Dutchi Motors®

Series DMD
EEx d(e) IIC T4

Power is our commodity,
the world is our market !

PTB ATEX CE IEC

English

DMD - EEx d(e) IIC T4 motor

- IEC size 71 ~ 315, Iso F (B-rise), IP55
- Size 71 ~ 315 standard with PTC 145°C
- PTB/ATEX certificate for size 71 ~ 315
- Easely mountable feet and B5 / B14 flange for size 71 ~ 160
- Twospeed motors available
- Quality Bearings

Deutsch

DMD - EEx d(e) IIC T4 Motor

IEC Baugröße 71 ~ 315, Iso F (nach B), IP55 -
Baugröße 71 ~ 315 standard mit PTC 145°C -
PTB/ATEX Zertifikat für Baugröße 71 ~ 315 -
Füße und Flansche für Bg. 71 ~ 160 -
einfach zu montieren
Diverse polumschaltbare Motoren möglich -
Qualitätslagerung -

Français

DMD - Moteur EEx d(e) IIC T4

- Hauteur d'axe 71 ~ 315, classe F (échauffement B), IP55
- HA 71 ~ 315 Equipé d'origine avec CTP 145°C
- Certificat PTB/ATEX pour les hauteurs d'axe 71 ~ 315
- Montage facile des pattes et brides pour les hauteur d'axe 71 ~ 160
- Possibilités moteurs multi-vitesse
- Roulement de qualité

Español

DMD - Motor EEx d(e) IIC T4

IEC Tamaño 71 ~ 315, Iso F (B-rise), IP55 -
Tamaño 71 ~ 315 Standard en un set PTC 145°C -
PTB/ATEX Certificado para tamaño 71 ~ 315 -
Facilidad de montaje para pies y bridas, -
para tamaño 71 ~ 160
Disponible para motores de dos velocidades -
Calidad de rodamientos -

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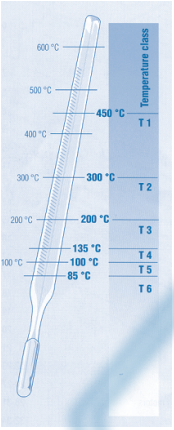
Ignition temperature - temperature class

The ignition temperature is influenced by various factors such as size, shape, type and composition of a surface. In IEC 79-4, IEC, CENELEC and other standards the authorities have agreed on a ”procedure for the determination of ignition temperature” with a limit approaching the lowest possible value.

The gases and vapours are classified into temperature classes. In accordance with these temperature classes, electrical equipment is tested for its maximum surface temperature to ensure that the possibility of ignition due to the surface temperature is excluded in normal and abnormal operation. The standards specify to which extent these standard values may be exceeded and determine the necessary safety margins.



Temperature class	Ignition temperature range of mixture	Permissible surface temperature of electrical equipment	Permissible temperature rise
T1	> + 450°C	+ 450°C	+ 410°C
T2	> + 300°C ~ ≤ + 450°C	+ 300°C	+ 260°C
T3	> + 200°C ~ ≤ + 300°C	+ 200°C	+ 160°C
T4	**> + 135°C ~ ≤ + 200°C**	**+ 135°C**	**+ 95°C**
T5	> + 100°C ~ ≤ + 135°C	+ 100°C	+ 60°C
T6	> + 85°C ~ ≤ + 100°C	+ 85°C	+ 45°C

Examples of the categorisation of gases and vapours in temperature classes and explosion protection subgroups.

	T1	T2	T3	T4	T5	T6
IIA	Methane	Propane	Petrol	Acetaldehyde		
IIB		Ethylene	Diethylether			
IIC	Hydrogen	Acetylene				Carbon disulphide

Maintenance of explosion protection

Maintenance of explosion protection during operation.

Electric machines must be protected against overheating due to overloads. The type of protection depends on the type of operation as well as the electric machine and its use.

Explosion-proof electric motors are usually certified for S1 type of operation, i. e. continuous operation. Other duties are allowed only if the temperature of the motor is controlled by reliable devices.

Duty type	Protective control device
S1	**A** Motor safety switch according to IEC 34-1 (VDE 0165/9.83). **B** Motor safety switch and temperature sensors in windings as additional protection. **C** Only temperature sensors as major protection. Only allowed if motor is tested and certified and if all control devices (power supplies) used are certified.
S2 / S3	**D** Motor safety switch with switch-on time control and/or temperature sensors in windings as additional protection. **E** Temperature sensors in windings as major protection. Only allowed if motor is tested and certified and if all control devices (power supplies) used are certified.
S4 / S5 / S6 / S7 / S8	**F** Temperature sensors in windings. Motor must be tested and only certified control devices may be used.
Power supply by means of frequency converters	**G** Thermal protection of motor by means of sensors in windings is allowed as the only (independent) protection, if motor is tested at all power supply frequencies, maximum voltage and S1-S7 (S8) types of operation. **H** If motor protection and converter are tested and certified as a unit.

Introduction

Explosion-protected electric motors are used in industrial plants with a potentially explosive atmosphere containing inflammable fumes (vapours) or gases (i. e. chemical industry, oil refineries ...) as well as in mines where methane is present.

These are the three-phase, asynchronous electric motors with short-circuit rotor, explosion protected according to the CENELEC EN 60079-0, EN 60079-1, EN 60079-7 (IEC 60079-0, IEC 60079-1) standards. The enclosures of electric motors are designed to be "flameproof" according to EN 60079-0 (IEC 60079-1). The terminal boxes could also be in "flameproof" design or also in "increased safety" design according to EN 60079-7 (IEC 60079-7).

The following regulations and standards have been considered in designing, manufacturing and testing of electric motors:

Standard	IEC International	EN-CENELEC Europe
- Rotating electric machines - classification of insulation materials for electrical machines	IEC 60034-1	EN 60034-1
- Climatic protection (IP number) Protection against harmful contact and ingress of solids	IEC 60034-5	EN 60034-5
- Cooling devices for electric machines	IEC 60034-6	EN 60034-6
- Construction of mounting of electric machines	IEC60034-7	EN 60034-7
- Marking of terminals and directions of rotating of electrical machines	IEC 60034-8	EN 60034-8
- Noise levels	IEC 60034-9	EN 60034-9
- Starting performance of short-cicuit motors at 50Hz and voltages up to 660V	IEC 60034-12	EN 60034-12
- Limited vibration levels for electrical machines	IEC 60034-14	EN 60034-14
- Relation between terminal sizes and ratings of three-pahse short-circuit surface-cooled electric motors	IEC60072-1, DIN 42673/3	-
- Relation between terminal sizes and ratings for arrangements: IM B5, IM B10, IM B14.	IEC 60072-2	-

European directives:

Description	Directive No.
- Directive for explosive atmospheres (ATEX)	94/9/EC, 1999/92/EL
- Electromagnetic Compatibility (EMC)	89/336/EEC
- Low Voltage Directive (LVD)	73/23/EEC
- Machinery Directive	98/37/EC
- Packaging and packaging waste	94/62/EC

Construction

Explosion protection standards taken into consideration during manufacturing and testing.

Standard	IEC International	EN-CENELEC Europe
- Electric devices operating in explosive atmospheres Standard type	IEC 60079-0	EN 60079-0
- Electric devices operating in explosive atmospheres Flameproof "d"	IEC 60079-1	EN 60079-1
- Electric devices operating in explosive atmospheres Increased safety "e"	IEC 60079-7	EN 60079-7

Construction:

Electric motors are of totally enclosed, fan cooled (TEFC) (blow-over) type. Cooling is provided by fans blowing external air over the ribbed outside surface (cooling system IC 411 according to IEC 34-6 or EN 60034-6). Electric motors up to 225 frame size are made of grey cast iron. Motors frame sizes of 250 and more are made of welded housing and the terminal boxes of grey cast iron.

Materials							
Frame size	Stator		Shields	Flange	Terminal box	Fancover	Fan
	Frame	Feet					
71	Cast iron	Cast iron screw on feet	Cast iron	Cast iron	Cast iron	Steel sheet (extruded)	Plastic
80							
90							
100							
112							
132							
160							
180	Cast iron	Cast iron screw on feet					
200							
225							Aluminium
250	Welded steel sheet	Welded steel sheet	Welded steel sheet	Welded steel sheet		Welded steel sheet	Welded steel sheet
280							
315							

Bearings

The following table lists the bearings used in the different motors. The bearings last about 20.000 hours in 4, 6 and 8 pole motors if the loads do not exceed the values indicated in the tables on pages 12 and 13.

Only the latest and most innovative bearings of known producers have been used in our motors. On customer request we equip the motors with other bearings (depends on the respective construction!).

The rotors are standard constructions and fixed on the D-end (frame size 71 mm to 160 mm) and B-end (frame size 180 mm to 225 mm).

Bearings:

Frame size	Poles	DE Bearing	NDE Bearing	Bearing dishers
71	2 - 8	**6203 ZZ C3**	**6203 ZZ C3**	17 x 40 x 12
80	2 - 8	**6204 ZZ C3**	**6204 ZZ C3**	20 x 47 x 14
90	2 - 8	**6205 ZZ C3**	**6205 ZZ C3**	25 x 52 x 15
100	2 - 8	**6206 ZZ C3**	**6206 ZZ C3**	30 x 62 x 16
112	2 - 8	**6206 ZZ C3**	**6206 ZZ C3**	30 x 62 x 16
132	2 - 8	**6208 ZZ C3**	**6208 ZZ C3**	40 x 80 x 18
160	2 - 8	**6308 ZZ C3** * NU 308	**6308 ZZ C3**	45 x 100 x 25
180	2 - 8	**6309 ZZ C3** * NU 309	**6309 ZZ C3**	50 x 110 x 27
200	2 - 8	**6310 ZZ C3** * NU 310	**6310 ZZ C3**	60 x 130 x 31
225	2 - 8	**6312 ZZ C3** * NU 312	**6312 ZZ C3**	65 x 140 x 33
250	2 - 8	**6314 ZZ C3** * NU 314	**6314 ZZ C3** ** 6314MC3 VL0241	70 x 150 x 35
280	2 - 8	**6316 ZZ C3** * NU 316	**6316 ZZ C3** ** 6316MC3 VL0241	80 x 170 x 39
315	2 - 8	**6317 ZZ C3** * NU 317	**6317 ZZ C3** ** 6317MC3 VL0241	85 x 180 x 41

* NU Bearings for belt drive possible from frame size 160 and up;
** For frequency drive we stronly recomment current isolated bearing from frame size 250 and up.

Bearing Lubrication:

Motors are normally fitted with permanently greased bearings of Type ZZ. According to experience the filled in grease will be sufficient for several years.

Motors fitted with grease nipples:

Motors from frame size 160 and above can be fitted with regreasable bearings. For motors with lubrication system we recommend not to exceed lubrication interval of two years in any case. Lubricate the motor when operational. If the motor is fitted with a lubrication plate, use values given, or use values given in the table beside. These values are according to L1 – principle.

The effectivness of motor lubrication should be checked by measuring the surface temperature of bearing endshield during normal operating conditions. If the measured temperature is +80 °C or above, the relubrication intervals must be shortened. Relubrication interval should be halfened for every 15K increase in bearing temperature. If this is not possible then use the lubricants suitable for high operation temperature conditions.

Ball Bearing: lubrication intervals in duty hours:

Frame size	Amount of grease	Speed of the motor [min^{-}]					
		3600	3000	1800	1500	1000	500
160	25 gr	7000 h	9500 h	14000 h	17000 h	21000 h	24000 h
180	30 gr	6000 h	8000 h	13500 h	16000 h	20000 h	23000 h
200	40 gr	4000 h	6000 h	11000 h	13000 h	17000 h	21000 h
225	50 gr	3000 h	5000 h	10000 h	12500 h	16500 h	20000 h
250	60 gr	2500 h	4000 h	9000 h	11500 h	15000 h	18000 h
280	70 gr	2000 h	3500 h	8000 h	10500 h	14000 h	17000 h
315	90 gr	2000 h	3500 h	6500 h	8500 h	12500 h	16000 h

Roller Bearing: lubrication intervals in duty hours:

Frame size	Amount of grease	Speed of the motor [min^{-1}]					
		3600	3000	1800	1500	1000	500
315	45 gr	1000 h	1700 h	3000 h	4300 h	6000 h	8000 h

At an ambient temperature of ≤ 25°C, twice the grease life can be expected, however, 33000 hours at a maximum.

In case of frequency converters and in continous operation at very low speeds, as well as at low temperature, the lubrication capabilities of standard greases may not be sufficient and special greases with additivies are needed.

If motors are equipped with sealed bearings (i.e. bearings greased for life) any deviation in the operating temperature from design temperature will result in a change in lifetime of bearings.

The use of conductive greases for elimination of bearing currents is not recommended due to their poor lubrication characteristics and low conductivity.

Regreasing or replacement of greas is only allowed with grease quality of the same kind (same saponification component or consistency).

Noise and vibration levels

Noise level:

The noise level of electric motors is below the limits prescribed by the IEC 60034-9 recommendation for fan-cooled (blow-over) electric machines.

Vibration level:

The rotors of electric motors are dynamically balanced with installed fan and 1/2 key. Vibration amplitude corresponds to N grade (normal) according to IEC 60034-14 (ISO 2373-N grade).

Limit values for the vibration of electric machines (IEC 34-14 / DIN ISO 2373)

Degree	Rotation speed [min^{-1}]	Limits of V_{ef} in mm/s		
		71 up to 132	160 up to 225	250 up to 315
N (normal)	600 ~ 1800 1800 ~ 3600	1.8	2.8	3.5
R (reduced)	600 ~ 1800 1800 ~ 3600	0.71 1.12	1.12 1.8	1.8 2.8
S (special)	600 ~ 1800 1800 ~ 3600	0.45 0.71	0.71 1.12	1.12 1.8

The vibration level is the maximum r. m. s. value of vibration velocity in a frequency range from 10 Hz to 1.000 Hz, measured according to DIN ISO 2373, IEC 60034-14.

Terminal box and terminals for supply cable

Terminal box:

The terminal box is fitted to the top of the motor with the cable entering from the fan end of the motor. It can be repositioned in steps of 90° to 180° to suit the application.

The motors with direct starting are equipped with 3 connection terminals. 6 connection terminals are fitted to Star-Delta, two speed and dual voltage machines.

The electric motors with sizes 71 to 132 inclusive and EEx e terminal boxes have 6 additional connection terminals for PTC sensors, heaters etc. The motors with EEx d terminal boxes are also equipped with 6 connection terminals. Exception is the 71 motor with only 4 connection terminals.

Each terminal box has one connection terminal for the protective conductor.

EEx d terminal boxes include a threaded entry to accept EEx d cable glands (see table below). EEx d thread reducers or adaptors can be included as an option for other thread sizes and thread forms.

Terminals for supply cable and cable entries

Frame size	Terminals for a max. cross section of supply cable (mm^2)	Cable entries for main connection*		
		EEx e terminal box		EEx d terminal box
		Cable entries	External diameter of supply cable mm	Cable entries
71	2,5	1 x M20x1,5	6,5 ~ 12	1 x M20x1,5
80 / 90 / 100	4	1 x M25x1,5	13 ~ 18	1 x M25x1,5
112	4	1 x M32x1,5	13 ~ 18	1 x M32x1,5
132	4	2 x M32x1,5	13 ~ 18	2 x M32x1,5
160 / 180	16	2 x M40x1,5	22 ~ 32	2 x M40x1,5
200 / 225	16	2 x M50x1,5	32 ~ 38	2 x M50x1,5
250 / 280 / 315	95 - 300	2 x M63x1,5	37 ~ 44	2 x M63x1,5

* Additional one cable entrie/gland M20x1,5 for PTC.

Increased safety terminal boxes include EEx e cable glands in accordance with EN 60079-0, and EN 60079-7.

The empty entries are fitted with suitably certified stopping plugs. Additional entries can only be made in our factory under strict quality procedures.

The EEx d terminal may receive additional threaded holes (NPT, ISO 7/1) by means of adapters.

One threaded hole M20x1,5 is provided on the EEx d terminal boxes for the thermal protection and for heaters. EEx e terminal boxes have an additional cable gland M20x1,5 for cable diameters of 6 to 12mm.

Degrees of IP protection and coating

IP protection:

IP protection of electric motors corresponds to IP 55. Motors with a higher degree of IP protection are manufactured on special request.

Coating:

Surface protection against aggresive environmental influences.

	Anti-corrosion protection 2 (std)	Anti-corrosion protection 3 (special)	Special surface protection
Surface	Sanding and degreasing	Sanding and degreasing	Product with surface protection against chemical influences and tropical conditions are available on special request.
Undercoating	Alkyd	Epoxy	
Coating	-	Epoxy	
Finishing	Alkyd (2x)	Epoxy	
Total thickness	80 µm	140 µm	
Colour*	Ral 5010 (blue)	Ral 5010 (blue)	
Protection against corrosion in envoirements with water	- High hummidity - Steam - Sea water	- High hummidity - Steam - Sea water	
Envoironmental resistance	periodic spilling or spraying of anorganic acids and lyes	periodic spilling or spraying of anorganic acids and lyes	
Temperature resistance	- 40°C ~ + 130°C	- 40°C ~ + 130°C	
Suitable for	Normal industrial atmospheres, relatively high humidity and high content of salt and aggressive gases (SO_2, NO_x)	Chemical aggressive atmospheres, high content of salt and aggressive gases (SO_2, NO_x). Condensation of moisture and electrolytes on surface. Solvents and oil derivates have negative effects.	

* Different colour for mining industry. 500V motors Ral 1003 (yellow), 1.000V motors Ral 9003 (grey)

Explosion protection and certifications

Explosion protection:

Explosion protection markings are

- frame size 71 to 160 : II 2G EEx d IIC T4 or II 2G EEx de IIC T4

: II 2D IP 6X T 135 °C

- frame size 180 to 315 : II 2G EEx d IIC T4 or II 2G EEx de IIC T4

Certifications:

DMD/4KTC-type motors are PTB-certified (Physikalisch-technische Bundesanstalt), Germany:
☐ PTB 99 ATEX 1155 : Frame sizes DMD 71 to 225
☐ PTB 03 ATEX 1127 : Frame size 4KTC 250
☐ PTB 03 ATEX 1141 : Frame size 4KTC 280
☐ PTB 03 ATEX 1126 : Frame size 4KTC 315

Electric system

Power, voltage and frequency:

The power ratings given in the tables are valid for operation under uniform, continuous load (S-1 according to IEC 60034-1, EN 60034-1) at a rated voltage, a frequency of 50 Hz, temperatures of up to +40 °C and an altitude of less than 1.000 m above sea level. The data in the tables refer to 400V, but motors have been designed for 380V and 415V.

Voltage or frequency variations of +/- 5% are allowed; within these limits the power ratings remain unchanged and the maximum winding temperature is not exceeded.

Versions using 110V to 1000V and frequencies of 50Hz or 60Hz are available on special request. 50Hz, 380V, 400V, 415V electric motors may also be connected to 60Hz, 440V - 480V. Then the maximum load can be increased by 15% and the number of revolutions by approximately 20 %.

If a 50Hz, 380V, 400V, 415V electric motor is connected to a 60Hz line, its maximum load may not exceed the nominal power. The number of revolutions increases by 20%, while the starting and maximum torque decreases by approximately 18%.

Overload, efficiency and power factor:

Electric motors heated to the operating temperature limit resist to a 2-minute overload of 1.5 In without being damaged. Variations between the 5/4 and 3/4 of the rated load have no essential influence on efficiency and power factor.

Windings

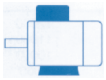
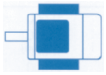
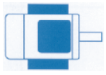
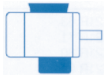
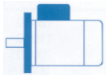
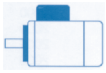
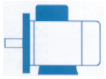
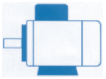
Materials of thermal class F are used for the production of stator windings. They are designed to withstand an overtemperature of 80 K at a maximum ambient temperature of 40 °C. Electric motors operating under heavy conditions, conditions requiring frequent start-ups or ambient temperatures above 40 °C employ special insulation (thermal class H) and are available on special request. Windings of electric motors rated up to 3 kW are connected via star, while those of high-rated motors employ delta connection. Two-speed motors with 2:1 speed ratio use Dahlander windings. Electric motors with a pole relation of 4/6 or 8/6 have two separate stator windings in star connection.

Installation instructions:

Installation instructions for the mains connection and start-up of motors with EEx d terminal box.

Connect the motors via suitable cable and line entries that correspond to the EN 5018-1977 directives, paragraphs 12.1 and 12.2 and have a separate test certificate. Unused openings must be closed as prescribed by EN 50018-1977, paragraph 12.5. Cable and line entries (heavy-gauge conduit threads) and sealing plugs that do not meet these requirements must not be used.

kW	HP PK	CV PS
0,06		0,08
0,09		0,12
0,12		0,17
0,18		0,25
0,25		0,35
0,37		0,50
0,55		0,75
0,75		1,00
1,10		1,50
1,50		2,00
2,20		3,00
3,00		4,00
4,00		5,50
5,50		7,50
7,50		10,0
9,00		12,0
11,0		15,0
15,0		20,0
18,5		25,0
22,0		30,0
30,0		40,0
37,0		50,0
45,0		60,0
55,0		75,0
75,0		100
90,0		125
110		150
132		180
160		220
200		270
225		300
250		340
280		375
315		420
355		475
400		535
450		600
500		670
560		750
630		845

Types of construction	EN60034-1 code I	1992 code II	Available standard types
	IM B3	IM 1001	DMD 71 - 225 4KTC 250 - 315
	IM B6	IM 1051	DMD 71 - 225 4KTC 250 - 280*
	IM B7	IM 1061	DMD 71 - 225 4KTC 250 - 280*
	IM B8	IM 1071	DMD 71 - 225 4KTC 250 - 280*
	IM B5	IM 3001	DMD 71 - 225 4KTC 250 - 315
	IM B14	IM 3601	DMD 71 - 160
	IM B35	IM 2001	DMD 71 - 225 4KTC 250 - 315
	IM B34	IM 2101	DMD 71 - 160
	IM V1	IM 3011	DMD 71 - 225 4KTC 250 - 315

Types of construction	EN60034-1 code I	1992 code II	Available standard types
	IM V5	IM 1011	DMD 71 - 225 4KTC 250 - 280*
	IM V18	IM 3611	DMD 71 - 160
	IM V15	IM 2011	DMD 71 - 225 4KTC 250 - 280*
	IM V15	IM 2111	DMD 71 - 160
	IM V6	IM 1031	DMD 71 - 225 4KTC 250 - 280*
	IM V3	IM 3031	DMD 71 - 225 4KTC 250 - 280*
	IM V19	IM 3631	DMD 71 - 160
	IM V36	IM 2031	DMD 71 - 225 4KTC 250 - 280*
	IM V36	IM 2131	DMD 71 - 160

* For Direct Coupling; Für Direkte Kupplung; Seulement pour accouplement direct; Para acoplamiento directo

Starting torque and nominal torque	Anlaufmoment und Nennmoment	Moment démarrage et moment nominal	Par de arranque y par nominal
M_S: The starting torque is the mechanical Torque developed by the motor with the rotor blocked. M_N: The nominal torque, is the mechanical torque that the motor is developing when it is giving its nominal power and speed.	M_A :Das Anlaufmoment ist das mechanische Drehmoment, welche bei stehendem läufer gegeben ist. M_N: Das Nennmoment ist das mechanische Drehmoment, welches der Motor bei abgabe Seiner Nennleistung erbringt.	M_S: Couple de démarrage et couple nominal d;eveloppés par le moteur avec le rotor bloqué. M_N: Le moment nominal est le moment méchanique que le moteur devélope à puissance nominal.	M_S: El par de arranque es le par mecánico que desarrolla el motor estando el rotor bloqueado o parado. M_N: El par nominal es el par mecánico que está motor desarrolando el motor cuando está dando su potencia nominal.

Starting current and nominal current	Anlaufstromstärke und Nennstromstärke	Courent démarrage et courent nominal	Intensidad de arranque e intensidad nominal
I_S: The starting current is the current that the motor is developing when the rotor is blocked. I_N: The nominal current is the current that the motor is developing at nominal power and nominal voltage.	I_A: Die anlaufstromstärke ist der strom den der Motor bei stehendem läufer aufnimmt. I_N: Die Nennstromstärke ist der Strom, den der Motor bei erreichen seiner Nennleistung bei Nennspannung aufnimmt.	I_S: Le courent démarrage est l'ampérage que le moteur consume avec le rotor blocqué. I_N: Le courent nominal est l'ampérage que le moteur consume à puissance nominal à tension nominal.	I_S: la intensidad de arranque es la que consume el motor a rotor parado. I_N: Intensidad nominal es la que absorbe el motor cuando está desarrollando su potencia nominal conectada a la tensión

DMD - EExd(e) IIC T4 : 2 - Pole; Polig; Pôle; Polos - 3000 min-1

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type DMD = cast iron EExd(e) IIC T4 motor 230/400V - 50Hz 400/690V - 50Hz Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa EN60034 (IEC-DIN)	rated output power Nenn-Leistung Puissance Nominal Potencia Nominal P_N kW	Rated current at Nennstrom bei Courant nominale à Intensidad nominal à 380V I_u A	400V I_N A	420V I_o A	full-load speed rpm Nenn-drehzahl min^{-1} Vitesse nominal t/min Velocidad nominal r/min n_N min^{-1}	full-load power factor Leistungs-faktor Facteur de puissance Factor de potencia cos φ	Full-load efficiency Wirkungsgrad Rendement Rendimiento 100% η %	75% η %	Full-load torque Drehkraft Couple Esfuerzo de torsión M_N	Starting current I_a/I_N Anlaufstrom I_a/I_N Courant de démarrage I_d/I_N Intensidad de arranque I_a/I_N	Starting torque M_a/M_n Anlauf-moment M_a/M_N Couple de démarrage C_d/C_N Par de arranque T_a/T_N	Pull-out torque M_k/M_N Kipp-zu Nennmoment M_k/M_N Couple maximum C_m/C_N Par maximal T_{max}/T_N	Sound pressure level Schall-druckpegel Niveau de pression acoustique Nivel de presión sana dB(A) (EN60034-9)	Moment of inertia $J = {}^1/_4GD^2$ Trägheits-moment $J = {}^1/_4GD^2$ Moment d'inertie $J = {}^1/_4GD^2$ Momento de inercia $J = {}^1/_4GD^2$ kgm^2	Weight foot mounted Gewicht Fußaus-führung Masse (moteur à pattes) Peso (motor con patas) kg
DMD 71 A 2	**0,37**	1,03	0,98	0,93	2.820	0,81	67,2	65,5	1,26	5,4	3,0	3,2	75,0	0,00034	15,0
DMD 71 B 2	**0,55**	1,34	1,28	1,22	2.800	0,86	72,7	71,0	1,88	5,4	2,8	3,1	75,0	0,00042	16,0
DMD 80 A 2	**0,75**	1,69	1,61	1,53	2.810	0,87	77,5	75,0	2,55	4,9	2,6	2,8	75,0	0,00063	24,0
DMD 80 B 2	**1,10**	2,40	2,29	2,18	2.775	0,88	78,8	77,0	3,79	5,1	2,8	2,9	75,0	0,00079	26,0
DMD 90 S 2	**1,50**	3,22	3,07	2,92	2.855	0,86	81,6	79,5	5,02	6,0	2,8	3,1	80,0	0,00124	32,0
DMD 90 L 2	**2,20**	4,62	4,40	4,19	2.845	0,89	80,8	80,0	7,39	5,9	2,7	2,7	80,0	0,00155	34,0
DMD 100 L 2	**3,00**	6,72	6,40	6,10	2.875	0,85	79,5	79,0	10,0	5,7	3,0	3,3	83,0	0,00251	42,5
DMD 100 La -															
DMD 100 Lb -															
DMD 112 M 2	**4,00**	8,19	7,80	7,43	2.880	0,88	84,0	83,0	13,3	6,9	2,7	3,1	83,0	0,00451	58,0
DMD 132 S -															
DMD 132 Sa 2	**5,50**	10,9	10,4	9,9	2.910	0,88	87,0	84,5	18,1	6,3	2,6	3,0	83,0	0,00967	77,0
DMD 132 Sb 2	**7,50**	14,8	14,1	13,4	2.920	0,88	87,7	85,5	24,5	6,9	3,0	3,3	87,0	0,01225	84,0
DMD 132 M -															
DMD 132 Ma -															
DMD 132 Mb -															
DMD 160 M -															
DMD 160 Ma 2	**11,0**	21,6	20,6	19,6	2.940	0,86	89,4	88,0	35,7	7,9	3,8	3,3	87,0	0,02943	148
DMD 160 Mb 2	**15,0**	27,8	26,5	25,2	2.940	0,90	90,6	90,0	48,7	7,9	3,4	3,0	91,0	0,03912	166
DMD 160 L 2	**18,5**	33,8	32,2	30,7	2.945	0,91	91,6	90,5	60,0	7,4	3,1	3,1	91,0	0,04590	178
DMD 180 M 2	**22,0**	43,4	41,3	39,3	2.940	0,91	84,2	84,0	71,5	6,9	2,8	2,9	91,0	0,06151	205
DMD 180 L -															
DMD 200 L -															
DMD 200 La 2	**30,0**	57,1	54,4	51,8	2.955	0,90	88,5	88,0	97,0	6,9	2,4	2,6	92,0	0,10442	240
DMD 200 Lb 2	**37,0**	69,8	66,5	63,3	2.970	0,91	88,6	88,0	119	9,0	3,3	3,0	92,0	0,12739	250
DMD 225 S -															
DMD 225 M 2	**45,0**	86,1	82,0	78,1	2.970	0,88	89,6	88,5	145	7,6	2,5	3,4	94,0	0,22155	375
4KTC 250 M 2	**55,0**	103	98,0	93,3	2.970	0,91	89,3	88,7	177	6,6	2,1	2,2	94,0	0,67500	485
4KTC 280 S 2	**75,0**	143	136	130	2.980	0,88	90,8	90,0	240	8,3	3,0	2,7	96,0	0,95000	650
4KTC 280 M 2	**90,0**	166	158	150	2.980	0,90	91,5	91,0	288	8,1	3,0	2,6	96,0	1,10000	700
4KTC 315 S 2	**110**	195	186	177	2.970	0,94	91,5	91,0	354	7,2	2,5	3,1	98,0	1,55000	820
4KTC 315 Ma 2	**132**	234	223	212	2.985	0,93	92,1	92,0	422	7,5	2,8	2,8	98,0	1,80000	930
4KTC 315 Mb 2	**160**	286	272	259	2.975	0,94	90,1	89,5	514	8,1	2,9	3,1	98,0	2,20000	1.240
4KTC 315 L 2	**200**	362	345	329	2.980	0,90	93,0	92,0	641	6,9	2,3	2,6	98,0	2,80000	1.380

All technical details are based on 400V/50Hz; Alle Angaben auf Basis von 400V/50Hz; Tous les détails techniques selon 400V/50Hz; Todos los datos technicos según 400V/50Hz.

DMD - EExd(e) IIC T4 : 2 - Pole; Polig; Pôle; Polos - 3600 min^{-1}

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level
DMD = cast iron EExd(e) IIC T4 motor	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel
440V - 60Hz 460V - 60Hz 480V - 60Hz	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique
Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana
EN60034 (IEC-DIN)	440V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)	460V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)	480V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)
DMD 71 A 2	0,43	1,03	3.380	1,22	77,0	0,50	1,02	3.380	1,42	77,0	0,50	0,98	3.380	1,42	77,0
DMD 71 B 2	0,64	1,34	3.360	1,82	77,0	0,70	1,34	3.360	1,99	77,0	0,70	1,28	3.360	1,99	77,0
DMD 80 A 2	0,87	1,69	3.370	2,47	77,0	0,90	1,68	3.370	2,56	77,0	0,90	1,61	3.370	2,56	77,0
DMD 80 B 2	1,27	2,40	3.330	3,65	77,0	1,40	2,39	3.330	4,02	77,0	1,40	2,29	3.330	4,02	77,0
DMD 90 S 2	1,73	3,22	3.430	4,82	82,0	1,80	3,20	3.430	5,02	82,0	1,80	3,07	3.430	5,02	82,0
DMD 90 L 2	2,53	4,62	3.410	7,09	82,0	2,70	4,59	3.410	7,57	82,0	2,70	4,40	3.410	7,57	82,0
DMD 100 L 2	3,45	6,72	3.450	9,55	85,0	3,60	6,68	3.450	10,0	85,0	3,60	6,40	3.450	10,0	85,0
DMD 100 La -															
DMD 100 Lb -															
DMD 112 M 2	4,60	8,19	3.460	12,7	85,0	4,80	8,14	3.460	13,3	85,0	4,80	7,80	3.460	13,3	85,0
DMD 132 S -															
DMD 132 Sa 2	6,33	10,9	3.490	17,3	85,0	6,60	10,8	3.490	18,1	85,0	6,60	10,4	3.490	18,1	85,0
DMD 132 Sb 2	8,63	14,8	3.500	23,6	89,0	9,00	14,7	3.500	24,6	89,0	9,00	14,1	3.500	24,6	89,0
DMD 132 M -															
DMD 132 Ma -															
DMD 132 Mb -															
DMD 160 M -															
DMD 160 Ma 2	12,7	21,6	3.530	34,2	89,0	13,2	21,5	3.530	35,7	89,0	13,2	20,6	3.530	35,7	89,0
DMD 160 Mb 2	17,3	27,8	3.530	46,7	93,0	18,0	27,6	3.530	48,7	93,0	18,0	26,5	3.530	48,7	93,0
DMD 160 L 2	21,3	33,8	3.530	57,6	93,0	22,2	33,6	3.530	60,1	93,0	22,2	32,2	3.530	60,1	93,0
DMD 180 M 2	25,3	43,4	3.530	68,5	93,0	26,4	43,1	3.530	71,4	93,0	26,4	41,3	3.530	71,4	93,0
DMD 180 L -															
DMD 200 L -															
DMD 200 La 2	34,5	57,1	3.550	92,8	94,0	36,0	56,7	3.550	96,9	94,0	36,0	54,4	3.550	96,9	94,0
DMD 200 Lb 2	42,6	69,8	3.560	114	94,0	44,4	69,4	3.560	119	94,0	44,4	66,5	3.560	119	94,0
DMD 225 S -															
DMD 225 M 2	51,8	86,1	3.560	139	96,0	54,0	85,5	3.560	145	96,0	54,0	82,0	3.560	145	96,0
4KTC 250 M 2	63,3	103	3.560	170	96,0	66,0	102	3.560	177	96,0	66,0	98,0	3.560	177	96,0
4KTC 280 S 2	86,3	143	3.580	230	98,0	90,0	142	3.580	240	98,0	90,0	136	3.580	240	98,0
4KTC 280 M 2	104	166	3.580	276	98,0	108	165	3.580	288	98,0	108	158	3.580	288	98,0
4KTC 315 S 2	127	195	3.560	339	100,0	132	194	3.560	354	100,0	132	186	3.560	354	100,0
4KTC 315 Ma 2	152	234	3.580	405	100,0	158	233	3.580	423	100,0	158	223	3.580	423	100,0
4KTC 315 Mb 2	184	286	3.570	492	100,0	192	284	3.570	514	100,0	192	272	3.570	514	100,0
4KTC 315 L 2	230	362	3.580	614	100,0	240	360	3.580	640	100,0	240	345	3.580	640	100,0

All technical details are based on 480V/60Hz; Alle Angaben auf Basis von 480V/60Hz; Tous les détails techniques selon 480V/60Hz; Todos los datos technicos segùn 480V/60Hz.

DMD - EExd(e) IIC T4 : 4 - Pole; Polig; Pôle; Polos - 1500 min-1

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type DMD = cast iron EExd(e) IIC T4 motor 230/400V - 50Hz 400/690V - 50Hz Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa EN60034 (IEC-DIN)	rated output power Nenn-Leistung Puissance Nominal Potencia Nominal P_N kW	Rated current at Nennstrom bei Courant nominale à Intensidad nominal à 380V I_u A	400V I_N A	420V I_o A	full-load speed rpm Nenn-drehzahl min^{-1} Vitesse nominal t/min Velocidad nominal r/min n_N min^{-1}	full-load power factor Leistungs-faktor Facteur de puissance Factor de potencia cos φ	Full-load efficiency Wirkungsgrad Rendement Rendimiento 100% η %	75% η %	Full-load torque Drehkraft Couple Esfuerzo de torsión M_N	Starting current I_a/I_N Anlaufstrom I_a/I_N Courant de démarrage I_d/I_N Intensidad de arranque I_a/I_N	Starting torque M_a/M_n Anlauf-moment M_a/M_N Couple de démarrage C_d/C_N Par de arranque T_a/T_N	Pull-out torque M_k/M_N Kipp-zu Nennmoment M_k/M_N Couple maximum C_{max}/C_N Par maximal T_{max}/T_N	Sound pressure level Schall-druckpegel Niveau de pression acoustique Nivel de presión sana dB(A) (EN60034-9)	Moment of inertia $J = {}^1/_4GD^2$ Trägheits-moment $J = {}^1/_4GD^2$ Moment d'inertie $J = {}^1/_4GD^2$ Momento de inercia $J = {}^1/_4GD^2$ kgm^2	Weight foot mounted Gewicht Fußaus-führung Masse (moteur à pattes) Peso (motor con patas) kg
DMD 71 A 4	**0,25**	0,72	0,69	0,66	1.370	0,78	67,0	66,1	1,75	3,4	2,2	2,2	71,0	0,00051	15,0
DMD 71 B 4	**0,37**	1,00	0,95	0,90	1.385	0,78	72,5	71,5	2,56	4,0	2,2	2,3	71,0	0,00063	16,0
DMD 80 A 4	**0,55**	1,41	1,34	1,28	1.400	0,77	76,9	75,9	3,76	4,4	2,3	2,4	71,0	0,00098	24,0
DMD 80 B 4	**0,75**	1,79	1,70	1,62	1.410	0,70	81,4	80,3	5,08	5,0	2,6	2,7	71,0	0,00125	26,0
DMD 90 S 4	**1,10**	2,52	2,40	2,29	1.410	0,82	80,9	79,8	7,46	4,8	2,2	2,5	71,0	0,00204	32,0
DMD 90 L 4	**1,50**	3,52	3,35	3,19	1.415	0,80	80,6	79,5	10,1	5,2	2,5	2,8	73,0	0,00260	35,0
DMD 100 L 4															
DMD 100 La 4	**2,20**	4,94	4,70	4,48	1.410	0,82	81,5	80,4	14,9	4,6	2,0	2,5	73,0	0,00388	42,5
DMD 100 Lb 4	**3,00**	6,83	6,50	6,19	1.415	0,83	79,6	78,5	20,3	5,0	2,1	2,6	77,0	0,00499	46,0
DMD 112 M 4	**4,00**	8,72	8,30	7,90	1.435	0,81	85,4	84,3	26,6	6,1	2,8	3,1	77,0	0,01014	60,0
DMD 132 S 4	**5,50**	11,3	10,8	10,3	1.435	0,85	86,0	84,9	36,6	5,1	2,2	2,4	77,0	0,02113	84,0
DMD 132 Sa 4															
DMD 132 Sb 4															
DMD 132 M 4	**7,50**	15,2	14,5	13,8	1.445	0,84	88,9	87,7	49,6	6,0	2,5	2,8	81,0	0,02793	93,5
DMD 132 Ma 4															
DMD 132 Mb 4															
DMD 160 M 4	**11,0**	23,1	22,0	21,0	1.460	0,83	87,1	85,9	72,0	6,9	2,9	3,1	81,0	0,05417	159,0
DMD 160 Ma 4															
DMD 160 Mb 4															
DMD 160 L 4	**15,0**	30,5	29,0	27,6	1.465	0,83	90,8	89,6	97,8	7,4	3,1	3,0	85,0	0,07116	178
DMD 180 M 4	**18,5**	36,8	35,0	33,3	1.465	0,86	89,9	88,7	121	6,9	3,1	2,5	85,0	0,11290	215
DMD 180 L 4	**22,0**	42,5	40,5	38,6	1.470	0,86	90,9	89,7	143	7,1	3,1	2,6	85,0	0,13390	236
DMD 200 L 4	**30,0**	56,1	53,4	50,9	1.470	0,91	89,6	88,4	195	6,8	2,7	2,8	86,0	0,21298	250
DMD 200 La 4															
DMD 200 Lb 4															
DMD 225 S 4	**37,0**	69,9	66,6	63,4	1.475	0,87	92,2	91,0	240	7,0	2,9	2,4	86,0	0,36225	310
DMD 225 M 4	**45,0**	84,5	80,5	76,7	1.475	0,87	92,5	91,3	291	7,3	3,3	2,7	88,0	0,42845	390
4KTC 250 M 4	**55,0**	103	98,0	93,3	1.480	0,89	92,5	91,3	355	7,7	3,4	2,7	88,0	0,87500	480
4KTC 280 S 4	**75,0**	145	138	131	1.485	0,84	92,2	91,0	482	7,6	3,0	2,4	92,0	1,87500	610
4KTC 280 M 4	**90,0**	174	166	158	1.490	0,84	93,5	92,3	577	7,8	2,8	2,6	92,0	2,25000	685
4KTC 315 S 4	**110**	217	207	197	1.485	0,84	90,7	89,5	707	6,3	2,6	2,5	92,0	3,50000	820
4KTC 315 Ma 4	**132**	247	235	224	1.485	0,88	92,2	91,0	849	6,9	3,0	2,5	94,0	3,87500	930
4KTC 315 Mb 4	**133**	313	298	284	1.490	0,84	92,5	91,3	852	5,8	1,9	2,1	94,0	5,00000	1.240
4KTC 315 L 4	**134**	369	352	335	1.485	0,88	93,0	91,8	862	6,8	1,5	1,6	94,0	6,10000	1.380

All technical details are based on 400V/50Hz; Alle Angaben auf Basis von 400V/50Hz; Tous les détails techniques selon 400V/50Hz; Todos los datos technicos según 400V/50Hz.

DMD - EExd(e) IIC T4 : 4 - Pole; Polig; Pôle; Polos - 1800 min^{-1}

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type DMD = cast iron EExd(e) IIC T4 motor 440V - 60Hz 460V - 60Hz 480V - 60Hz	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level
	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel
	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique
Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana
EN60034 (IEC-DIN)	440V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)	460V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)	480V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)
DMD 71 A 4	**0,29**	0,72	1.640	1,69	73,0	**0,30**	0,72	1.640	1,75	73,0	**0,30**	0,69	1.640	1,75	73,0
DMD 71 B 4	**0,43**	1,00	1.660	2,48	73,0	**0,50**	0,99	1.660	2,88	73,0	**0,50**	0,95	1.660	2,88	73,0
DMD 80 A 4	**0,64**	1,41	1.680	3,64	73,0	**0,70**	1,40	1.680	3,98	73,0	**0,70**	1,34	1.680	3,98	73,0
DMD 80 B 4	**0,87**	1,79	1.690	4,92	73,0	**0,90**	1,77	1.690	5,09	73,0	**0,90**	1,70	1.690	5,09	73,0
DMD 90 S 4	**1,27**	2,52	1.690	7,18	73,0	**1,40**	2,50	1.690	7,92	73,0	**1,40**	2,40	1.690	7,92	73,0
DMD 90 L 4	**1,73**	3,52	1.700	9,72	75,0	**1,80**	3,49	1.700	10,1	75,0	**1,80**	3,35	1.700	10,1	75,0
DMD 100 L 4															
DMD 100 La 4	**2,53**	4,94	1.690	14,3	75,0	**2,70**	4,90	1.690	15,3	75,0	**2,70**	4,70	1.690	15,3	75,0
DMD 100 Lb 4	**3,45**	6,83	1.700	19,4	79,0	**3,60**	6,78	1.700	20,2	79,0	**3,60**	6,50	1.700	20,2	79,0
DMD 112 M 4	**4,60**	8,72	1.720	25,6	79,0	**4,80**	8,66	1.720	26,7	79,0	**4,80**	8,30	1.720	26,7	79,0
DMD 132 S 4	**6,33**	11,3	1.720	35,2	79,0	**6,60**	11,3	1.720	36,7	79,0	**6,60**	10,8	1.720	36,7	79,0
DMD 132 Sa 4															
DMD 132 Sb 4															
DMD 132 M 4	**8,63**	15,2	1.730	47,6	83,0	**9,00**	15,1	1.730	49,7	83,0	**9,00**	14,5	1.730	49,7	83,0
DMD 132 Ma 4															
DMD 132 Mb 4															
DMD 160 M 4	**12,7**	23,1	1.750	69,0	83,0	**13,2**	22,9	1.750	72,0	83,0	**13,2**	22,0	1.750	72,0	83,0
DMD 160 Ma 4															
DMD 160 Mb 4															
DMD 160 L 4	**17,3**	30,5	1.760	93,6	87,0	**18,0**	30,2	1.760	97,7	87,0	**18,0**	29,0	1.760	97,7	87,0
DMD 180 M 4	**21,3**	36,8	1.760	115	87,0	**22,2**	36,5	1.760	120	87,0	**22,2**	35,0	1.760	120	87,0
DMD 180 L 4	**25,3**	42,5	1.760	137	87,0	**26,4**	42,2	1.760	143	87,0	**26,4**	40,5	1.760	143	87,0
DMD 200 L 4	**34,5**	56,1	1.760	187	88,0	**36,0**	55,7	1.760	195	88,0	**36,0**	53,4	1.760	195	88,0
DMD 200 La 4															
DMD 200 Lb 4															
DMD 225 S 4	**42,6**	69,9	1.770	230	88,0	**44,4**	69,5	1.770	240	88,0	**44,4**	66,6	1.770	240	88,0
DMD 225 M 4	**51,8**	84,5	1.770	279	90,0	**54,0**	84,0	1.770	291	90,0	**54,0**	80,5	1.770	291	90,0
4KTC 250 M 4	**63,3**	103	1.780	339	90,0	**66,0**	102	1.780	354	90,0	**66,0**	98,0	1.780	354	90,0
4KTC 280 S 4	**86,3**	145	1.780	463	94,0	**90,0**	144	1.780	483	94,0	**90,0**	138	1.780	483	94,0
4KTC 280 M 4	**104**	174	1.790	552	94,0	**108**	173	1.790	576	94,0	**108**	166	1.790	576	94,0
4KTC 315 S 4	**127**	217	1.780	679	94,0	**132**	216	1.780	708	94,0	**132**	207	1.780	708	94,0
4KTC 315 Ma 4	**152**	247	1.780	814	96,0	**158**	245	1.780	850	96,0	**158**	235	1.780	850	96,0
4KTC 315 Mb 4	**153**	313	1.790	816	96,0	**160**	311	1.790	852	96,0	**160**	298	1.790	852	96,0
4KTC 315 L 4	**154**	369	1.780	827	96,0	**161**	367	1.780	863	96,0	**161**	352	1.780	863	96,0

All technical details are based on 480V/60Hz; Alle Angaben auf Basis von 480V/60Hz; Tous les détails techniques selon 480V/60Hz; Todos los datos technicos segùn 480V/60Hz.

DMD - EExd(e) IIC T4 : 6 - Pole; Polig; Pôle; Polos - 1000 min-1

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type DMD = cast iron EExd(e) IIC T4 motor 230/400V - 50Hz 400/690V - 50Hz Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa EN60034 (IEC-DIN)	rated output power Nenn-Leistung Puissance Nominal Potencia Nominal P_N kW	Rated current at Nennstrom bei Courant nominale à Intensidad nominal à 380V I_u A	400V I_N A	420V I_o A	full-load speed rpm Nenn-drehzahl min^{-1} Vitesse nominal t/min Velocidad nominal r/min n_N min^{-1}	full-load power factor Leistungs-faktor Facteur de puissance Factor de potencia cos φ	Full-load efficiency Wirkungsgrad Rendement Rendimiento 100% η %	75% η %	Full-load torque Drehkraft Couple Esfuerzo de torsión M_N	Starting current I_a/I_N Anlaufstrom I_a/I_N Courant de démarrage I_d/I_N Intensidad de arranque I_a/I_N	Starting torque M_a/M_n Anlauf-moment M_a/M_N Couple de démarrage C_d/C_N Par de arranque T_a/T_N	Pull-out torque M_k/M_N Kipp-zu Nennmoment M_k/M_N Couple maximum C_m/C_N Par maximal T_{max}/T_N	Sound pressure level Schall-druckpegel Niveau de pression acoustique Nivel de presión sana dB(A) (EN60034-9)	Moment of inertia $J = {}^1/_4GD^2$ Trägheits-moment $J = {}^1/_4GD^2$ Moment d'inertie $J = {}^1/_4GD^2$ Momento de inercia $J = {}^1/_4GD^2$ kgm^2	Weight foot mounted Gewicht Fußaus-führung Masse (moteur à pattes) Peso (motor con patas) kg
DMD 71 A 6	0,18	0,70	0,67	0,64	930	0,65	60,0	60,0	1,85	3,1	2,1	2,3	70,0	0,00081	15,0
DMD 71 B 6	0,25	0,89	0,85	0,81	940	0,67	64,0	64,0	2,54	3,7	2,2	2,5	70,0	0,00101	16,0
DMD 80 A 6	0,37	1,16	1,10	1,05	925	0,72	67,0	67,0	3,82	3,6	2,3	2,5	70,0	0,00191	25,0
DMD 80 B 6	0,55	1,58	1,50	1,43	915	0,74	72,0	72,0	5,75	4,1	2,4	2,5	70,0	0,00239	26,5
DMD 90 S 6	0,75	2,21	2,10	2,00	915	0,74	70,0	70,0	7,83	3,7	1,8	2,1	70,0	0,00323	32,0
DMD 90 L 6	1,10	3,15	3,00	2,86	915	0,73	73,0	73,0	11,5	4,1	2,1	2,3	70,0	0,00419	35,0
DMD 100 L 6	1,50	3,89	3,70	3,52	930	0,77	76,0	76,0	15,4	4,7	2,2	2,3	70,0	0,00657	46,0
DMD 100 La 6															
DMD 100 Lb 6															
DMD 112 M 6	2,20	5,25	5,00	4,76	960	0,78	82,0	82,0	21,9	6,1	2,6	2,7	70,0	0,01580	60,0
DMD 132 S 6	3,00	6,93	6,60	6,29	975	0,79	83,5	83,5	29,4	6,3	2,3	2,5	74,0	0,02722	84,0
DMD 132 Sa 6															
DMD 132 Sb 6															
DMD 132 M 6															
DMD 132 Ma 6	4,00	9,24	8,80	8,38	960	0,80	83,0	83,0	39,8	6,3	2,4	2,9	74,0	0,03229	88,0
DMD 132 Mb 6	5,50	12,4	11,8	11,2	955	0,81	83,5	83,5	55,0	6,1	2,3	2,9	74,0	0,03838	95,0
DMD 160 M 6	7,50	16,6	15,8	15,0	970	0,80	86,0	86,0	73,9	6,7	2,7	2,4	78,0	0,08121	161
DMD 160 Ma 6															
DMD 160 Mb 6															
DMD 160 L 6	11,0	24,7	23,5	22,4	965	0,77	88,5	88,5	109	6,0	2,2	2,3	78,0	0,10916	182
DMD 180 M 6															
DMD 180 L 6	15,0	32,6	31,0	29,5	965	0,78	89,5	89,5	148	5,2	1,9	2,3	82,0	0,22700	236
DMD 200 L 6															
DMD 200 La 6	18,5	37,8	36,0	34,3	965	0,81	91,0	91,0	183	6,0	1,9	2,4	82,0	0,24369	240
DMD 200 Lb 6	22,0	45,2	43,0	41,0	965	0,81	91,5	91,5	218	6,0	1,9	2,4	82,0	0,27888	250
DMD 225 S 6															
DMD 225 M 6	30,0	58,8	56,0	53,3	975	0,83	92,5	92,5	294	5,8	1,8	2,5	84,0	0,66117	390
4KTC 250 M 6	37,0	72,5	69,0	65,7	985	0,83	93,5	93,5	359	6,0	2,8	2,6	84,0	1,12500	480
4KTC 280 S 6	45,0	86,1	82,0	78,1	985	0,84	94,5	94,5	436	6,3	2,5	2,7	86,0	2,30000	610
4KTC 280 M 6	55,0	106	101	96,2	985	0,84	94,5	94,5	533	6,0	2,4	2,8	86,0	2,62500	685
4KTC 315 S 6	75,0	147	140	133	980	0,82	95,0	95,0	731	5,9	2,5	2,8	89,0	4,62500	820
4KTC 315 Ma 6	90,0	171	163	155	985	0,84	95,5	95,0	873	5,1	2,1	2,9	89,0	5,25000	930
4KTC 315 Mb 6	110	208	198	189	990	0,88	91,5	91,0	1.061	6,5	2,5	2,4	89,0	6,00000	1.240
4KTC 315 L 6	132	250	238	227	990	0,88	90,5	90,0	1.273	6,8	2,6	2,4	91,0	7,30000	1.380

All technical details are based on 400V/50Hz; Alle Angaben auf Basis von 400V/50Hz; Tous les détails techniques selon 400V/50Hz; Todos los datos technicos según 400V/50Hz.

DMD - EExd(e) IIC T4 : 6 - Pole; Polig; Pôle; Polos - 1200 min^{-1}

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type DMD = cast iron EExd(e) IIC T4 motor 440V - 60Hz 460V - 60Hz 480V - 60Hz Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level	Rated output power	Rated current at	Full-load speed rpm	Full-load torque	Sound pressure level
	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel	Nenn-Leistung	Nennstrom bei	Nenn-drehzahl min^{-1}	Drehkraft	Schall-druckpegel
	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique	Puissance Nominal	Courant nominale à	Vitesse nominal t/min	Couple	Niveau de pression acoustique
	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana	Potencia Nominal	Intensidad nominal à	Velocidad nominal r/min	Esfuerzo de torsión	Nivel de presión sana
EN60034 (IEC-DIN)	440V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)	460V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)	480V - 60Hz P_N kW	I_N A	n_N min^{-1}	M_N	dB(A) (EN60034-9)
DMD 71 A 6	0,21	0,70	1.120	1,80	72,0	0,30	0,70	1.120	2,56	72,0	0,30	0,67	1.120	2,56	72,0
DMD 71 B 6	0,29	0,89	1.130	2,46	72,0	0,30	0,89	1.130	2,54	72,0	0,30	0,85	1.130	2,54	72,0
DMD 80 A 6	0,43	1,16	1.110	3,70	72,0	0,50	1,15	1.110	4,31	72,0	0,50	1,10	1.110	4,31	72,0
DMD 80 B 6	0,64	1,58	1.100	5,56	72,0	0,70	1,56	1.100	6,08	72,0	0,70	1,50	1.100	6,08	72,0
DMD 90 S 6	0,87	2,21	1.100	7,56	72,0	0,90	2,19	1.100	7,82	72,0	0,90	2,10	1.100	7,82	72,0
DMD 90 L 6	1,27	3,15	1.100	11,03	72,0	1,40	3,13	1.100	12,2	72,0	1,40	3,00	1.100	12,2	72,0
DMD 100 L 6	1,73	3,89	1.120	14,76	72,0	1,80	3,86	1.120	15,4	72,0	1,80	3,70	1.120	15,4	72,0
DMD 100 La 6															
DMD 100 Lb 6															
DMD 112 M 6	2,53	5,25	1.150	21,0	72,0	2,70	5,22	1.150	22,4	72,0	2,70	5,00	1.150	22,4	72,0
DMD 132 S 6	3,45	6,93	1.170	28,2	76,0	3,60	6,88	1.170	29,4	76,0	3,60	6,60	1.170	29,4	76,0
DMD 132 Sa 6															
DMD 132 Sb 6															
DMD 132 M 6															
DMD 132 Ma 6	4,60	9,24	1.150	38,2	76,0	4,80	9,18	1.150	39,9	76,0	4,80	8,80	1.150	39,9	76,0
DMD 132 Mb 6	6,33	12,4	1.150	52,6	76,0	6,60	12,3	1.150	54,8	76,0	6,60	11,8	1.150	54,8	76,0
DMD 160 M 6	8,63	16,6	1.160	71,1	80,0	9,00	16,5	1.160	74,1	80,0	9,00	15,8	1.160	74,1	80,0
DMD 160 Ma 6															
DMD 160 Mb 6															
DMD 160 L 6	12,7	24,7	1.160	104	80,0	13,2	24,5	1.160	109	80,0	13,2	23,5	1.160	109	80,0
DMD 180 M 6															
DMD 180 L 6	17,3	32,6	1.160	142	84,0	18,0	32,3	1.160	148	84,0	18,0	31,0	1.160	148	84,0
DMD 200 L 6															
DMD 200 La 6	21,3	37,8	1.160	175	84,0	22,2	37,5	1.160	183	84,0	22,2	36,0	1.160	183	84,0
DMD 200 Lb 6	25,3	45,2	1.160	208	84,0	26,4	44,8	1.160	217	84,0	26,4	43,0	1.160	217	84,0
DMD 225 S 6															
DMD 225 M 6	34,5	58,8	1.170	282	86,0	36,0	58,4	1.170	294	86,0	36,0	56,0	1.170	294	86,0
4KTC 250 M 6	42,6	72,5	1.180	344	86,0	44,4	72,0	1.180	359	86,0	44,4	69,0	1.180	359	86,0
4KTC 280 S 6	51,8	86,1	1.180	419	88,0	54,0	85,5	1.180	437	88,0	54,0	82,0	1.180	437	88,0
4KTC 280 M 6	63,3	106	1.180	512	88,0	66,0	105	1.180	534	88,0	66,0	101	1.180	534	88,0
4KTC 315 S 6	86,3	147	1.180	698	91,0	90,0	146	1.180	728	91,0	90,0	140	1.180	728	91,0
4KTC 315 Ma 6	104	171	1.180	838	91,0	108	170	1.180	874	91,0	108	163	1.180	874	91,0
4KTC 315 Mb 6	127	208	1.190	1.015	91,0	132	207	1.190	1.059	91,0	132	198	1.190	1.059	91,0
4KTC 315 L 6	152	250	1.190	1.218	93,0	158	248	1.190	1.271	93,0	158	238	1.190	1.271	93,0

All technical details are based on 480V/60Hz; Alle Angaben auf Basis von 480V/60Hz; Tous les détails techniques selon 480V/60Hz; Todos los datos technicos segùn 480V/60Hz.

DMD - EExd(e) IIC T4 : 8 - Pole; Polig; Pôle; Polos - 750 min-1

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type DMD = cast iron EExd(e) IIC T4 motor 230/400V - 50Hz 400/690V - 50Hz Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa EN60034 (IEC-DIN)	rated output power Nenn-Leistung Puissance Nominal Potencia Nominal P_N kW	Rated current at Nennstrom bei Courant nominale à Intensidad nominal à 380V I_u A	400V I_N A	420V I_o A	full-load speed rpm Nenn-drehzahl min^{-1} Vitesse nominal t/min Velocidad nominal r/min n_N min^{-1}	full-load power factor Leistungs-faktor Facteur de puissance Factor de potencia cos φ	Full-load efficiency Wirkungsgrad Rendement Rendimiento 100% η %	75% η %	Full-load torque Drehkraft Couple Esfuerzo de torsión M_N	Starting current I_a/I_N Anlaufstrom I_a/I_N Courant de démarrage I_d/I_N Intensidad de arranque I_a/I_N	Starting torque M_a/M_n Anlauf-moment M_a/M_N Couple de démarrage C_d/C_N Par de arranque T_a/T_N	Pull-out torque M_k/M_N Kipp-zu Nennmoment M_k/M_N Couple maximum C_{max}/C_N Par maximal T_{max}/T_N	Sound pressure level Schall-druckpegel Niveau de pression acoustique Nivel de presión sana dB(A) (EN60034-9)	Moment of inertia $J = {}^1/_4GD^2$ Trägheits-moment $J = {}^1/_4GD^2$ Moment d'inertie $J = {}^1/_4GD^2$ Momento de inercia $J = {}^1/_4GD^2$ kgm^2	Weight foot mounted Gewicht Fußaus-führung Masse (moteur à pattes) Peso (motor con patas) kg
DMD 71 A 8	0,09	0,70	0,67	0,64	680	0,51	38,0	38,0	1,27	2,0	2,0	2,1	67,0	0,00081	15,0
DMD 71 B 8	0,12	0,57	0,54	0,51	655	0,71	45,0	45,0	1,75	2,4	1,8	2,1	67,0	0,00101	16,0
DMD 80 A 8	0,18	0,69	0,66	0,63	680	0,65	61,0	61,0	2,53	2,9	2,1	2,2	67,0	0,00191	25,0
DMD 80 B 8	0,25	0,97	0,92	0,88	680	0,68	58,0	58,0	3,52	3,1	2,1	2,3	67,0	0,00239	26,5
DMD 90 S 8	0,37	1,31	1,25	1,19	685	0,65	66,0	66,0	5,16	3,0	1,7	2,0	67,0	0,00323	32,0
DMD 90 L 8	0,55	1,84	1,75	1,67	685	0,66	69,0	69,0	7,7	3,1	1,8	2,1	67,0	0,00419	35,0
DMD 100 L 8															
DMD 100 La 8	0,75	2,42	2,30	2,19	690	0,69	69,0	69,0	10,4	3,5	1,8	2,1	67,0	0,00657	42,5
DMD 100 Lb 8	1,10	3,41	3,25	3,10	695	0,70	70,0	70,0	15,1	3,8	1,9	2,2	67,0	0,00857	46,0
DMD 112 M 8	1,50	4,36	4,15	3,95	710	0,67	78,0	78,0	20,2	4,3	2,0	2,5	69,0	0,01580	60,0
DMD 132 S 8	2,20	5,78	5,50	5,24	710	0,74	79,0	79,0	29,6	4,3	1,9	2,2	69,0	0,02606	79,0
DMD 132 Sa 8															
DMD 132 Sb 8															
DMD 132 M 8	3,00	7,56	7,20	6,86	710	0,76	80,0	80,0	40,4	4,8	2,1	2,3	72,0	0,03446	85,0
DMD 132 Ma 8															
DMD 132 Mb 8															
DMD 160 M 8															
DMD 160 Ma 8	4,00	10,5	10,0	9,52	720	0,71	82,6	82,6	53,1	4,8	1,8	2,3	72,0	0,06880	146
DMD 160 Mb 8	5,50	14,1	13,4	12,8	715	0,71	84,0	84,0	73,5	4,8	1,8	2,1	72,0	0,89390	160
DMD 160 L 8	7,50	17,5	16,7	15,9	725	0,75	86,5	86,5	99	5,8	2,3	2,1	75,0	0,12027	182
DMD 180 M 8															
DMD 180 L 8	11,0	26,3	25,0	23,8	715	0,74	86,7	86,7	147	4,2	1,8	2,5	75,0	0,22700	236
DMD 200 L 8	15,0	30,5	29,0	27,6	720	0,82	91,0	91,0	199	4,5	2,1	2,5	78,0	0,37827	250
DMD 200 La 8															
DMD 200 Lb 8															
DMD 225 S 8	18,5	38,9	37,0	35,2	710	0,79	91,0	91,0	249	4,6	2,1	2,6	78,0	0,57008	310
DMD 225 M 8	22,0	47,3	45,0	42,9	715	0,77	91,5	91,5	294	4,6	2,1	2,6	78,0	0,67806	390
4KTC 250 M 8	30,0	62,0	59,0	56,2	730	0,79	92,8	92,8	392	5,4	1,7	2,4	80,0	1,17500	480
4KTC 280 S 8	37,0	77,7	74,0	70,5	730	0,78	93,0	93,0	484	6,0	1,9	2,3	80,0	2,30000	610
4KTC 280 M 8	45,0	94,5	90,0	85,7	735	0,78	93,5	93,5	585	6,4	1,9	2,7	81,0	2,62500	685
4KTC 315 S 8	55,0	109	104	99,0	735	0,81	94,5	94,5	715	6,2	2,2	2,3	81,0	4,62500	820
4KTC 315 Ma 8	75,0	147	140	133	740	0,82	94,5	95,5	968	6,3	1,8	2,1	84,0	5,25000	930
4KTC 315 Mb 8	90,0	182	173	165	740	0,83	91,1	96,5	1.161	6,7	2,5	2,5	84,0	6,00000	1.240
4KTC 315 L 8	110	224	213	203	740	0,83	90,0	97,5	1.420	6,9	2,6	2,5	84,0	7,30000	1.380

All technical details are based on 400V/50Hz; Alle Angaben auf Basis von 400V/50Hz; Tous les détails techniques selon 400V/50Hz; Todos los datos technicos según 400V/50Hz.

DMD - EExd(e) IIC T4 : 8 - Pole; Polig; Pôle; Polos - 900 min^{-1}

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Dutchi Motors® motor type DMD = cast iron EExd(e) IIC T4 motor 440V - 60Hz 460V - 60Hz 480V - 60Hz Frame size / Baugröße Hauteur d'axe / Tamaño de carcassa **EN60034 (IEC-DIN)**	Rated output power Nenn-Leistung Puissance Nominal Potencia Nominal 440V - 60Hz P_N kW	Rated current at Nennstrom bei Courant nominale à Intensidad nominal à I_N A	Full-load speed rpm Nenn-drehzahl min^{-1} Vitesse nominal t/min Velocidad nominal r/min n_N min^{-1}	Full-load torque Drehkraft Couple Esfuerzo de torsión M_N	Sound pressure level Schall-druckpegel Niveau de pression acoustique Nivel de presión sana dB(A) (EN60034-9)	Rated output power Nenn-Leistung Puissance Nominal Potencia Nominal 460V - 60Hz P_N kW	Rated current at Nennstrom bei Courant nominale à Intensidad nominal à I_N A	Full-load speed rpm Nenn-drehzahl min^{-1} Vitesse nominal t/min Velocidad nominal r/min n_N min^{-1}	Full-load torque Drehkraft Couple Esfuerzo de torsión M_N	Sound pressure level Schall-druckpegel Niveau de pression acoustique Nivel de presión sana dB(A) (EN60034-9)	Rated output power Nenn-Leistung Puissance Nominal Potencia Nominal 480V - 60Hz P_N kW	Rated current at Nennstrom bei Courant nominale à Intensidad nominal à I_N A	Full-load speed rpm Nenn-drehzahl min^{-1} Vitesse nominal t/min Velocidad nominal r/min n_N min^{-1}	Full-load torque Drehkraft Couple Esfuerzo de torsión M_N	Sound pressure level Schall-druckpegel Niveau de pression acoustique Nivel de presión sana dB(A) (EN60034-9)
DMD 71 A 8	0,11	0,70	820	1,29	69,0	0,20	0,70	820	2,33	69,0	0,20	0,67	820	2,33	69,0
DMD 71 B 8	0,14	0,57	790	1,70	69,0	0,20	0,56	790	2,42	69,0	0,20	0,54	790	2,42	69,0
DMD 80 A 8	0,21	0,69	820	2,45	69,0	0,30	0,69	820	3,50	69,0	0,30	0,66	820	3,50	69,0
DMD 80 B 8	0,29	0,97	820	3,38	69,0	0,30	0,96	820	3,50	69,0	0,30	0,92	820	3,50	69,0
DMD 90 S 8	0,43	1,31	820	5,01	69,0	0,50	1,30	820	5,83	69,0	0,50	1,25	820	5,83	69,0
DMD 90 L 8	0,64	1,84	820	7,46	69,0	0,70	1,83	820	8,16	69,0	0,70	1,75	820	8,16	69,0
DMD 100 L 8															
DMD 100 La 8	0,87	2,42	830	10,0	69,0	0,90	2,40	830	10,4	69,0	0,90	2,30	830	10,4	69,0
DMD 100 Lb 8	1,27	3,41	830	14,6	69,0	1,40	3,39	830	16,1	69,0	1,40	3,25	830	16,1	69,0
DMD 112 M 8	1,73	4,36	850	19,4	71,0	1,80	4,33	850	20,2	71,0	1,80	4,15	850	20,2	71,0
DMD 132 S 8	2,53	5,78	850	28,4	71,0	2,70	5,74	850	30,3	71,0	2,70	5,50	850	30,3	71,0
DMD 132 Sa 8															
DMD 132 Sb 8															
DMD 132 M 8	3,45	7,56	850	38,8	74,0	3,60	7,51	850	40,5	74,0	3,60	7,20	850	40,5	74,0
DMD 132 Ma 8															
DMD 132 Mb 8															
DMD 160 M 8															
DMD 160 Ma 8	4,60	10,5	860	51,1	74,0	4,80	10,4	860	53,3	74,0	4,80	10,0	860	53,3	74,0
DMD 160 Mb 8	6,33	14,1	860	70,3	74,0	6,60	14,0	860	73,3	74,0	6,60	13,4	860	73,3	74,0
DMD 160 L 8	8,63	17,5	870	94,7	77,0	9,00	17,4	870	98,8	77,0	9,00	16,7	870	98,8	77,0
DMD 180 M 8															
DMD 180 L 8	12,7	26,3	860	140	77,0	13,2	26,1	860	147	77,0	13,2	25,0	860	147	77,0
DMD 200 L 8	17,3	30,5	860	192	80,0	18,0	30,2	860	200	80,0	18,0	29,0	860	200	80,0
DMD 200 La 8															
DMD 200 Lb 8															
DMD 225 S 8	21,3	38,9	850	239	80,0	22,2	38,6	850	249	80,0	22,2	37,0	850	249	80,0
DMD 225 M 8	25,3	47,3	860	281	80,0	26,4	46,9	860	293	80,0	26,4	45,0	860	293	80,0
4KTC 250 M 8	34,5	62,0	880	374	82,0	36,0	61,5	880	391	82,0	36,0	59,0	880	391	82,0
4KTC 280 S 8	42,6	77,7	880	462	82,0	44,4	77,2	880	482	82,0	44,4	74,0	880	482	82,0
4KTC 280 M 8	51,8	94,5	880	562	83,0	54,0	93,9	880	586	83,0	54,0	90,0	880	586	83,0
4KTC 315 S 8	63,3	109	880	686	83,0	66,0	108	880	716	83,0	66,0	104	880	716	83,0
4KTC 315 Ma 8	86,3	147	890	926	86,0	90,0	146	890	966	86,0	90,0	140	890	966	86,0
4KTC 315 Mb 8	104	182	890	1.111	86,0	108	180	890	1.159	86,0	108	173	890	1.159	86,0
4KTC 315 L 8	127	224	890	1.357	86,0	132	222	890	1.416	86,0	132	213	890	1.416	86,0

All technical details are based on 480V/60Hz; Alle Angaben auf Basis von 480V/60Hz; Tous les détails techniques selon 480V/60Hz; Todos los datos technicos segùn 480V/60Hz.

DMD - EExd(e) IIC T4 : 4 / 2 - Pole; Polig; Pôle; Polos - 1500 / 3000 min^{-1}

Connection; Einschaltung; Connection; Conexiòn : Δ / Y Y - Constant Torque

Dutchi Motors® motor type DMD = EExd(e) IIC T4 EN60034 (IEC-DIN)	rated output power	Rated current at			full-load speed rpm	full-load power factor	full-load efficiency	Starting current I_a/I_N	Starting torque M_a/M_n	Pull-out torque M_k/M_N	moment of inertia $J = {}^1/_4GD^2$	Weight foot mounted
	P_N kW	380V I_u A	400V I_N A	420V I_o A	n_N min^{-1}	cos φ	100% η %				kgm^2	kg
DMD 80 A 4 / 2	0,50	1,32	1,26	1,20	1.370	0,83	69,0	3,7	1,7	1,8	0,00098	25,0
	0,65	1,50	1,43	1,36	2.760	0,91	72,0	3,4	1,8	1,9		
DMD 80 B 4 / 2	0,70	1,84	1,75	1,67	1.365	0,83	70,0	4,1	1,9	2,0	0,00125	28,0
	0,85	1,94	1,85	1,76	2.810	0,91	73,0	5,5	2,3	2,4		
DMD 90 S 4 / 2	1,10	2,73	2,60	2,48	1.415	0,83	74,0	4,4	1,8	1,9	0,00204	34,0
	1,40	3,10	2,95	2,81	2.800	0,94	73,0	4,7	1,8	2,0		
DMD 90 L 4 / 2	1,50	3,47	3,30	3,14	1.410	0,85	76,5	4,9	1,9	2,1	0,00260	36,0
	1,90	4,10	3,90	3,71	2.850	0,93	75,5	5,3	2,1	2,3		
DMD 100 LA 4 / 2	1,80	4,37	4,16	3,96	1.430	0,83	77,5	4,8	1,9	2,0	0,00388	45,0
	2,40	5,51	5,25	5,00	2.860	0,91	74,0	5,0	1,8	1,9		
DMD 100 LB 4 / 2	2,60	5,93	5,65	5,38	1.420	0,84	79,0	5,1	1,9	2,1	0,00499	49,0
	3,20	6,93	6,60	6,29	2.870	0,92	76,0	5,9	2,0	2,3		
DMD 112 M 4 / 2	3,70	8,82	8,40	8,00	1.460	0,79	81,0	6,6	2,3	2,8	0,01014	64,0
	4,40	8,93	8,50	8,10	2.890	0,93	81,0	7,4	2,3	2,9		
DMD 132 S 4 / 2	5,00	12,1	11,5	11,0	1.460	0,79	80,0	6,2	2,1	2,7	0,02113	89,0
	6,00	12,5	11,9	11,3	2.900	0,92	79,0	6,4	2,2	2,8		
DMD 132 M 4 / 2	6,10	14,5	13,8	13,1	1.450	0,81	79,0	6,7	2,2	2,5	0,02793	99,0
	7,50	16,2	15,4	14,7	2.910	0,94	76,0	6,9	2,2	2,3		

DMD - EExd(e) IIC T4 : 8 / 4 - Pole; Polig; Pôle; Polos - 750 / 1500 min^{-1}

Connection; Einschaltung; Connection; Conexiòn : Δ / Y Y - Constant Torque

Dutchi Motors® motor type DMD = EExd(e) IIC T4 EN60034 (IEC-DIN)	rated output power	Rated current at			full-load speed rpm	full-load power factor	full-load efficiency	Starting current I_a/I_N	Starting torque M_a/M_n	Pull-out torque M_k/M_N	moment of inertia $J = {}^1/_4GD^2$	Weight foot mounted
	P_N kW	380V I_u A	400V I_N A	420V I_o A	n_N min^{-1}	cos φ	100% η %				kgm^2	kg
DMD 80 A 8 / 4	0,20	0,87	0,83	0,79	690	0,67	52,0	2,8	1,8	2,0	0,00098	25,0
	0,30	0,83	0,79	0,75	1.380	0,89	62,0	3,9	2,0	2,2		
DMD 80 B 8 / 4	0,27	1,13	1,08	1,03	690	0,65	56,0	2,9	1,9	2,1	0,00125	28,0
	0,40	1,01	0,96	0,91	1.400	0,88	69,0	4,5	2,0	2,2		
DMD 90 S 8 / 4	0,42	2,00	1,90	1,81	705	0,58	56,0	2,8	1,9	2,0	0,00204	34,0
	0,80	2,00	1,90	1,81	1.390	0,87	70,0	3,9	1,6	1,8		
DMD 90 L 8 / 4	0,50	2,42	2,30	2,19	710	0,55	58,0	3,1	2,0	2,1	0,00260	36,0
	1,00	2,36	2,25	2,14	1.410	0,87	74,0	4,3	1,7	1,9		
DMD 100 LA 8 / 4	0,90	3,20	3,05	2,90	690	0,67	64,0	3,2	1,8	2,0	0,00388	45,0
	1,30	3,15	3,00	2,86	1.380	0,85	74,0	4,2	1,8	2,1		
DMD 100 LB 8 / 4	1,00	3,36	3,20	3,05	720	0,65	70,0	3,9	2,0	2,1	0,00499	49,0
	1,60	3,52	3,35	3,19	1.430	0,89	77,0	5,3	1,9	2,2		
DMD 112 M 8 / 4	1,50	4,46	4,25	4,05	710	0,68	75,0	4,6	2,0	2,2	0,01014	64,0
	2,50	5,25	5,00	4,76	1.430	0,91	80,0	5,7	1,9	2,1		
DMD 132 S 8 / 4	2,30	7,04	6,70	6,38	720	0,66	75,0	5,3	2,0	2,3	0,02113	89,0
	3,60	7,67	7,30	6,95	1.450	0,89	80,0	6,9	1,9	2,2		
DMD 132 M 8 / 4	3,00	9,98	9,50	9,05	720	0,60	76,0	4,5	1,9	2,3	0,02793	99,0
	5,00	10,4	9,90	9,43	1.445	0,88	83,0	5,4	1,9	2,3		

All technical details are based on 400V/50Hz; Alle Angaben auf Basis von 400V/50Hz; Tous les détails techniques selon 400V/50Hz; Todos los datos technicos segùn 400V/50Hz.

DMD - EExd(e) IIC T4 : 6 / 4 - Pole; Polig; Pôle; Polos - 1000 / 1500 min^{-1}

Connection; Einschaltung; Connection; Conexiòn : Y / Y - Constant Torque

Dutchi Motors® motor type DMD = EExd(e) IIC T4 EN60034 (IEC-DIN)	rated output power	Rated current at			full-load speed rpm	full-load power factor	full-load efficiency	Starting current I_a/I_N	Starting torque M_a/M_N	Pull-out torque M_k/M_N	moment of inertia $J = {}^1/_4GD^2$	Weight foot mounted
	P_N kW	380V I_u A	400V I_N A	420V I_o A	n_N min^{-1}	cos φ	100% η %				kgm^2	kg
DMD 80 A 6 / 4	0,22	0,74	0,70	0,67	930	0,78	58,0	3,3	1,7	1,9	0,00098	25,0
	0,32	1,10	1,05	1,00	1.455	0,75	58,0	4,2	1,9	2,1		
DMD 80 B 6 / 4	0,26	0,99	0,94	0,90	940	0,65	62,0	3,5	2,0	2,2	0,00125	28,0
	0,40	1,34	1,28	1,22	1.425	0,75	60,0	3,6	1,6	1,9		
DMD 90 S 6 / 4	0,45	1,58	1,50	1,43	945	0,71	61,0	3,6	1,9	2,1	0,00204	34,0
	0,66	1,84	1,75	1,67	1.450	0,74	74,0	5,3	2,1	2,2		
DMD 90 L 6 / 4	0,60	1,89	1,80	1,71	960	0,72	67,0	3,6	1,7	2,1	0,00260	36,0
	0,90	2,21	2,10	2,00	1.425	0,86	72,0	4,4	1,6	1,9		
DMD 100 LA 6 / 4	0,90	2,52	2,40	2,29	960	0,80	68,0	4,0	1,5	1,8	0,00388	45,0
	1,30	3,15	3,00	2,86	1.420	0,87	72,0	4,5	1,6	1,9		
DMD 100 LB 6 / 4	1,10	2,94	2,80	2,67	960	0,80	71,0	4,3	1,6	1,8	0,00499	49,0
	1,70	3,89	3,70	3,52	1.450	0,87	76,0	4,7	1,8	2,1		
DMD 112 M 6 / 4	1,50	3,73	3,55	3,38	970	0,79	78,0	5,3	2,0	2,2	0,01014	64,0
	2,40	5,30	5,05	4,81	1.450	0,88	78,0	5,4	1,7	1,9		
DMD 132 S 6 / 4	2,20	5,30	5,05	4,81	965	0,81	78,0	5,7	1,6	1,9	0,02113	89,0
	3,00	6,30	6,00	5,71	1.465	0,90	81,0	6,1	1,7	2,1		
DMD 132 M 6 / 4	3,00	7,04	6,70	6,38	975	0,81	80,0	6,5	2,0	2,2	0,02793	99,0
	4,50	9,35	8,90	8,48	1.460	0,90	81,5	6,3	1,7	1,9		

DMD - EExd(e) IIC T4 : 8 / 6 - Pole; Polig; Pôle; Polos - 750 / 1000 min^{-1}

Connection; Einschaltung; Connection; Conexiòn : Y / Y - Constant Torque

Dutchi Motors® motor type DMD = EExd(e) IIC T4 EN60034 (IEC-DIN)	rated output power	Rated current at			full-load speed rpm	full-load power factor	full-load efficiency	Starting current I_a/I_N	Starting torque M_a/M_N	Pull-out torque M_k/M_N	moment of inertia $J = {}^1/_4GD^2$	Weight foot mounted
	P_N kW	380V I_u A	400V I_N A	420V I_o A	n_N min^{-1}	cos φ	100% η %				kgm^2	kg
DMD 90 S 8 / 6	0,35	1,42	1,35	1,29	695	0,67	56,0	2,7	1,5	1,7	0,00323	32,0
	0,45	1,58	1,50	1,43	960	0,71	61,0	3,3	1,5	1,8		
DMD 90 L 8 / 6	0,45	1,76	1,68	1,60	965	0,67	58,0	2,7	1,5	1,8	0,00419	35,0
	0,60	2,17	2,07	1,97	960	0,68	62,0	3,5	1,8	2,0		
DMD 100 LA 8 / 6	0,60	2,15	2,05	1,95	715	0,71	60,0	2,9	1,4	1,6	0,00657	46,0
	0,80	2,26	2,15	2,05	970	0,77	70,0	4,1	1,6	1,8		
DMD 100 LB 8 / 6	0,75	2,52	2,40	2,29	710	0,72	63,0	3,1	1,4	1,6	0,01580	60,0
	0,90	2,63	2,50	2,38	970	0,74	71,0	4,7	1,8	2,0		
DMD 112 M 8 / 6	0,90	2,94	2,80	2,67	720	0,66	70,0	4,2	1,9	2,2	0,02722	84,0
	1,20	3,15	3,00	2,86	970	0,76	76,0	5,1	2,2	2,4		
DMD 132 S 8 / 6	1,50	5,30	5,05	4,81	725	0,60	72,0	4,8	2,0	2,5	0,03229	88,0
	2,00	5,78	5,50	5,24	975	0,68	77,5	6,2	2,0	2,4		
DMD 132 M 8 / 6	2,20	7,14	6,80	6,48	725	0,63	74,0	3,9	1,8	2,1	0,03838	95,0
	3,00	8,51	8,10	7,71	975	0,69	78,0	5,3	1,9	2,2		

DMD - EExd(e) IIC T4 : 2 - Pole - 3000 min^{-1} driven by Frequency Inverter

Selection chart																			
Operating				net	-		frequency inverter		frequency inverter		frequency inverter		frequency inverter		frequency inverter		2p = 2	
Cooling				own	-		own		own		own		own		own		add cooling	
Torque					T - n^2		constant		constant		constant		constant		constant		constant	
Frequency				50Hz	5Hz - 50Hz		20Hz - 50Hz		10Hz - 50Hz		5Hz - 50Hz		50Hz - 87Hz		5Hz - 87Hz		5Hz - 87Hz	
Ratio					1 : 10		1 : 2,5		1 : 5		1 : 10		1 : 1,74		1 : 17,4			
Speed					300 - 3000 min^{-1}		1200 - 3000 min^{-1}		600 - 3000 min^{-1}		300 - 3000 min^{-1}		3000 - 5220 min^{-1}		300 - 5220 min^{-1}			
				Power kW	Power 50Hz	Torque Nm	Power 50Hz	Torque Nm	Power 50Hz	Torque Nm	Power 50Hz	Torque Nm	Power 87Hz	Torque Nm	Power 50Hz	Torque Nm		
DMD	71	A	2	0,37	0,37	1,25	0,35	1,20	0,30	1,00	0,22	0,74	0,55	1,00	-	-		
DMD	71	B	2	0,55	0,55	1,90	0,52	1,80	0,45	1,50	0,33	1,10	0,80	1,50	-	-		
DMD	80	A	2	0,75	0,75	2,60	0,70	2,40	0,60	2,00	0,50	1,70	1,10	2,00	-	-		
DMD	80	B	2	1,10	1,10	3,70	1,00	3,40	0,90	3,00	0,75	2,50	1,60	2,90	-	-		
DMD	90	S	2	1,50	1,50	5,00	1,40	4,70	1,20	4,00	1,00	3,30	2,20	4,00	-	-		
DMD	90	L	2	2,20	2,20	7,40	2,00	6,70	1,70	5,70	1,40	4,70	3,30	6,00	-	-		
DMD	100	L	2	3,00	3,00	10,0	2,70	8,90	2,20	7,20	1,80	5,90	4,50	8,20	-	-		
DMD	112	M	2	4,00	4,00	13,0	3,70	12,0	3,20	11,0	2,50	8,20	6,00	11,0	-	-		
DMD	132	SA	2	5,50	5,50	18,0	5,00	16,0	4,50	15,0	3,70	12,0	8,00	15,0	5,50	8,00		
DMD	132	SB	2	7,50	7,50	25,0	7,00	23,0	6,00	20,0	5,00	16,0	11,0	20,0	7,50	10,5		
DMD	160	MA	2	11,0	11,0	36,0	10,0	32,0	9,00	29,0	7,50	24,0	16,0	29,0	11,0	15,0		
DMD	160	MB	2	15,0	14,5	47,0	13,0	42,0	12,0	39,0	10,0	32,0	21,0	38,0	14,5	20,0		
DMD	160	L	2	18,5	17,5	57,0	16,0	52,0	15,0	49,0	12,0	41,0	26,0	48,0	17,5	25,0		
DMD	180	M	2	22,0	21,0	68,0	20,0	65,0	18,0	58,0	15,0	49,0	30,0	55,0	21,0	29,0		
DMD	200	LA	2	30,0	28,0	90,0	27,0	87,0	24,0	77,0	22,0	71,0	40,0	73,0	28,0	38,0		
DMD	200	LB	2	37,0	32,0	103,0	31,0	100,0	28,0	90,0	27,0	87,0	49,0	90,0	32,0	45,0		
DMD	225	M	2	45,0	38,0	123,0	37,0	119,0	34,0	110,0	32,0	103,0	60,0	110,0	38,0	55,0		

DMD - EExd(e) IIC T4 : 4 - Pole - 1500 min^{-1} driven by Frequency Inverter

Selection chart																			
Operating				net	-		frequency inverter		frequency inverter		frequency inverter		frequency inverter		frequency inverter		2p = 4	
Cooling				own	-		own		own		own		own		own		add cooling	
Torque					T - n^2		constant		constant		constant		constant		constant		constant	
Frequency				50Hz	5Hz - 50Hz		20Hz - 50Hz		10Hz - 50Hz		5Hz - 50Hz		50Hz - 87Hz		5Hz - 87Hz		5Hz - 87Hz	
Ratio					1 : 10		1 : 2,5		1 : 5		1 : 10		1 : 1,74		1 : 17,4			
Speed					150 - 1500 min^{-1}		600 - 1500 min^{-1}		300 - 1500 min^{-1}		150 - 1500 min^{-1}		1500 - 2610 min^{-1}		150 - 2610 min^{-1}			
				Power kW	Power 50Hz	Torque Nm	Power 50Hz	Torque Nm	Power 50Hz	Torque Nm	Power 50Hz	Torque Nm	Power 87Hz	Torque Nm	Power 50Hz	Torque Nm		
DMD	71	A	4	0,25	0,25	1,70	0,22	1,50	0,19	1,25	0,15	1,00	0,37	1,40	-	-		
DMD	71	B	4	0,37	0,37	2,50	0,33	2,20	0,28	1,90	0,22	1,50	0,55	2,00	-	-		
DMD	80	A	4	0,55	0,55	3,80	0,52	3,50	0,45	3,00	0,33	2,20	0,80	2,90	-	-		
DMD	80	B	4	0,75	0,75	5,20	0,70	4,80	0,60	4,00	0,50	3,30	1,10	4,00	-	-		
DMD	90	S	4	1,10	1,10	7,50	1,00	6,70	0,90	6,00	0,75	5,00	1,60	5,90	-	-		
DMD	90	L	4	1,50	1,50	10,0	1,40	9,50	1,20	8,00	1,00	6,70	2,20	8,00	-	-		
DMD	100	LA	4	2,20	2,20	15,0	2,00	13,0	1,70	11,0	1,40	9,30	3,30	12,0	-	-		
DMD	100	LB	4	3,00	3,00	20,0	2,80	19,0	2,20	15,0	1,80	12,0	4,50	16,0	-	-		
DMD	112	M	4	4,00	4,00	27,0	3,60	24,0	3,00	20,0	2,50	16,0	6,00	22,0	-	-		
DMD	132	SA	4	5,50	5,50	37,0	5,00	33,0	4,40	29,0	3,70	24,0	8,00	29,0	5,50	8,00		
DMD	132	SB	4	7,50	7,50	50,0	7,00	46,0	6,00	39,0	5,00	33,0	11,0	40,0	7,50	10,5		
DMD	160	M	4	11,0	11,0	72,0	10,0	65,0	9,00	58,0	7,50	49,0	16,0	59,0	11,0	15,0		
DMD	160	L	4	15,0	15,0	98,0	13,5	88,0	12,0	78,0	10,0	65,0	21,0	79,0	15,0	20,0		
DMD	180	M	4	18,5	18,0	118,0	17,0	111,0	15,0	97,0	12,5	81,0	26,0	95,0	18,0	25,0		
DMD	180	L	4	22,0	21,0	137,0	20,0	130,0	18,0	117,0	15,0	97,0	30,0	110,0	21,0	29,0		
DMD	200	LB	4	30,0	28,0	183,0	27,0	176,0	24,0	156,0	21,0	136,0	40,0	146,0	28,0	37,0		
DMD	225	S	4	37,0	32,0	208,0	31,0	201,0	29,0	188,0	26,0	168,0	49,0	179,0	32,0	45,0		
DMD	225	M	4	45,0	38,0	247,0	37,0	440,0	35,0	227,0	32,0	207,0	60,0	220,0	38,0	55,0		

All technical details are based on 400V/50Hz; Alle Angaben auf Basis von 400V/50Hz; Tous les détails techniques selon 400V/50Hz; Todos los datos technicos según 400V/50Hz.

DMD - EExd(e) IIC T4 : Axial & Radial loads

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

Maximum radial force (F_R) kN				
size	pole	X_0	$X_{1/2}$	X_{max}
71	2	0,48	0,43	0,39
	4	0,60	0,54	0,50
	6	0,69	0,62	0,56
	8	0,76	0,68	0,62
80	2	0,64	0,57	0,51
	4	0,81	0,72	0,65
	6	0,93	0,83	0,74
	8	1,02	0,91	0,82
90	2	0,72	0,64	0,57
	4	0,90	0,80	0,71
	6	1,04	0,92	0,82
	8	1,14	1,01	0,90
100	2	1,01	0,90	0,81
	4	1,28	1,15	1,04
	6	1,45	1,30	1,17
	8	1,61	1,43	1,30
112	2	0,99	0,87	0,79
	4	1,23	1,09	1,08
	6	1,42	1,25	1,12
	8	1,57	1,39	1,24
132	2	1,56	1,36	1,23
	4	1,96	1,78	1,55
	6	2,24	1,98	1,77
	8	2,45	2,16	1,96
160	2	2,99	2,63	2,35
	4	3,83	3,38	3,02
	6	4,33	3,81	3,40
	8	4,79	4,22	3,78
180	2	3,55	3,14	2,84
	4	4,43	3,82	3,53
	6	5,10	4,52	4,08
	8	5,63	5,00	4,52
200	2	4,33	4,24	3,60
	4	4,45	4,95	4,52
	6	6,28	5,71	5,23
	8	6,88	6,25	5,72
225	2	10,40	9,45	8,32
	4	13,10	11,65	10,49
	6	15,03	13,37	12,03
	8	16,60	14,78	13,30
250	2	11,64	10,41	9,40
	4	14,77	13,22	11,96
	6	16,97	15,20	13,75
	8	18,73	16,78	15,19
280	2	14,52	13,03	11,80
	4	18,18	16,31	14,79
	6	20,93	18,78	17,02
	8	22,93	20,56	18,62
315	2	16,55	14,92	13,57
	4	20,62	18,57	16,86
	6	19,73	17,58	15,82
	8	21,93	19,56	17,62

Maximum axial force (F_R) in kN												
Mounting	IM B3 - IM B35 - IM B5 - IM B34 - IM B14 - IM B7 - IM B8				IM V18 - IM V19 - IM V1 - IM V3 - IM V5 - IM V6							
	Weight of rotor in load direction				Weight of rotor in opposite load direction							
rpm	3000	1500	1000	750	3000	1500	1000	750	3000	1500	1000	750
71	0,27	0,34	0,39	0,43	0,33	0,43	0,47	0,52	0,35	0,46	0,51	0,55
80	0,36	0,45	0,52	0,57	0,43	0,55	0,62	0,69	0,47	0,60	0,69	0,76
90	0,41	0,51	0,59	0,65	0,48	0,61	0,69	0,77	0,54	0,68	0,79	0,86
100	0,55	0,69	0,79	0,88	0,64	0,81	0,92	1,03	0,75	0,94	1,07	1,11
112	0,55	0,69	0,79	0,88	0,63	0,77	0,89	1,00	0,76	0,98	1,10	1,14
132	0,83	1,04	1,20	1,32	0,92	1,13	1,30	1,48	1,16	1,47	1,67	1,82
160	1,52	1,91	2,19	2,41	1,65	2,10	2,40	2,65	2,13	2,68	3,08	3,31
180	1,77	2,24	2,56	2,82	1,85	2,30	2,71	3,00	2,55	3,26	3,74	4,13
200	2,33	2,94	3,37	3,71	2,39	3,06	3,54	3,89	3,45	4,38	4,91	5,50
225	2,66	3,36	3,85	4,23	2,71	3,30	3,78	4,25	4,03	5,05	5,94	6,28
250	2,98	3,76	4,30	4,73	2,92	3,85	4,07	4,48	4,65	5,55	6,81	7,46
280	3,50	4,41	5,05	5,56	3,18	3,76	4,52	4,82	5,51	7,13	7,97	8,89
315	3,58	4,51	5,17	5,69	2,33	2,31	2,01	2,55	6,09	8,15	9,34	10,05

The values are based on normal conditions at 50Hz and calculated at 20.000 working hours for the 2, 4, 6 & 8 pole motors. For 60Hz the value must be reduced by 10% For two-speed motors, the values have to be based at the higher speed.

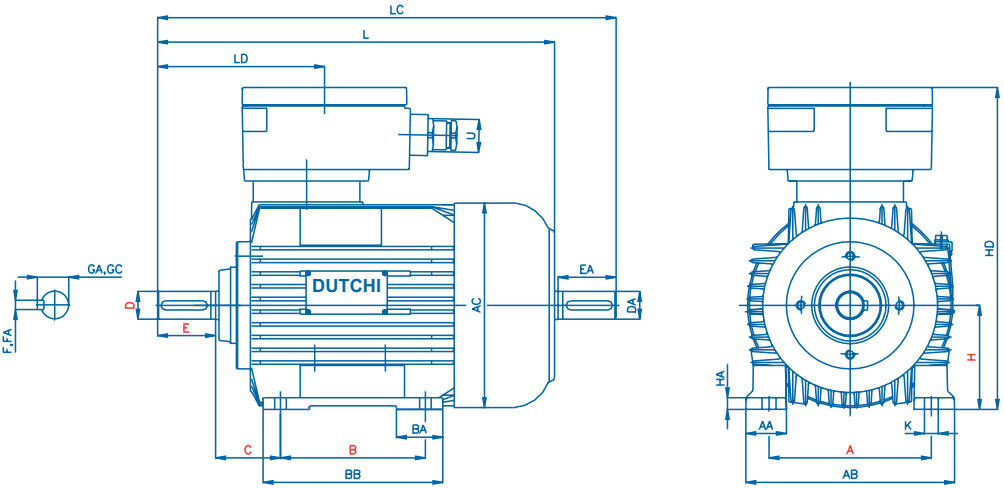
Die Daten basieren auf 50Hz und 20.000 Betriebsstunden bei 2, 4, 6 und 8 poligen Motoren. Bei 60 Hz Betrieb müssen die Daten mit 10% reduziert werden. Für mehrpolige Ausführungen sollte man sich auf höhere Umdrehungsstufen orientieren.

Les valeurs sont basées sur des conditions normales d'utilisation à 50Hz et calculées pour 20,000 heures pour les moteurs 2, 4, 6 et 8 pôles. Pour les moteurs 60 Hz, les valeurs doivent être réduites de 10%. En ce qui concerne les moteurs multi-vitesses, les valeurs doivent être baseés sur la vitesse la plus èlevèe.

Los valores estàn tomados en condiciones normales a 50Hz y calculados para motores de 2, 4, 6 y 8 polos a 20.000 horas de trabajo. A 60Hz deben reducirse los valores en un 10%. Para motores de dos velocidades los valores deben tomarse a mayor velocidad.

DMD EEx d(e) IIC T4 : IM B3

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

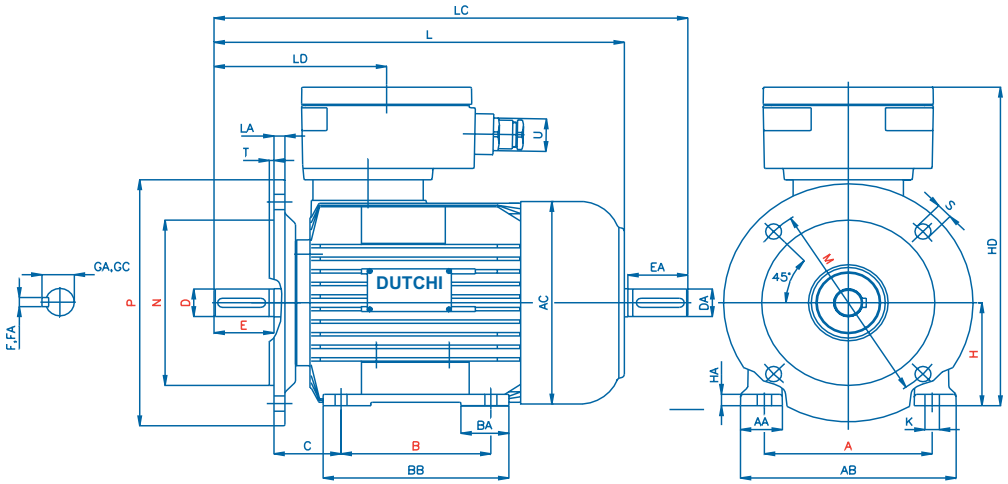


Note: Cable Gland only at "EExde" execution / Kabelverschraubung nur beim "EExde" ausführung !

Frame size	A	AA	AB	AC	B	BA	BB	C	D DA	E EA	F FA	GC GA	H	HA	HD	LD	K	L	LC
DMD 71 A / B	112	30	140	139	90	30	114	45	14	30	5	16	71	10	218	114	9	271	307
DMD 80 A / B	125	32	160	157	100	35	130	50	19	40	6	22	80	10	249	131	10	317	362
DMD 90 S	140	35	180	177	100	60	155	56	24	50	8	27	90	10	271	140	10	360	415
DMD 90 L					125														
DMD 100 L	160	45	205	195	140	45	175	63	28	60	8	31	100	17	288	158	12	416	481
DMD 112 M	190	50	235	219	140	50	180	70	28	60	8	31	112	15	311	159	12	438	504
DMD 132 S	216	55	266	258	140	75	218	89	38	80	10	41	132	18	350	181	12	534	619
DMD 132 M					178														
DMD 160 M	254	60	312	310	210	105	300	108	42	110	12	45	160	21	436	255	14	667	785
DMD 160 L					254														
DMD 180 M	279	70	348	352	241	80	295	121	48	110	14	51	180	21	482	299	14	721	841
DMD 180 L					279		333											761	881
DMD 200 L	318	80	398	392	305	90	365	133	55	110	16	59	200	21	543	310	18	817	937
DMD 225 S	356	80	436	438	286	90	346	149	60	140	18	64	225	21	593	341	18	823	973
DMD 225 M-2					311		371		55	110	16	59				311		853	
DMD 225 M									60	140	18	64				341		883	1033
4KTC 250 M-2	406	100	506	491	349	90	429	168	60	140	18	64	250	23	687	380	24	997	1152
4KTC 250 M									65			69							
4KTC 280 S-2	457	110	557	537	368	100	454	190	65	140	18	69	280	23	744	382	24	1036	1191
4KTC 280 S									75		20	79,5							
4KTC 280 M-2					419		505		65		18	69						1096	1224
4KTC 280 M									75		20	79,5							
4KTC 315 S-2	508	110	628	617	406	115	526	216	65	140	18	69	315	25	859	454	28	1050	1210
4KTC 315 S									80	170	22	85				484		1080	1270
4KTC 315 M-2					457		577		65	140	18	69				454		1220	1380
4KTC 315 M									80	170	22	85				484		1250	1440

DMD EEx d(e) IIC T4 : IM B35

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

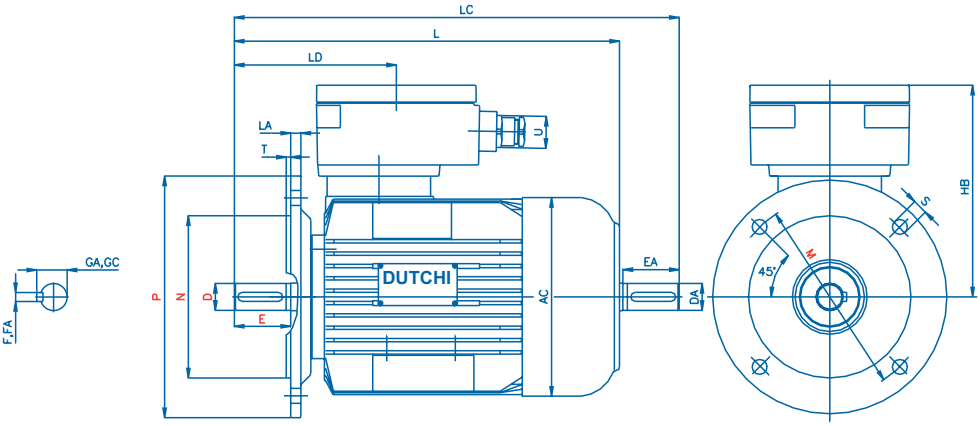


Note: Cable Gland only at "EExde" execution / Kabelverschraubung nur beim "EExde" ausführung !

Frame size	Flange	A	AA	AB	AC	B	D DA	E EA	H	HD	L	LA	LC	M	N	P	S	fixing holes
DMD 71 A / B	F 130 - I	112	30	140	139	90	14	30	71	218	271	10	307	130	110	160	9	4
DMD 80 A / B	F 165 - I	125	32	160	157	100	19	40	80	249	317	10	362	165	130	200	12	4
DMD 90 S	F 165 - I	140	35	180	177	100	24	50	90	271	360	10	415	165	130	200	12	4
DMD 90 L						125												
DMD 100 L	F 215 - I	160	45	205	195	140	28	60	100	288	416	11	481	215	180	250	14	4
DMD 112 M	F 215 - I	190	50	235	219	140	28	60	112	311	438	11	504	215	180	250	14	4
DMD 132 S	F 265 - I	216	55	266	258	140	38	80	132	350	534	16	619	265	230	300	14	4
DMD 132 M						178												
DMD 160 M	F 300 - I	254	60	312	310	210	42	110	160	436	667	19	785	300	250	350	18	4
DMD 160 L						254					667		785					
DMD 180 M	F 300 - I	279	70	348	352	241	48	110	180	482	721	15	841	300	250	350	18	4
DMD 180 L						279					761		881					
DMD 200 L	F 350 - I	318	80	398	392	305	55	110	200	543	817	18	937	350	300	400	18	4
DMD 225 S	F 400 - I	356	80	436	438	286	60	140	225	593	823	18	973	400	350	450	18	8
DMD 225 M-2						311	55	110			853							
DMD 225 M							60	140					1033					
4KTC 250 M-2	F 500 - I	406	100	506	491	349	60	140	250	687	997	18	1152	500	450	550	19	8
4KTC 250 M							65											
4KTC 280 S-2	F 500 - I	457	110	557	537	368	65	140	280	744	1036	18	1191	500	450	550	19	8
4KTC 280 S							75											
4KTC 280 M-2						419	65				1096		1224					
4KTC 280 M							75											
4KTC 315 S-2	F 600 - I	508	110	628	617	406	65	140	315	859	1050	18	1210	600	550	660	24	8
4KTC 315 S							80	170			1080		1270					
4KTC 315 M-2						457	65	140			1220		1380					
4KTC 315 M							80	170			1250		1440					

DMD EEx d(e) IIC T4 : IM B5

All motors DMD/4KTC 71 ~ 315 with PTB/ATEX certificate / Alle Motoren DMD/4KTC 71 ~ 315 mit PTB/ATEX Zertifikat.

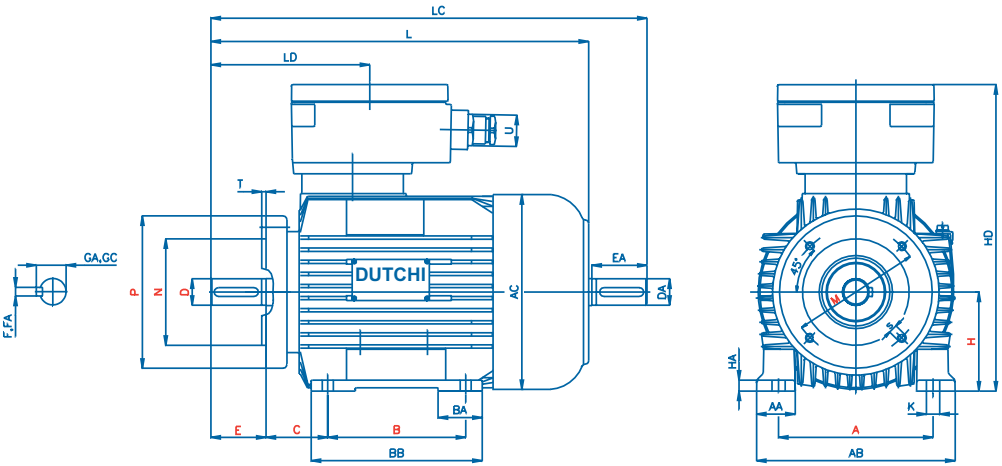


Note: Cable Gland only at "EExde" execution / Kabelverschraubung nur beim "EExde" ausführung !

Frame size	Flange	AC	D DA	E EA	F FA	GC GA	HB	LD	L	LA	LC	M	N	P	S	fixing holes	T
DMD 71 A / B	F 130 - I	139	14	30	5	16	147	114	271	10	307	130	110	160	9	4	4
DMD 80 A / B	F 165 - I	157	19	40	6	22	169	131	317	10	362	165	130	200	12	4	4
DMD 90 S	F 165 - I	177	24	50	8	27	181	140	360	10	415	165	130	200	12	4	4
DMD 90 L																	
DMD 100 L	F 215 - I	195	28	60	8	31	188	158	416	11	481	215	180	250	14	4	4
DMD 112 M	F 215 - I	219	28	60	8	31	199	159	438	11	504	215	180	250	14	4	4
DMD 132 S	F 265 - I	258	38	80	10	41	218	181	534	16	619	265	230	300	14	4	4
DMD 132 M																	
DMD 160 M	F 300 - I	310	42	110	12	45	276	255	667	19	785	300	250	350	18	4	5
DMD 160 L																	
DMD 180 M	F 300 - I	352	48	110	14	51	312	299	721	15	841	300	250	350	18	4	5
DMD 180 L									761		881						
DMD 200 L	F 350 - I	392	55	110	16	59	343	310	817	18	937	350	300	400	18	4	5
DMD 225 S	F 400 - I	438	60	140	18	64	368	341	823	18	973	400	350	450	18	8	5
DMD 225 M-2			55	110	16	59		311	853		973						
DMD 225 M			60	140	18	64		341	883		1033						
4KTC 250 M-2	F 500 - I	491	60	140	18	64	437	380	997	18	1152	500	450	550	19	8	5
4KTC 250 M			65			69											
4KTC 280 S-2	F 500 - I	537	65	140	18	69	464	382	1036	18	1191	500	450	550	19	8	5
4KTC 280 S			75		20	80											
4KTC 280 M-2			65		18	69			1096		1224						
4KTC 280 M			75		20	80											
4KTC 315 S-2	F 600 - I	617	65	140	18	69	544	454	1050	18	1210	600	550	660	24	8	6
4KTC 315 S			80	170	22	85		484	1080		1270						
4KTC 315 M-2			65	140	18	69		454	1220		1380						
4KTC 315 M			80	170	22	85		484	1250		1440						

DMD EEx d(e) IIC T4 : IM B34

All motors DMD 71 ~ 132 with PTB/ATEX certificate / Alle Motoren DMD 71 ~ 132 mit PTB/ATEX Zertifikat.



Note: Cable Gland only at "EExde" execution / Kabelverschraubung nur beim "EExde" ausführung !

Frame size	Flange	A	AA	AB	AC	B	D DA	E EA	H	HD	L	LC	M	N	P	S	fixing holes	T
DMD 71 A / B	F 85 - II	112	30	140	139	90	14	30	71	218	271	307	85	70	105	6	4	3
DMD 71 A / B	F 115 - II												115	95	140	8	4	3
DMD 80 A / B	F 100 - II	125	32	160	157	100	19	40	80	249	317	362	100	80	120	6	4	3
DMD 80 A / B	F 130 - II												130	110	160	8	4	4
DMD 90 S	F 115 - II	140	35	180	177	100	24	50	90	271	360	415	115	95	140	8	4	3
DMD 90 L	F 130 - II					125							130	110	160	8	4	4
DMD 100 L	F 130 - II	160	45	205	195	140	28	60	100	288	416	481	130	110	160	8	4	4
DMD 100 L	F 165 - II												165	130	200	10	4	4
DMD 112 M	F 130 - II	190	50	235	219	140	28	60	112	311	438	504	130	110	160	8	4	4
DMD 112 M	F 165 - II												165	130	200	10	4	4
DMD 132 S	F 165 - II	216	55	266	258	140	38	80	132	350	534	619	165	130	200	10	4	4
DMD 132 M	F 215 - II					178							215	180	250	12	4	4

DMD EEx d(e) IIC T4 : IM B14

All motors DMD 71 ~ 132 with PTB/ATEX certificate / Alle Motoren DMD 71 ~ 132 mit PTB/ATEX Zertifikat.

Note: Cable Gland only at "EExde" execution / Kabelverschraubung nur beim "EExde" ausführung !

Frame size	Flange	AC	D DA	E EA	F FA	GC GA	HB	LD	L	LC	M	N	P	S	fixing holes	T
DMD 71 A / B	F 85 - II	139	14	30	5	16	147	114	271	307	85	70	105	6	4	3
DMD 71 A / B	F 115 - II										115	95	140	8	4	3
DMD 80 A / B	F 100 - II	157	19	40	6	22	169	131	317	362	100	80	120	6	4	3
DMD 80 A / B	F 130 - II										130	110	160	8	4	4
DMD 90 S	F 115 - II	177	24	50	8	27	181	140	360	415	115	95	140	8	4	3
DMD 90 L	F 130 - II										130	110	160	8	4	4
DMD 100 L	F 130 - II	195	28	60	8	31	188	158	416	481	130	110	160	8	4	4
DMD 100 L	F 165 - II										165	130	200	10	4	4
DMD 112 M	F 130 - II	219	28	60	8	31	199	159	438	504	130	110	160	8	4	4
DMD 112 M	F 165 - II										165	130	200	10	4	4
DMD 112 M	F 165 - II	258	38	80	10	41	218	181	534	619	165	130	200	10	4	4
DMD 112 M	F 215 - II										215	180	250	12	4	4

DMD EEx d(e) IIC T4 : PTB 99 / ATEX 1155 Certificate

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

PTB

(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:

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

Zertifizierungsstelle Explosionsschutz
By order
Dr.-Ing. U. Klausmeyer
Regierungsdirektor

Braunschweig, December 06, 1999

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT

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.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • D-38116 Braunschweig

Dutchi Motors B.V.

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Chamber of Commerce at Arnhem (NL), reg. no. 09.02.37.67

Power is our commodity, the world is our market !