Technical Data Sheet

MFSi Advanced Voltage Stabilizer 145-285V

The MFS is an advanced voltage stabilizer system designed for OEM installation.
It has been designed for applications such as

- Glass Door Coolers
- Subzero Beer coolers
- Freezers
- Double Door Coolers
- Cake Coolers
- Vending Machines
- Post Mix Applications
- HVAC Applications

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

Features

- MFS is a Voltage and Frequency Supervisor
- MFS boosts the low voltage of the mains supply to maintain equipment operative
- MFS reduces the high voltage of the mains supply
- If voltage goes out of range the MFS will automatically disconnect the device
- Soft start to reduce electrical and mechanical strain
- Smart 3 Minute - When voltage is within range the MFS will wait for prior to reconnecting device to protect the asset
- Zero crossing to reduce current on switching
- Zero Current Changeover
- Monitoring of Condenser area temperature for thermal events

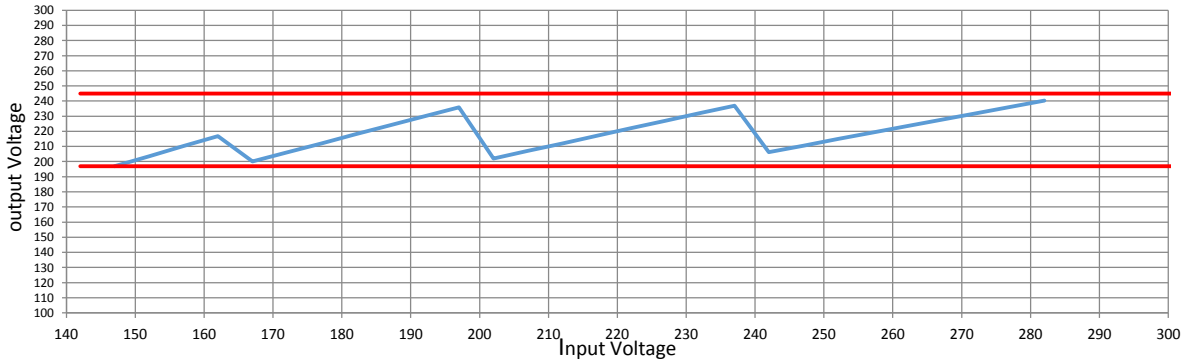
Approvals

CE, EN60730-1:2001, ROHS Compliant

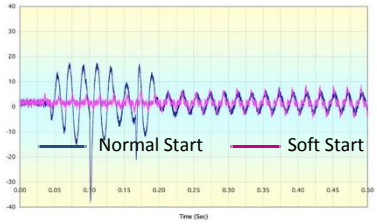
Technical Data

Product		MFSi 45	MFSi 70	MFSi 90	MFSi 120	MFSi 170	MFSi 220	MFSi 270
Power Supply	Nominal Voltage	220 - 240 VAC 50 Hz						
	Operational Bandwidth	110 - 310 VAC						
Input	Low Voltage	145 VAC ± 3% with hysteresis						
	High Voltage	285 VAC ± 2%						
Output	Voltage Range	196 ~ 245 VAC ±2%						
Output Current	Maximum (Amp)	2	3	4	6	8	10	12
	Continuous Operation Current (Amp) @ Low limit	1.5	2.2	3	4.5	6	7.5	9
Frequency Supervisor	Lower Limit (50/60 Hz)	47 Hz/ 57 Hz (±0.2Hz)						
	Upper Limit (50/60 Hz)	53 Hz/ 63 Hz (±0.2Hz)						
Thermal protection	DT increase cutout	15°C per 15 minutes						
Environment	Ambient Temperature	-40 to 85 °C						
	Humidity	85 %RH						
Life time	Relay lifetime Cycles	350,000						
Connections		6.3mm x 0.8mm flat, terminal						
Cable Harness	Lengths	Available at 300,600,1000,1250 mm versions						
IP Class		IP44						
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						
Total Weight	Kgs	1.94	2.16	2.8	3.37	4.38	5.82	6.22

Input/vs Output Graph 145V-285V

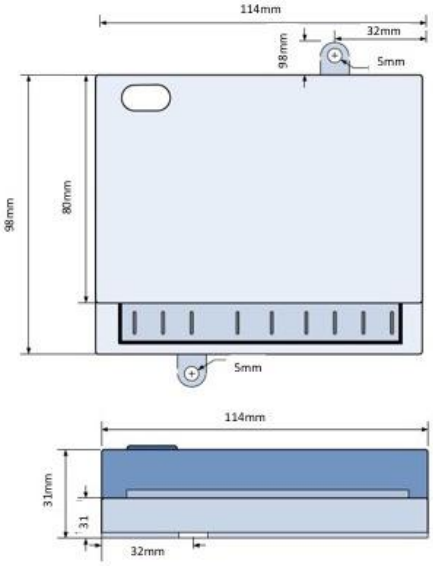


Soft Start



Reduces the load and Torque and electric current surge during startup. This reduces the mechanical stress on the motors and their components as well as electrical stresses on winding and cables, thus extending the lifespan of the system.

Dimensions and Weights



Transformer Dimensions (mm)							
	MFSi 45	MFSi 70	MFSi 90	MFSi 120	MFSi 170	MFSi 220	MFSi 270
A	105	110	110	120	122	135	140
B	75	75	86	86	94	105	105
C	84	84	96	96	108	120	120
D	50	55	55	65	68	72	77
E	73	73	82	82	93	104	104
Weight (KG)	1.8	2.02	2.66	3.23	4.19	5.63	6.03