MFS - XXX i series is a “power protector stabilizer” which has been - OEM - designed for protection of appliance such as refrigerators, A/C, etc from the fluctuation of voltage and frequency of the main power supply. It’s also provides a soft start operation of the connected appliance to minimize the start up current.

Technology
- Microprocessor Controlled
- Watchdog
- SMT
- LEAD FREE Reflow Solder
- FR-4 dual-layer PCB
- ROHS Compliant
- IEC & CE Compliant

Operations
- Boosts the low voltage of main supply
- Reduce the high voltage of main supply
- Automatically reconnects the main supply to the appliance when it reestablishes after delay of 3 min
- Soft start with zero crossing control
- Easy connected to the appliance

Protections
- Supervises the voltage and frequency of the main power supply and turns off the appliance when they are out of limits
- Unaffected operation by instant lack of main power supply
- Has response hysteresis 4V of fluctuation of main power supply
- EMC
- IP 44
- Spikes and Surge protection

Manufacture
- Waterproof PCB, transparent enamel coating in addition to its rigid PA6 (V0) housing plus the metallic covers of the transformer offers to the Ti exceptional protection against sand, humidity and mechanical stress
- Operates in harsh temperature environmental conditions
- Optical indication of operations
- No exposed parts under voltage

Reduces the high voltage of main supply
Boosts the low voltage of main supply
Reduces the high voltage of main supply
Boosts the low voltage of main supply
<table>
<thead>
<tr>
<th>MODEL OF MFS i Series</th>
<th>045</th>
<th>070</th>
<th>090</th>
<th>120</th>
<th>170</th>
<th>220</th>
<th>270</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Voltage</td>
<td>220~240 VAC 50 Hz</td>
<td></td>
<td></td>
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<tr>
<td>Operation Voltage Bandwidth</td>
<td>110~310 VAC</td>
<td></td>
<td></td>
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<tr>
<td>Max. Output Current (Amp)</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
<td>6.0</td>
<td>8.0</td>
<td>10.0</td>
<td>12.0</td>
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<tr>
<td>Con. Output Current (Amp) @ Low limit</td>
<td>1.5</td>
<td>2.2</td>
<td>3.0</td>
<td>4.5</td>
<td>6.0</td>
<td>7.5</td>
<td>9.0</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>196~245 VAC ±2%</td>
<td></td>
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<tr>
<td>Delay Time</td>
<td>3 minutes (2’30’’ +0 to 30’’ random) zero on Production Line</td>
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<tr>
<td>Lower Limit</td>
<td>145 VAC ± 2% with hysteresis</td>
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<tr>
<td>Upper Limit</td>
<td>285 VAC ± 2%</td>
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<tr>
<td>Lower Freq. Limit (50/60 Hz)</td>
<td>≈ 47 Hz/≈ 57 Hz</td>
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<tr>
<td>Upper Freq. Limit (50/60 Hz)</td>
<td>≈ 53 Hz/≈ 63 Hz</td>
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</tr>
<tr>
<td>Operating Ambient Conditions</td>
<td>-40 ~ 85 C &amp; 0 ~ 85 %RH</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Total set weight (Kg)</td>
<td>1.94</td>
<td>2.16</td>
<td>2.80</td>
<td>3.37</td>
<td>4.38</td>
<td>5.82</td>
<td>6.22</td>
</tr>
</tbody>
</table>

**Notes:** The above specification can be OEM specified. Specifications are subject to change without prior notice. Last update 01/2015

Weights and Dimensions of transformers are indicated:
- The PCB MFS-i is for transformers MFS-045 to MFS-120 &
- The PCB MFS-2i is for transformers MFS-170 to MFS-270