ABLE Series Static Frequency Converters
50 to 60Hz and 60 to 50Hz

- Continuous duty, single & 3-phase static converters.
- Ultra compact.
- Very low acoustic noise output.
- Galvanically isolated, sinusoidal, output.
- Continuous duty rating.
- Comprehensive digital display.
- Extremely dependable with long design life.
- 10 models.

Rulix ABLE series frequency converters are ultra compact, near silent in operation and very low maintenance. They have a large easy-to-read digital display panel which displays all output parameters including voltage, current, frequency and power.

Rulix's latest converter topology provides a robust, high quality 50 or 60Hz output, able to handle even the most non-linear, un-balanced and complex types of load. It is capable of working in continuous duty with a long service life and at very high efficiency levels. The new design benefits from extremely low levels of both acoustic and electrical noise.

The ABLE series includes models ranging from 2KVA to 60KVA with either single or 3-phase outputs. Units up to 4KVA have single phase inputs.

Suitable for use in production testing, plant rooms, development and a myriad of other applications, Rulix ABLE series 50/60Hz converters have become an industry standard.

 Optionally, models from 20 to 60KVA may be supplied in heavy duty IP54, all-weather cabinets for occasional or permanent external use. Thus valuable internal space may be saved.

Applications:
- Industrial equipment development and R&D.
- Production line and proving for export equipment.
- Operation of imported equipment.
- Naval and marine systems.
- Test House.
- Special Applications.
- Military variants.

The comprehensive digital display shows output voltage, current, frequency, power and power factor.
Technical Specification:

Input:
- Voltage: 230V/1ph or 400V/3ph +/-10%
- Frequency: 50Hz or 60Hz +/- 6%
- Power factor: >0.98 @ full load
- Susceptibility: EN 61000-4-4, 5

Output:
- Voltage: 230V/1ph or 115V/1ph or 115/200V or 254/440V, 3ph
- Voltage regulation steady-state: +/- 2%
- Voltage regulation dynamic: +/- 5% @ 0-100% step-load.
- Frequency: 50 or 60Hz +/- 0.1% under all conditions.
- THDv: Better than 3% @ linear load
- Overall quality: Better than MIL-STD704E, DFS400
- Waveform: Pure sinusoid
- Phase angle accuracy: Better than 1%
- Overload capability: 110% @ 30 mins, 200% @ 5 secs, 300% @ 1 sec
- Permissible load power factor: 0.6 leading to 0.6 lagging
- Permissible phase un-balance: 70%

Protection:
- input supply: MCB, phase loss detection, over & under voltage.
- Output: Over-current, over-temperature, phase loss detection, over & under voltage, short-circuit (any phase).

Display panel:
- Parameters displayed: Output voltage (ph-ph + ph-N), output current, power, frequency, power factor.
- Accuracy: Better than class 0.25 IEC 60688
- LEDs: Input present, Converter healthy, Over-temperature, Overload, General fault.

Environment:
- Ambient temperature range: -10 to 50 deg C
- Electrical noise: EN 55022, IEC1000-4
- Cabinet protection: IP31
- Acoustic noise: <50dB(A) @ 1m
- Construction: Mild steel, zinc plated, painted RAL7032 grey & white
- Castors or feet: 4KVA has rubber feet and lifting handles, others have 80mm castors with front brakes. A/Vs or feet optional.
- Cooling: Variable speed turbine, air intake in base, exhaust at rear.
- CE: CE marked

Connectors:
- Hard-wire terminals, EN60309, MIL-STD, or Client choice.

Remote Facilities:
- Remote control option: Remote control panel, electrically isolated from the converter, self-powered, On/Off + 5 status indications. Operational up to 200m from the converter.
- Remote monitoring: RS485 2-wire/0V, ½ duplex ¼ unit load, MODBUS RTU 16-bit. CRC 4800 or 9600 baud.
- Volt-free contacts (C/O): Input supply present, output on/off, over-temperature, overload, fault. Contacts isolated from converter.
- Connector type remote: 25-way ‘D’ socket.

Options:
- Variable output voltage: Via front panel knob, nominal voltage +/- 15%
- Variable output frequency: Via front panel knob, 60Hz +/- 10%
- Special input voltages: 220V & 480V (3ph)
- Special output voltages: 67/115V or 265/460V or 277/480V
- Military EMC standard: MIL-STD 461

Standards:
- EN61000-6-4, EN62040-1-1, MIL-STD704, CE

Rulix Aerospace is a specialist UK manufacturer of electronic power converter equipment. Established almost 30 years ago, the company manufactures a wide range of solid-state and rotary power units for industry, military & civil aircraft and naval use.