



(1) EC-TYPE-EXAMINATION CERTIFICATE (Translation)

(2) Equipment and Protective Systems Intended for Use in
Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 99 ATEX 1155



(4) Equipment: Three-phase motors type DMD-71 to DMD-225

(5) Manufacturer: Dutchi Motors B.V.

(6) Address: NL-6828 ZN Arnhem, Van Oldenbarneveldtstraat 85a

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 99-19209.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997

EN 50018:1994

EN 50019:1994

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

(12) The marking of the equipment shall include the following:

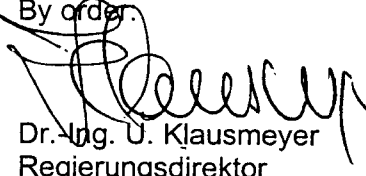


II 2 G EEx d IIC T4 resp. EEx de IIC T4

Zertifizierungsstelle Explosionsschutz

Braunschweig, December 06, 1999

By order


Dr.-Ing. U. Klausmeyer
Regierungsdirektor



sheet 1/3

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1155

(15) Description of equipment

The three-phase motors consist of the cast-iron housing which is closed by the shaft and an end shield at the non-drive end. Also, an external fan protected by a shroud is arranged at the non-drive end.

The electrical connections are in a terminal box of the flameproof enclosure or increased safety type of protection. A bushing electrically connects the terminal housing with the motor compartment.

Compliance with the temperature class is ensured, according to the mode of operation, by a protective motor switch or by three PTC's placed in the winding and a suitable electronic switch-off device.

According to the type and design, the following technical values are valid:

Permissible ambient temperature range	- 50 °C to 60 °C
Modes of operation [EN 60034:1998]	S1 to S10

	Mains operation	Frequency converter operation
Rated voltages [V]	230 to 690 ±10 %	up to 565
Rated frequencies [Hz]	50 / 60	from 5 to 87 Hz

Type: DMD-	71	80	90	100	112
Rated power up to [kW]	0.55	1.1	2.2	3	4

Type: DMD-	132	160	180	200	225
Rated power up to [kW]	7.5	18.5	22	37	45

(16) Test report PTB Ex 99-19209

sheet 2/3

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

(17) Special conditions for safe use

not applicable

(18) Essential health and safety requirements

Met by the standards mentioned above

Zertifizierungsstelle Explosionsschutz

By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor



Braunschweig, December 06, 1999