

DICHIARAZIONE DI CONFORMITÀ / DECLARATION OF CONFORMITY

Certificato N° / Certificate n°: EPT.16.CEI021/0227.1
 Tipologia di prova / Type of test: Prove di tipo / Type testing

TIPOLOGIA DI APPARATO / EQUIPMENT CLASSIFICATION

DISPOSITIVO DI INTERFACCIA (DDI)	SISTEMA DI PROTEZIONE DI INTERFACCIA (SPI)	DISPOSITIVO DI CONVERSIONE STATICA	DISPOSITIVO DI GENERAZIONE ROTANTE
X	X	X	N/A

Costruttore: **ATON S.r.l.**
 Manufacturer: Sede legale: Via Circonvallazione n°57/B - 47923 Rimini (RN) - ITALY
 Sede operativa: Via Guido Rossa n° 5 - Spilamberto (MO) - ITALY
 Tipo / Type: Sistema di accumulo (SdA) con convertitore statico connesso alla rete - monofase 230V_{AC}
 Grid connected energy storage system (EES) - Single phase 230V_{AC}

	RA.STORE-K				
	RAK 5K 2S H - XX.X L	RAK 5K 2S M - XX.X L	RAK 4K 2S H - XX.X L	RAK 4K 2S M - XX.X L	RAK 3K 2S M - XX.X L*
Potenza apparente nominale @cosfi = 0.95 [kVA] / Rated apparent power @cosfi = 0.95 [kVA]	4850	4850	3900	3900	3200*
Potenza attiva @cosfi = 0.95 [kW] / Rated active power [kW]	4600	4600	3680	3680	3000*

Versione firmware / Firmware version **: Manager: V2.07.XX - Inverter: V2.02.XX - Charger: V2.03.XX - Controller: V1.00.XX.XX

Note / Remarks: *per questo modello sono stati verificati i requisiti della sola CEI 0-21:2014-09+V1:2014-12 V. ALLEGATO #01
 *for this model only the requirements from CEI 0-21:2014-09+V1:2014-12 have been verified SEE ANNEX# 01
 ** I numeri indicati con "X" corrispondono a blocchi funzionali del firmware non in contrasto con i requisiti della norma di riferimento
 ** the numbers replaced by "X" relate to functional blocks within the firmware which are not in contrast with the requirements of the reference standard

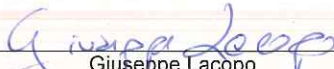
RIFERIMENTI DEI LABORATORI CHE HANNO ESEGUITO LE PROVE / TESTING LABORATORIES


- Esaminati i Rapporti di Prova / After reviewing the Test Reports:
 - (021) n° EPT.16.NRG.0302/53560 - 08/09/2016, issued by Eurofins Product Testing Italy S.r.l. (n° EA 0085)
 - (021) n° 3162473.50 - 24/04/2015, issued by DEKRA Testing and Certification Shanghai Ltd. China
 - (EMC) n° EPT.16.EMC.0303/54360 - 08/09/2016 issued by Eurofins Product Testing Italy S.r.l. (n° EA 0085)
 - (LVD) n° EPT.16.NRG.0304/53560 - 08/09/2016, issued by Eurofins Product Testing Italy S.r.l. (n° EA 0085)
- Esaminata la documentazione tecnica di costruzione (fascicolo tecnico) fornita dal Costruttore
 After reviewing the technical construction file submitted by the applicant.

Si dichiara che il prodotto è conforme alle prescrizioni della norma
We declare that the product complies with the requirements of the standard
CEI 0-21: 2014-09 + V1: 2014-12 and CEI 0-21:2016-07

Place and date of issue:
 Torino, 2017 - 02 - 14

The Certificate is valid until:
 2019 - 09 - 13


 Giuseppe Lacopo
 Responsabile Tecnico Sicurezza Elettrica
 Electrical Safety Technical Responsible


 Paolo Trisoglio
 Amministratore Delegato
 Managing Director

La presente dichiarazione ha validità triennale e non esonera il Costruttore da altri obblighi di legge per quanto attiene la responsabilità da prodotto. Ogni modifica nella progettazione o realizzazione del prodotto può rendere non valida la presente dichiarazione. La documentazione tecnica esaminata si riferisce esclusivamente ai requisiti definiti nella norma Italiana CEI 0-21:2014-09 + V1:2014-12 and CEI 0-21:2016-07. La modifica delle norme di riferimento fa decadere la validità della presente Dichiarazione. La presente Dichiarazione è composta da 2 pagine e può essere riprodotta solo integralmente.
 This declaration is valid for three years and doesn't exonerate the manufacturer from other obligations of law regarding the responsibility from product. Every change in the design or realization of the product can make not valid this declaration. The reviewed technical documentation regards the requirements as defined in the Italian standard CEI 0-21:2014-09 + V1:2014-12 and CEI 0-21:2016-07 only. Any modification of the reference standard makes this declaration invalid. The present Declaration is composed by 2 pages and it is reproducible only in whole.

DICHIARAZIONE DI CONFORMITÀ / DECLARATION OF CONFORMITY
Allegato 01 al certificato n. / Annex 01 at the certificate - EPT.16.CEI021/0227.1
General remarks (NOTE * - page 1)

Tested model according to annex Bbis – CEI 0-21:2016-07: RAK 5K 2S H-20L: rated active power 4600W, inverter model: INV-RAK, battery charger model: BMU-RA5K

Other models covered by this certificate:

- RAK 3K 2S M – xx.x L: rated active power 3000W, inverter model INV-RA3K, battery charger model: BMU-RA3K
- RAK 4K 2S M – xx.x L: rated active power 3680W, inverter model INV-RA4K, battery charger model: BMU-RA3K
- RAK 4K 2S H – xx.x L: rated active power 3680W, inverter model INV-RA4K, battery charger model: BMU-RA5K
- RAK 5K 2S M – xx.x L: rated active power 4600W, inverter model INV-RA5K, battery charger model: BMU-RA3K

All the evaluated models have the same construction and firmware. The differences relate only to :

- Storage capacity and number of the lithium accumulators: symbols "xx.x" in the identification codes correspond to 5, 7.5, 10, 12.5, 15, 17.5 or 20, depending on the number (2, 3, 4, 5, 6, 7 or 8) of lithium accumulators installed (the letter "L" in the id- code means Lithium accumulator)
- Rated power of inverters and battery chargers

The values P_{smax} and P_{cmx} are adjustable parameters, and the converter is able to automatically adjust its operation mode in over frequency and under – frequency conditions.

The model RA 3K 2S M – xx.x complies with the standard CEI 0-21:2014-09 + V1:2014-12 only for compliance with CEI 0-21:2016-07, evidence of compliance with EN 50438:2010 must be provided.

Technical Documentation:

The reviewed Technical Construction File includes:	Block diagram / Sketch of the intended connection to the grid	<input checked="" type="checkbox"/>
	Critical Components list	<input checked="" type="checkbox"/>
	External/internal photos – Mechanical drawings	<input checked="" type="checkbox"/>
	Circuit description	<input checked="" type="checkbox"/>
	Schematic diagram	<input checked="" type="checkbox"/>
	User manual	<input checked="" type="checkbox"/>

Compliance with Requirements of CEI 0-21: 2014-09 + V1: 2014-12 and CEI 0-21:2016-07– Documentary evidences
To demonstrate conformity with art. B.1 – CE marking requirements – SAFETY

Applied standards	Version	Report or Certificate n°	Issued by	Issue date
EN 62109-2:2011	2011	EPT.16.NRG.0304/53560	Eurofins Product Testing Italy S.r.l.	2016-09-08
EN 62109-1:2010	2010			

To demonstrate conformity with art. B.1 – CE marking requirements – EMC

Applied standards	Version	Report or Certificate	Issued by	Issue date
EN 61000-6-3 EMC - Emission standard for residential environments	2007 + A1:2011	EPT.16.EMC.0303/54360	Eurofins Product Testing Italy S.r.l.	2016-09-08
EN 61000-6-2 EMC - Immunity standard for industrial environments	2005			

To demonstrate conformity with art. B.1 - cl. a), b), c), g) – POWER QUALITY requirements

Applied standards	Version	Report or Certificate	Issued by	Issue date
EN 61000-3-2*	2006 +A1:2009 +A2:2009	n. 3162473.50	DEKRA Testing and Certification (Shanghai) Ltd. - CHINA	2015-04-24
EN 61000-3-3*	2008			

Remarks: *Test also performed at extreme temperature conditions on inverter model INV-RA5K (P_n = 4600 W)

To demonstrate conformity with artt. 8.4, 8.5, 8.6 ; B.1.1 to B.1.6 – Technical and functional requirements, grid services

Applied standards	Version	Report or Certificate	Issued by	Issue date
CEI 0-21	2014-09 + V1:2014-12	EPT.16.NRG.0302/53560	Eurofins Product Testing Italy S.r.l.	2016-09-08
		n. 3162473.50	DEKRA Testing and Certification (Shanghai) Ltd. - CHINA	2015-04-24

Remarks: Adjustable delays on the P(f) and Q(V) functions of the power converters have been checked to be implemented in the controller (firmware)

To demonstrate conformity with art. 8.6.2; A.4 – REQUIREMENTS for the Interface Protection System (SPI)

Applied standards	Version	Report or Certificate	Issued by	Issue date
CEI 0-21	2014-09 + V1:2014-12	EPT.16.NRG.0302/53560	EUROFINS Product Testing Italy S.r.l.	2016-09-08

History

Issue	Description	Issue date
0	Prima emissione /First emission	14/09/2016
1	Correzioni editoriali: identificazione di alcuni test report / Editorial correction Editorial correction: identification of some test reports.	2017/02/13