

Medel AC Motor vektör hız kontrol

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Motor Speed Control Systems of MEDEL ELEKTRONİK AC are used for AC motor speed control from 0.25 KW single phase input unit to 300 KW three-phase input unit. Its software is designed by 32 byte microcontroller with the highest performance. Thanks to 3 language options, besides Turkish, it is ensured to be programmed every country easily.

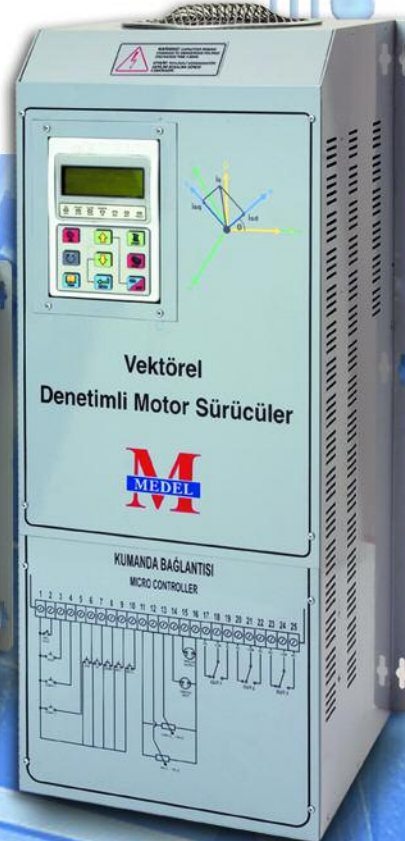
With its power level consisting of IPMs (Intelligent Power Modules), the motor is protected against short circuit, and with PWM Modulation and 2... 20 KHz switching frequency, silent motor operation is achieved.

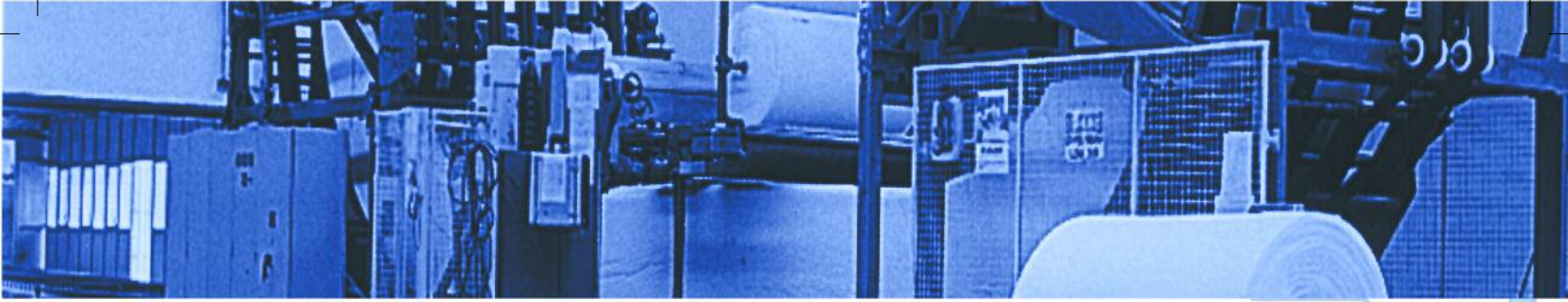
Since external drive DC motors the field flux is orthogonal to the armature flux and both fluxes are independent, when armature current is changed in order to cahange the

torque the field flux remains unaffected. Consequently, a very fast transient response is achieved.

On the other hand, in asynchronous motors rotor currents are generated not directly by an external source but by the interaction between the stator field and the current induced at the rotor conductors. Due to the physical insulation between the stator and the rotor these motors do not meet the necessary conditions for optimum torque generation.

The working principle of the vector controlled asynchronous motors is equivalent to that of external drive DC motors. The components which generate the current and the torque can be controlled independently and a performance similar to DC motors can be achieved.





- Easy installation and programming
- Closed cycle flux control
- Full torque possibility in lower periods
- Holding out to a short while load
- Fast response
- Highly effective in every working point
- Works in four regions

In our new Turkish made vector controlled devices where high performed 16/32-bit microcontrollers are used we offer you for the asynchronous motors

- High start moment
- Air / fluid flow
- Pressure
- Roller/wrap
- Linear move
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for your applications, insulated over

- 0..10 V / 4 ..20 mA
- Torque control
- Speed control possibilities are present
- By way of RS485 / RS232 serial connection computer programmable and to operate are very sensitive
- Computerised programming and operation via RS 485 serial channel
- Control connection and programming menu in compatible with all automation applications
- 2x16 character LCD screen, membrane key set and 3 language options in addition to Turkish for operator
- Displaying set and motor frequency, motor rotation direction, motor current and circuit data on the screen
- Storing the latest operation and menu data in flash eeprom even after a failure of power
- Controlling the motor operation frequency from 5 points

[1] Key set and set value input: 00.00 Hz 204.00 Hz. accuracy up to 1/1000

[2] High resolution analogue input: 0....10 V/4.... 20 mA

[3] Analogue input via external potentiometer: 0....10 V/4.... 20 mA full isolation (16 Byte)

[4] Selection of constant frequency that can be programmed on menu by 3 Digital input

[5] Adjustment of the motor circuit from remote touch-screen by UP/DOWN buttons

■ **Acceleration/deceleration time that can be adjustable by programmable softening:** 00.0 999.9 Sec.

■ **Max. start frequency of inverter :** 00.00.... 204.00 Hz.

■ **Switching frequency :** 2.... 20 KHz

■ **Supply voltage tension intervals :** 154... 364 V, 304.... 456 V

■ **Tolerance of supply voltage tension:** ± 20%

■ **Frequency interval of supply tension:** 47.... 63 Hz

■ **Inverter start tension:** [1] - Single-phase supply: 0..... 220 V

[2] - Three-phase supply : 0..... 380 V

■ **Room Temperature (operation):** 0 - 40°C

■ **Braking :** 30%

■ **Power :** Nominal %150 - Overload: %200

■ **CosØ :** 0,98

■ **Relative humidity :** 5 %95

■ **Cooling :** Dry cold air

■ **Signal output:** [Contact] Run, Alarm

[LCD Screen] – Over voltage, Low voltage, Over Current, motor short circuit and start protection.



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