

tuncmatik

Industrial Frequency Converter

10-600 kVA (1&3 Ph)

FREQUENCY CONVERTER



GENERAL SPECIFICATIONS

- 6 pulse thyristor controlled rectifier.
- Full sinus output wave-form.
- IGBT/IPM Technology (Inverter circuit).
- Galvanic isolation at the output of the inverter.
- Temperature compensated battery charging.
- Hot standby configuration.
- Advanced 2x16 or 4x20 LCD Panel providing detailed information on Input/Output voltage, battery voltage and charging current.
- Setting user selected parameters.
- Programmable dry contact outputs (NO / NC).
- DSP (Digital Signal Processor) control.
- RS232 and RS485, ModBus Communication and remote monitoring.
- Audible alarm.
- Space Vector Control technology.
- Ability to set up / adjust all operational parameters through front panel and PC communication.
- Input, Output over voltage, over current, short circuit, over temperature protections.
- Ability to control via external digital input or communication.

- Programmable automatic restart.
- Ability to operate non-linear loads.
- 50 Hz, 60Hz, 83 1/3 Hz, 400 Hz output frequency.
- 200 recorded event history.
- Halogen free cable.
- 20 years design life.

OPTIONS

- Ability to cold start and battery operation
- Battery Temp. Compensation / Temperature Measurement for included battery models
- Power Analyzer (Input or Output) Single (VA, W, PF, V, A etc.)
- Analog Gauges V & A meter
- TFT Touch Panel Display
- Mimic Panel
- Parallel operation
- IGBT Rectifier
- 12 Pulse Rectifier & Filter (%8 THDi)
- Dust filter
- Internal Cabinet Lighting (LED 24V 20W)
- Internal Cabinet Heater (250W)
- Fan failure Monitoring
- AC Earth Fault
- Synchronization Protection
- Surge Suppression Device (SPD)(Fusible)
- Input Three Phase Snubber Board
- Lifting Lugs
- Coating on Boards
- Input isolation transformer
- Up to IP54
- Overseas Packing
- Alarm and Comm. Interface (MODBUS RS232 +4 Relay)
- Alarm and Comm. Interface (MODBUS RS485 +4 Relay)
- Alarm and Comm. Interface (MODBUS TCP IP+4 Relay)
- Alarm and Comm. Interface (Extra+4 Relay) (Max 12)
- Input/Output voltage, Current transducers (4-20mA and 0-10V simultaneously).
- GSM Communication
- SNMP Card

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MODEL	Frequency Converter	
Capacity (VA/W)	10-600 kVA	
INPUT		
Voltage	1 Phase	220VAC±15% Standard (110VAC to 260VAC ±15% available)
	3 Phase	3x380VAC±15% Standard (190(110)VAC to 460(265)VAC ±15% available)
Frequency	50Hz / 60Hz ±10%	
Input Power Factor	0,8 (0,9 at optional filter or 12 pulse rectifier)	
Rectifier Topology	6 pulse full bridge rectifier or IGBT	
Inrush Current	10 x Inom	
OUTPUT		
Voltage	1 Phase	220VAC±15% Standard (110VAC to 260VAC ±15% available)
	3 Phase	3x380VAC±15% Standard (190(110)VAC to 460(265)VAC ±15% available)
Frequency	50Hz, 60Hz, 83 1/3Hz, 400Hz ±1%	
Voltage Regulation	<1% max.	
Voltage Stability	Balanced load: ±1%; Unbalanced load: ±3%; Step load: ±5%	
THDv	<3% (linear load), <7% (non-linear load)	
Correction time	After step load: Max. 25ms, unbalanced load: Max. 50ms	
Overload Protection	100-125% load 10min; 125-150% load 1min; >150% load bypass	
Efficiency	>88-93%	
Power Factor	0.8	
Crest Factor	3:1	
Isolation Values	1500,2000 or 3000VAC input & output/ Chasis	
SYSTEM FEATURES		
Measurements	Input/Output Frequency, Input/Output Voltage, Input/Output Current, DC Bus Voltage, DC Bus Current	
Alarms	Output Low/High, Output Too Low/Low/High, Overload, Overcurrent, Over Voltage, Over Temperature, Short Circuit, IGBT Overcurrent, Memory, DSP Error	
Software	Management software	
Communication	RS232, Dry Contact x4 (OPT: x16)	
LED Indicators	Operation of Alarms	
Front Panel	LED/LCD Panel	
Parallel Operation	2 Units	
Cooling System	Fan forced (Dual redundant), (OPT: Natural Cooling)	
Cable Entry	Bottom (OPT: Top, Rear, Side)	
Cabinet Color	RAL7032,7035 (OPT: Others)	
Protection Class	IP20	
ENVIRONMENTAL		
Operation Temperature	-10 °C - 50 °C	
Storage Temperature	-20 °C - 70 °C	
Relative Humidity	0 - 95% (Non-condensing)	
Altitude	1000m from MSL (1% derate each 100m after 1000m)	
Noise Level	<55dB (1 Ph), <65dB (3 Ph)	
Isolation Resistance	200MΩ	