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MegaLine 1250

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1. GENERAL FEATURES

The Legrand UPS MegaLine 1250 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, with the possibility of N+X redundant configuration, Rated Power 1,250 VA – 875 W, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the accumulator batteries (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for power and/or back-up time expansion, upgrading on site, without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is configurable as an N+X redundant power system, with 1,250 VA modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing).
The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules).
The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log.
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Expandable, N+X Redundant with modules having a power from 1,250VA, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	1,250 VA / 875 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised to the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	1,250 VA / 875 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	 160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	23.5 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	270×570×475 mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1×serial port RS232 + 2×Logic Contact ports
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	1
Free power expansion slots	3
Installed battery kits	1
Free uptime expansion slots	3

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MegaLine 2500

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1. GENERAL FEATURES

The Legrand UPS MegaLine 2500 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, with the possibility of N+X redundant configuration, Rated Power 2.5 kVA – 1.75 kW, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the accumulator batteries (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for power and/or back-up time expansion, upgrading on site, without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is configurable as an N+X redundant power system, with 1,250 VA modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules).
The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Expandable, N+X Redundant with modules having a power from 1,250VA, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	2,500 VA / 1,750 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised to the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	1,250 VA / 875 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	 160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	34 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	270x570x475 mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact Port
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	2
Free power expansion slots	2
Installed battery kits	2
Free uptime expansion slots	2

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MegaLine 3750

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1. GENERAL FEATURES

The Legrand UPS MegaLine 3750 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, with the possibility of N+X redundant configuration, Rated Power 3,750 VA – 2,625 W, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the accumulator batteries (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for power and/or back-up time expansion, upgrading on site, without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is configurable as an N+X redundant power system, with 1,250 VA modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules). The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Expandable, N+X Redundant with 1,250 VA power modules, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	3,750 VA / 2,625 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised with the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	3,750 VA / 2,625 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	43 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	270×570×475 mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact Port
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	3
Free power expansion slots	1
Installed battery kits	3
Free uptime expansion slots	1

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MegaLine 5000

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1. GENERAL FEATURES

The Legrand UPS MegaLine 5000 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, redundant, Rated Power 5 kVA – 3.5 kW, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the accumulator batteries (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for on site back-up time expansion (upgrade on site) without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is redundant in power, with 1,250 VA power modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules).
The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Redundant with 1,250 VA power modules, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	5,000 VA / 3,500 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised to the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	5,000 VA / 3,500 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	 160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	53 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	270x570x475 mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact ports
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	4
Free power expansion slots	-
Installed battery kits	4
Free uptime expansion slots	-

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MegaLine 5000/2

3 103 60 + 3 107 78

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1. GENERAL FEATURES

The Legrand UPS MegaLine 5000/2 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, with the possibility of N+X redundant configuration, Rated Power 5 kVA – 3.5 kW, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, ,it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the accumulator batteries (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for power and/or back-up time expansion, upgrading on site, without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is configurable as an N+X redundant power system, with 1,250 VA modules, contained in the UPS cabinet,
with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules).
The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Expandable, N+X Redundant with 1,250 VA power modules, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	5,000 VA / 3,500 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised to the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	5,000 VA / 3,500 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	 160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	24+50 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	2x(270×570×475) mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact ports
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	4
Free power expansion slots	4
Installed battery kits	4
Free uptime expansion slots	6

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MegaLine 6250/2

3 103 63 + 3 107 79

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1. GENERAL FEATURES

The Legrand UPS MegaLine 6250/2 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, with the possibility of N+X redundant configuration, Rated Power 6,250 VA – 4,375 W, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the group of accumulators (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for power and/or back-up time expansion, upgrading on site, without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is configurable as an N+X redundant power system, with 1,250 VA modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules).
The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Expandable, N+X Redundant with 1,250 VA power modules, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	6,250 VA / 4,375 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised to the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	6,250 VA / 4,375 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	 160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	26.5 + 57.5 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	2x(270x570x475) mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact ports
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	5
Free power expansion slots	3
Installed battery kits	5
Free uptime expansion slots	5

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MegaLine 7500/2

3 103 66 + 3 107 80

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1. GENERAL FEATURES

The Legrand UPS MegaLine 7500/2 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, with the possibility of N+X redundant configuration, Rated Power 7.5 kVA – 5.25 kW, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the group of accumulators (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for power and/or back-up time expansion, upgrading on site, without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is configurable as an N+X redundant power system, with 1,250 VA power modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules).
The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set
special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating
modes with a liquid crystal control panel
and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Expandable, N+X Redundant with 1,250 VA power modules, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	7,500 VA / 5,250 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised to the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	7,500 VA / 5,250 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	26.5 + 57.5 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	2x(270x570x475) mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact ports
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	6
Free power expansion slots	2
Installed battery kits	6
Free uptime expansion slots	4

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MegaLine 8750/2

3 103 69 + 3 107 81

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1. GENERAL FEATURES

The Legrand UPS MegaLine 8750/2 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, with the possibility of N+X redundant configuration, Rated Power 8,750 VA – 6,125 W, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the group of accumulators (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.
The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for power and/or back-up time expansion, upgrading on site, without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is configurable as an N+X redundant power system, with 1,250 VA modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules).
The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.
An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Expandable, N+X Redundant with modules having a power from 1,250VA, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	8,750 VA / 6,125 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised with the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	8,750 VA / 6,125 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	31.5 + 72.5 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	2x(270x570x475) mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact ports
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	7
Free power expansion slots	1
Installed battery kits	7
Free uptime expansion slots	3

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MegaLine 10000/2

3 103 72 + 3 107 82

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1. GENERAL FEATURES

The Legrand UPS MegaLine 10000/2 model is a UPS using high frequency PWM technology, On Line Double Conversion type, solid neutral, modular architecture, redundant, Rated Power 10 kVA – 7 kW, equipped with valve-regulated hermetic-type accumulator batteries, contained inside the UPS in a specific compartment or in one or more external cabinets, sized to guarantee a minimum autonomy of 11 minutes when 80% charged.

1.1 Modularity

The MegaLine UPS has a modular architecture, it is composed of identical modules that, conceptually operating in parallel, compose the power section (1250VA power modules) and the group of accumulators (battery modules) of the UPS.
These modules are contained inside the UPS and have identical functions.

The power modules are composed of the functional blocks listed below:

- Rectifier/PFC
- Inverter
- Booster
- Battery Charger

The battery modules on the other hand, are composed of a series of batteries, protected accordingly by fuses in series.

1.2 Expandability

The modularity of the UPS allows for on site back-up time expansion (upgrade on site) without the need for calibration, settings, factory changes and in any case without the use of dedicated tools.

1.3 Redundancy

The modular UPS is redundant in power, with 1,250 VA power modules, contained in the UPS cabinet, with suitable mechanical latches and dedicated and pre-arranged electric connections.
Redundancy is achieved by an architecture based on the concept of “load sharing”.

1.4 Architecture

The system uses distributed parallel architecture, in other words all of the power modules share the load (load sharing) so that none of the power modules remain inactive or in stand-by, thus ensuring total continuity to the power supply of the loads, even in case of failure (with suitable redundant sizing). The modular architecture offers the possibility of supplying the load with energy even if the inverter of a power module shuts down (if there are two or more modules). The rated power that can be delivered by the sum of the working modules will always be available to the user who can operate at a reduced load or, with a redundant configuration, at the normal load.

1.5 Bypass

A by-pass circuit automatically transfers the load directly to the primary network without interrupting the power supply, in conditions of overload, overheating, continuous voltage outside of the tolerances and inverter fault.

A diagnostic and shutdown software, if installed accordingly on a PC connected to the UPS, allows you to access all of the MegaLine operating data, regulate and set special functions (such as the display screen) and control the shut down of Windows and Linux operating systems.

An optional software (UPS SuperviSor) provides hierarchical multiserver shutdown and remote UPS management for any operating system in a heterogeneous network (Windows, Novell, Linux and the most common Unix).

MegaLine is managed by a microprocessor and is capable of displaying measurements, alarms and operating modes with a liquid crystal control panel and high luminosity signals.

The UPS is capable of carrying out the following measurements and displaying the values directly on the **display**:

Input
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Output
Current:
- Effective value
- Peak value
- Crest factor

Voltage:
- Effective value

Power:
- Apparent
- Active

Power factor
Frequency

Batteries
- Additional Battery Modules
- Additional Battery Chargers
- Battery operation time
- Number of discharge cycles
- Residual capacity
- Battery voltage

Various
- Internal temperature
- External temperature

Data log
- Bypass operation
- Overheating
- Number of switches per battery
- Number of total discharges

Time:
- Battery operation
- Network operation

1. GENERAL FEATURES *(continued)*

The UPS also allows the following adjustments to be made through the **display**:

Output
- Voltage
- Frequency
- N+X redundancy

Input
- Enable synchronisation
- Extended synchronisation interval

By-Pass
- Enable
- Forced
- Operation sensitivity
- Off-line mode
- Load waiting mode

Neutral sensor
- Enable
- Ignore during operation

Batteries
- Capacity
- Thresholds
- Max. duration per battery
- Max. duration per battery after the reserve capacity threshold
- Enable battery test
- Enable auto-restart

The Static MegaLine UPS has the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68 and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPS used in operator access areas”
- EN 62040-2 “Electromagnetic compatibility (EMC) requirements”
- EN 62040-3 “Method of specifying the performance and test requirements”

2. TECHNICAL FEATURES

General Features	
Type of operation	On line double conversion
UPS Structure	Modular, Redundant with 1,250 VA power modules, contained in a single cabinet
Neutral Connectivity	Solid neutral
Wave shape in networked operation	Sinusoidal
Wave shape in battery operation	Sinusoidal
Type of bypass	Static and electromechanical
Switching time	None

Input features	
Rated input voltage	230 V
Input voltage interval	From 184 V to 264 V with rated load
Minimum voltage in network operation	100 V at 50% of the load
Input frequency	50 Hz or 60Hz (autosensing or selected by the user)
Total harmonic distortion of the input current ($THDI_{in}$)	< 3% at 100% of the rated load
Power factor	> 0.99 from 20% to 100% of the rated load
Inrush current	At most 100% of the load current

Output features (network operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Rated/active output power	10,000 VA / 7,000 W
Tolerance on the output voltage	Static ± 1%; Dynamic (0-200%; 200-0%) ± 1%
Total harmonic distortion of the output voltage	Linear load < 0.5 %; Non-linear load < 1 %
Rated output frequency	50 Hz or 60 Hz (autosensing and/or selected by the user)
Tolerance on the output frequency	Synchronised to the input frequency; ± 1% when not synch.
Crest factor on the output current	3:1
Overload capacity: • for at least 1 second • for at least 5 seconds • for at least 30 seconds	 300% without the operation of the automatic bypass 200% without the operation of the automatic bypass 150% without the operation of the automatic bypass

Output features (battery operation)	
Rated output voltage	230 V (adjustable by 1 V intervals)
Tolerance on the output voltage	Static ± 1%; Dynamic (0-100%; 100-0%) ± 1%
Output frequency	50 Hz or 60 Hz ± 1%
Rated/active output power	10,000 VA / 7,000 W
Total harmonic distortion of the output voltage on non-linear rated load, P.F.=0.7	< 1 %
Overload capacity: • for 15 seconds	160%

Battery features	
Type of battery	Lead-acid, sealed, maintenance-free
Unitary capacity	9 Ah (12V)
UPS battery / battery module voltage	36 V max. (series of 3*12V)
Battery module protection	2 fuses for each battery module

Manufacturing specifications	
Maximum weight	34 + 80 kg (for a back-up time of 11’ – 80% of the load)
Maximum dimensions (W×L×H)	2x(270x570x475) mm (for a back-up time of 11’ – 80% of the load)
Type of switching	High frequency PWM
Rectifier/booster/inverter technology	MOSFET
Interfaces	1x RS232 serial port + 2xLogic Contact Port
Noise level measured at 1 meter	<40 dBA
Degree of protection	IP21
Installed power boards	8
Free power expansion slots	-
Installed battery kits	8
Free uptime expansion slots	2

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Manual Bypass BP/1 for MegaLine

3 108 62

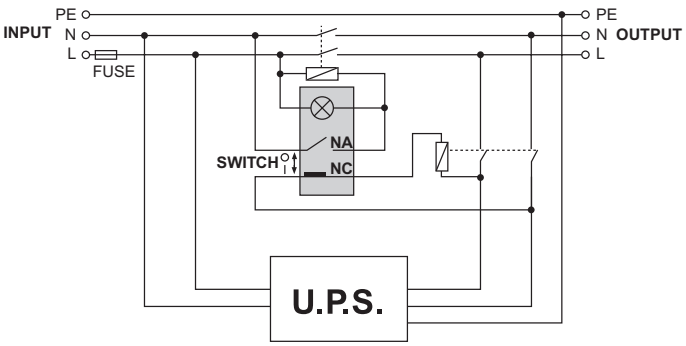
1. GENERAL FEATURES

The Manual maintenance bypass BP/1 allows you to remove the UPS from its original installation without interrupting the power supply to the load, making it possible to carry out the operations that need to be performed with the UPS switched off:

- Maintenance
- Upgrade
- Power expansion
- Check fault

It replaces the rear connector and can be easily removed from the UPS.
Bypass BP/1 must be used with MegaLine 1250 – 2500 – 3750 – 5000.

2. FUNCTIONAL DIAGRAM



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Manual Bypass BP/2 for MegaLine

3 108 63

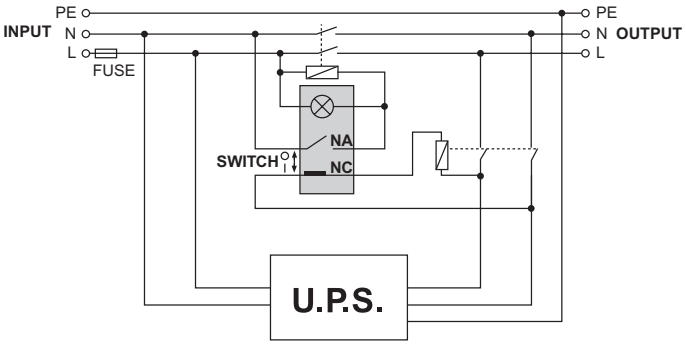
1. GENERAL FEATURES

The Manual maintenance bypass BP/2 allows you to remove the UPS from its original installation without interrupting the power supply to the load, making it possible to carry out the operations that need to be performed with the UPS switched off:

- Maintenance
- Upgrade
- Power expansion
- Check fault

It replaces the rear connector and can be easily removed from the UPS.
Bypass BP/1 must be used with MegaLine 5000/2 – 6250/2 – 7500/2 – 8750/2 – 10000/2.

2. FUNCTIONAL DIAGRAM



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Additional Battery Recharger CB36 for MegaLine

3 107 85

1. GENERAL FEATURES

The additional battery recharger CB 36 can be installed in the pre-arranged housing in the battery cabinets.

It reduces the overall recharging time and is particularly useful when numerous additional battery kits are used.

2. TECHNICAL FEATURES

Manufacturing specifications	
Weight (Kg.)	1,6
Dimensions (W x H x L) mm	180 x 96 x 140
Technology	Flyback converter with PFC in input. SELV output
Protections	Electronic against overload, short circuit, over temperature

Environmental specifications	
Range of storage temperature	from -20°C to +50°C
Range of operating temperature	from 0°C to +40°C
Range of operating relative humidity	from 20% to 80% non-condensing
Degree of protection (IEC529)	IP21
Acoustic noise at 1 m.	< 40 dB (A)

Electrical input features	
Rated input voltage	230V
Range of input voltage	from 180V to 270V
Rated input frequency	50/60 Hz ± 10%
Rated input current	1.8 A rms
Maximum input current	2.25 A rms
Maximum input power	400 W
Input power factor	> 0,95
Number of input phases	Single phase
Line fuse	3.15 A EF

Electrical output features	
Rated output voltage	41.1V dc ±1%
Rated output current	8 A
Rated output power	328 W
AC-DC conversion yield	80%

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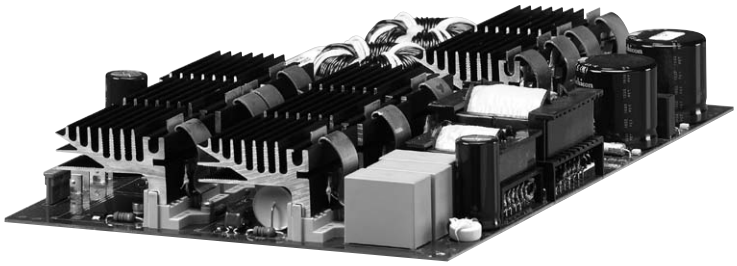
Power Expansion Module for MegaLine

3 108 35



1. GENERAL FEATURES

All models (except for single cabinet MegaLine 5000 and double cabinet MegaLine 10000/2) can be expanded in power, to adapt to the requirements of the user. Installation is very simple.
Power expansion: the additional board must be combined with an additional kit of batteries.
Increasing redundancy: the board can be installed without the corresponding kit of batteries (not a recommended solution - it is important to maintain the same degree of redundancy on the batteries as well).

Power board PW1250 can be installed to expand the power of your own MegaLine or to set up an N+1 type of redundant configuration.

In fact, if a load can be supported by N boards and you decide to install an N+1 one, should a power board fail the load will continue to be supplied without interruption or interference, since the remaining boards that are still running share the load, and the UPS is able to reconfigure itself automatically as a model with a lower power.

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Relay Interface Kit for MegaLine

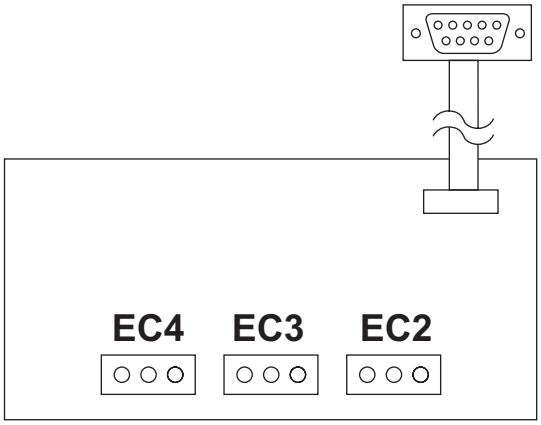
3 109 72

1. GENERAL FEATURES

The interface signals, by opening or closing the isolated contacts of a relay, the operating status of the UPS.
The signals the we can receive are the following:

- Network operation
- Battery operation
- Back-up time reserve capacity
- Fault (overload or internal fault)

The Relay Interface is pre-arranged with a DB9 output to be connected to one of the two logic contact ports on MegaLine.



- **EC2** (“NETWORK / BATTERY” signal): using this relay it is possible to signal whether the UPS is running on the network or on batteries.
- **EC3** (“ALARM” signal): using this relay you will receive the signal when a module fails or when the UPS is overloaded.
- **EC4** (“BACK-UP TIME RESERVE CAPACITY” signal): using this relay you will receive the back-up time reserve capacity signal (batteries are down due to prolonged lack of voltage).

NOTE. By inserting jumper J1, J2 and J3 the “ALARM” and “BACK-UP TIME RESERVE CAPACITY” signals are combined.

The pinout for connectors EC2, EC3, EC4 is the following:
• “C” contact: common contact of the relay.
• “NO” contact: normally open contact of the relay.
• “NC” contact: normally closed contact of the relay.

The maximum capacity of the relay contacts is 1 A (150 Vdc or 125 Vac).

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Back-up time Expansion KB for MegaLine

3 108 57 - 3 108 58

KB 36/1

KB 36/2

1. GENERAL FEATURES

All MegaLine models can be expanded in back-up time, by installing the kit of 3x12V 9Ah batteries inside the battery cabinet (max. 4 in the single cabinet, max 10 in the battery cabinet for double cabinet models) or in additional battery cabinets.

KB 36/1
The back-up time expansion kit for installation inside single cabinet MegaLine models.

KB 36/2
Back-up time expansion kit for double cabinet models, for installation in a dedicated cabinet.