



High Pole motors
MA Series

ABOUT US

DAC Electric is a fairly young but highly experienced combination of professionals from all over the world.

The founders, from the Netherlands and the Czech Republic, together combine more than 100 years of experience in the field of electrical rotating machines.

From the offices in the two countries, global sales and service is coordinated.

Local markets are being served directly by our local agents.

Our main activities lay in the branches *Industry, Water and Energy*.

We are specialized in developing, manufacturing and supplying special electric machines and drives.

We provide our customers with advice, engineering and eventually with a tailor made machine.

Next to our special engineered products we supply all standard trade products such as; motors, gearboxes, generators, transformers, frequency converters and electronic components.

Our highly experienced develop department has the ability to design and customize standard and non standard motors for every application.

We provide our customers with extensive opportunities to improve the technical condition and operating reliability of their equipment, to optimize work, to improve efficiency and to lower operating costs.

The unique flexibility of being able to supply special tailor-made products and standard industrial machines, combined with more than 100 years experience in the field of drive technology makes us the partner you are looking for!



Motors of **MA series** are low voltage high pole squirrel-cage induction motors, they are exclusively designed for the direct drive of a low speed pump.

The possibilities for the execution for this type of motor are endless but they all come with the same defining feature: High quantity of poles in the stator. Due to the multiple poles (for example 14...50), a nominal low speed range of 420...120 rpm can be achieved.

The protection degree and the way of cooling is dependant of the surrounding circumstances but this can be easily customized according clients requirements. When the general room temperature is relative high or when noise level is an important issue to cope, these motors can be cooled by means on water cooling which is more effective and more silent.

Standard induction motors with 2poles up to 8 poles are not particularly well suited for low-speed operation as their efficiency drops with the reduction in speed. They may also be unable to deliver sufficiently smooth torque across the lower speed range.

This is normally overcome by using a gearbox. Our Direct Drive solution provides a high torque drive coupled directly to the load. By eliminating the gearbox, the user saves space and installation costs, as he only needs to prepare the foundations for one piece of machinery. This gives more freedom in the layout design and shows a much cleaner machine room.

One of the biggest advantages of our high pole direct drive motors are the reliability they provide to the operational function of the pump they need to drive.

These motors are normally controlled and fed by means of a frequency converter.

However, due to the high pole configuration the main feature is that these motors can operate on the grid or in case of emergency on a generator.

Furthermore, by eliminating the use of a gear-unit the service intervals are reduced substantially and remote monitoring suits this solution perfectly.

The combination of fewer components and simpler configuration reduces plant engineering hours, facilitates installation, allows more efficient use of floor space and reduces spare part inventories.



Subject : 2 pieces
: 315 kW
: 50 pole (120 rpm)
: 25,070 Nm
: Air cooled

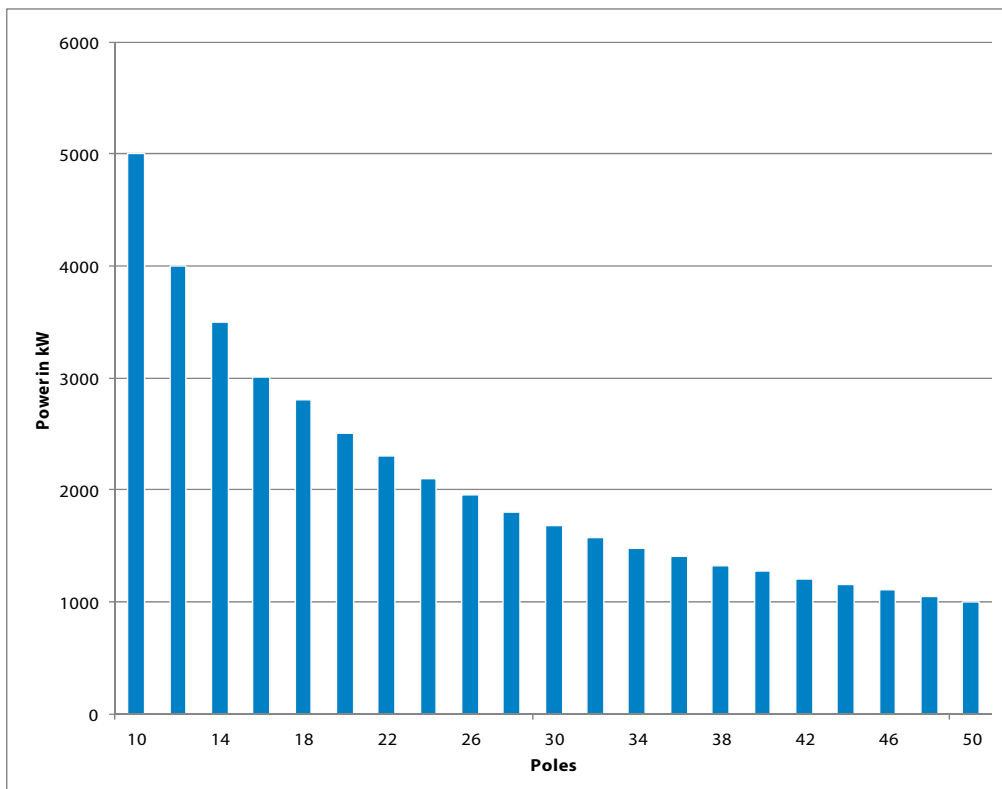
Location : Pumping station Kandia
: Duiven
: The Netherlands

Installed : 2010

Customer benefits

- Longer reliability due to low speed
- Higher overall efficiency of a drive system
- Excellent controllability and adjustability
- Less maintenance and less down-time
- Service and installation friendly
- Environmental friendly due to oil free surroundings
- Fewer spare part inventory

Power output	30 kW ÷ 5.000 kW
Speed range	50 ÷ 600 rpm
Voltage	400 V ÷ 1.000 V
Housing	Welded steel
Duty type	Continuous, S1
Class of insulation	F (VPI)
Method of cooling	All cooling types possible, air—water—combination
Type of construction	IM B3 - IM B35 - IM V1





Subject : 3 pieces
: 475 kW
: 24 pole (212 rpm)
: 21,400 Nm
: Air cooled

Location : Pumping station Quarles van Ufford
: Moordrecht
: The Netherlands

Installed : 2008



Subject : 2 pieces
: 800 kW
: 16 pole (200 rpm)
: 38,200 Nm
: Water cooled

: 1 piece
: 340 kW
: 8 pole (420 rpm)
: 7,730 Nm
: Water cooled

Location : Pumping station Lijnden
: Lijnden, The Netherlands

Installed : 2006



Subject : 2 pieces
: 250 kW
: 32 pole (184 rpm)
: 12,975 Nm
: Air cooled

Location : Pumping station De Baanbreker
: Well
: The Netherlands

Installed : 2006



PRODUCTS

The existence of DAC Electric is based on designing and engineering special tailored made products. In order to serve our customers in their broad needs of products in drive industry we have extended our product portfolio with drive components from other well known manufacturers.

Therefore we offer a wide range of products which are divided in below five sections:

MOTORS

- Low voltage Squirrel cage motors
- High voltage Squirrel cage motors
- Low voltage Slip ring motors
- High voltage Slip ring motors
- Direct current motors
- Permanent Magnet motors
- Submersible motors
- Synchronous motors
- Low speed direct drive motors

TRANSFORMERS

- Oil filled transformers
- Dry type transformers in VPI execution
- Dry type transformers in cast resin execution

MECHANICS

- Couplings
- Geared motors
- Gear-units

GENERATORS

- Hydro generators
- Low voltage generators
- High voltage generators

ELECTRONICS

- Softstarters
- Variable speed drives
- Electronic components

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