

Inverters from the Powador xi series

■ Manufacturer's warranty

KACO new energy GmbH, (hereinafter "KACO"), issues a manufacturer's warranty of seven years on the inverters from the Powador xi series starting on the date of installation and extending no longer than 90 months after the date of shipment by KACO. During this time, KACO guarantees the proper function of this inverter.

The manufacturer's warranty applies in addition to the legal warranty claims of the customer vis-à-vis the vendor/dealer.

These warranty conditions apply expressly to all inverters from the Powador xi series unless differing conditions have been agreed upon in writing as a part of an individual agreement between KACO and the customer.

■ Warranty extension

The warranty period can be extended to 11 years from the date of installation or no more than 138 months from the date of delivery by KACO, subject to additional cost. KACO also offers warranty extensions to 15, 20 and 25 years (please see separate order form). The warranty extension can be ordered up to six months after installation and no more than twelve months after delivery by KACO using the serial number of the unit. Warranty extension is no longer possible after the above-mentioned dates. Upon purchase of the warranty extension and once the unit has been delivered, KACO grants the customer a warranty certificate for each inverter confirming the extended warranty period.

The warranty extension is applicable in the following countries within Europe (islands included within Europe):

Germany, Spain, Portugal, France, Belgium, Austria, Switzerland, Czech Republic, Greece, Italy

■ Procedure in the case of servicing

Contact your specialist dealer or installer if your unit exhibits a defect or fault during the warranty period. To file warranty claims and for claim management with KACO, you are required to supply us with the following information and documentation regarding the affected inverter:

- Unit type (e.g. Powador 5000xi) and serial number (e.g. 5.0X77777)
- Copy of the invoice and warranty certificate for the inverter
- Copy of the startup report and startup date
- Error message in display (if available) and additional information regarding the defect/error
- Detailed information about the entire system (modules, circuits, etc.)
- Documentation detailing previous claims/exchanges (if applicable)

After the claim has been issued, KACO decides how and where repairs or replacement are to take place and determines whether the defective unit must be replaced by a replacement unit. On-site repairs, replacement units and damages resulting from drops in yield are not covered by this warranty.

If the unit is to be replaced, KACO immediately sends a replacement unit which is generally received by the customer within two working days. If units must be sent back, they should be sent in their original packaging if possible or other comparable packaging if the original packaging is unavailable.

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The replacement unit sent by KACO will be no older than the affected unit and comes refurbished and in excellent condition, both technically and visually. As part of the exchange procedure, the replacement unit becomes the property of the customer and the defective unit becomes the property of KACO. The remaining warranty period of the affected unit is transferred to the replacement unit.

In the case of replacement or repair or if the unit is exchanged, a remaining warranty period of at least one year is granted, i.e. should a warranty claim be made with a remaining warranty period of less than one year, the customer is granted an additional warranty on the repaired or replacement unit for a period of one year from the date of service.

If, after the exchange procedure, the defective unit has not been returned to KACO within a period of four weeks after the replacement unit has been sent, we will bill the customer for the current transfer price of the replacement unit. If the defective unit is returned to KACO within a period of four weeks after invoicing, KACO will issue a refund or credit voucher.

Repairs on the Powador 25000xi/30000xi/33000xi inverters are to be carried out within five working days beginning on the day after the claim has been filed at KACO. For claims which have little to no effect on the energy yield of the PV system, repairs may take longer than five working days.

KACO will reimburse the installer a net fixed-rate replacement fee of € 100.00 for a justified warranty claim regarding an inverter made within five years after its date of installation (which must have taken place after 01 January 2009). KACO will pay the installer a net fixed-rate replacement fee of € 50.00 for each additional inverter that is replaced at the same time and in the same installation. KACO recommends that the operator of the unit register the unit on-line within four weeks after the date of installation. If the end customer (or the installer of the unit) registers the unit on-line within this time period, the period during which the replacement fee described above will be paid will be extended to seven years from the original five years. The unit can be registered at the following "registration domain": www.kaco-newenergy.de/service.

The fixed-rate replacement fee will be paid upon receipt of invoice from the installer and only after the cause of the defect has been determined. The fee will be paid only if the warranty claim is justifiable and only if the required information, such as the unit numbers of the old and new units as well as the date of replacement, is included on the invoice.

■ Exclusion of warranty claims:

KACO can only process warranty claims for which a copy of the invoice as issued to the end customer by the dealer or installer for the affected unit is provided and for which the type label is complete and legible. If these requirements are not fulfilled, KACO reserves the right to deny warranty services.

Warranty claims are generally excluded in the following cases:

- Use of the unit in ways not intended
- Installation or operation that is improper or that does not comply with the relevant standards
- Operating the unit with defective protective equipment
- Unauthorised modifications to the unit or repair attempts
- Influence of foreign objects and force majeure (lightning, overvoltage, severe weather, fire)
- Insufficient ventilation of the unit
- Failure to observe the relevant safety regulations (VDE, etc.)
- Damage resulting from transport or installation
- Damage resulting from faulty planning and/or installation of the entire system
- "Grey imports" in countries in which the unit is not authorised or intended for use

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■ Service after warranty expiration:

After the warranty issued by KACO has expired, the cost to repair a Powador inverter (with the exception of Powador 25000xi / 30000xi / 33000xi) does not exceed € 400.00 net. This is calculated according to the actual cost of labour and will not exceed the maximum confirmed value of € 400.00 net per inverter. The inverter must be returned to KACO in suitable packaging. After KACO has completed repair work, the unit is returned to the customer immediately.

Unit defects resulting from one of the warranty exclusions listed above are not included in this agreement.

If, after the warranty has expired, the customer requires a replacement unit for the inverter (with the exception of Powador 25000xi/30000xi/33000xi) during the time required for repairs to be completed, KACO can provide the customer with a rental unit for purchase during the repair period. The rental unit is available for a fixed price of € 100.00 which includes the cost of the unit, the technical inspection of the unit after it has been used and transportation insurance for the unit. The customer is billed separately for transport costs calculated based on the cost of labour. If the unit is returned damaged, the customer is billed for the cost of labour associated with any necessary repair work.

For the Powador 25000xi/30000xi/33000xi units, the cost of repair after the expiration of the warranty are calculated according to cost of labour. If repairs are to take place on-site at the customer's location, the customer must be prepared to assume all costs associated with the KACO service technician in accordance with the current cost rates as determined by KACO. If the unit is to be repaired at the KACO plant, the customer receives a cost estimate before repair work is carried out. Once all costs have been approved and the customer has filed the repair order, repair of the defective inverter is handled immediately.

Current valid repair cost rates apply to repairs which take place outside of the warranty period as well as to all repairs that are subject to fees. The current rates are as follows (last updated: January 2009):

- One hour of repair work with a technician in the KACO plant (calculated in 15 minute intervals):
€ 65.00
- Hour of standby time/travel time with a technician on a service call (calculated in 15 minute intervals):
€ 75.00
- Hour of standby time/travel time with an assistant on a service call (calculated in 15 minute intervals):
€ 45.00
- Vehicle costs for passenger car/transporter (calculated per kilometre):
€ 0.55
- Vehicle costs for truck (calculated per kilometre):
€ 1.10
- Materials/spare parts:
Cost-dependent
- Out-of-pocket expenses and accommodation costs:
Cost-dependent

All prices are net and therefore subject to VAT.

Conditions for warranty, service, repair and exchange

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■ Overview: In the case of servicing, which parties assume specific costs?:

Type of cost	Costs assumed during		
	legal warranty period*	KACO warranty period	at the end of the warranty period
Installer fixed-rate replacement fee	KACO	KACO**	Customer
Shipping of replacement/spare unit to customer	KACO	Customer	Customer
Shipping of defective unit to KACO	KACO	Customer	Customer
Packaging costs for defective unit	KACO	Customer	Customer
Repair costs at KACO location (work time)	KACO	KACO	Customer, cost-dependent or max. € 400.00 for Powador xi up to 8 kW
Spare parts and materials	KACO	KACO	
On-site repair call	KACO	KACO	
Travel costs and out-of-pocket expenses	KACO	Customer	Customer
Troubleshooting/determining the cause of the defect	KACO	KACO	Customer
Administrative costs of the servicing procedure	KACO	KACO	Customer
Rental unit fee (optional)	-	-	Customer € 100.00

* The legal warranty applies as regards the relationship between the system operator/end customer and contract partner with a warranty period of two years.

** KACO assumes the replacement fee for five years for units installed after 01 January 2009. If the customer registers the product on-line, KACO assumes the replacement fee for the entirety of the warranty period of seven years. See the point "Procedure in the case of servicing" on pages 1 and 2.

■ Maintenance contracts

Upon request, KACO offers maintenance contracts of various service levels for the inverters from the Powador 25000xi/30000xi/33000xi series. If you are interested in possible maintenance contracts or if you have any questions, please feel free to contact us directly to request additional information.