Photovoltaic Kits HYBRID INVERTER

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SUN

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Commitment oriented toward success forms the basis of the company's "mission", together with constant technology and the performance of our products, without ever neglecting the factor aesthetics, which characterizes every sphere of our life. The design, implementation and service of the LeditSUN system is completely Made in Italy.

Clean energy produced from renewable sources, will be always available where and when needed.

The LeditSUN Project was born from the innovative will of the company to to continue in the area of saving Energy, from natural and renewable sources with the attention focused on the ecological context of the environment in which we live. The Ledit-SUN kit, photovoltaic hybrid with batteries, was born from the belief that storage is now a component of everyday life. We are living in a socio-economic context in which energy dependence is a factor of absolute advantage. Ledit has made the quality as its cornerstone. For this reason, the constant research for factors of excellence, continues to distinguish the work of Ledit, in every area in which it operates.







THE COMPACT, INTEGRATED HYBRID INVERTER

LeditSUN Systems can largely increase the self-consumption of solar energy produced by the photovoltaic system: their goal is self-sufficiency of your home. The FVD hybrid inverter allows you to store in storage units, excess free, clean energy from the sun, making it available when needed.



WHY BATTERY STORAGE ?



ZERO CONCERN ABOUT RISING ENERGY COSTS

With the LeditSUN hybrid inverter, drastically reduce energy take-off from the network, significantly lowering the costs for your household's energy needs.



ENERGY REVOLUTION BEGINS NOW

Help revolutionize the energy system in the direction of more conscious consumption of limited resources. You too choose renewable energy and join the changement community.



MAXIMUM INDEPENDENCE

With LeditSUN systems you can continue to have power for your home, even when the public grid is down.



DOMOTICS

AART HOME

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LEDIT.

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This electronic board integrates the DOMOTICS functionality of the FVDi and C systems (in FVDx it is already included) to intelligently manage excess as well as stored energy. A range of functions can be performed to facilitate further energy reduction, using maximally the clean and the free energy from the SUN. - The SMART LOAD function activates household appliances when more energy is available. - it powers heat pumps or domestic hot water tanks with excess energy





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Management of withdrawal from power grid and photovoltaic system storage in a fully automatic way, ensuring continuity of energy.

FVDi adapts perfectly to your needs and allows you to never run out of power for your energy demand:



• EPS (EMERGENCY POWER SUPPLY)

protects your home from power outages, ensuring power even in the absence of power grid and sunshine, without any modification of the electrical system for the operativity of the electrical loads (without a dedicated line)



<u>Competitor hybrid inverters need</u> <u>to install an expensive external panel-</u> <u>board in order to perform the emergency</u> <u>power function and need creating a prefe-</u> <u>rential load line by modifying the electrical sys-</u> <u>tem. Due to the complexity of these operations,</u> <u>this functionality is often not even offered. The FVDi</u> <u>and C inverter have all the devices for the EPS function</u> <u>inside without needing any modification to the existing</u> <u>electrical system.</u>

O BACK-UP RESERVE FUNCTION

This function always ensures a battery power reserve to activate emergency EPS supply, without risking ever running out of power. The percentage of battery reserved for this function is set accordingly to your needs and can be changed over time adapting to different energy situations



WHY CHOOSE US



CONFIGURATION FLEXIBILITY

o "SMART ISLAND" FUNCTION

Operation in parallel with the power grid or like "ISLAND," allows total independence from the grid, even in combination of different energy sources (genset, generators, etc.).



• "BATTERY READY"

Installation without any battery pack, it can be added later.



SMART TECNOLOGY



LeditSUN Systems are designed to always ensure the best performance of the system so as to maximize self-consumption of energy: • MANAGEMENT OF GRID FEED-IN Optimized or zeroed power input to the grid through an intelligent power output management.

O BATTERY MANAGER and MAINTENANCE

Automatic battery maintenance in case of low voltage and days of non-use. Possibility to set specific time slots for battery use. This function is very useful when highcapacity storage is coupled to the inverter. In the summer season the storage is used to its fullest, while in the winter period (due to low insolation) it may reach a very low limit of charge and could remain in that condition for a very long periods, leading to progressive battery decay. The Battery Manager prevents this decay by forcing a full charge, leaving the storage in an ideal condition for maintaining its performance.

O HIGH PERFORMANCE MPPT-I TRACKER

Optimized and independent management of two more strings of modules separated that ensures maximum yield of photovoltaic panels in all conditions.



FVDi-C 300/450/600 serie EVO



Compact single-phase hybrid

The compact version of the LeditSUN inverters FVDi-C is available in three power ratings. This compact version is the perfect solution for the classic household with power requirements sufficiently moderate. All the advantages of LeditSUN in an extremely compact and efficient as well as affordable.

LeditSUN are simple to install. Intuitive design of all its components. Wide voltage range of input to configure the storage quickly. No need for switchboards additional. System homologate for different types of batteries.

LeditSUN - PV inverter System with LV battery storage - Serie FVDi-C	FVDi-C 300 EVO	FVDi-C 450 EVO	FVDi-C 600 EVO	
DC inputs				
Maximum input voltage	4.5kW	6kW	8kW	
Minimum input voltage		115V		
Nominal input voltage		400V		
FV MPPT voltage range	2 254/11/	100V - 550V	AL\M	
DC voltage range - independent MPPTs @ Pdc max	175V - 550V @ 2.25kW	230V - 550V @ 3kW	310V - 550V @ 4kW	
Maximum power x MPPT	13A	20A	20A	
Short-circuit current x MPPT	15A	25A	25A	
Maximum number of strings x MPPT		2 1+1		
Battery Charger				
Battery type		Lithium		
Battery voltage range Max battery current		40V - 65V 50A		
Nominal battery voltage		50V		
Max charging power		2.5kW		
Communication interfaces		CAN		
AC Output				
Grid connection		1P+N+PE		
Sn nominal power	3kVA	4.5kVA	6kVA	
AC voltage range	SKVV	230Vac ± 15% (*)	OK VV	
Output nominal current	13A	19.6A	26.1A	
Grid nominal frequency		50Hz		
Cos φ		1 (adj ± 0.80)		
THD		< 3%		
EPS output				
Maximum Smax power (PV + BATT)	3kVA	4.5kVA	6kVA	
AC voltage range		230Vac ± 15% (*)		
Output nominal current	13A	19.6A	26.1A	
Grid nominal frequency		50Hz		
THD		<3%		
Operating Performance				
Maximum Effciency		97%		
Weighted effciency (Euro)		96%		
Brotostivo Dovicos		5470		
DC polarity reversal		As standard		
BATTERY polarity reversal	As standard			
BATTERY overload protection	As standard			
Isolation monitoring unit	As standard As standard			
Interface protection and anti-islanding	In compliance with local legislation			
RCMU (Residual Current Monitoring Unit)	As standard			
AC Overvoltage protective device	As standard			
BATTERY Overvoltage protection	on As standard			
Accessories Supplied				
DC connectors	tors Quick connectors			
BATTERY connection	tion Screw contacts terminal strip, M25 cable gland			
DC switch	tch As standard			
BATTERY automatic switch	Built-in			
Communication interfaces	es USB/CAN Bus/RS485/Ethernet/WiFi			
External alarm signal	I As standard			
Datalogger Warranties	r Built-in S Svears (as standard)/10 year (ontional)			
Environmental Conditions				
Ambient temperature		-20°C+60°C		
Power derating temperature range		40°C+60°C		
Storage temperature Relative humidity		-30°C+70°C 5%95% without condensation		
Noise levels		< 50 dB(A) @ 1m		
Maximum operating altitude without derating		2000m		
Pollution degree classification		PD 3 Indoor, unconditioned		
Physical				
Protection rating		IP 21		
Overvoltage category (IEC 62109-1)		II (DC, BATTERY inputs) - III (AC output)		
Cooling concept Dimensions (W x H x D) mm	rt I-cool, forced cooling m 480 x 730 x 150			
Weight	t			
Fitting system		Wall bracket		
Safety		1		
Protection class DC to AC isolation		I Transformerless		
BATTERY to AC and DC isolation		HF Transformer		
Certifications	ENICION CO (ENIC	CE	EN 62109-2 (Safety)	
Grid codes	CEI 0-21 (IT); VDE	= 0126-1-1 (DE); VDE AR-N 4105 (DE); G98/G99	9 (UK); C10-11 (BE)	
Other Features				
BACKUP/OFF-GRID mode operation		Yes, with internal interlock (*)		
ON-GRID/BACKUP/OFF-GRID selection mode		Yes, automatic		
Residential loads management (OPTIONAL)	Yes, 1 dry contact 4A 250Vac			

(*) The specifed range or functionality may vary according to the mains connection standard enforced in the country of installation



FVDi 450 e 600 serie EVO



single-phase Hybrid

The most powerful version among the single-phase LeditSUN products. The FVDi system is the right choice for medium sized homes, where consumption is important and energy demand is high, even at night times when the sun is down. Increased battery charging and discharging power to 5Kw. Easy to install. Intuitive design of all its components. Wide voltage range of input to configure the storage quickly. No need for switchboards additional. System approved for different types of batteries.

LeditSUN - Photovoltaic System with Storage - FVDi Series	FVDi 450 EVO	FVDi 600 EVO		
DC inputs				
Maximum input power Maximum input voltage	60 60	0V		
Minimum input voltage	11:	5V		
Nominal input voltage FV MPPT voltage range	40	- 550V		
Maximum Power x MPPT	3kW	4kW		
DC voltage range - independent MPPTs @ Pdc max Maximum power x MPPT	230V - 550V @ 3kW 20A	310V - 550V @ 4kW 20A		
Short-circuit current x MPPT	25A	25A		
Numero of MPPT Maximum number of strings x MPPT	2+2	2 2+2		
Battery Charger	•	1		
Battery type	Litth	ium		
Battery voltage range Max battery current	400 -	- 65V 0A		
Nominal battery voltage	50			
Max charging power Max discharging power	5k 5k	W		
Communication interfaces	CA	AN		
AC Output	10.0			
Sn nominal power	4.5kVA	6kVA		
P maximum active power	4.5kW	6kW		
AL VOITage range Output nominal current	19.6A	26.1A		
Grid nominal frequency	50	Hz		
Frequency range Cos φ	47Hz - 5 1 (adj	± 0.80)		
THD	<	3%		
EPS output	4 EIX/A	CLAVA		
Maximum Smax power (PV + BATT) Maximum Smax power (BATT)	4.5KVA 4.5KVA	5kVA 5kVA		
AC voltage range	230Vac ±	£ 15% (*)		
Grid nominal frequency	19.6A 50	Z6.1A Hz		
Intervention time	< 5 se	ec (*)		
Operating References	<:	5%		
Maximum Effciency	97	7%		
Weighted effciency (Euro)	96	5%		
Battery typical enciency	94	¥70		
DC polarity reversal	As Sta	indard		
BATTERY polarity reversal BATTERY overload protection	As Sta	indard		
AC short-circuit protection	As Sta	indard		
Isolation monitoring unit	t As Standard			
RCMU (Residual Current Monitoring Unit)	In compliance with local registation As Standard			
DC Overvoltage protective device	e As Standard			
BATTERY Overvoltage protective device	ice As Standard			
Accessories Supplied				
DC connectors	ctors Quick connectors			
BATTERY connection	Screw contacts termina	I strip, M25 cable gland		
DC switch	vitch As standard			
User Interface	Graphic Touch Scre	en 4.3" colour LCD		
Communication interfaces	uss USB/CAN Bus/RS485/Ethernet/WiFi			
Datalogger	al As standard er Built-in			
Warranties	5 years (as standard)/10 year (optional)		
Environmental Conditions Ambient temperature	-20°C	.+60°C		
Power derating temperature range	ge 40°C+60°C			
Storage temperature Relative humidity	-30°C 5%95% withou	+70°C ut condensation		
Noise levels	ls <50 dB(A) @ 1m			
Maximum operating altitude without derating Pollution degree classification	200 PE	00m 0 3		
Installation environmental category	Indoor, unc	onditioned		
Safety		24		
DC to AC isolation	IP II (DC, BATT	ZI 'ERY inputs)		
BATTERY to AC and DC isolation	l-cool, forc	ed cooling		
Certifications EMC and Safety standards		Кg		
Grid codes	Wall b	racket		
Safety Protection class				
DC to AC isolation	Transfor	merless		
BATTERY to AC and DC isolation	HF Tran:	sformer		
EMC and Safety standards	EN61000-6-2 (EMC); EN61000-6-3 (EMC);	 EN 62109-1 (Safety); EN 62109-2 (Safety)		
Grid codes	CEI 0-21 (IT); VDE 0126-1-1 (DE); VDE AR-	-N 4105 (DE); G98/G99 (UK); C10-11 (BE)		
Other Features RACKUP/OFF-GRID mode operation	Yes with interr	nal interlock (*)		
ON-GRID/BACKUP/OFF-GRID selection mode	iode Yes, automatic			
Grid support (grid services) Residential loads management (OPTIONAL)	Yes, if required by th Yes, 1 dry cont	ne applied grid code tact 4A 250Vac		
	,, con			

(*) The specifed range or functionality may vary according to the mains connection standard enforced in the country of installation



FVDx-500/600/800/1000 FVDx-HV500/600/800/1000



3-phase string and hybrid

FVDx is the version of the inverter LeditSUN string photovoltaic inverter. This is the ideal inverter for managing large systems, where the storage is sized for only a part of the rated power of the whole system. It can be used in parallel with HV versions that include storage. The FVDx-HV version is the LeditSUN 3-phase answer where storage is also required. Suitable for large houses with threephase utilities and mediumsized businesses that have significant consumption to be managed even at night. It can work in parallel with the FVDx vesion.

LeditSUN - THREE-PHASE photovoltaic with storage (HV only)	FVDx-500HV	FVDx-600HV	FVDx-800HV	FVDx-1000HV	FVDx-500	FVDx-600	FVDx-800	FVDx-1000
DC inputs								
Maximum input power	7.5kW	9kW	12kW	15kW	7.5kW	9kW	12kW	15kW
Maximum input voltage		100	10V			1	V000	
Ninimum input voltage		20	JV		200V 720V			
FV MPPT voltage range		150V -	950V			150\	- 950V	
DC voltage range - independent MPPTs @ Pdc max	385V - 850V @ 5kW	500V - 850V @ 6.5kW	655V - 850V @ 8.5kW	770V - 850V @ 10kW	385V - 850V @ 5kW	500V - 850V @ 6.5kW	655V - 850V @ 8.5kW	770V - 850V @ 10kW
DC voltage range - MPPT connected in parallel @ Pdc max	290V - 850V	350V - 850V	425V - 850V	460V - 850V	290V - 850V	350V - 850V	425V - 850V	460V - 850V
Maximum power x MPPT	5kW	6.5kW	8.5kW	10kW	5kW	6.5kW	8.5kW	10kW
Maximum MPPT power - Maximum imbalance	5kW@MPPT1+2.5kW	6.5kW@MPPT1 +	8.5kW@MPPT1 +	10kW@MPPT1 + 5kW	5kW@MPPT1+2.5kW	6.5kW@MPPT1+	8.5kW@MPPT1+	10kW@MPPT1+5kW
	@MPPT2	2.5kW@MPPT2	3.5kW@MPPT2	@MPPT2	@MPPT2	2.5kW@MPPT2	3.5kW@MPPT2	@MPPT2
Maximum input current x MPP1		13	SA				13A 16A	
Number of MPPTs			2		r	· · · · · · · · · · · · · · · · · · ·	2	
Maximum number of strings x MPPT		1+	- +1				1+1	
Battery charger								
Battery type		Lithi	ium					
Battery voltage range		170V -	500V					
Max charging/discharging current		25	A					
Nominal battery voltage	200V	240V	320V	400V				
Max charging/discharging power	SKW	6KW	SKW SCARE	10KW				
communication menaces		CANYI	6465			I		1
AC output		214/14	LLDE			214/	IN DE	
Grid connection Spinominal power	5kVA	6kVA	N+PE SkVA	10kVA	5kVA	6kVA	HN+PE 8kVA	10kVA
P maximum active power	5kW	6kW	8kW	10kW	5kW	6kW	8kW	10kW
AC voltage range		400Vac±	15% (*)			400Vac	± 15% (*)	
Output nominal current	7.2A	8.7A	11.5A	14.5A	7.2A	8.7A	11.5A	14.5A
Grid nominal frequency		50	Hz			5	60Hz	
Frequency range		47Hz - 5:	3Hz (*)			47Hz -	53Hz (*)	
<u>Cos</u> φ חובד		1 (adj - 3	± 0.80) %			1 (ad	j ± 0.80) ≲3%	
							370	
B Antines on Concession	EPVV	EPS OL		101///	EIA/A	PV-EPS	output	101/1/1
AC voltage range	JKVA	400Vac+	0KVA 15% (*)	IUKVA	JKVA	400V/ac	+ 15% (*)	IUKVA
Output nominal current	7.2A	8.7A	11.5A	14.5A	7.2A	8.7A	11.5A	14.5A
Grid nominal frequency		50	Hz			5	60Hz	
Intervention time		< 5 se	c(*)			<5:	sec (*)	
THD		<3	8%			<	: 3%	
Operating Performance								
Maximum Effciency		97.0	6%			9	7.6%	
Weighted effciency (Euro)	[97	%		[97%	
Battery typical efficiency		96	%					
Protective Devices								
DC polarity reversal		As star	ndard			As st	andard	
BATTERY overload protection		As star	ndard					
AC short-circuit protection		As star	ndard			As st	andard	
Isolation monitoring unit		As star	ndard			As st	andard	
Interface protection and anti-islanding		In compliance with	local legislation			In compliance wit	h local legislation	
RCMU (Residual Current Monitoring Unit)		As star	ndard			As st	andard	
DC Overvoltage protective device		As star	ndard			As st	andard	
AC Overvoltage protective device		As star	ndard			As st	andard	
DATER OVERVORAGE Protection		ASSIG	laara					
Accessories Supplied		Quick con	mactors			Quide a	anactor	
AC connectors		Spring contacts terminal s	trip. M25 cable gland			Spring contacts terminal	strip. M25 cable gland	
BATTERY connection		Quick con	inectors				,	
DC switch		As standard		As standard				
BATTERY automatic switch		Built-in						
User Interface		Graphic Touch Screen 4.3" colour LCD		Graphic Touch Screen 4.3" colour LCD				
Communication interfaces		USB/CAIN BUS/KS48	or conemet/ WiFi			USB/CAN BUS/RS4	ooy currentiety WiFi	
Datalogeer		Built	t-in		1	Bu	ilt-in	
Warranties		5 years (as standard)/	10 year (optional)		6 years (as standard)/10 year (optional)			
Environmental Conditions								
Ambient temperature		-20°C	+60°C			-20°C	+60°C	
Power derating temperature range		40°C	+60°C			40°C	+60°C	
Storage temperature		-30°C	+70°C			-30°C	+70°C	
Relative humidity		5%95% without	condensation			5%95% witho	ut condensation	
Noise levels		< 50 dB(A	v) @ 1m 0m			< 50 dB	(A) @ 1m	
Pollution degree classification		200 PC)3				203	
Installation environmental category		Indoor, unco	onditioned			Indoor, un	conditioned	
Physical								
Protection rating		IP	21			1	P 21	
Overvoltage category (IEC 62109-1)		II (ingressi DC, BATTER	y) - III (Uscite AC)			II (ingressi DC)	- III (Uscite AC)	
Cooling concept		I-cool, force	ed cooling			I-cool, for	ced cooling	
Dimensions (W x H x D) mm		476 x 73	5 x 170			476 x 7	735 x 170	
Weight		25	Ng			2	zrg bracket	
Htting system		vvail br	autet			vvali	UIGLNEL	
Safety								
Protection class		Treasf	l norloss			Teacher	l merless	
BATTERY to AC and DC isolation		Trasform	nerless			ITASTO		
Certifications		C	E				CE	
EMC and Safety standards	EN61000-6-2 (EM0	C); EN61000-6-3 (EMC); EN6	52109-1 (Safety); EN6210	9-2 (Safety)	EN61000-6-2 (EM	C); EN61000-6-3 (EMC); E	N62109-1 (Safety); EN6210	9-2 (Safety)
Grid codes	CEI 0-2	1 (IT); VDE AR-N 4105 (DE)	; G98-G99 (UK); C10-11 (B	E)	CEI 0-2	1 (IT); VDE AR-N 4105 (D	E); G98-G99 (UK); C10-11 (E	3E)
Other Features								
BACKUP/OFF-GRID mode operation		Yes, with exter	nal interlock			Yes, with exte	ernal interlock	
ON-GRID/BACKUP/OFF-GRID selection mode		Yes, auto	omatic			Yes, au	utomatic	
(and support (grid services)	1	Yes, if required by the applied grid code		Yes, if required by the applied grid code				

(*) The specifed range may vary according to the mains connection standard enforced in the country of installation



FVDi-AC 250/450 serie EVO FVDx-AC 500/600/800/1000



single-phase and 3-phase REFITTING

The version for the traditional inverter already in your home: it is perfect for increasing self-consumption, without modify the current system. Refitting FVDi-AC is the right choice to minimize waste of energy produced and to store energy, which until now was given to the public grid. The ideal solution for integrating the existing 3-Phase system with a modern and functional storage system, that will meet considerable self-consumption needs. When grid release is very important, FVDx-AC will be the right choice to store energy to be used overnight.

LeditSUN - AC inverter System with HV battery storage	FVDi-AC 250 EVO	FVDi-AC 450 EVO	FVDx-AC 500	FVDx-AC600	FVDx-AC800	FVDx-AC 1000	
AC output	inverter monofase		inverter trifase				
Grid connection	1P+I	N+PE	3W+N+PE				
Sn nominal power	2.5kVA	4.5kVA	5kVA	6kVA	8kVA	10kVA	
P maximum active power	2.5kW	4.5kW	5kW	6kW	8kW	10kW	
AC voltage range	230Vac 3	± 15% (*)	7.24	400Vac±	: 15% (*)	14 54	
Cutput nominal current	IU.9A	19.6A	7.2A 8.7A 11.5A 14.5A			14.5A	
Erequency range	47Hz - 1	53Hz (*)			3H7 (*)		
Cos ø	1 (adi	± 0.80)		1 (adi	± 0.80)		
THD	<	3%		<3	3%		
Battory charger							
Battery type	Litk	ium		Lith'	ium		
Battery voltage range	40V	- 65V		170V -	- 500V		
Max battery current	50A	100A		25	5A		
Nominal battery voltage	50V	50V	200V	240V	320V	400V	
Max charging/discharging power	2.5kW	4.5kW	5kW	6kW	8kW	10kW	
Communication interfaces	CAN/	RS485		CAN/F	RS485		
EPS output							
Maximum Smax power	2.5kVA	4.5kVA	5kVA	6kVA	8kVA	10kVA	
AC voltage range	230Vac -	± 15% (*)		400Vac±	15% (*)		
Output nominal current	10.9A	19.6A	7.2A	8.7A	11.5A	14.5A	
Grid nominal frequency	50)Hz		50	Hz		
Intervention time	< 5 se	ec (*)		< 5 se	2C (*)		
THD	<	5%		<3	5%		
Operating Performance							
Maximum Effciency	94	4%		97	7%		
Weighted effciency (Euro)	9.	2%		96	5%		
Battery typical effciency	9!	5%					
Protective Devices							
BATTERY polarity reversal	As sta	indard	As standard				
BATTERY overload protection	As sta	indard	As standard				
AC short-circuit protection	As sta	Indard	As standard				
Isolation monitoring unit	As sta	indard	As standard				
Interface protection and anti-Islanding	In compliance with	h local legislation	In compliance with local legislation				
AC Queryeltage protective device	As sta	indard	As standard				
BATTERY Overvoltage protection		andard	As standard				
BATTER Overvoltage protection	AS Standard			AS Star	nuaru		
Accessories Supplied							
AC connectors	Spring contacts terminal strip, M25 cable gland		Spring	contacts terminal	strip, M25 cable	gland	
BATTERY connection	opring contacts terrinital surp, cable gaito Foz. opring contacts terrinital surp, cable gaito Foz.			Quick cor	nnectors		
DATIENT AUTOMATIC SWITCH	Graphic Touch Screen 4.3" colour I CD		G	Franhic Touch Scree	an 4 3'' colour I Cl		
Communication interfaces	USB/CAN Bus/RS485/Ethernet/WiFi			USB/CAN Bus/RS48	35/Ethernet/WiFi		
External alarm signal	As standard			As star	ndard		
Datalogger	Built-in		Built-in				
Warranties	5 years (as standard)/10 year (optional)		5 \	/ears (as standard),	/10 year (optiona	41)	
Environmental Conditions	15						
Ambient temperature	-20°C+60°C		-20°C+60°C				
Power derating temperature range	40°C+60°C		40°C+60°C				
Storage temperature	-30°C.	-30°C+70°C		-30°C+70°C			
Relative humidity	5%95% withou	ut condensation	5%95% without condensation				
Noise levels	< 50 dB(/	A) @ 1m	< 50 dB(A) @ 1m				
Maximum operating altitude without derating	200	JUm	2000m				
Pollution degree classification	PI Indoor unc	D 3	PD 3				
instantion environmental category		onditioned		indoor, drice	onuntioned		
Physical							
Protection rating	IP	21	IP 21				
Overvoltage category (IEC 62109-1)	II (input BATTERy) - III (output AC)		II (input BATTERy) - III (output AC)				
Cooling concept	I-cool, forc	red cooling	I-cool, forced cooling				
Dimensions (W X H X D) mm	Im 480 x 730 x 150 710 x 650 x 150 476 x Im 200 c 200 c 200 c 476 x		4/6X /3	4/0X /35X 1/0			
Fitting system		jong jong jong jong jong jong jong jong					
	vvan s						
Safety							
Protection class	LIF Town	l sformor		Tunnaf	morloss		
DATIERY TO AC and DC Isolation	HF Iran	°F	Iransformerless				
EMC and Safety standards	EN61000-6-2 (EMC): EN61000-6-3 (FMC)/	EN 62109-1 (Safetv): EN 62109-2 (Saf.)	CE EN61000-6-2 (EMC); EN61000-6-3 (EMC); EN62109-1 (Safety): FN62109-2 (Safety)			EN62109-2 (Safetv)	
Grid codes	CEI 0-21 (IT); VDE 0126-1-1 (DE); VDE AR-N 4105 (DE); G98/G99 (UK); C10-11 (BE)		CEI 0-21 (IT); VDE AR-N 4105 (DE); G98-G99 (UK); C10-11 (BE)				
Other Foster							
	Voc with inter	al interlock (*)		Vec with outo	rnal interlock		
ON-GRID/BACKUP/OFF-GRID selection mode	Yes air	tomatic	Yes, automatic				
Grid support (grid services)	Yes, if required by the applied grid code		Yes, if required by the applied grid code			de	
Residential loads management (OPTIONAL)	Yes, 1 dry contact 4A 250Vac		Yes, 1 dry contact 4A 250Vac				

(*) The specifed range or functionality may vary according to the mains connection standard enforced in the country of installation



CHECK THE PERFORMANCE OF YOUR SYSTEM WITH THE NEW



FROM SMARTPHONE and PC

With the charts function from APP and/or WEB PORTAL you can completely analyze in detail all the data and energy flows of your plant, displaying the level of self-consumption and efficiency achieved. To optimize energy flows.

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SMART MONITORING ALWAYS WITH YOU



INTEGRATED DATALOGGER

Thanks to the inverter display, you can quickly consult and configure the system. Through the APP and WEB PORTAL, it is possible to control the systems anytime and anywhere.



CONNECTIVITY by CABLE ETHERNET and WIFI



USB port For FIRMWARE System data UPDATE and DOWNLOAD



YOUR FV SYSTEM UNDER CONTROL IN EVERY MOMENT

From the GENERAL screen you can view the progress of your plant at any time:

- Photovoltaic production
- Household energy consumption
- input to or withdrawal from the power grid
- Battery charge status



CONFIGURATION SCHEMES FVDi-AC single-phase





CONFIGURATION SCHEMES FVDi single-phase





CONFIGURATION SCHEMES 3-phase FVDx





SERVICE and WARRANTY



LeditSUN's quality control program ensures that every product is manufactured exactly according to specifications and undergoes comprehensive testing before leaving the factory. All LeditSUN products are guaranteed for up to 10 years. The warranty can be easily extended within six months, from the date of delivery of your LeditSUN inverter. Contact us for any clarification at +39 055.0988272.

US3000C and US5000 Low voltage lithium (LFP) batteries



The Pylontech lithium batteries US5000 and US3000C are the renewed and most popular versions in the market, of accumulators for domestic systems

The simplicity and modularity of the US5000 (4.8 kWh capacity) and US3000C (3.55 kWh capacity) make them suitable for implementing systems of storage of small and large capacities and



expandable according to the energy needs of the moment. Among the new features included is a built-in Soft-Start, function that can reduce the peak current when the inverter needs to start with the battery alone. The US5000 and US3000C batteries have a built-in BMS that can manage and monitor cell information including voltage, current and temperature.

Technical Characteristics:

- The more stable and **safer internal molecular structure** of LFP batteries allows an increase in combustion temperature of 600 °C compared to 300 °C relative to NMC and LCO.
- Depth of discharge (DOD) of 95%, available for inverters aligned with the latest Pylontech protocol.
- "Wake-up" support with 5~12V signal from RJ45 port.
- Supports battery module update from upper controller via CAN or RS485 communication.
 Double active protection at BMS level.
- Ability to operate in different temperature conditions.
- Monitoring and service included
- 10-year warranty.

Each element, 74 Ah and 3 rack unit height for US3000C, and each element 100 Ah and 4 rack unit height for US5000, is easily installed in rack cabinets, supplied on request by Ledit Srl. Stackable batteries don't need intermediate spaces. In the case of storage systems with EPS anti-black out mode, it is necessary to follow Ledit srl's instructions regarding the minimum quantity of modules installed



Data Sheet LFP Lithium Battery Pack

Modello	US3000C	US 5000
ELECTRICAL DATA		
Cell Type	Li-ion (LFP)	Li-ion (LFP)
Voltage [V]	48	48
Max Recommended current [A]*	37	80
Nominal capacity [Wh]	3552	4882
Working Voltage [V]	4553.5	43.553.5
DOD [%]	95	95
BUS		
Comunication BUS	RS232, RS485, CAN	Rs485, CAN
Comunication Protocol	YD/T 1363.3-2005	YD/T 1363.3-2005
DIMENSIONS and WEIGHT		
Height [mm]	132	161
Widt [mm]	442	442
Depth [mm]	420	420
Weight [kg]	32	39,7
OTHERS		
Life at 25 °C	15+ anni	15+ anni
Life Cycles	>6000 25°C - 95% DoD	>6000 25°C - 95% DoD
WorkingTemperature/°C- DISCHARGE	-1050	-1050
WorkingTemperature/°C- CHARGE	050	050
Storage Temperature [°C]	-2045	-2045
IP Rating	IP20	IP20
Seismic Regulation	GR-1089	GR-1089
Transport Regulation	UN 3090	UN 3090
EMC Regulation	IEC62619, IEC63056, IEC62040, IEC62477-1, UL1973,U1642,UL9540A, VDE2510-50, IEC61000-6-2, IEC61000-6-3, UN38.3	IEC62619, IEC63056, UN38.3, UL1973,U1642,UL9540A, UN 3480, IEC61000-6-2, IEC61000-6-3, GR-1089
Environmental regulations	GB/T 2423	GB/T 2423
Certifications	TÜV / CE / UN38.3 / UL	TÜV / CE / UN38.3 / UL
	GB/T 2423	

*Recommended maximum working current refers to the battery cell temperature between 10~40°C. If outside this temperature, it may cause a decrease in operating current.

scan the QR code to view the battery installation video US3000C e US5000





Stack of Batteries

Model	Force H1				
Capacità pila batterie (kWh)	10.65	14.20	17.76	21.31	24.86
Tensione sistema batteria (Vcc)	144	192	240	288	336
Capacità modulo batteria (AH)	74				
Nome controller batteria BMS			FC0500-40S		
Nome modulo batteria			FH48074		
Quantità moduli batteria (pz)	3	4	5	6	7
Tensione massima del sistema (Vdc)	162	216	270	324	378
Corrente di carica del sistema (ampere, nominale)			37		
Corrente di carica del sistema (ampere, max. @ 15 s)			40		
Tensione minima del sistema (Vdc)	130.5	174	217.5	261	304.5
Corrente di scarica del sistema (ampere, nominale)			37		
Corrente di scarica del sistema (ampere, max. @ 15 s)			40		
Efficienza (%)			96		
Profondità di scarica (%)			90% (8 - 98% SOC)		
Dimensione (600 x 380 x A mm)	700	870	1040	1210	1380
Comunicazione	Modbus RTU \ CAN				
Grado di protezione			IP55		
Peso (kg)	122	158	194	230	266
Vita utile	15 anni				
Cicli di funzionamento	>5.000				
Temperatura di funzionamento (°C)	0~50°C				
Temperatura di stoccaggio (°C)	-20 ~60°C				
Umidità	5~95%				
Certificato prodotto	VDE2510-50, IEC62619, UL1973, IEC62477-1, IEC62040-1, CEC, CE				
Certificato trasporto merce pericolosa	UN38.3				
1 Dimensioni controller batteria (L*P*A) 2 Dimensioni modulo batteria (L*P*A) 3 Dimensioni base inferiore batteria (L*P*A)	600x380x150 mm 600x380x170 mm 600x380x40 mm				



Model	FL48074
Tecnologia cella	Li-ion (LFP)
Capacità modulo batteria (kWh)	3.552
Voltaggio modulo batteria (Vdc)	48
Capacità modulo batteria (Ah)	74
Tipo di batteria	2p 15 s
Voltaggio batteria (Vdc)	3.2
Capacità cella batteria (AH)	37
Dimensione (L*P*A, mm)	600*380*170
Peso (kg)	36
Vita utile	15 anni
Cicli di funzionamento	5.000
Temperatura di funzionamento	0~50°C
Temperatura di stoccaggio	-20~60°C
Certificato trasporto merce pericolosa	UN38.3







Stackable System

Force-H1 is a 3.55 kWh high-voltage battery storage system based on lithium iron phosphate cells. The Force H1 series is a new and intelligent energy storage system. This system is normally used for residential storage, but also for businesses. H1 is optimal for all situations where space is limited and linear and compact aesthetics are preferred. High power and long service life are features guaranteed by the Pylontech brandname.





Stack of Batteries

Modulo BMS



HIGHEST SAFETY LEVEL COMPLIES WITH VDE 2510-50 STANDARD



the universal battery charger for electric mobility.

Ledit-BOX is universal, charging all cars with a Type2 connector, which is the standard in Europe. You can use it for charging electric vehicles, both fully electric and plug-in hybrids.

A Single-phase version, for all powers up to 7.4kW and a Three-phase version up to 22kW





Don't give the solar energy you produce in excess, to the grid, use it to recharge your electric car. The Ledit-BOX takes care of it automatically.



Reduce the amount of your electric bill: schedule your car charge during the night, when rates are lowest.



LeditBOX monitors whether you are using too much energy at home and automatically doses your car's charging. Never **blackout** in the middle of the night again!



Ledit-BOX BASIC (green)

It is the entry-level model in the LeditBOX range, at an affordable price, for new installations or renovation of existing buildings, the

perfect economical choice. Available in Single-phase version for power up to 7.4kW, incorporating the sensor for load control. It does not have connectivity at first, but can be upgraded to the top-ofthe-line model, even at a later date, simply by replacing the front electronic cover.







Ledit-BOX SOLAR RFID (blue)

It is the top of the LeditBOX, universal charger equipped with the most up-to-date features. Management of energy produced by a photovoltaic system, Ethernet and wifi connectivity, timer for charging night, RFID reader; LeditBOX Solar is complete with sensors for load balancing and RCM for DC control, avoiding the purchase of a B-type differential. Available in single-phase up to 7.4kW, 3-phase up to 22kw; managed via local web interface or via cloud. RFID reader allows optional activation of Ledit-WEB Service, to identify users by card, and resale of charging service.









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