CERTIFICATE OF COMPLIANCE

Certificate Number	20180406-E364337
Report Reference	E364337-20161227
Issue Date	2018-April-06

Issued to:	MOTOVARIO SPA VIA QUATTROPASSI 1/3 41043 FORMIGINE MO ITALY
This is to certify that representative samples of	COMPONENT - POWER CONVERSION EQUIPMENT COMPONENT - ENERGY AND INDUSTRIAL SYSTEMS CERTIFIED FOR FUNCTIONAL SAFETY SEE ADDENDUM PAGE FOR MODELS
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	SEE ADDENDUM PAGE FOR Standard(s)
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

The products covered are: Digital Motor Drives, models DV123 (single), followed by Gx, x any number between 1 and 4, f/b yyyy, any digit number 0000 to 9999 , followed by S and models DV340 (3-phase), followed by Gx, x any number between 1 and 4, f/b yyyy, any digit number 0000 to 9999, followed by S or M.

The DRIVON digital motor drives are a family of inverters integrated into the junction box on the motor. It contains a processor based vector control of the 3-phase motor. Various options allow a keypad connection and different plug-in interfaces for control.
The selection and configuration is performed by Motovario, not by the user. Motor and inverter are one line replaceable unit for the user, the user only has access to power input and interface connections when opening the cover. The control & power printed circuit board is populated in variants for the power stage (IGBT modules), capacitor bank and input rectifier.
The controller board is identical for all models. There is a hardware recognition / selection on the connection to the control & power board where the control will be able to detect which board it is connected to.
The safety relevant STO hardware is identical for all models.

These Digital Motor Drives, series name “DRIVON”, cover the following end product types in combination with motors:

- Single-Phase Inverter 230V, rated power 0,25 kW – 1,5 kW + motor series TS / TH / TBS / TBH in the same power range,
- Three-Phase Inverter 400V, rated power 0,25 kW – 5,5 kW + motor series TS / TH / TBS / TBH in the same power range.

Standard(s)

EN IEC 61800-5-2 Adjustable speed electrical power drive systems – Part 5-2: Safety requirements – Functional- Ed. 2007, 2008-04.

EN IEC 61800-3 Adjustable speed electrical power drive systems – Part 3: EMC requirements and specific test methods- Ed. 2004, 2004-08

ISO 13849-1 Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design-3rd Ed., 2015-12-15.

ISO 13849-2 Safety of machinery - Safety-related parts of control systems - Part 2: Validation-2nd Ed., 2012-10-15.

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IEC 61326-3-1 Electrical equipment for measurement, control and laboratory use. EMC requirements. Part 3-1. Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety). General industrial applications- Ed. 2008, 2008-11.

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