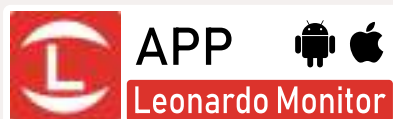


LEONARDO PRO X 3000/48 Li

AC STORAGE SYSTEM

DATASHEET



- AC storage converter
- 3000 VA continuous power
- 95% Inverter efficiency
- 48 Vdc Lithium battery voltage
- Integrated LCD display
- Network ethernet connection
- Cloud IOT monitoring & control
- Output Voltage 230 V, 50 Hz
- Compliant with CEI 0-21: 2016-07 + V1-2017

Li-ION batteries
RESU LG CHEM compatible



For ON-GRID PV plants

Il **Leonardo PRO X** è la soluzione ideale per aggiungere un sistema di accumulo su impianti fotovoltaici già dotati di inverter di stringa AC On-Grid.

Grazie al nuovo hardware di conversione, permette l'utilizzo di batterie agli ioni di litio a 48V, sicure ed affidabili, pur mantenendo elevata efficienza di conversione elettrica.

Il **Leonardo PRO X** è dotato di display integrato e comunicazione ethernet di serie, la connessione ad internet permette il monitoraggio RealTime ed assistenza tecnica da remoto.

Grazie alla connessione AC, il Leonardo PRO X è compatibile con gli schemi di installazione previsti dalla CEI 0-21 senza alterare la quantità di energia prodotta ed incentivata dall'impianto esistente.

In caso di black-out della rete elettrica, il Leonardo PRO X alimenta le utenze collegate all'uscita EPS, con un tempo di ripristino inferiore ai 10ms.

Leonardo PRO X is the perfect solution to add a storage system to existent solar grid tie inverter plants.

Thanks to the new power conversion hardware, it can be used with the safe and reliable 48 VDC Li-ion batteries, meanwhile keeping high power conversion efficiency.

Leonardo PRO X has an integrated display and ethernet connection which comes standard. The internet connection is used for monitoring the system, and remote technical assistance.

Thanks to the AC Grid connection, Leonardo PRO X is suitable with the installation schemes provided by the CEI 0-21, without changing the energy produced and incentivized by the existent PV plant.

In case of grid blackout, Leonardo PRO X supplies the loads connected at the EPS output, with a reactivation time of 10ms.

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WESTERN CO.
ELECTRONIC EQUIPMENTS - SOLAR SYSTEMS

LEONARDO PRO X 3000/48 Li

DATASHEET

Features:

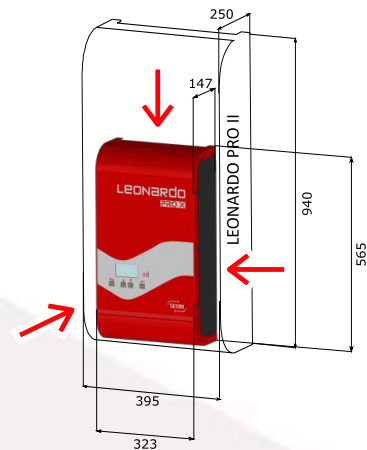


Nuovo hardware:

Efficienza massima del 95% e dimensioni ridotte ad un quarto del modello precedente.

New hardware:

95% maximum efficiency and reduced size to a fourth of the old version.

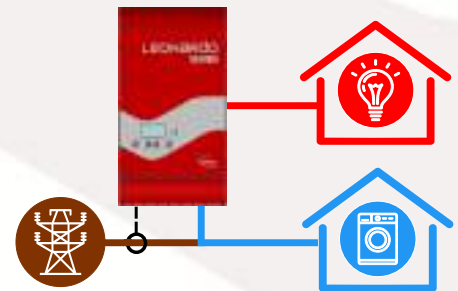


Molteplici configurazioni:

Gestione carichi con sensore di corrente ed uscita EPS per carichi privilegiati in caso di blackout.

Multiple configurations:

Loads management with current sensor and EPS output to supply protected loads in case of grid outage.



Modularità:

Aumento della potenza di conversione con modulo slave in configurazione parallela.

Modularity:

Increase the conversion power with a slave module in parallel configuration.



Compatibilità con tutti i modelli di batterie 48V Li-ION RESU LG CHEM.

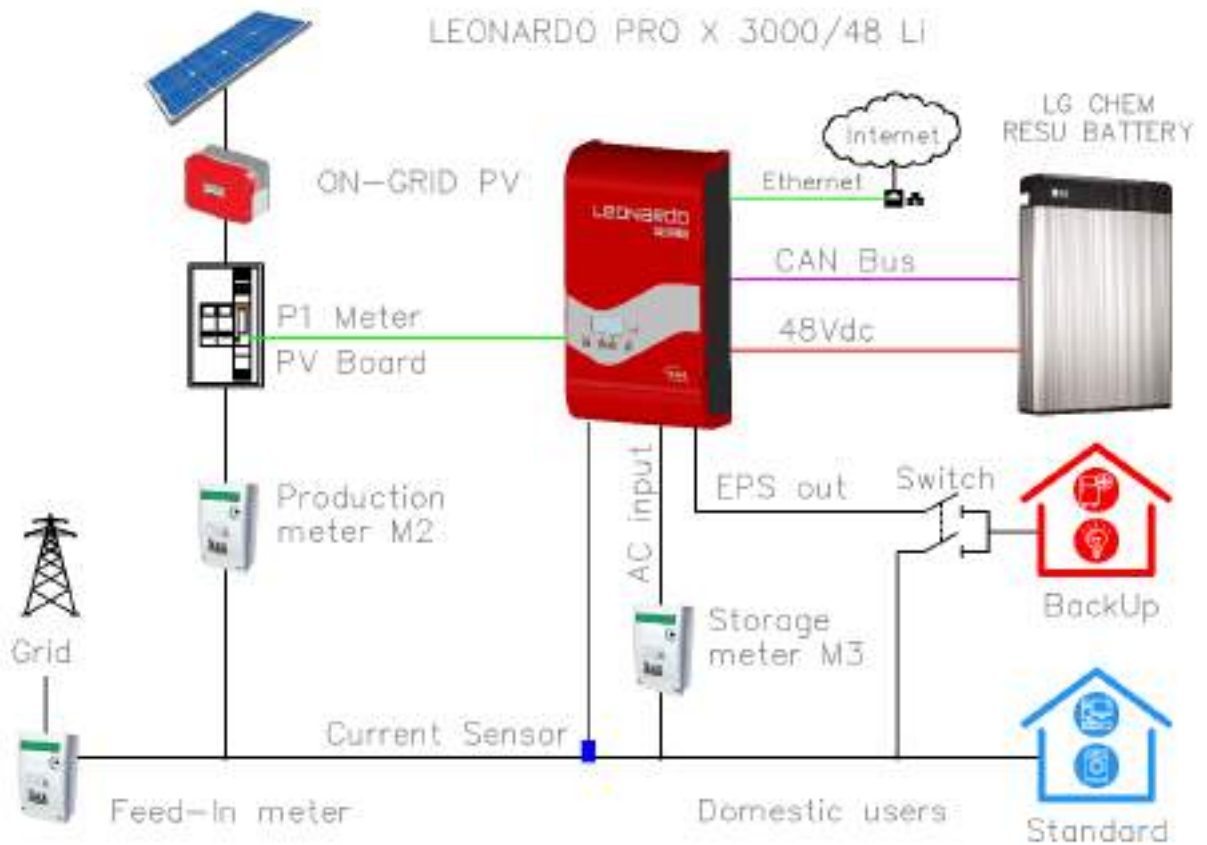
Compatible with all the RESU LG CHEM Li-ION 48VDC battery versions.



Monitoraggio e controllo con APP, portale WEB e display remoto, per aggiornamento e modifica parametri di sistema.

Monitoring and control available using the mobile APP, the WEB platform and the remote console that allows firmware update and customization of the system settings.





TECHNICAL SPECIFICATIONS

Accessories

P1 Production meter:
 Dimensions: 1 DIN Module
 Measurements: 32 A, 230 VAC
 AC cables section: 2.5-6 mm²
 Pulse output cables section: 1.5 mm²

Current sensor:
 Measurements: AC 100A
 Connection cable: 1m, 3.5mm jack
 Opening size: 13mm x 13mm

CAN Bus Cable
 Battery plug: RJ45 right angle
 Inverter plug: RJ10
 Length: 2.5 m



Dimensions



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and
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			<i>Leonardo PRO X 3000/48 Li</i>
INVERTER	Nominal power	Pnom	3kVA
	Continuous power at 25 ° C	Pcon1	2.4kW
	Continuous power at 40 ° C	Pcon2	2.2kW
	Battery voltage	Vbat	48V
	Battery voltage range	Vdc	40 - 66V
	AC voltage and frequency	Vnom	230Vac - 50Hz
	AC voltage range	Vac	187 - 265Vac
	AC input current	Iac	32A
	Harmonic distortion	Thd	< 3%
	Nominal power factor	Pi	1
	Maximum efficiency DC-> AC	Eds	95%
	Connectable load power on EPS out	Eps	2.4kW
	EPS transfer time on grid blackout	Tsw	10ms
	Power consumption in by-pass mode	Pbp	< 2W
	Topology	Top	Toroidal isolation transformer
	Cooling	Ven	Forced ventilation
	PV production meter	Mis	40A with direct connection
	Consumption current sensor	Ta	100A split core current transformer
AC CHARGER	Maximum charge power	Pch	2.1kW
	Maximum charge current	Ich	35A
	Maximum efficiency AC-> DC	Ech	95%
	Charging curve	Alg	BMS self-adaptive
	Battery communication	Com	CAN BUS
INTERFACES	PV production meter connection	Meter	2 x 2.5mm ² screw terminals
	VE-Bus Master/Slave port	VE-Bus	RJ45
	WBUS service port	WBUS	RJ11
	Battery communication port	CAN	RJ10 with 1.5m supplied cable
	Internet communication port	Ethernet	RJ45
	Current sensor port	Current Sense	3.5mm jack with 1m cable
ENCLOSURE	Battery connection	BAT	M8 bolts
	AC connections	AC	13mm ² screw terminals
	Local user interface		128x64 LCD Display
	Protection degree		IP21
	Weight		18kg
	Dimensions		271x501x143mm
	Operating temperature range		-40 to +65°C
	Humidity		Max 95%



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