

FREQUENCY SPEED CONTROLLER

**Frequency speed controller
VFED-...-TA**



Frequency speed controllers are the energy saving devices which ensure maximum utilization of actuator power with minimum energy consumption.

Applications

VFED-...-TA series controllers or inverters are designed for frequency control of three phase asynchronous AC motors. Speed control is effected by means of variation of supplied voltage frequency. Applied for air capacity control of three phase motors.

Design and control

The controller casing is made of flame-retardant thermoplastic. The assembly transforms voltage of 220 V, 50 Hz supply mains into output impulse voltage with the frequency 3 Hz to 400 Hz. Motor rotor is powered with simple sinusoidal current and has the rotation speed as a function of the supplied

voltage frequency. Single phase 220 V, 50 Hz power is supplied to the frequency controller inlet. Three-phase voltage with the frequency up to 400 Hz for asynchronous motor supply is generated at the controller outlet.

Control by means of external device

Power output variation as a function of the external control signal 0...10 V or 4-20 mA over the range set during the controller adjustment. The external device is connected through RS-232 serial port.

Mounting

The controller is designed for indoor mounting. Installation shall be performed with respect to the free air circulation for inner circuit cooling. The controller is for vertical installation. Do not install the controller above the heaters and in bad air convection areas.

Technical data:

	VFED-200-TA	VFED-400-TA	VFED-750-TA	VFED-1100-TA	VFED-1500-TA
Voltage supplied to the controller [V/50 Hz]	1~ 230	1~ 230	1~ 230	1~ 230	1~ 230
Voltage supplied from the controller to the electric motor, [V]	3~ 230	3~ 230	3~ 230	3~ 230	3~ 230
Frequency output supplied to the motor, [Hz]	from 3 to 400	from 3 to 400	from 3 to 400	from 3 to 400	from 3 to 400
Maximum load current [A]	1.0	2.0	3.5	5.5	7.5
Maximum electric motor power [W]	200	400	750	1100	1500
Maximum ambient temperature [°C]	+5...+40	+5...+40	+5...+40	+5...+40	+5...+40
Protection rating	IP 54	IP 54	IP 54	IP 54	IP 54

