THE NETHERLANDS
(N E D E R L A N D)

E4

JE MAINTIENDRAI

COMMUNICATION

Concerning [1]:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitely discontinued~~

of a type of ~~electrical~~/electronic sub-assembly [1] with regard to Regulation number 10.

Approval number: E4*10R06/01*4870*00

1.	Make (trade name of manufacturer)	: Victron Energy
2.	Type and general commercial description(s)	: Phoenix Inverter ##/#### 230V Smart
3.	Means of identification of type, if marked on the ~~vehicle~~/component/ ~~separate technical unit~~ [1]	: Phoenix Inverter 12/1600 230V Smart Phoenix Inverter 24/1600 230V Smart Phoenix Inverter 48/1600 230V Smart Phoenix Inverter 12/2000 230V Smart Phoenix Inverter 24/2000 230V Smart Phoenix Inverter 48/2000 230V Smart
3.1.	Location of that marking	: On the top cover
4.	Category of vehicle	: N.A.
5.	Name and address of manufacturer	: Victron Energy B.V., de Paal 35, 1351JG, Almere Netherlands
6.	In the case of components and separate technical units, location and method of affixing of the approval mark	: Screen-printed on the top cover

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Type-approval Department

Approval number: E4*10R06/01*4870*00

7.	Address(es) of assembly plant(s)	
8.	Additional information (where applicable)	: see Appendix below
9.	Technical service responsible for carrying out the tests	: Kiwa Dare B.V. Vijzelmolenlaan 7 3447 GX Woerden The Netherlands
10.	Date of test report	: 2021 November, 10 (all 6 reports)
11.	Number of test report	: 20210447RPT02: 12/2000 20210447.001RPT02: 24/2000 20210447.002RPT02: 48/2000 20210447.003RPT02: 12/1600 20210447.004RPT02: 24/1600 20210447.005RPT02: 48/1600
12.	Remarks (if any)	: see Appendix
13.	Place	: Zoetermeer
14.	Date	: 17 August 2022
15.	Signature	:

L. Vellekoop

16. The index to the information package lodged with the approval authority, which may be obtained on request, is attached.

17. Reasons for extension : N.A.

(1) Strike out what does not apply.

APPENDIX

to type-approval communication form number: E4*10R06/01*4870*00

concerning the type-approval of an ~~electrical~~/electronic sub-assembly [1] under Regulation number 10.

1.	Additional information	: The smart inverter family consists of six variants in total: two output power classes with three input voltage levels. The design and PCB of the 1600VA and 2000VA are identical, except of the used mosfets, but it is very unlikely that this will affect the behavior of the EUT. Therefore only the 2000VA variants are tested full compliant, and the 1600VA variants are tested partially.
1.1.	Electrical system rated voltage	: 12Vdc, 24Vdc, 48Vdc, 230Vac and negative ground.
1.2.	This ESA can be used on any vehicle type with the following restrictions	: None
1.2.1.	Installation conditions, if any	: None
1.3.	This ESA can be used only on the following vehicle types	: N.A.
1.3.1.	Installation conditions, if any	: N.A.
1.4.	The specific test method(s) used and the frequency ranges covered to determine immunity were	: Radiated Immunity 200 MHz – 2 GHz Bulk Current Injection (BCI) 20 – 200 MHz Electrical disturbance test on voltage supply lines
1.5.	Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests	: Kiwa Dare B.V.
2.	Remarks	: Documentation: Certificate Type approval mark example Annex 2B Report 6 x Schematic SWL and Fan PCB top and bottom layer SWL and Fan TTO documents 6 x BOM 6 x Declaration technical identical Statement for application