

NEW

Automation control units for supply invertors



**QUICK TO INSTALL,
PROVIDE OPTIMUM
CONTINUITY OF SERVICE**

CATALOGUE
PAGES
INSIDE

THE GLOBAL SPECIALIST IN ELECTRICAL
AND DIGITAL BUILDING INFRASTRUCTURES

 **legrand**[®]

A high-performance range for optimum continuity of service

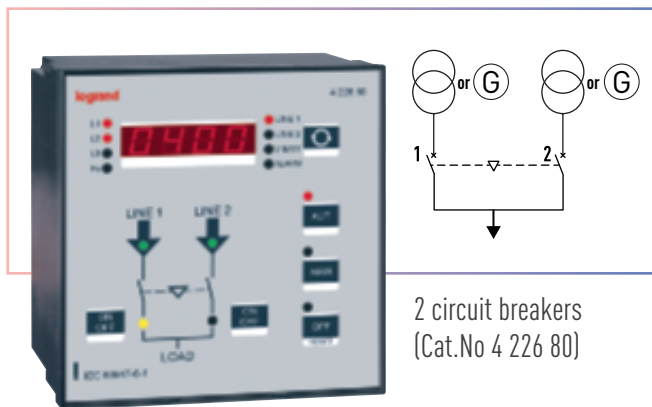


The new range includes 3 types of control unit, depending on the desired service level and the complexity of the installation. The new control units can be used to set the conditions for supply inversion, switching a generator on or off.

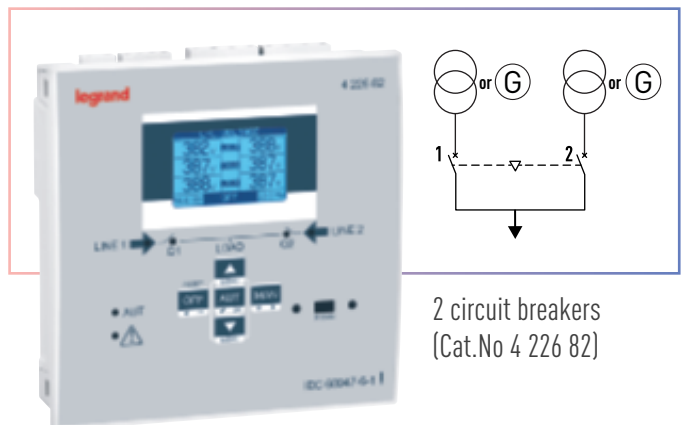
For single-phase, two-phase and three-phase systems.

Used to control phase-to-neutral and phase-to-phase voltage. Compatible with DPX³ MCCBs, DMX³ air circuit breakers and CTX³ contactors.

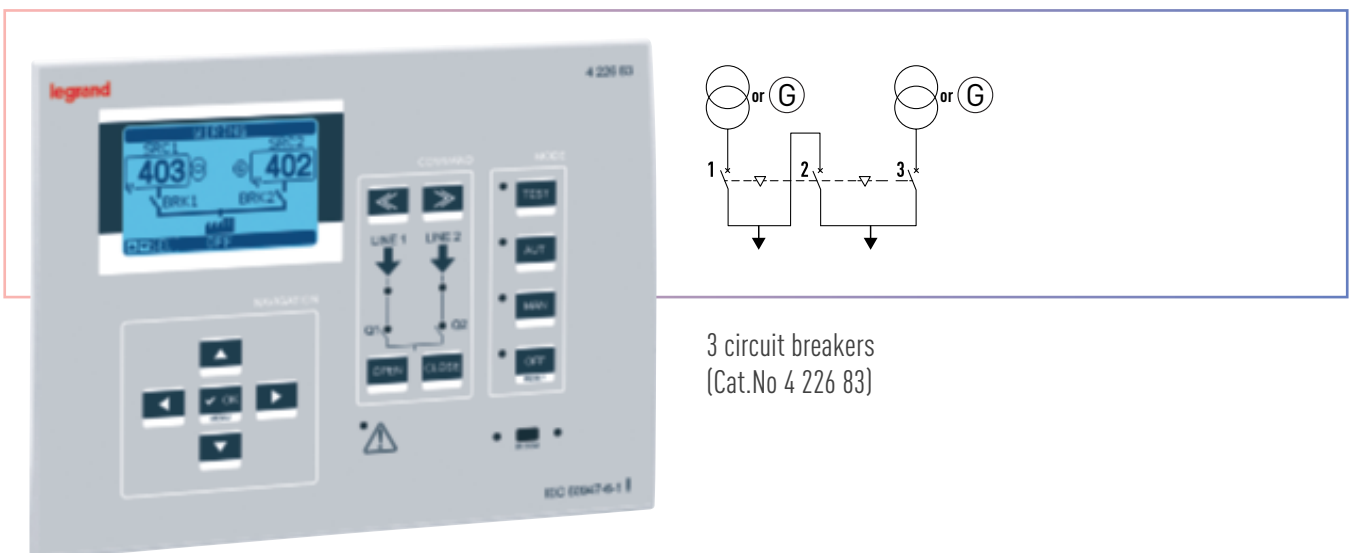
STANDARD UNIT



CONFIGURABLE UNIT



CONFIGURABLE UNIT



	4 226 80	4 226 82	4 226 83
POWER SUPPLY	12 – 48 V=; IP54 (on front panel)	12 – 24 V=; 110 – 240 V~; IP40 (on front panel)	12 – 24 – 48 V=; 110 – 240 V~; IP65 (on front panel)
CONTROLLED VOLTAGE	(Line 1, Line 2) 2 x 3 phases + N 100 – 480 V~	(Line 1, Line 2) 2 x 3 phases + N 100 – 480 V~	(Line 1, Line 2) 2 x 3 phases + N 100 – 600 V~
DISPLAY	LEDs, seven-segment display	Backlit LCD display, 5 languages	Backlit LCD display, 8 languages
INPUTS	6 programmable digital inputs		8 programmable digital inputs
OUTPUTS	6 programmable relay outputs	7 programmable relay outputs	
EXPANSION	-	2 expansion modules for additional I/O or communication functions	3 expansion modules for additional I/O
PORT	Integrated RS232 communication port	Optical port on front panel for USB or Wi-Fi connectors (for configuration from a PC or tablet and smartphone)	- Integrated RS485 communication port - Optical port on front panel for USB or Wi-Fi connectors (for configuration from a PC or tablet and smartphone)
FUNCTIONS	Line/Line, Line/Generator and Generator/Generator with independent activation and activation delay		
TRANSITION OPTION	Open	Open	Open + Closed-transition load switching with spontaneous or controlled synchronisation of generator sets.
CONTROL FUNCTIONS ON THE LINES	Min. and max. voltage - Phase cutting - Voltage imbalance - Min. and max. frequency		
CLOCK	-	RTC with working reserve	
STORAGE	-	100 most recent events	250 most recent events
PROGRAMMING	With integrated RS232 port	Direct on front panel or with USB or Wi-Fi communication modules and software or Legrand app	

ACCESSORIES

MODULE FOR DUAL POWER SUPPLY (CAT.NO 4 226 86)



→ Used to control and measure the voltages present at its input terminals by identifying the most appropriate voltage for the output. For supplying power to control units for supply invertors, and MCCB motorised controls.

→ The two inputs of the power supply module are independent and isolated; each of them can supply the internal measuring circuit controlled by a microprocessor. It reduces the number of components and improves installation safety.

General characteristics:

- Voltage value can be selected using bypass terminals
- Min. and max. voltage trip thresholds
- 2 L+N single-phase inputs
- L+N single-phase output
- L1 priority line
- Can be used with motors supplied with 110 V~ or 230 V~
- LED indicating anomalies, I/O states

EXPANSION MODULES



Simply clip into place at the back of configurable units (2 or 3 modules depending on the type of unit). Used to increase the number of inputs or outputs or add a communication function.

4 module types with different functions:

- 4 isolated solid state outputs
- 2 isolated digital inputs and 2 isolated relay outputs
- 2 relay outputs: 5 A 250 V~
- RS485 interface

USB AND WI-FI CONNECTORS



Make it easy to configure the control unit via a computer or tablet and smartphone (depending on the type chosen) without having to cut off the power to the electrical cabinet. Connect at the front of the device (only for Cat. Nos 4 226 82 and 4 226 83).

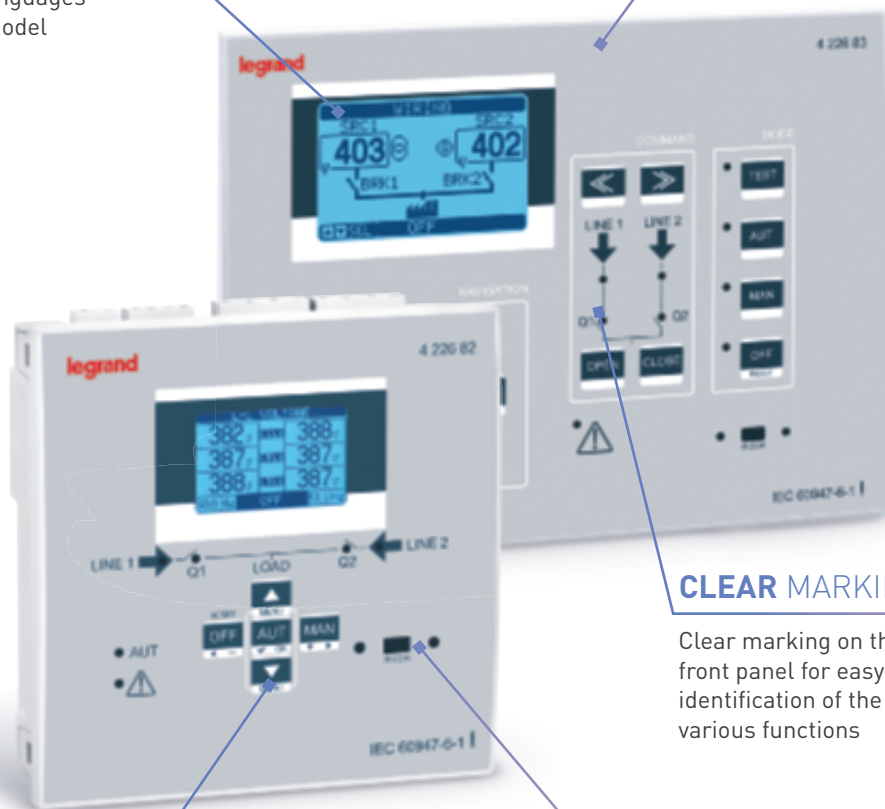
Devices which perform brilliantly and are easy to use



BACKLIT SCREEN

Very easy to read, adjustable brightness and contrast. Menu available in 5 or 8 languages depending on unit model

STYLISH ERGONOMIC DESIGN



CLEAR MARKING

Clear marking on the front panel for easy identification of the various functions

TOUCH-SENSITIVE BUTTONS

For programming the various operating parameters directly on the control unit

OPTICAL COMMUNICATION PORT

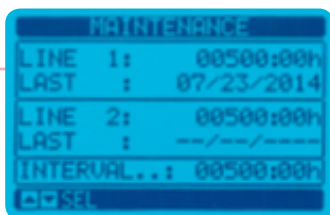
The optical port on the front can take a USB or a Wi-Fi connection module, which allows communication with a computer, smartphone or a tablet for programming, diagnostics and data downloading, without having to cut off the power to the electrical panel.

INTUITIVE USER INTERFACE



Simplified access to the various parameters:

- Status
- Voltage and frequency measurement
- Reports
- Trip thresholds
- Alarms



Counters for maintenance operations:

- Operating hours
- Number of operations by circuit breakers associated with the unit. An alarm trips, as soon as preset thresholds for maintenance operations are reached.



Functions associated with the various inputs and outputs are preconfigured. Other settings are possible, to meet the user's needs as closely as possible.



The settings are grouped into 4 categories:

- Trip thresholds
- Remotely-controllable parameters
- User alarms
- Counters



The event log is used to view the data in order to understand and master how the system works.



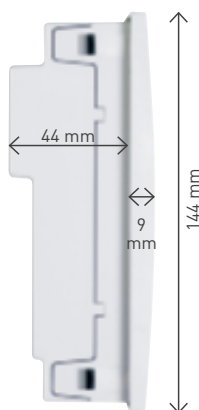
Real-time clock with working reserve

A TURNKEY SOLUTION

With its new range of control units, Legrand offers a real turnkey solution to simplify project design, installation and product configuration.

Installation and user manuals, available via the E-Catalogue for each catalogue number, contain a complete set of technical data with wiring diagrams and predefined configurations corresponding to the most commonly found examples of installation (from the simplest to the most complex).

COMPACT SIZE



The shallow depth of the configurable controllers makes them exceptionally easy to install, even in slim electrical panels.

EASY TO INSTALL



The fixing system using metal screws ensures they will stay in place for a long time.



Simplified configuration

on PC, tablet or smartphone
saves a significant
amount of time

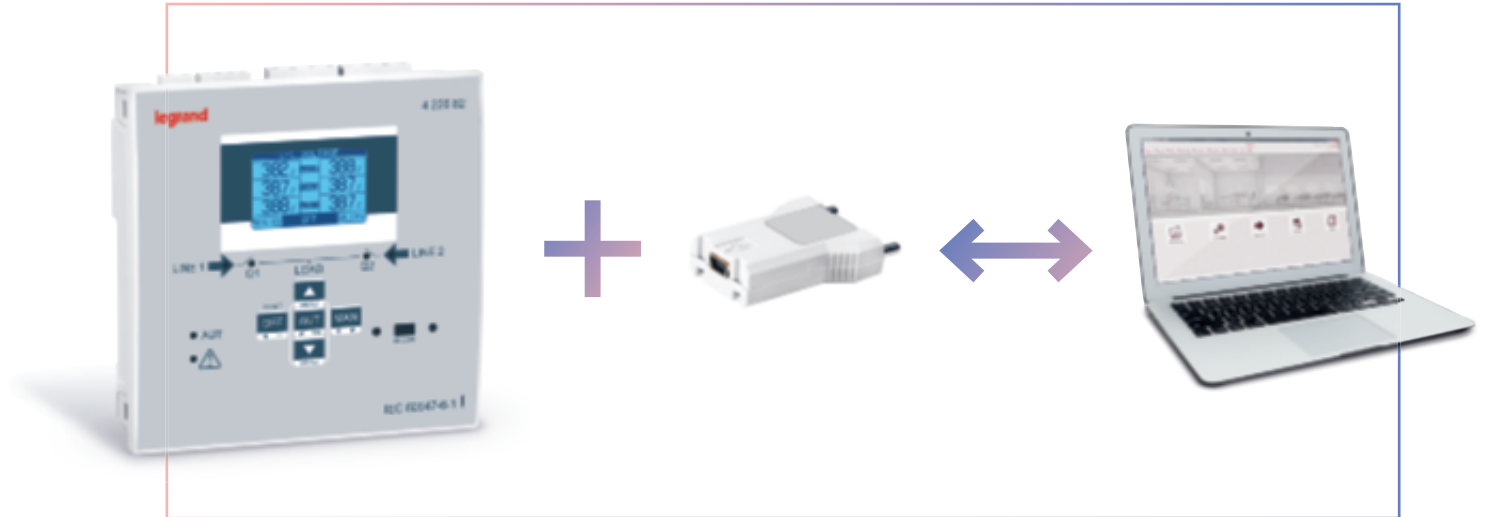


Configurable models are fitted with an optical port designed to take communication modules. These modules can be used to configure the control units via a PC, tablet or smartphone, on which the software or Legrand app has already been installed.



USB MODULE

Cat.No 4 226 87 is supplied with a USB cable which can be used to connect the control unit to a computer without having to cut off the power to the electrical cabinet, to program the unit, launch diagnostics, download all the back-up parameters, and update the firmware.



WI-FI MODULE



Cat.No 4 226 88 can be used to program the unit, launch diagnostics, download all the back-up parameters, or replicate all the data (parameters, counters, log) via a PC, tablet or smartphone, without using a cable. The replication function is useful for transferring all the data from one unit to another or for reverting to a previous configuration (on the same control unit)



LE LOGICIEL LEGRAND

Available for downloading via the E-Catalogue and the Legrand app (available from Google Play and Apple Store) in order to:

- Display the values measured by the control unit
- Control certain control unit functions such as counter reset, activation/deactivation of programmable outputs
- Configure the unit and make a copy in the form of a back-up file
- View current alarms
- Consult the event log and save a copy



Fast access to the various software functions using pictograms or via the toolbar.

Display of various parameters, grouped in a number of categories (input, output, trip thresholds, alarms, etc)



Configuration of the unit and creation of back-up files



Choice of operating mode (manual/automatic/OFF) and reset

Event log with option to export it in TXT or XLS format



The application is also available on your mobile device or smartphone

Automation control units for supply invertors



4 226 82

4 226 83

4 226 86

They can control power supply inversion between two sources, manage generator start/stop, control single phase, two-phase and three-phase networks, control phase-phase and phase-neutral voltages For DPX³ and DMX³ circuit breakers and CTX³ contactors

Pack	Cat.Nos	Automation control units
1	4 226 80	For standard management of 2 circuit breakers 6 programmable digital inputs and 6 programmable relay outputs Digital display Power supply: 12...48 V= ; IP54
1	4 226 82 ¹	For advanced management of 2 circuit breakers 6 programmable digital inputs and 7 programmable relay outputs Can be equipped with maximum 2 plug-in modules between: - extension modules Cat.No 4 226 90/91/92 - opto-isolated RS485 communication interface Cat.No 4 226 89 LCD display IR communication port on the front panel for connection of USB or WiFi modules Cat.No 4 226 87/88
1	4 226 83 ¹	For advanced management of 3 circuit breakers 8 programmable digital inputs and 7 programmable relay outputs Can be equipped with maximum 3 plug-in extension modules between Cat.No 4 226 90/91/92 Integrated opto-isolated RS485 communication interface LCD display IR communication port on the front panel for connection of USB or WiFi modules Cat.No 4 226 87/88 Can be configured with the help of the front panel touch keys or of the Legrand dedicated software Power supply: 12-24-48 V= ; 110-240 V~ ; IP65

Pack	Cat.Nos	Dual power supply selector
1	4 226 86	Dual power supply selector measures and controls two supply voltages at its inputs (single phase, 80-300 V~) and selects the most adapted voltage for auxiliary circuits supply Equipped with 1 alarm contact, if no supply voltage can be selected within the limits

Pack	Cat.Nos	Plug-in modules
1	4 226 89	Opto-isolated RS485 interface
1	4 226 90	4 opto-isolated static outputs
1	4 226 91	2 sorties relais; courant et tension assignés : 2 relay outputs, rated 5 A 250 VA
1	4 226 92	2 opto-isolated digital inputs and 2 relay outputs rated 5 A 250 V~

Pack	Cat.Nos	Accessories
1	4 226 87 ¹	USB front connector for programming the automation control units or downloading the event log via PC (equipped with dedicated Legrand software)
1	4 226 88 ¹	WiFi front connector for programming the automation control units or downloading the event log via PC, smartphone or tablet (equipped with dedicated Legrand software)

¹: Programming software available for download via E-catalogue;
App for smartphone & tablet available on Apple Store and Google Play

Automation control units for supply invertors - Technical characteristics

Technical characteristics

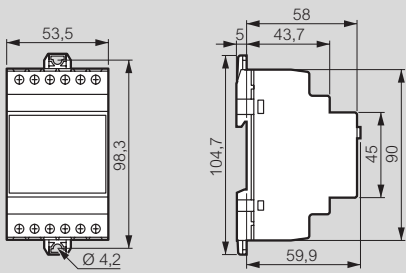
		Cat.Nos		
		4 226 80	4 226 82	4 226 83
Voltage Inputs	Ue max rated voltage	480 V~ L-L (277 V~ L-N)	100-480 V~	600 V~ L-L (346 V~ L-N)
	Measuring range	50-576 V~ (L-L)	50-576 V~ L-L	50...720 V L-L
	Primary voltage VT max	-	50000 V	50000 V
	Frequency range	45...66 Hz	45...65 Hz - 360...440 Hz	45...65 Hz - 360...440 Hz
	Measurement type	True RMS value	True RMS value	True RMS value
	Connection modes	Single phase, two-phase or three-phase system	Single phase, two-phase or three-phase system with or without neutral	Single phase, two-phase or three-phase system with or without neutral
	Measuring error	± 0.25% f.s. ± 1 digit	± 0.25% f.s. ± 1 digit	± 0.25% f.s. ± 1 digit
Ambient condition	Operating temperature	-20... +60 °C	-30...+70 °C	-30...+70 °C
	Storage temperature	-30...+80 °C	-30...+80 °C	-30...+80 °C
	Relativity humidity	< 90 %	80 % (IEC/EN 60068-2-78)	80 % (IEC/EN 60068-2-78)
	Maximum pollution degree	3	2	2
	Overvoltage category	3	3	3
	Measurement category	III	III	III
	Rated impulse withstand voltage	Uimp 4.0 kV	Uimp 7.3 kV	Uimp 7.3 kV

Automation control units for supply invertors

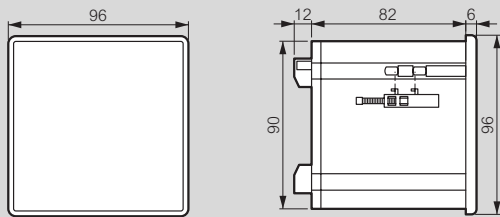
Dimensions

■ Dimensions

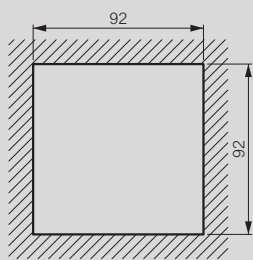
Cat.No 4 226 86



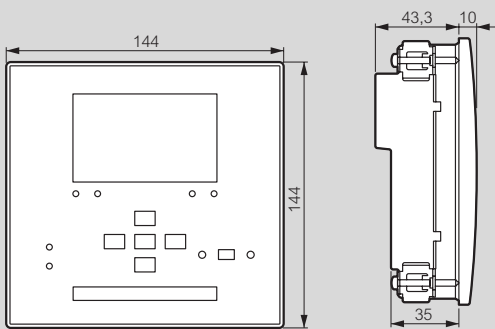
Cat.No 4 226 80



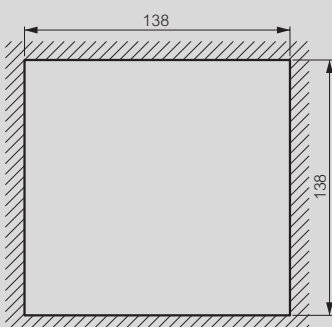
Door cut



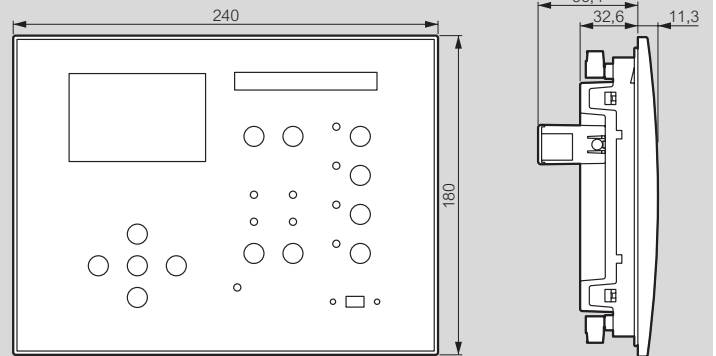
Cat.No 4 226 82



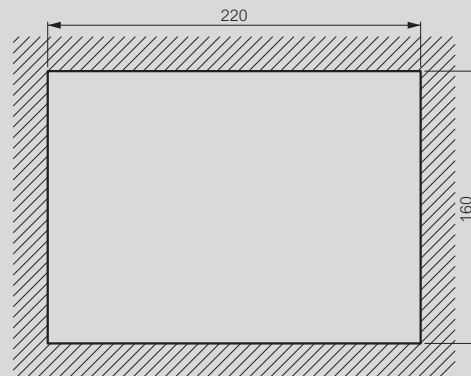
Door cut



Cat.No 4 226 83








Door cut





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Head Office
and International Department
87045 Limoges Cedex - France
Tel: + 33(0)5 55 06 87 87
Fax: +33(0)5 55 06 74 55