Pulley	42678
Pressure Operated Siren	43118
Time Delays	23693-23699
Halon 1301	77803, 77804
Carbon Dioxide	41718-41736
	54168, 54169
1 in. Discharge Hose	71862
2 in. Discharge Hose	71863-4
3 in. Discharge Hose	69990
Additional devices described in Manufacturer's manual	Miscellaneous

These system units are intended to be designed and installed in accordance with the Listee's Design, Installation, Operation and Maintenance Manual dated March 1, 1988, P/N 76010. Copies of this manual may be obtained from the above Listee.

KIDDE-FENWAL INC

EX2826

400 MAIN ST, ASHLAND MA 01721

Engineered type, Halon 1301 extinguishing system units, stored pressure type, super-pressurized to 360 psig having operating temperatures of -20 F to 130 F including the following:

AGENT STORAGE CONTAINER ASSEMBLY

Weight of Agent (Lbs)	Part No.
6-10	487010
11-20	487020
21-40	487040
41-70	487070
71-125	487125
126-200	487200, -01
201-350	487350, -51
351-600	487600, -01
72-125	896150, -02



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2010 PART I LISTED AND CLASSIFIED MARINE PRODUCTS

EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

39

Halogenated Agent Extinguishing System Units, Marine (GPFZ)–Continued

Weight of Agent (Lbs)

126-200
201-312
314-550

Part No.

896049, -02
897793, -02, 899221, -02
899200, -02, 899201, -02

DISCHARGE NOZZLES

Discharge Nozzles (180 deg (Fan) and 360 deg (Split Fan) Pattern)

Inlet Size In.

1/2 (Fan)
1/2 (Split Fan)
3/4 (Fan)
3/4 (Split Fan)
1 (Fan)
1 (Split Fan)
1-1/4 (Fan)
1-1/4 (Split Fan)
1-1/2 (Fan)
1-1/2 (Split Fan)
2 (Fan)
2 (Split Fan)

Part No.

39210063-39210516
39310063-39310516
39220250-39220688
39320250-39320688
39230625-39230875
39330625-39330875
39240875-39241141
39340875-39341141
39251125-39251344
39351125-39351344
39261375-39261719
39361375-39361719

CHECK VALVES

Type

Manifold

Pilot Line

Main/Reserves

Size In.

2
2-1/2
3/8
1/4
1/2
3/4
1
1-1/4
1-1/2
2
2-1/2, 3

Part No.

877690
878743
261193
264985
800327
800266
800443
800444
870152
870151
870100

SELECTOR VALVES

Size In.

1/2
3/4
1
1-1/4
1-1/2
2
2-1/2, 3
3
4

Part No.

870023
870022
870122
870032
870123
870049
890010
896444
890208

BALL VALVES

Size In.

1/4

Part No.

282888

MISCELLANEOUS

Device

Nitrogen Actuator/Bracket
Ball Valve
Carbon Dioxide Actuation
Cylinder Valve Assembly
Pressure Operated Control Head
Pressure/Lever Operated Control Head
Lever Operated Control Head
Cable Operated Control Head
Pneumatic Control Heads
Pressure Operated Switches
Pressure Trip
Pressure Operated Siren
Manual Pull Stations
Corner Pulleys
Dual Pull Mechanism
Dual Pull Equalizer
3/4 in. Flexible Hose
1-1/2 in. Flexible Hose
2 in. Flexible Hose
2-1/2 in. Flexible Hose
1/4 in. Flexible Actuation Hose
3/8 in. Flexible Actuation Hose
Time Delay
Discharge Indicator
Valve Outlet Adapters

Part No.

877845, 877940
283888
981372, 982548
872086, 878732, 878737
870897, 878751
870652
979469
872318-872360
486536, 981332
874290
981574
803808, 840098, 870087, 871403
803808, 844648
840058
840051
251821
283898
280544, 283899
283900
264986, 264987
844225, 844707
871071, 896677, 897636
967082
283904-06



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EXTINGUISHERS AND EXTINGUISHING SYSTEM UNITS, MARINE (GOWZ)

These system units are intended to be designed and installed in accordance with the Listee's Design Installation, Operation and Maintenance Manual dated January, 1993 ("487 Series"). Copies of these manuals may be obtained from the above Listee. Design Program is accessed through Kidde Halon 1301 Design Software; Version 202086, two floppy disc drives or Version 202087, 1 hard disc drive.

Liquefied gas type extinguishers are portable appliances designed and tested for operation over a temperature range of minus 40 F to 120 F, unless otherwise noted in the individual listings.

These units are provided with carrying handles for portability and a bracket for mounting. They are provided with self-closing control valves and may utilize a hose and horn assembly as a means of directing the discharge.

The fire extinguishing classifications of these extinguishers are developed at normal ambient temperature (approximately 70 F) and may be reduced at lower temperatures.

The basic standard used to investigate products in this category is UL 1093, "Halogenated Agent Fire Extinguishers."

The Listing Mark of Underwriters Laboratories Inc. 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 name and/or symbol of Underwriters Laboratories Inc. (as illustrated in the Introduction to this Directory) together with the word "LISTED", a control number, the following product name: "_____*_____ Fire Extinguisher", and the statement: "Classification _____, Marine Type, USCG Type _____, Size _____, Approval No. 162.08/Ex _____."

*The name of the product on the Listing Mark may be supplemented by description corresponding to that given in the individual listings.

* * * * *

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EX2993

7595 GADSDEN HWY E PO BOX 81, TRUSSVILLE AL 35173

Charge,Lb	Min Use Temp, F Halon 1211	Type A	USCG Classification	Type B:C
2.5	-65	—		Size I
3.0	-65	—		Size I
5.0	-65	—		Size I
9.0	-65	—		Size I
13.0	-65	—		Size II
16.0	-65	—		Size II
17.0	-65	—		Size II
20.0	-65	—		Size II

EX3070

1 STANTON ST. MARINETTE WI 54143

Charge,Lb	Min Use Temp, F Halon 1211	Type A	USCG Classification Type B:C
2.5	-40	—	Size I
5.0	-40	—	Size I
9.0	-40	—	Size I
14.0	-40	—	Size II
17.0	-40	—	Size II

EX2909

110 KINGS RD PO BOX 428, KINGS MOUNTAIN NC 28086

Charge,Lb	Min Use	USCG Classification	
	Temp, F Halon 1211	Type A	Type B:C
2.5	-65	—	Size I
4.75	-65	—	Size I
5.0	-65	—	Size I
5.5	-65	—	Size I
9.0	-65	—	Size I
13.5	-65	—	Size II
16.0	-65	—	Size II
17.0	-65	—	Size II
20.0	-65	—	Size II

EX3045

7 WESTCHESTER PLAZA, ELMSFORD NY 10523

Charge,Lb	Min Use Temp, F Halon 1211	Type A	USCG Classification	Type B:C



Type B:C Documents

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