



Gli inverter fotovoltaici centralizzati per connessione a rete FIMER sono dispositivi particolarmente adatti per la realizzazione di grandi impianti industriali e a terra. Le caratteristiche che contraddistinguono i prodotti sono le seguenti:

- Modularità dell'inverter: possibilità di combinare assieme tra loro più moduli di potenza ad IGBT per realizzare le diverse taglie dei convertitori.
- Moduli intelligenti: gestione master-slave con accensione in sequenza dei diversi moduli ad IGBT.
- Impiego di un singolo trasformatore per ciascun modulo: con riduzione della corrente di magnetizzazione ed aumento del rendimento complessivo del sistema.
- Modulazione all'avanguardia: secondo un algoritmo innovativo di regolazione IPCCM (Improved Predicted Current Control Modulation) per ridurre del 20% le perdite di ciascun Modulo ad IGBT rispetto ai metodi di regolazione maggiormente diffusi.



The central grid connected inverter from FIMER are particularly designed for grid connected industrial and large PV plant. The main features of the products are:

- Modularity of the inverter: possibility of combining together all the IGBT power modules to obtain the different sizes of converter.
- Smart Modules: capability to switch on the modules in sequential mode according to a master-slave starting control.
- Use of an individual transformer for each single module: this is the origin of the reduction of the magnetization current and the increase the efficiency of the entire system.
- Advanced modulation control: according to the innovative IPCCM algorithm (Improved Predicted Current Control Modulation) it is possible to reduce more than 20% of the losses every single IGBT module.



Les onduleurs photovoltaïques centralisés pour le raccordement au réseau FIMER sont des dispositifs particulièrement adaptés pour la réalisation de grandes installations industrielles et au sol. Les caractéristiques particulières qui distinguent les produits sont les suivantes :

- Modularité de l'onduleur : possibilité d'associer entre eux plusieurs modules de puissance à IGBT afin de réaliser les différentes tailles des convertisseurs.
- Modules intelligents: gestion master-slave avec allumage l'un après l'autre des différents modules à IGBT.
- Utilisation d'un seul transformateur pour chaque modèle: avec réduction du courant de magnétisation et augmentation du rendement total du système.
- Modulation à l'avant-garde: selon un algorithme novateur de réglage IPCCM (Improved Predicted Current Control Modulation) pour réduire de 20% les pertes de chaque module à IGBT par rapport aux méthodes de réglage les plus diffusées.

DC INPUT - PV MODULE	3PH				
MODEL	R400	R800	R1200	R1600 TL	R2500 TL
Type - Order Code	IP 20: I14.022.030 1MPPT	IP 20: I18.022.030 1MPPT IP 20: I18.022.130 2MPPT	IP 20: I11.232.030 1MPPT IP 20: I11.232.230 2MPPT	IP 20: I31.633.030 1MPPT	IP 20: I32.533.030 1MPPT
Recommended PV Power (kWp)	30 - 40	55 - 80	85 - 120	115 - 160	180 - 240
MPP Voltage Range(V _{DC})	430 - 820				
Max No-load PV Voltage (V _{DC})	900				
Maximum Input Current (A _{DC})	85	170	250	335	520
Number of input strings	1	1 (opt. 2)	1 (opt. 3)	1 (opt. 2)	
AC OUTPUT - AC GRID					
Nominal Power (kW)	34	66	100	130	210
Recommended PV Power (kW)	36	72	110	145	230
Max Current (A _{AC})	55	110	165	340	530
Voltage (V) / Frequency (Hz)	400 V _{AC} ± 10% 3-phases / 50 Hz (49 - 51)			260 V _{AC} (+/- 10%) 3-phases / 50 Hz (49- 51)	
Distortion Factor (THD)	< 3%				
Power Factor (cos φ)	> 0,99				
GENERAL DATA					
Max Efficiency	96,2%			97,7%	98,0%
European Efficiency	95,6%			97,0%	97,3%
Night consumption (W)	< 30 W			< 60 W	
Weight (kg)	620 kg	760 kg	1050 kg	570 kg	690 kg
Protection degree	IP20				
Cooling	With fans controlled by temperature			Speed-regulated fans	
Dimensions (HxLxP)	1500 x 790 x 875 mm	2030 x 790 x 875 mm		1960 x 1200 x 700 mm	
Operating Temperature (°C)	-10° to +50°C				
Display	Graphic LCD-TFT Display, 65k colors equipped with an Analogical Touch Screen				
Humidity	0 + 95% Not condensing				
SAFETY					
Grid monitoring and anti-island control	Via the integrated optional interface device installed into the inverter, in compliance with national regulations				
Protection against the insulation failure	Implemented by checking the voltage between the poles of the PV generator and the earth				
Galvanic Insulation	Yes, by LF transformer				
INTERFACE AND COMMUNICATION					
Serial Port	1 USB type A port, 2 RS485 serial ports (optionals) equipped with MODBus-RTU protocol, 1 serial CANBus port (optional)				
Ethernet	1 Integrated Ethernet RJ45 port for a Web 10/100 Mbit connection				

STRING BOX












MODEL	DESCRIZIONE • DESCRIPTION • DESCRIPTION	COD.
SBC04	Quadro di campo per 4 stringhe FV in parallelo <i>Connection box for 4 parallel PV strings</i> <i>Boîtier de raccordement pour contrôle 4 strings FV en parallèles</i>	IA0.580.003
SBC08	Quadro di campo per 8 stringhe FV in parallelo <i>Connection box for 8 parallel PV strings</i> <i>Boîtier de raccordement pour contrôle 8 strings FV en parallèles</i>	IA0.580.004
SBC12	Quadro di campo per 12 stringhe FV in parallelo <i>Connection box for 12 parallel PV strings</i> <i>Boîtier de raccordement pour contrôle 12 strings FV en parallèles</i>	IA0.580.005
SBC16	Quadro di campo per 16 stringhe FV in parallelo <i>Connection box for 16 parallel PV strings</i> <i>Boîtier de raccordement pour contrôle 16 strings FV en parallèles</i>	IA0.580.006
SBC24	Quadro di campo per 24 stringhe FV in parallelo <i>Connection box for 24 parallel PV strings</i> <i>Boîtier de raccordement pour contrôle 24 strings FV en parallèles</i>	IA0.580.007
SBC32	Quadro di campo per 32 stringhe FV in parallelo <i>Connection box for 32 parallel PV strings</i> <i>Boîtier de raccordement pour contrôle 32 strings FV en parallèles</i>	IA0.580.008

Quadro di parallelo per controllo intelligente delle stringhe FV (tensioni, correnti ed opzionali: sezionamento con bobina di sgancio e lettura sensori di campo)

Smart generator connection box for parallel PV strings monitoring (voltage and current; optional: release coil and field sensor monitoring)

Boîtier de raccordement pour contrôle intelligent pour les strings parallèles PV (tensions, courants; sur demande: bobine de déclenchement)

ACCESSORIES

DESCRIZIONE • DESCRIPTION • DESCRIPTION	COD.	R	F
Monofase di stringa • Single phase string inverter • Monophasé en chaîne			
SNOW REMOTION DEVICE 	IA0.580.002	•	•
USB-RS232 ADAPTER 	IA0.101.000	•	•
USB-RS485 ADAPTER 	IA0.101.001	•	•
SCREWED CONNECTOR ADAPTER X2-IP21 	IA0.042.000	•	•
SCREWED CONNECTOR ADAPTER X2-IP54 	IA0.042.001	•	•
FW UPDATE CABLE 	IA0.101.004	•	•
SERIAL RS485 CABLE X2 	IA0.101.003	•	•
ADAPTERCABLE RS485-X4 	IA0.101.002	•	•
EXTERNAL ANALOGUE MODEM 	IA0.450.002	•	•
INTERNAL ANALOGUE MODEM 	IA0.450.001	•	•
EXTERNAL GSM MODEM 	IA0.450.004	•	•

DESCRIZIONE • DESCRIPTION • DESCRIPTION	COD.	R	F
Monofase di stringa • Single phase string inverter • Monophasé en chaîne			
INTERNAL GSM MODEM 	IA0.450.003	•	•
OPTIONAL RS485 CARD 	IA0.450.000	•	•
NIGHT POWER SUPPLY 			
SENSORBOX 	IA0.580.001	•	•
SENSOR CONNECTOR ADAPTER 	IA0.580.000	•	•
Trifase di stringa • Three phases string inverter • Triphasé en chaîne			
M12 - SCREWED CONNECTOR ADAPTER 	IA0.042.003		
SINGLE CONNECTOR M12 CABLE 	IA0.101.005		
DOUBLE CONNECTOR M12 CABLE 	IA0.101.006		
NIGHT POWER SUPPLY 2 	IA0.580.009		
IP65 - ETH ADAPTER 	IA0.042.004		
M12 - RS485/USB ADAPTER 	IA0.101.007		

DESCRIZIONE • DESCRIPTION • DESCRIPTION	COD.
Trifase centralizzati: accessori montati in macchina • Three phases central inverter: accessories installed on the unit • Onduleurs centralisés: triphasés: accessoires installés sur l'unité	
GROUNDING KIT DC + 	xxx.yyy.zzz.000
GROUNDING KIT DC - 	xxx.yyy.zzz.001
INTERFACE EXPANSION CARD 	xxx.yyy.zzz.002
SHUNT RELEASE 1 MPPT (BOBINA SGANCIO) 	xxx.yyy.zzz.003
SHUNT RELEASE 2 MPPT (BOBINA SGANCIO) 	xxx.yyy.zzz.003
SHUNT RELEASE 3 MPPT (BOBINA SGANCIO) 	xxx.yyy.zzz.003
AC LINE MONITORING RELAYS R 400 	xxx.yyy.zzz.004
AC LINE MONITORING RELAYS R 800 	xxx.yyy.zzz.004
AC LINE MONITORING RELAYS R 1200 	xxx.yyy.zzz.004
Accessorio esterno • External accessories • Accessoire extérieur	
SENSOR BOX2 	IA0.580.000

Tutte le specifiche tecniche possono essere modificate senza preavviso
All the technical data can be modified without advance notice



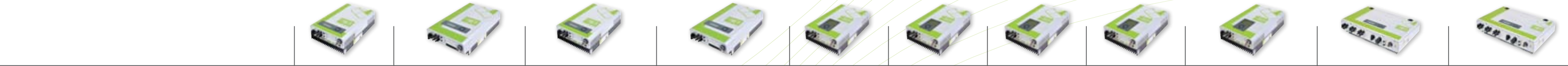


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La società produttrice declina ogni responsabilità per possibili inesattezze contenute nel presente listino, imputabili ad errori di stampa o trascrizione. Si riserva altresì il diritto di apportare, senza preavviso, ai propri prodotti, quelle modifiche che ritenesse necessarie ed utili senza pregiudicare le caratteristiche di utilizzo.

The producer declines all responsibility for any inaccurate information in the present price list, due to printing or transcription mistakes. The producer reserves the right to modify the products without prior notice, provided that the modifications are deemed necessary and that the technical characteristics are not prejudiced.

Spazio riservato al rivenditore



DC INPUT - PV MODULE	1PH				1PH				3PH			
MODEL	R35	R45	R60	R75	F25	F34	F42	F55	F70	R120	R150	
Type - Order Code	IP 21: I03.011.031 IP 54: I03.011.032	IP 21: I04.311.031 IP 54: I04.311.032	IP 21: I06.011.031 IP 54: I06.011.032	IP 21: I06.011.031 IP 54: I06.011.032	IP 65: I02.211.013	IP 65: I03.011.013	IP 65: I03.811.013	IP 65: I04.811.113	IP 65: I06.611.113	IP 65: I31.232.033	IP 65: I31.432.033	
Recommended PV Power (kWp)	1,50 - 3,00	3,00 - 4,35	4,20 - 6,00	5,20 - 6,60	1,3 - 2,2	2,0 - 3,0	2,8 - 3,8	3,4 - 4,8	4,6 - 6,6	7,50 - 12,00	9,00 - 14,40	
MPP Voltage Range (V _{DC})	345 - 750				150 - 430				345 - 750			
Max No-load PV Voltage (V _{DC})	850				450				850			
Maximum Input Current (A _{DC})	8,7	12,5	16,2	17,4	7,6	10,4	13,1	16,6	22,8	11,0 (x 3 DC input)	13,2 (x 3 DC input)	
Number of independent input strings	1				1				2		3 (independent)	
AC OUTPUT - AC GRID												
Nominal Power (kW)	2,50	3,50	4,60	5,50	1,80	2,50	3,20	4,10	5,70	10,00	12,00	
Recommended PV Power (kW)	2,85	4,00	5,00	5,70	2,00	2,75	3,50	4,40	6,00	11,75	13,25	
Nominal Current (A _{AC})	10,9	16,5	21,7	24,0	7,80	10,9	13,9	17,8	24,8	3 x 16,0	3 x 17,4	
Voltage (V) / Frequency (Hz)	230 V (+/- 15%: 195V... 265V) 1-phase / 50 Hz (49,7 - 50,3)				230 V (+/- 15%) / 50 Hz (49,7 - 50,3)				3 x 230 V (+/- 15%) - 400 V (3-phases) / 50 Hz (49,7 - 50,3)			
Distortion Factor (THD)	<2%				<4%				<4%			
Power Factor (cos φ)	1				1				1			
GENERAL DATA												
Max Efficiency	97,2%	97,3%	97,4%	97,4%	96,2%	96,3%	96,4%	96,4%	96,4%	98,0%	97,4%	
European Efficiency	96,6%	96,8%	97,0%	97,0%	95,6%	95,8%	96,0%	96,0%	96,0%	97,2%	97,0%	
Night consumption (W)	< 0,01W				< 0,01W				< 0,03 W			
Weight (kg)	18 kg (IP21) - 21 kg (IP54)		19 kg (IP21) - 22 kg (IP54)		20 kg	21 kg	23 kg	24 kg	24 kg	40 kg		
Protection degree	IP21 (optional IP54)				IP65	IP65	IP65	IP65	IP65	IP65		
Cooling	Natural convection				Natural convection				Natural convection			
Dimensions (HxLxP)	303 x 450 x 130 mm (IP21) [315 x 510 x 130 mm (IP54)]				510 x 370 x 150 mm				400 x 620 x 230 mm			
Operating Temperature (°C)	-15°C to +50°C, derating > 40°C				-15° to +50° C				-15° to +50° C, derating > 40°C			
Display and LED	LCD Display (4 lines x 20 characters) / Two-colour status LED / 5-keys keypad				TFT Color Display 3,5"				LCD Display (4 lines x 20 characters) / Two-colour status LED / 5-keys keypad			
Humidity	0 + 90% Not condensing				Not considering				0 + 90% Not condensing			
SAFETY												
Grid monitoring and anti-island control	Via the integrated interface device, in compliance with national regulations									Via the integrated interface device, in compliance with national regulations		
Monitoring of earth malfunctions	Controlled by the insulation resistance of the PV generator									Controlled by the insulation resistance of the PV generator		
Monitoring of leakage current	Protection against electricity failure via an electronic RCMU device											
INTERFACE AND COMMUNICATION												
Serial Port	1 RS232 and 2 RS485 serial ports								1 RS485 serial ports			
Ethernet	1 integrated Ethernet port for Internet connection								1 integrated Ethernet port for Internet connection			
Modem	Analogue / GSM modem								None			



Gli inverter solari di stringa per connessione a rete monofase serie R35-R45-R60-R75 (da 3,0 a 6,6 kWp), serie F25-F34-F42-F55-F70 (da 2,5 a 6,6 kWp) e trifase serie R120-R150 (da 12,0 a 14,5 kWp), sono dei dispositivi di conversione statica di energia progettati senza impiego di parti in movimento in modo da garantire:

- l'ottimizzazione del rendimento nel pieno rispetto delle normative di sicurezza;
- una riduzione sensibile del peso e dell'ingombro;
- un'elevata affidabilità e durata nel tempo grazie all'assenza di ventole ed oggetti in movimento con conseguente ed efficace riduzione della rumorosità.



The string series grid connection inverter single phase series R35-R45-R60-R75, (ranging from 3,0kWp to 6,6 kWp), series F25-F34-F42-F55-F70, (ranging from 2,5kWp to 6,6 kWp) and three phases series R120-R150 (with 12,0 and 14,5 kWp), are static energy converters, designed without the use of insulating transformers or moving parts in order to guarantee:

- optimisation of machine performance in total respect of safety regulations;
- a significant reduction in weight and dimensions;
- elevated reliability and durability, thanks to the absence of fans and moving parts, with a subsequent and efficient reduction in noise.



Les onduleurs en chaîne pour le branchement au réseau monophasés de la série R35-R45-R60-R75 (avec puissances de 3,0kWp à 6,6 kWp), série F25-F34-F42-F55-F70 (avec puissances de 2,5kWp à 6,6 kWp), et triphasés de la série R120-R150 (avec puissances de 12,0 et 14,5 kWp), sont des dispositifs de conversion statique d'énergie, conçus sans l'utilisation de transformateurs d'isolation et sans l'utilisation de pièces en mouvement, afin de garantir:

- l'optimisation du rendement de la machine dans le plein respect des réglementations de sécurité;
- une réduction sensible du poids et de l'encombrement;
- une fiabilité et une durée dans le temps grâce à l'absence de ventilateurs et d'objets en mouvement ce qui entraîne une réduction efficace et conséquente du bruit.



INVERTER DI STRINGA

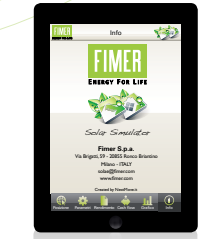
Monofase R35, R45, R60, R75, F25, F34, F42, F55, F70
 Trifase R120, R150

STRING INVERTER
 Single-phase inverter R35, R45, R60, R75, F25, F34, F42, F55, F70
 Three-phases inverter R120, R150

ONDULEURS EN CHAÎNE
 Onduleurs monophasés R35, R45, R60, R75, F25, F34, F42, F55, F70
 Onduleurs triphasés R120, R150



Le FIMER APP sono uno strumento fondamentale per impiantisti, installatori, rivenditori e distributori che vogliono dimensionare correttamente il proprio campo fotovoltaico (SUN BUILDER) o che semplicemente vogliono effettuare una verifica preventiva di quale sarà la resa di un futuro sistema fotovoltaico (SOLAR SIMULATOR). Grazie a queste applicazioni, scaricabili gratuitamente da APP STORE, l'utente sarà guidato passo passo nel dimensionamento dell'impianto fotovoltaico con inverter FIMER senza che si possano commettere errori. Con SOLAR SIMULATOR invece, il ritorno economico del vostro futuro investimento nel fotovoltaico sarà calcolato in automatico dall'applicazione. Basterà inserire pochi semplici dati.



Tecnologia, design e innovazione si fondono da 70 anni per realizzare prodotti all'avanguardia. I prodotti FIMER, le saldatrici prima, i climatizzatori poi e gli **INVERTER SOLARI** ora, sono universalmente noti per la loro altissima qualità, la perfezione nel funzionamento e l'aderenza al continuo progresso.

Utilizzare un prodotto FIMER significa **CERTEZZA!** Utilizzare un inverter solare FIMER significa **AFFIDABILITÀ, PRESTAZIONI e RENDIMENTO ASSOLUTO!**



Technology, design and innovation: that's 68 years of cutting-edge FIMER products. We started out with welding machines, then air conditioners and now **SOLAR INVERTERS**, known worldwide for their perfect, high quality, performance and our dedication to continual advancement. FIMER products stand for **DEPENDABILITY!** Using a FIMER solar inverter means **RELIABILITY**, and **TOP QUALITY PERFORMANCE!**



La technologie, le design et l'innovation s'unissent depuis 68 ans pour réaliser des produits à l'avant-garde. Les produits FIMER, les postes à souder tout d'abord, puis les climatiseurs et maintenant les **ONDULEURS SOLAIRES** sont universellement reconnus pour leur très haute qualité, leur fonctionnement parfait et l'application des tous derniers progrès. Utiliser un produit FIMER signifie **CERTITUDE!** Utiliser un onduleur solaire FIMER signifie **FIABILITÉ, PRESTATIONS et RENDEMENT ABSOLU!**



FIMER APPs are a fundamental tool for plant engineers, installers, dealers and distributors who want to correctly size their photovoltaic field (SUN BUILDER) or who simply wish to verify in advance what yield will be delivered by a future photovoltaic system (SOLAR SIMULATOR). Thanks to these applications, which can be downloaded free of charge from APP STORE, the user will be guided step by step in sizing the photovoltaic installation with FIMER inverters, without any possibility of making mistakes. With SOLAR SIMULATOR, on the other hand, the financial return on your future investment in a photovoltaic system will be automatically computed by the application. You will only need to input a few simple data.



Les applications FIMER APP sont des outils indispensables pour permettre aux poseurs, aux installateurs, aux revendeurs et aux distributeurs de bien dimensionner le champ photovoltaïque (SUN BUILDER) ou, tout simplement, pour leur permettre de calculer, au préalable, la productivité d'une future installation photovoltaïque (SOLAR SIMULATOR). Ces applications, téléchargeables gratuitement depuis l'APP STORE, guideront pas à pas l'utilisateur dans le dimensionnement de son installation photovoltaïque avec onduleur FIMER sans se tromper. L'application SOLAR SIMULATOR, quant à elle, calculera automatiquement le retour économique de votre futur investissement. Il vous suffira de saisir quelques simples données.

