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Iso-Gard Series 6 LIM
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All Square D™ brand Isolated Power Panels meet or exceed UL® 1022 and 1047 and are cUL Listed.

All products listed in this section are available through standard ordering procedures from authorized Schneider Electric distributors. For more information, contact your nearest Schneider Electric sales office or distributor. Call 1-888-778-2733 or visit www.schneider-electric.us.

Life Safety from Schneider Electric Medical Products

Schneider Electric has been deeply involved in isolated power systems since 1944. The current Iso-Gard™ brand of isolated power panels has evolved over the years and will continue to do so. With the ever-changing needs of the health care industry, Schneider Electric is the leader in innovation and design.

Recent updates to some of our current panels include the ability to use bolt-on or plug-on circuit breakers in all panels. With the growing need for X-ray and laser use, the controlled power panel solves many difficult situations where both of these technologies are required, but at different ampere ratings.

Mixing and matching components is easier today than ever before, with panels that can serve up to 16 circuits. The Iso-Gard Series 6 line isolation monitor (LIM) has communication capabilities and the ability to monitor the transformer temperature and current flow.

Schneider Electric can work with facility managers, design engineers, contractors, or anyone else trying to design an isolated power system. We can provide custom configurations to fit your needs. Simply configure the panel desired by starting with the basic operating room (OR) panel and adding the intensive care unit (ICU)/critical care unit (CCU) or controlled power panel options you need.

- Panels are field expandable to 16 circuits for all panels by adding Square D™ brand QO™ or QOB circuit breakers from Schneider Electric.
- Panels come with a main circuit breaker.
- Panels are 5 mA and field adjustable to 2mA.
- Six-inch deep panels are not available for all kVA ratings.

Orders can be automatically configured on the Schneider Electric brand ordering system available from your nearest Schneider Electric distributor.

To request drawings and/or product design and availability information, send an e-mail to: medical_products@us.schneider-electric.com

Operating Room Panels

First introduced in the 1960s, but newly redesigned in 2011, this standard unit is most often used to supply 120 V service to the receptacles in an operating room. However, its use is not restricted to that application; it can also be used in critical care areas. This panel incorporates the following Schneider Electric components:

- Primary circuit breaker
- Isolation transformer
 - low-leakage
 - electrostatically shielded
 - 180 °C insulation system
 - 115 °C temperature rise
 - 30 dB sound level
- Reference ground bus bar
- Iso-Gard LIM
- NQ panelboard interior

Operating room panels are non-ventilated and are supplied with a #304 stainless steel trim with a brushed finish. Under continuous full load and normal hospital ambient conditions, the surface temperature of the front trim panel will be no greater than 50 °C. The panels are UL Listed under Section 1047, *Isolated Power Systems Equipment*

Table 15.1: Operating Room Panel Ordering Information

Catalog No.	kVA Rating	Backbox Depth (in inches)	Width/Height (in inches)
SIP	3 and 5	6	24 W x 43 H
	7.5 and 10	8	

ICU/CCU Panels

Redesigned in 2011, these panels incorporate the same components and features as the operating room panels, but have the added feature of eight power receptacles and six approved grounding jacks connected to a ground bus for attaching fixed equipment and building structural grounds.

The power receptacles are “hospital only,” locking-type receptacles. Duplex or single receptacles are available on request. Although the panel is designed to serve the needs of a coronary care or intensive care bed, it has been widely applied to provide power within special procedure rooms, cardiovascular laboratories, and general operating rooms.

Table 15.2: ICU/CCU Panel Ordering Information

Catalog No.	kVA Rating	Backbox Depth (in inches)	Width/Height (in inches)
SIP	3 and 5	6	24 W x 45 H
	7.5 and 10	8	



Controlled Panels



Controlled isolated power panels from Schneider Electric are designed to provide power for portable equipment outlets. In the past, most equipment operated on 60 A circuits. Today, these loads vary from 20 to 60 A and multiple pieces of equipment are being used. By applying the proper kVA loading, a panel can now provide power to multiple rooms and maintain safe operating conditions. All these panels are available in both one-phase and three-phase configurations with 5 to 25 kVA ratings.

The type of controls applied depends on the need. Schneider Electric has a variety of control schemes from push buttons to switches located in the operating room. The NEC requires that an audible and visual indication of alarm be available wherever isolated power is used. We use a receptacle module with a remote alarm indicator built into it for this purpose. A receptacle module without a remote alarm indicator is also available. The control of these circuits is important not only for the safety of turning them on and off, but they also turn the remote alarm indicators on and off at the same time. This reduces any confusion caused by an alarm going off in the operating room from circuits that don't need to be energized.

The basic control scheme is the mechanical interlock panel. The panel will serve various locations within the hospital. Interlocking circuitry allows predetermined locations to be used at any given time. Consequently, the line isolation monitor (LIM) monitors only the wiring and its inherent leakage to that receptacle. Remote indicator alarm stations must be located at the receptacle location. A push button station located in the panel controls the interlocking system. If the panel location is inaccessible or inconvenient for operating personnel, the push button station is available in a separate module that can be installed at the nurses' station or any other convenient location. This can be an inconvenience since this type of control system requires someone to select which room will be turned on. It also poses a potential problem in that someone could easily push a button to turn the power on in another room, thus turning off the power in a room that may actually be using a piece of equipment.



Table 15.3: Controlled Panel Ordering Information

Catalog No.	kVA Rating	Backbox Depth (in inches)	Width/Height (in inches)
SIP	15	12	30 W x 51 H
	25	14	

Receptacle Modules for Controlled Panels

X-ray/laser power receptacle modules from Schneider Electric provide a convenient source of power for portable X-ray and laser equipment. The receptacle provided in each module is matched to the NEMA plug configuration of the equipment with which it will be used, and is mounted behind the door on the stainless steel face plate. The door features a concealed hinge and a touch latch.



Duplex Panels

The Duplex Isolation Power Panel is a single enclosure containing two complete hospital isolation systems. A divider in the unit's backbox separates the systems from top-to-bottom and front-to-back.

Each system has its own set of equipment, all of which is manufactured by Schneider Electric:

- Primary circuit breaker
- Isolation transformer
- Reference ground bus bar
- Iso-Gard™ line isolation monitor (LIM)
- NQ panelboard interior

Table 15.4: Duplex Isolation Panel Ordering Information

Catalog No.	kVA Rating ▲	Backbox Depth (in inches)	Width/Height (in inches)
SIX	3–10	8	34 W x 71 H

▲ Panels are available in any combination of two kVA ratings.

Dual Output Voltage Panels

The dual output voltage, hospital isolated power panel is a single, ungrounded panel that can supply two different output voltages simultaneously. Similar to a standard distribution panel or load center, it can supply both 120/208 V or 120/240 V of ungrounded, isolated, single-phase power using only one isolation transformer. Other hospital isolation panels can supply only one output voltage.

Typically, the 208 or 240 V circuits of the dual output voltage panel supply power to operating room equipment such as mobile X-ray machines or surgical lasers. At the same time, the panel's 120 V circuits can supply power to convenience receptacles, surgical lights, X-ray film illuminators, sterilizers, and other 120 V appliances commonly found in operating rooms. This panel is ideally suited as a power supply for power/ground modules and X-ray indicator/receptacle modules.



Table 15.5: Dual Output Panel Ordering Information

Catalog No.	Output Voltage Rating (in Vac)	Backbox Depth (in inches)	Width/Height (in inches)
SIDV	120/208	14	34 W x 51 H
	120/240		

New! Iso-Gard™ Series 6 Line Isolation Monitor—UL Recognized

The Square D brand, Iso-Gard Series 6, microprocessor-controlled, line isolation monitor (LIM) is included as standard equipment in all Schneider Electric hospital isolation panels. This LIM is also available as a replacement unit for older LIMs, is a direct replacement for all previous Schneider Electric LIMs, and is electrically compatible with all hospital isolated power systems.



- Automatic and manual self-test and self-calibration that reduces the frequency of required periodic testing
- Digital and analog display
- Unique audible alarm that will not be confused with other equipment
- UL component recognized and CSA classified
- Microprocessor-controlled circuitry for highest accuracy and stability

Table 15.6: Iso-Gard LIM Ordering Information and Specifications

Catalog No.	Operating Voltage	Hazard Current Alarm Level	Mode	Monitor Hazard Current
IG6	85–265 Vac, 50 or 60 Hz	2 or 5 mA (selectable)	Single- or three-phase (selectable)	25 µA or less

Remote Alarm Indicators

The National Electrical Code® (NEC®) **requires** audible and visual alarm indication where isolation power is used (NEC 517-160). Schneider Electric offers the IG2000P and RA1 remote alarm indicators for this purpose.

New! IG2000P



RA1



New! **Nurses' Station Indicators/Alarm Annunciators**

Nurses' station indicators are available by combining the standard IG2000P remote onto a ganged plate or by using the new IGR or IGRD indicators/alarm annunciators. The IGR unit can support up to 199 panels on a single, twisted-pair connector. The IGRD unit has a larger capacity.



New! **Iso-Gard™ IGT Dual Clock/Timer**

The IGT unit displays both time of day and elapsed time information. The top, four-digit display shows the current time. It can operate in both 12- and 24-hour time modes. The bottom, four-digit display is an elapsed time counter controlled by the Count/Reset and Hold/Resume buttons.

- Bright-red LED display for enhanced readability under the intense lighting conditions found in hospital operating rooms
- 12/24 hour selectable mode
- Power outage backup for at least 24 hours without batteries
- Designed for flush wall mounting

A multi-display unit is available by combining the IGT unit into a four display unit and utilizing an IGT 1550 four-point remote control.

New! **Iso-Gard™ IGT1550 Remote Control**

The IGT1550 remote control provides the ability to control a clock/elapsed timer, such as the IGT, from a more convenient location.



Power/Ground Modules

When both ground jacks and power receptacles are required, these UL Listed modules offer convenience and save labor in field wiring. The units include four power receptacles, four twist-to-lock ground jacks, and a ground bus with a generous number of lugs for external ground connections.

The main ground connection in the module accommodates up to a #1/0 cable. The units are completely factory wired; only field power connections and ground connections are necessary. They are furnished with Type 304, brushed stainless steel face plates.

4 Red Duplex Receptacles
and 4 Ground Jacks



4 Locking Receptacles
and 4 Ground Jacks



Hospital Ground Cords and Jacks

Schneider Electric provides hospital-grade devices for the supply and grounding of portable equipment.

- Hospital ground cords
 - Highly flexible wire with a heavy duty lug or clip end
 - Ground cord with lug end is UL Listed (UL 467)
 - Various lengths available
- Hospital ground jacks

Ground Cord with Lug End



Ground Jack



Ground Cord with Clip End

