

Technical Data Sheet

wave

Voltage Stabilizer 110-285V with integrated temperature control

The wave is an efficient small size voltage stabilizer system designed for OEM installation. It has been designed for applications such as

- Chest Freezers
- Chest Coolers
- Small display coolers



Its advanced design and control features are managed by the advanced microcontroller technology and patented algorithms.

Features

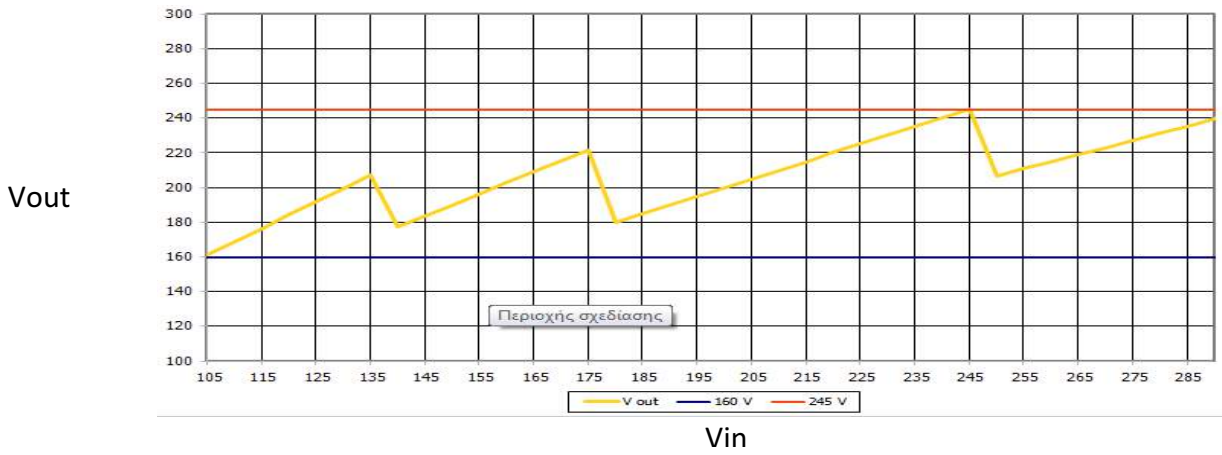
- **Wave** is a Voltage and Frequency Supervisor
- **Wave** constantly monitors the supply to the connected appliance and decides when it must boost or reduce the voltage output to keep it running within its voltage tolerances
- If voltage goes out of range **wave** will automatically disconnect the device
- High accuracy temperature measurement with close differentials for improved control
- Condenser area monitoring for thermal event prevention
- Smart 3 Minute delay to protect from unstable supply
- **Wave** is an advanced electronic thermostat
- Surge protection to protect against voltage spikes

Technical Data

Product	Measure	wave 045	wave 070	wave 090
Temperature Sensors	Type	NTC		
Temperature Accuracy	NTC sensor	$\pm 0.5 \text{ }^{\circ}\text{C}$ (Operating Temp. Range: -30°C to $+80^{\circ}\text{C}$)		
	PPS WAVE-c	$\pm 0.5 \text{ }^{\circ}\text{C}$		
No of Sensors Inputs		1		
Power Supply	Operational Bandwidth	90 - 310 VAC		
Input	Max Low Voltage	110V $\pm 3\%$ with hysteresis		
	Min High Voltage	285V $\pm 3\%$ with hysteresis		
Output for LBP apps	LBP Application	160 – 245 VAC $\pm 3\%$		
LBP Compressor start-up	Minimum Voltage	187 VAC $\pm 2\%$		
Output Current	Maximum	2.0A	3.0A	4.0A
	Continuous Operation	1.5A	2.2A	3.0A

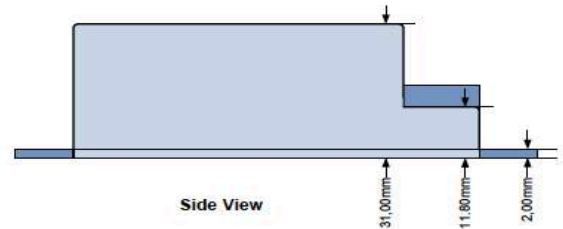
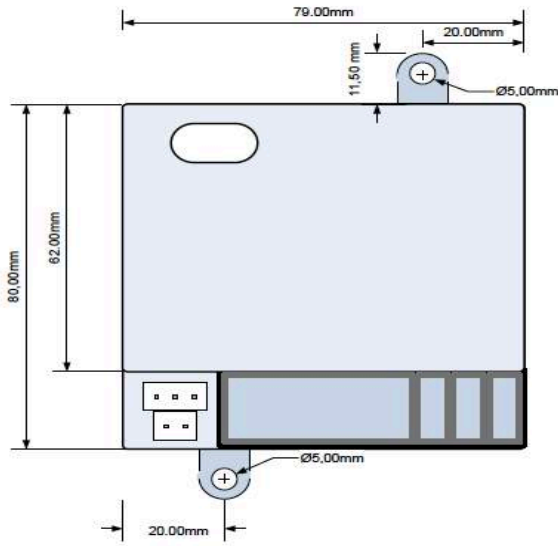
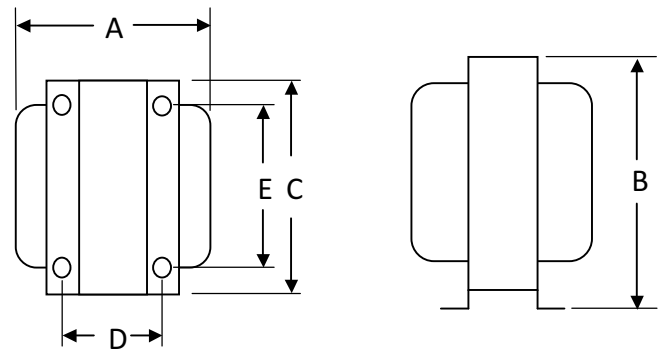
Frequency Supervisor	Lower Limit (50/60 Hz)	47 Hz/ 57 Hz ($\pm 0.2\text{Hz}$)
	Upper Limit (50/60 Hz)	53 Hz/ 63 Hz ($\pm 0.2\text{Hz}$)
Thermal protection	DT increase cut-out	15°C per 15 minutes
Environmental	Ambient Temperature	-40 to 65 °C
	Humidity	85 %RH
Life time	Relay lifetime Cycles	100,000
Plastic Housing		UL94 V-0 Flame Retardant
Insulation class	Transformer Windings	F (155 °C)
Start Up Time	Time Delay	3 minutes (2'30'' ± 0 to 30'' random) zero on Production Line

Input Vs Output Graph 110V-285V (No Load)



Dimensions and Weights

	045	070	090
A	110	120	120
B	75	75	85
C	84	85	96
D	55	67	67
E	73	74	87
Weight (KG)	1.9	2.5	3.1



Top View

Side View

Front View

Approvals	
CE	<p>LVD European Directive 2014/35/EU</p> <ul style="list-style-type: none"> EN 61558-1:2005 +A1:2009 EN 61558-2-13:2009 EN 60730-1:2016 EN 60730-2-9:2010 <p>Type of automatic action of Control: type 2 action</p>
	<p>EMC European Directive 2014/30/EU</p> <ul style="list-style-type: none"> EN 61000-6-1:2007 EN 61000-6-3:2007+A1:2011 EN 60730-1:2016 EN 60730-2-9:2010 EN 62041:2010 <p>EMC testing under nominal values of current and voltage</p>