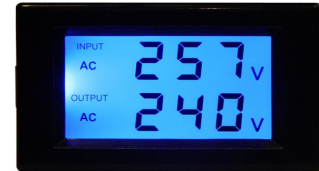# AC Voltage Stabiliser

QuadCore 1 for Single Phase

QuadCore is a new kind of a digital AC voltage stabiliser.
Maintenance-free regulation without moving parts. No tapped
transformers with course regulation, no service-prone servos,
no high price high frequency IGBTs with shielding and filters.

When single phase voltages are too low or too high, QuadCore 1
will reliably stabilise the output voltage to precisely 230V (optional 240V).

QuadCore is compatible with all loads: Motors, heaters, inverters, all machines.

Four binary weighted transformers and reliable thyristors stabilise over- and under-voltages.
No switching occurs in the power path, no switching in the sine wave, no switching at all.
Just smooth and stress-free component-selecting at zero-crossing moments in the sine wave.

Several times per second QuadCore computes which of the four transformers with correction
voltages in the ratio 8:4:2:1 are to be combined to compensate for an input voltage error.

Input and output voltages are constantly monitored, compared, evaluated and displayed.
No harmonics, no high frequency, no electromagnetic radio emissions is produced.

QuadCore 110 is for 10kW, QuadCore 115 for 15kW.
Duty cycle is 100%. Full power continuously.
Full power is continuously available. Efficiency is 98%.
Overload: 150% for 20 seconds, 300% for 5 seconds.

The output voltage is 230V - +1.5% phase to Neutral
when the input voltages varies between 188V and 272V.

Outside these limits, the correction quality is reduced.
Minimum and maximum input is between 150V and 300V phase to Neutral.

The efficiency is 98%. Operating ambient temperatures are -15 to 45 degree C.
Reduce the throughput current by 5% for each additional degree C from 45 degree C on.

A QuadCore is to be used in a dry and ventilated room.
Motor-rated input overload protection is to be used in the user's installation (d-curved).

Dimensions are W410 x L790 x H 370 mm. Powder coating is satin black.
Weight QuadCore 110 is 55kg, QuadCore 115 is 75kg.