

ABLE-40 Series Static Frequency Converters With Variable Frequency And Voltage Options.



- 1-phase input, 3-phase output, 400Hz converters for internal use.
- Ultra compact, desktop unit.
- Very low acoustic noise output.
- Galvanically isolated, sinusoidal, 3-phase output with neutral.
- Variable output frequency and voltage options.
- Comprehensive digital display.
- Remote status monitoring options.
- Extremely dependable with long design life.
- Optional 28VDC secondary output.

Rulix's ABLE-40 series provide the convenience of a 3-phase output from a 1-phase input. Therefore they make possible a full 3-phase aircraft equivalent supply from a simple domestic socket. Ultra compact and near silent in operation, they have a large easy-to-read digital display panel which displays output parameters including voltage, current, power, frequency, power factor & hours run.

Rulix's latest converter topology provides a robust, high quality 400Hz 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. All Rulix converters are galvanically isolated from the input supply via an internal isolation transformer.

ABLE-40 models may be ordered with either fixed output voltage & frequency or with variable output voltage & frequency. This option allows the User to replicate the real 'in the air' aircraft supply quality when testing equipment. Output voltage and frequency are both continuously variable either side of nominal, via two front panel knobs.



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

A secondary output of 28VDC/15 amps may be ordered as an option on all ABLE-40 models. They may also be fitted with an RS485 data bus, permitting all the performance parameters of the converter to be observed remotely. Both models are fitted with heavy duty lift handles.

ABLE-40 converters require minimal maintenance, and as with all Rulix converters they offer the lowest cost of ownership in the sector.

Applications:

- Avionics/aircraft equipment development and R&D.
- Production line and proving.
- Hangar maintenance room.
- Test House.
- Submersibles.
- Special Applications.

Technical Specification - ABLE402 & ABLE404:

400Hz

Input:

Voltage:..... 208V or 230V +/-10%, 1ph
Frequency:..... 50Hz or 60Hz +/- 6%
Power factor:..... >0.98 @ full load
Susceptibility:..... EN 61000-4-4, 5

Output:

Voltage:..... 115/200V or 120/208V, 3ph
Voltage regulation steady-state:..... +/- 2%
Voltage regulation dynamic:..... +/- 5% @ 0-100% step-load.
Frequency:..... 400Hz +/- 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%
Secondary 28VDC output 15 amps continuous (optional).

Protection:

Input supply:..... Input fuse.
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, hours run.
Accuracy:..... Better than class 0.25 IEC 60688
LEDs:..... Input present, Converter healthy, Over-temperature, Overload, General fault.

Environment:

Ambient temperature range:..... -10 to 40 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
Feet:..... Fixed hard rubber feet and lifting handles.
Cooling:..... Variable speed turbine, air intake in base, exhaust at rear.
CE:..... CE marked

Connectors:

Standard connectors:..... 2m input lead with country appropriate plug. Output via terminal box or green EN60309/2.

Remote Facilities (optional):

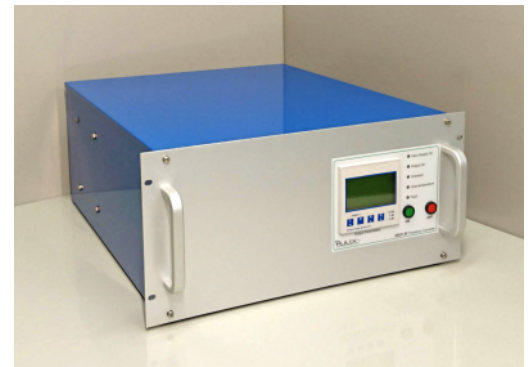
Remote monitoring:..... RS485 2-wire/0V, ½ duplex ¼ unit load, MODBUS RTU 16-bit CRC 4800 or 9600 baud.
Volt-free contacts (C/O):..... Input present, output on/off, over-temperature, overload, fault. Contacts isolated from converter.
Connector type remote:..... 25-way 'D' socket.

Options:

Variable output voltage:..... Via front panel knob, nominal voltage +/- 15%
Variable output frequency:..... Via front panel knob, 400Hz +/- 10%
Special input voltages:..... 208VAC "2 phase" to order
Special output voltages:..... 67/115V, 3ph, 400Hz.

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

Rulix Aerospace (formally Failsafe Power) is a specialist manufacturer of frequency converters and aircraft GPUs. Established more than 30 years ago, the company manufactures a wide range of solid-state converters for aerospace, naval, industrial and military applications.



Also available as a 19" rack mount version, type ABLE-30.

ABLE 402 (2.5KVA)	ABLE 404 (4KVA)
H38 x W30 x L51cm 32Kg	H28 x W30 x L51cm 37Kg