Digital Energy

Product Safety and Regulation Specific Information for GE Digital Energy Metering and Sensing Technology products

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GE Digital Energy CE Marking Language Requirements Document.

Digital Energy

Product Safety and Regulation Specific Information

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Product Safety and Regulation Specific Information

Chapter 1: General requirements

Introduction

Purpose of this document

The purpose of this document is to provide the user with additional product safety and regulatory compliance information related to Digital Energy Metering and Sensing Technology products. This document should be used as a companion with applicable user manuals, installation manuals and any other provided documentation.

Due to the countless installation scenarios and environments in which devices can operate, the user must carefully assess all the risks associated with the equipment, its installation, and maintenance. While comprehensive, this guide is not intended to describe every possible risk that may arise.

Please contact the respective GE Digital Energy customer service centre for additional information or clarification of information provided in this document.

Abbreviations used in GE Digital Energy's Metering and Sensing Technology documentation

This document uses the following abbreviations.

AEL .....Accessible Emission Limit

ANSI .....American National Standards Institute

AWG.....American Wire Gauge

Cd .....Cadmium (chemical element)

CEC .....Canadian Electrical Code

EMC.....Electro-Magnetic Compatibility

ESD.....Electro-Static Discharge

Hg.....Mercury chemical element

IEC .....International Electro technical Commission

IEEE ..... Institute of Electrical and Electronics Engineers

NEC ..... National Electrical Code

NFPA ..... National Fire Protection Association

Pb ..... Lead (chemical element)

SELV ..... Safety Extra Low Voltage

Graphical symbols used in GE Digital Energy's Metering and Sensing Technology documentation

The following graphical symbols may appear on the products or in the product documentation.

Warning

In documentation or on equipment.

The caution icon indicates that possible damage to equipment or data may occur if instructions are not properly followed.

Caution

In documentation or on equipment.

The caution icon indicates that possible damage to equipment, data, or personnel may occur if instructions are not properly followed.

Danger

In documentation or on equipment.

The danger icon provides users with a warning about the possibility of serious or fatal injury to themselves or others.

Risk of electric shock

In documentation or on equipment.

Arc flash or shock hazard. Appropriate PPE (personal protective equipment) required.

RF Exposure Notice

In documentation or on equipment.

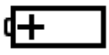
Used to identify a device that emits radio frequency energy. Although the power level is low, the concentrated energy from a directional antenna may pose a health hazard.

Battery, general

On battery powered equipment.

To identify a device related to the supply of power to equipment by means of a (primary or secondary) battery, for instance a battery test button, the location of the connector terminals, etc.

This symbol is not intended to indicate polarity.



Positioning of cell

On and in battery holders.

To identify the battery holder itself and to identify the positioning of the cell(s) inside the battery holder.

AC/DC converter, rectifier, substitute power supply

To identify an AC/DC converter and, in case of plug-in devices, to identify the relevant receptacles.

Plus; positive polarity

To identify the positive terminal(s) of equipment which is used with, or generates direct current.

The meaning of this graphical symbol depends upon its orientation.

Minus; negative polarity

To identify the negative terminal(s) of equipment which is used with, or generates direct current.

The meaning of this graphical symbol depends upon its orientation.

"**On**" **(power)**

To indicate connection to the mains, at least for mains switches or their positions, and all those cases where safety is involved.

The meaning of this graphical symbol depends upon its orientation.

"**Off**" **(power)**

To indicate disconnection to the mains, at least for mains switches or their positions, and all those cases where safety is involved.

The meaning of this graphical symbol depends upon its orientation.

Stand-by

To identify the switch or switch position by means of which part of the equipment is switched on in order to bring it into the standby condition.

"**On/Off**" **(push-push)**

To indicate connection to or disconnection from the mains, at least for mains switches or their positions, and all those cases where safety is involved. Each position, "ON" or "OFF", is a stable position.

"**On/Off**" **(pushbutton)**

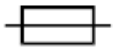
To indicate connection to the mains, at least for mains switches or their positions, and all those cases where safety is involved. "OFF" is a stable position, while the "ON" position only remains during the time the button is pressed.

Lamp; lighting; illumination

To identify switches which control light sources, e.g. room lighting, lamp of a film projector, dial illumination of a device.

Air impeller (blower, fan, etc.)

To identify the switch or control which operates the air impeller, e.g. a fan of a film or slide projector, a room fan.



Fuse

To identify fuse boxes or their location.

Earth (ground)

To identify an earth (ground) terminal in cases where neither the **Noiseless (clean) earth (ground)** nor the **Protective earth (ground)** symbols shown below are explicitly required.

Noiseless (clean) earth (ground)

To identify a noiseless (clean) earth (ground) terminal, e.g. of a specially designed earthing (grounding) system to avoid causing malfunction of the equipment.

Protective earth (ground)

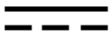
To identify any terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault, or the terminal of a protective earth (ground) electrode.

Frame or chassis ground

To identify the frame or chassis ground terminal.

Equipotentiality

To identify the terminals which, when connected together, bring the various parts of an equipment or of a system to the same potential, not necessarily being the earth (ground) potential, e.g. for local bonding.

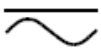


Direct current

To indicate on the rating plate that the equipment is suitable for direct current only; to identify relevant terminals.

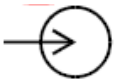
Alternating current

To indicate on the rating plate that the equipment is suitable for alternating current only; to identify relevant terminals.



Both direct and alternating current

To indicate on the rating plate that the equipment is suitable for both direct and alternating current (universal); to identify relevant terminals.



Input

To identify an input terminal when it is necessary to distinguish between inputs and outputs.

Output

To identify an output terminal when it is necessary to distinguish between inputs and outputs.

Dangerous voltage

To indicate hazards arising from dangerous voltages.

In case of application in a warning sign, the rules according to ISO 3864 shall be followed.

Aerial (USA: antenna)

On radio receiving and transmitting equipment.

To identify the aerial (antenna) terminals. This symbol should be used unless it is essential to specify the type of aerial (antenna).

Dipole

On radio receiving and transmitting equipment.

To identify the terminals of a dipole aerial (antenna) on receiving and transmitting equipment.

Caution, hot surface

To indicate that the marked item can be hot and should not be touched without taking care.

The inner symbol is standardized in ISO 7000-0535 “Transfer of heat, general”. Warning signs are standardized in ISO 3864.

Frame aerial (USA: loop antenna)

On radio receivers and direction finders.

To identify the frame aerial (loop antenna) terminals.

Tuner; radio receiver

To identify the relevant input terminals to which a tuner or radio receiver can be connected.

Signal strength attenuation (local/distant)

On radio receivers.

To identify the switch by which the circuit is connected that attenuates stronger local signals in order to avoid overloading of input circuits.

Not to be used in residential areas

To identify electrical equipment which is not suitable for a residential area (e.g. equipment which produces radio interference when in operation).

Signal lamp

To identify the switch by means of which the signal lamp(s) is (are) switched on or off.

Electrostatic sensitive devices

On packages containing electrostatic-sensitive devices and on the devices themselves.

For further information see IEC 60747-1.

Non-ionizing electromagnetic radiation

To indicate elevated, potentially dangerous, levels of non-ionizing radiation.

In case of application in a warning sign, the rules according to ISO 3864 shall be adhered to.

Radiation of laser apparatus

To identify the radiation of laser products.

In case of application in a warning sign, the rules according to ISO 3864 shall be adhered to.

Transformer

To identify switches, controls, connectors or terminals which connect electrical equipment to the mains through a transformer. It can also be used on an envelope or a case to indicate that it contains a transformer (e.g. in the case of a plug-in device).

Class II equipment

To identify equipment meeting the safety requirements specified for Class II equipment according to IEC 60536.

The position of the double-square symbol shall be such that it is obvious that the symbol is part of the technical information and can in no way be confused with the manufacturer's name or other identifications.

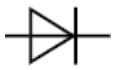
Test voltage

To identify equipment which can withstand a test voltage of 500 V.

Other values of test voltage may be indicated in accordance with relevant IEC standards: see for example IEC 60414.

Class III equipment

To identify equipment meeting the safety requirements specified for class III according to IEC 60536.



Rectifier, general

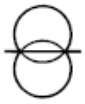
To identify rectifying equipment and its associated terminals and controls.

DC/AC converter

To identify a DC/AC-converter and its associated terminals and controls.

Short-circuit-proof transformer

To identify a transformer which can withstand a short-circuit, inherently or non-inherently.



Isolating transformer

To identify an isolating type transformer.

Safety isolating transformer

To identify a safety isolating transformer.

Non-short-circuit-proof transformer

To identify a transformer which cannot withstand a short-circuit.

Converter with stabilized output current

To identify a converter supplying a constant current.

Alarm, general

To indicate an alarm on control equipment.

The type of alarm may be indicated inside the triangle or below the triangle.

Urgent alarm

To indicate an urgent alarm on control equipment.

The type of alarm may be indicated inside the triangle or below the triangle.

The urgency of the alarm may be indicated by varying a characteristic of the alarm, e.g. flashing rate of a visual signal, or coding of an audible signal.

Alarm system clear

On alarm equipment.

To identify the control by means of which the alarm circuit can be reset to its initial state.

The type of alarm may be indicated inside the open triangle or below the triangle.

Alarm inhibit

To identify the alarm inhibit on control equipment.

The type of alarm may be indicated inside the triangle or below the triangle.

Technical vocabulary for GE Digital Energy's Metering and Sensing Technology documentation

The following terminology may appear on the products or in the product documentation.

Antenna.....A metallic device (as a rod or wire) for radiating or receiving radio waves.

Battery.....One or more electrochemical cells that convert stored chemical energy into electrical energy.

Blower.....A mechanical device for moving air or other gases.

Burns.....A type of injury to the flesh caused by heat, electricity, chemicals, light, radiation or friction.

Calibration.....The process of adjusting the output on a measurement instrument to agree with value of the applied standard, within a specified accuracy.

Caution.....A statement describing a potential hazard.

Chassis.....The reference point in an electrical circuit from which other voltages are measured, or a common return path for electric current, or a direct physical connection to the earth.

Circuit breaker.....An automatically operated electrical switch designed to protect an electrical circuit from damage caused by overload or short circuit.

Coaxial cable.....An electrical cable with an inner conductor surrounded by a flexible, tubular insulating layer, surrounded by a tubular conducting shield.

Combustible gas.....A gas that burns, including the fuel gases, hydrogen, hydrocarbon, carbon monoxide, or a mixture of these.

Conductor.....A material allowing the flow of electric current.

Conduit.....Used for protection and routing of electrical wiring.

Contact.....A conductive device for joining electrical circuits together.

Cracks.....The formation of a fracture or partial fracture in a solid material.

Current.....The flow of electric charge, typically carried by moving electrons, in a conductor.

Danger.....A statement describing the threat of adverse events.

Device.....A device that focuses on handling a particular type of information and related tasks.

Dielectric.....An electrical insulator.

Discharge ..... The releases stored energy.

Earth ..... The reference point in an electrical circuit from which other voltages are measured, or a common return path for electric current.

Electrolyte ..... Any substance containing free ions that make the substance electrically conductive.

Electrostatic ..... Slow-moving electric charges.

Energy ..... The ability a physical system has to do work on other physical systems.

Equipment..... Any machine powered by electricity.

Explosion..... The rapid increase in volume and release of energy in an extreme manner, usually with the generation of high temperatures and the release of gases.

Factory..... An industrial building where laborers manufacture goods or supervise machines processing one product into another.

Fault ..... Any abnormal flow of electric current.

Fire ..... The rapid oxidation of a material in the chemical process of combustion, releasing heat, light, and various reaction products.

Flammable..... How easily something will burn or ignite, causing fire or combustion.

Frames..... A structural system that supports other components of a physical construction.

Fuse..... A type of sacrificial overcurrent protection device.

Gas..... One of the three states of matter.

Gas vapor ..... A substance in the gas phase at a temperature lower than its critical point.

GND..... The abbreviation for ground.

Ground bus..... A conductor used as a zero voltage reference in a system.

Ground CT ..... A Current Transformer used to measure ground current.

Hazard ..... A situation that poses a level of threat to life, health, property, or environment.

Hazardous location ..... A place where concentrations of flammable gases, vapors, or dusts occur.

High voltage..... Circuits with more than 1000 V for alternating current and at least 1500 V for direct current.

Hi-pot..... An abbreviation for high potential.

Housing ..... An enclosure containing some equipment.

Infrared..... Electromagnetic radiation with a wavelength longer than that of visible light.

Inhale..... The movement of air from the external environment, and into the lungs.

Injury..... Damage to a biological organism.

Instrument transformer.....Used for measuring voltage and current in electrical power systems, and for power system protection and control.

Insulate..... A material that resists the flow of electric charge.

Laser	A device that emits light (electromagnetic radiation) through a process of optical amplification based on the stimulated emission of photons.
Lead	A soft, malleable poor metal.
Lethal	That which is capable of causing death.
Light energy	The perceived energy of light.
Live circuit	An AC electrical circuit refers to the wire (in a single-phase system) which carries an oscillating voltage with respect to the earth.
Mains	The general-purpose alternating current (AC) electric power supply.
Maintenance	Routine actions which keep the electrical device in working order.
Meter	A device that measures the amount of electric energy consumed.
Optic cables	A cable containing one or more optical fibers.
Oxides	A chemical compound formally containing an oxygen in this state.
Phase CT	A device used for measurement of phase electric currents.
Power switch	An electrical component that can break an electrical circuit, interrupting the current or diverting it from one conductor to another.
Power system	A network of electrical components used to supply, transmit and use electric power.
Primary protection	Principal means to protect of electrical power systems from faults.
Protective device	Device to protect electrical equipment from energy transients.
Protective equipment	Protective clothing, helmets, goggles, or other garment designed to protect the wearer's body from injury by blunt impacts, electrical hazards, heat, chemicals, and infection, for job-related occupational safety and health purposes.
Protective relay	A complex electromechanical device designed to calculate operating conditions on an electrical circuit and trip circuit breakers when a fault is detected.
Puncture	A wound caused by an object puncturing the skin.
Radiation	A process in which energetic particles or energy or waves travel through a medium or space.
Reboot	Restarting software control by removing power.
Resistance	A measure of the degree to which an object opposes an electric current through it.
Secondary circuits	Wiring connected to the secondary winding of a transformer, induction coil, or similar device.
Shielded	Electrical cable of one or more insulated conductors enclosed by a common conductive layer.
Shock	Electrical contact that causes a sufficient current through the skin, muscles or hair.
Short circuit	An electrical circuit is one that allows a current to travel along a path where essentially no (or a very low) electrical impedance is encountered.
Shorting block	A device that prevents current transformer burn up.

Stator	The stationary part of a rotor system, found in an electric generator or electric motor.
Stored energy	The energy stored in a system due to its position in a force field or due to its configuration.
Substation	Part of an electrical generation, transmission, and distribution system, where voltage is transformed from high to low, or the reverse, or many other important functions.
Symbol	An object, picture, written word, sound, or particular mark that represents some piece of information by association, resemblance, or convention.
Temperature	A physical property of matter that quantitatively expresses the common notions of hot and cold.
Thermal cycling	A temperature modulation process developed to improve the performance, strength and longevity of a variety of materials.
Toxic	The degree to which a substance can damage an organism.
Transceiver	A device that has both a transmitter and a receiver which is combined and share common circuitry or a single housing.
Transformer	Static device that transfers electrical energy from one circuit to another through inductively coupled conductors.
Warning	A precautionary statement providing information on potential hazards, and proper procedures.
Wet contacts	Mercury-wetted contacts.

General instructions for all products

Environmental instructions

This label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

- Batteries are marked with a symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg).
- Dispose of used batteries according to the manufacturer's instructions.
- Do not dispose of the battery in a fire or with household waste.
- For proper recycling, return the battery to your supplier or contact your local waste disposal agency for the address of the nearest battery disposal site.
- Unless otherwise noted, this is a Class A product for use in industrial environments only.
- EMC performance in environments may be compromised due to conducted and/or radiated disturbances.

General safety precautions

- Failure to practice safe working procedures is likely to damage the equipment, cause severe injury and/or death.

- The use of appropriate safety gloves, safety glasses and protective clothing are recommended during equipment installation, maintenance and service of the equipment.
- All procedures must be strictly adhered to.
- Failure to observe and follow the instructions provided in the equipment manual(s) could cause irreversible damage to the equipment and could lead to property damage, personal injury and/or death.
- Before attempting to use the equipment, it is important that all danger and caution indicators are reviewed.
- If the equipment is used in a manner not specified by the manufacturer or functions abnormally, proceed with caution. Otherwise, the protection provided by the equipment may be impaired and can result in Impaired operation and injury.
- Beware of potential hazards, wear personal protective equipment and carefully inspect the work area for tools and objects that may have been left inside the equipment.
- Caution: Hazardous voltages can cause shock, burns or death.
- Test personnel must be familiar with general device test practices, safety precautions and follow standard ESD precautions to avoid personal injury or equipment damage.
- Before performing visual inspections, tests, or periodic maintenance on this device or associated circuits, isolate or disconnect all hazardous live circuits and sources of electric power.
- Failure to shut equipment power off prior to removing the power connections could expose you to dangerous voltages causing injury or death.
- All recommended equipment that should be grounded must have a reliable and un-compromised grounding path for safety purposes, protection against electromagnetic interference and proper device operation.
- Equipment grounds should be bonded together and connected to the facility's main ground system for primary power.
- Keep all ground leads as short as possible.
- At all times, equipment ground terminal must be grounded during device operation.
- Where applicable, do not expose batteries to storage conditions that do not meet the manufacturer's recommendation.
- While the equipment manual may suggest several safety and reliability steps, safety precautions must be used in conjunction with the safety codes in force at your location.
- LED transmitters are classified as IEC 60825-1 Accessible Emission Limit (AEL) Class 1M. Class 1M devices are considered eye safe to the unaided eye. Do not view directly with optical instruments.

Assembly instructions

- Installation must be performed according to the national electric code of the appropriate country.
- It is the responsibility of the end-user to ensure that the equipment is installed, operated, and used for its intended function in the manner specified by GE.
- To avoid the potential for personal injury due to fire hazards, ensure the unit is mounted in a safe location and/or within an appropriate enclosure.
- Do not install if the device is damaged. Inspect the box for obvious defects such as cracks in the housing.
- Turn off the electric power before making any electrical connections, and ensure a proper ground connection is made prior to connecting facility power to the device.

- CAUTION: Do not apply more than the maximum electrical rating that the device can withstand.
- Refer to the equipment labels and/or manual(s) before applying voltages. Failure to do so can result in property damage, personal injury and/or death.
- Any and all wires not immediately used must be properly insulated to ensure that an accidental turning on of the power will not cause a short or electrical hazard.
- To avoid equipment malfunction or mis-operation, it is recommended that all metallic conduits or cable shields be connected to the ground at one point.

Maintenance instructions

- There are no user serviceable parts inside. Only qualified personnel should work on this equipment.
- Beware of working around this equipment when the voltage is live.
- Use caution and follow all safety rules when handling, testing, or adjusting the equipment.
- Always disconnect the power source before and remove all voltage inputs prior to servicing the equipment.
- Since voltages may be present inside the device even if the equipment is powered off, maintenance personnel should be familiar with the hazards associated with electrical equipment.
- Attempting to resolve equipment problems using methods not recommended by the manufacturer may result in damage or injury to persons and property.
- If required and to avoid electric shock, disconnect power before attempting to replace fuses and/or batteries. Only replace fuses or batteries with the same or equivalent type recommended by the manufacturer.
- CAUTION: A new battery may explode if it is incorrectly installed.
- Battery installation must conform to national and local codes.
- Handle a damaged or leaking battery with extreme care - do not disassemble, incinerate, puncture, crush or short-circuit the battery. If you touch the electrolyte, wash the exposed skin with soap and water. If the electrolyte contacts your eye, flush the eye with water for 15 minutes. If you have inhaled the electrolyte, move to fresh air, and monitor breathing and circulation. In each case, seek immediate medical attention.

Information for use

- Ensure the operating conditions (that is, electrical and environmental) are within the specifications listed in the equipment manual(s). Failure to do so can cause abnormal equipment operation, equipment damage and/or personal injury.
- Do not operate the equipment with safety shields or covers removed that have been installed to prevent accidental contact.
- When connecting to a desktop computer, ensure the devices share the same ground reference. If, however, connecting to a portable computer, it is recommended to have it powered with its internal battery.
- Caution: Beware of the possibility of losing communication during firmware change processes.
- If applicable, ensure the dust covers are installed when the fiber is not in use.
- Dirty or scratched connectors can lead to high losses on a fiber link.

Product Safety and Regulation Specific Information

Chapter 2: Special requirements

Meters

Intellix™ SM300: maintenance instructions

- ☐ De-energize the meter prior replacing the back up battery.
- ☐ Ensure no power is fed back through house installation!
- ☐ Do not interchange base and electronics module assemblies between meters.
- ☐ Calibration data stored in the meter is particular to a set of current sensors
- ☐ The meter is powered by a three-phase power supply.
- ☐ The standard voltage range is 120 to 480 V. Warning: Do not exceed 575(850) Volts for the 120 to 480 V supply. Operation at voltages beyond this rating can lead to shortened life or failure.
- ☐ The optional low voltage range is 57 to 120 V. Warning: Do not exceed 575(144) V for the 57 to 120 V supply. Operation at voltages beyond this rating can lead to shortened life or failure.
- ☐ The extended operating range of –20% to +10% of rating.
- ☐ Using "Wye" test conditions, do not apply test voltages at higher than 305 volts line-to-neutral (277V + 10%) for 120 to 480V rating. Stresses of this magnitude can result in immediate failure of the meter and/ or shorten meter life.
- ☐ Using "Wye" test conditions, do not apply test voltages at higher than 132 V line-to-neutral (that is, 120V +10%) for 57 to 120 V rating. Stresses of this magnitude can result in immediate failure of the meter and/ or shortened meter life.
- ☐ The supply operates for either 50 Hz or 60 Hz line frequency.
- ☐ Meter loading equipment must be capable of maintaining accuracy while supplying energy to the meter's broad range switching power supply. Otherwise, meters may be tested in any shop that meets the requirements outlined in the current editions of the *Handbook for Electricity Metering* published by the Edison Electric Institute and the *American National Standard Code for Electricity Metering.*

- ☐ The meter mounting equipment and its electrical connections must be used as required for the meter form number on the meter nameplate. If required for the test equipment used, the test link(s) must be opened.

Monitor and diagnostics

Transport X

- ☐ For continued fire protection, use only the approved and recommended fuse.
- ☐ Replacement fuse: F6.3AH250V 5x20mm.
- ☐ Do not use equipment if the power cord is visibly damaged or worn out, or if is missing or has a damaged PE pin.
- ☐ Use only a safety approved power cord.
- ☐ Do not operate Transport X (top cover open) in rainy conditions.
- ☐ The unit should be stored with it's lid closed when not in use to avoid accidental damage during transit.
- ☐ Equipment should not be left operating unsupervised.
- ☐ Disconnection from the supply is achieved through the power inlet connector. To disconnect from the supply, turn off the device using the touch screen, then power off using the on/off switch, then disconnect the supply cord.
- ☐ This product has been tested to the requirements of CAN/CSA-C22.2 No. 61010-1, second edition, including amendment 1, or a later version of the same standard incorporating the same level of testing requirements.

Transfix/Taptrans/Multitrans/Minitrans

- ☐ Disconnection from the supply is achieved through the modular fuse holders mounted adjacent to the mains inlet terminals.
- ☐ For continued fire protection, use only approved and recommended fuse. Replacement Fuse: 10A 500V (gG), 10 x 38mm

Hydran M2

- ☐ Please advise station operator prior to maintenance, as working inside the Hydran M2 may trigger unwanted alarms due to parameter changes, power shutdown, system rebooting or electrostatic discharge.
- ☐ Intended for industrial use and shall not be connected to the public low-voltage supply system.
- ☐ The Hydran M2's operation may be affected if wires are not connected correctly.
- ☐ Be careful when installing and inserting each wire.
- ☐ Be sure to insert all strands in the terminal; strands that touch two terminals will cause problems.
- ☐ Strip each wire to a maximum of 8 mm before installing it. Do not leave trims of metallic strands inside the Hydran M2's enclosure.

Communications

All radio communications equipment

RF exposure notice

Transmitting radio equipment emits radio frequency (RF) energy. The concentrated energy from a transmitting site may pose a health hazard in the proximity of the station antenna. RF exposure distance limits, if required, are listed in the documentation supplied with the equipment. These distances vary depending on the power level used and gain of the antenna system. Do not allow personnel to come closer to the antenna than the distance(s) specified while the transmitter is operating.

GE MDS Intrepid Series

- ☐ Applicable requirements of National Electrical Code (NEC), NFPA 70; and the National Electrical Safety Code, ANSI/IEEE C2, must be considered during installation.
- ☐ A primary protector is not required to protect the exposed wiring as long as the exposed wiring length is limited to less than or equal to 140 feet, and instructions are provided to avoid exposure of wiring to accidental contact with lightning and power conductors in accordance with NEC sections 725-54 (c) and 800-30. In all other cases, an appropriate listed primary protector must be provided. Refer to articles 800 and 810 of the NEC for details.
- ☐ For protection of ODU against direct lightning strikes, appropriate requirements of NFPA 780 should be considered in addition to NEC.
- ☐ For Canada, appropriate requirements of the CEC 22.1 including Section 60 and additional requirements of CAN/CSA-B72 must be considered as applicable.
- ☐ Always connect a given port to a port of the same safety status. If in doubt, seek the assistance of a qualified safety engineer.
- ☐ Always make sure that the equipment is grounded before connecting telecommunication cables.
- ☐ Do not disconnect the ground connection before disconnecting all telecommunications cables.
- ☐ Some SELV and non-SELV circuits use the same connectors.
- ☐ Use caution when connecting cables.
- ☐ Extra caution should be exercised during thunderstorms.
- ☐ When using shielded or coaxial cables, verify that there is a good ground connection at both ends.
- ☐ The grounding and bonding of the ground connections should comply with the local codes.
- ☐ The telecommunication wiring in the building may be damaged or present a fire hazard in case of contact between exposed external wires and the AC power lines.
- ☐ In order to reduce the risk, there are restrictions on the diameter of wires in the telecom cables, between the equipment and the mating connectors.
- ☐ To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cords.
- ☐ Some ports are suitable for connection to intra-building or non-exposed wiring or cabling only. In such cases, a notice will be given in the installation instructions.
- ☐ Do not attempt to tamper with any carrier-provided equipment or connection hardware.

- ☐ Do not touch or tamper with the power supply when the power cord is connected.
- ☐ Line voltages may be present inside certain products even when the power switch (if installed) is in the OFF position or a fuse is blown.
- ☐ For DC-powered products, although the voltages levels are usually not hazardous, energy hazards may still exist.
- ☐ Before working on equipment connected to power lines or telecommunication lines, remove jewelry or any other metallic object that may come into contact with energized parts.
- ☐ Unless otherwise specified, all products are intended to be grounded during normal use.
- ☐ Grounding is provided by connecting the mains plug to a wall socket with a protective ground terminal.
- ☐ If a ground lug is provided on the product, it should be connected to the protective ground at all times, by a wire with a diameter of 18 AWG or wider.
- ☐ Rack-mounted equipment should be mounted only in grounded racks and cabinets.
- ☐ Always make the ground connection first and disconnect it last.
- ☐ Do not connect telecommunication cables to ungrounded equipment.
- ☐ Make sure that all other cables are disconnected before disconnecting the ground.
- ☐ Some products may have panels secured by thumbscrews with a slotted head. These panels may cover hazardous circuits or parts, such as power supplies. These thumbscrews should therefore always be tightened securely with a screwdriver after both initial installation and subsequent access to the panels.
- ☐ When connecting AC mains make sure that the electrical installation complies with local codes.
- ☐ Always connect the AC plug to a wall socket with a protective ground.
- ☐ The maximum permissible current capability of the branch distribution circuit that supplies power to the product is 16 A (20 A for USA and Canada).
- ☐ The circuit breaker in the building installation should have high breaking capacity and must operate at short-circuit current exceeding 35 A (40 A for USA and Canada).
- ☐ Always connect a given port to a port of the same safety status.
- ☐ If in doubt, seek the assistance of a qualified safety engineer.
- ☐ Use of controls, adjustments, or performing procedures other than those specified herein, may result in hazardous radiation exposure.
- ☐ For a maximum distance of 15 m (50 ft) from the power source, use a 14-AWG (2.08 mm^2) cable and an over-current protection.
- ☐ Warning: One or more windings are open-circuited during this operation (refer to GEH-230AF). These windings may develop voltages that are hazardous to personnel. Observe safety precautions.

Product Safety and Regulation Specific Information

Chapter 3: EU declaration of conformity

GE Digital Energy conformity templates

The following three pages contain the generic EU Declartion of Conformity document and the generic EU Declaration of Conformity Appendix that are included with GE Digital Energy products.

EC Declaration of Conformity

Declaration No.

CE 11

Issuer's Name:
Address:

Authorized representative:
Address:

Object of the declaration	

We (the Issuer) declare that the product(s) described above is in conformity with applicable EC harmonization Legislation:

Document No.	**Title**	**Edition/Issue**

Harmonised standards or references to the specifications in relation to which conformity is declared:

Document No.	**Title**	**Edition/Issue**

Additional Information	

Signed for and on behalf of:	(enter Issuers' company name here)
Name: **Function:**	**Name:** **Function:**
Signature:	**Signature:**

Issued Date:
Revised Date:

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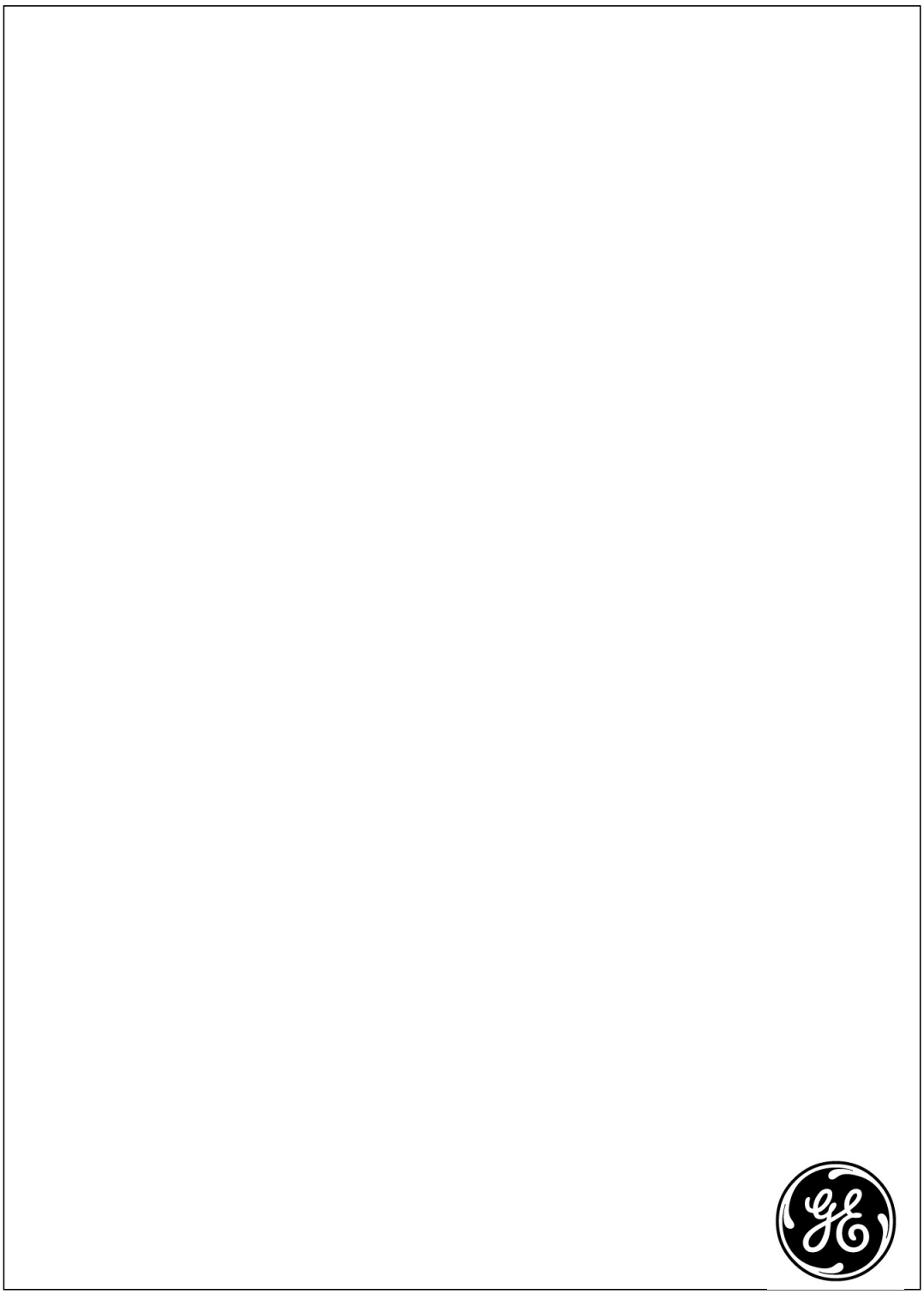

EC Declaration of Conformity Appendix

Declaration No. (Unique ID number of declaration)

CE 11

Object of the declaration

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DE-F-7.0.1 Rev3

Digital Energy

Product Safety and Regulation Specific Information

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