



SOLLATEK FSPx RANGE

COMPLETE VOLTAGE STABILISATION AND PROTECTION FOR ALL REFRIGERATION AND OEM APPLICATIONS

Description

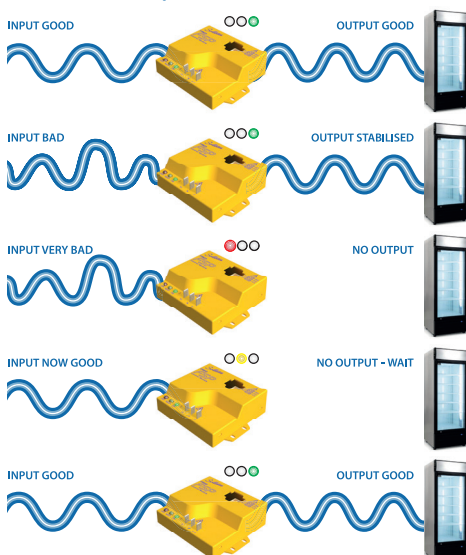
Regulated and stable voltage supply is vital to maximise equipment efficiency and reduce damage and downtime. The FSPx range is an intelligent stabiliser and protector ideal for environments where mains supply is unreliable and fluctuating.

The FSPx range ensures supply is corrected within good working voltage limits and in the event the voltage is too extreme, it will disconnect the power and provide an intelligent start-up delay.

There are 2 models within the range, FSPE and FSP, depending on the required correction range and required nominal voltage, 230 V or 115 V. Sollatek can fully customise transformers to meet your current rating requirement.

The FSPx range are made from two discrete components: the electronic control module and the power transformer. The transformer plugs into the module very simply with a quick connect plug avoiding errors and speeding up production and service.

Operating Principle



Features

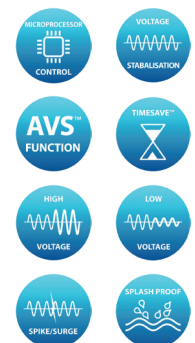
- Two models providing different input voltage ranges: FSPE & FSP
- 230 V or 115 V nominal voltage versions available
- Complete voltage protection (high, low, spike or surge protection)
- Frequency compensated and noise-free measurements
- Unique zero voltage switching to achieve clean pure stabilised power
- High and low voltage protection - disconnects the compressor when mains voltage is outside operating range
- Reconnects the compressor once the voltage has remained within acceptable limits for 3 minutes
- TIME SAVE™ intelligent delay to reduce off-time when the appliance has been without power for more than 3 minutes
- Intelligent delay disabled for the first 30 minutes of continuous operation for ease of testing
- Controller encapsulated for water resistance and protection against environmental conditions in rugged applications
- Transformer shrouded for mechanical and splash proof protection

Model Capability Comparison

| | FSPE | FSP |
|-------------------|------|-----|
| LVD | ✓ | ✓ |
| Extra Large Boost | ✓ | ✗ |
| Large Boost | ✓ | ✓ |
| Small Boost | ✓ | ✓ |
| 1:1 | ✓ | ✓ |
| Buck | ✓ | ✓ |
| HVD | ✓ | ✓ |

LVD: Low Voltage Disconnect
 HVD: High Voltage Disconnect

Features



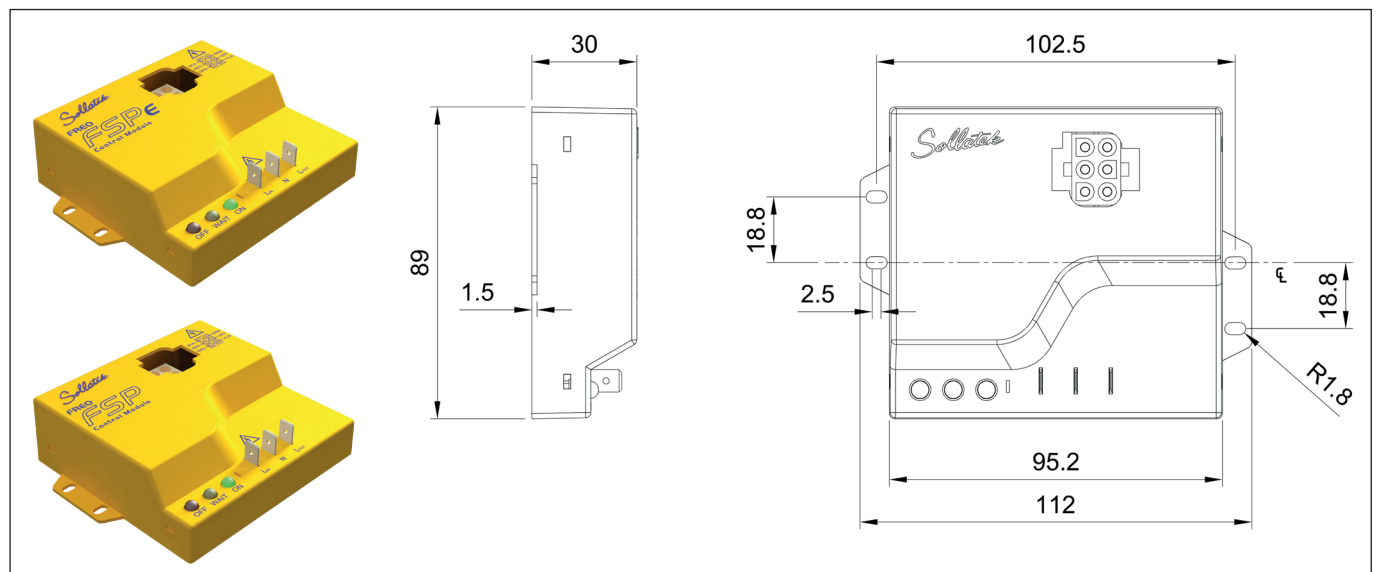
Technical Specification

| Power Supply | | |
|-------------------------|--|--|
| Nominal Voltage | 230 V or 115 V | |
| Input Voltage Range | Depending on model. See Input / Voltage table | |
| Regulated Voltage Range | Depending on model. See Input / Voltage table | |
| Maximum Output Current | Depending on model. See Transformer table | |
| Working Frequency | 50/60 Hz | |
| Spike Protection | 143 J, 6500 A (8/20 s) | |
| | Response Time: | <10 ns |
| General | | |
| LED Indication | Red: | Bad Voltage (high / low Voltage) |
| | Yellow: | Wait Mode |
| | Green: | ON |
| Wait Time* | 3 min | |
| Standard Delay | 10 to 30 s | |
| Blind Time | Undervoltage: | 2 s |
| | Overvoltage: | 0.5 s |
| .Technology | Zero Voltage Switching | |
| | Response Time: | <0.1 s |
| Performance | Thermal Endurance: | Continuously rated @ full load @ full boost |
| | Overvoltage Endurance: | Continuous running @ max permissible input voltage |
| Connectors | | |
| Power (Lin, N & Lout) | 3 x 0.25" (6.35 mm) Faston Tabs | |
| Transformer | 6-way connector plug | |
| Mechanical | | |
| Mounting | Controller: | 4x self-tapping screw |
| | Transformer: | 4x self-tapping screws |
| Controller Dimensions | 112 x 89 x 30 mm | |
| Controller Weight | | |
| Transformer Dimensions | See Transformer Dimension Table | |
| Environmental | | |
| Moisture Resistance | Encapsulated circuit board | |
| Operating Temperature | -10°C to +55°C | |
| Certification | | |
| Safety | CE, HC Compatible | |
| Flammability | UL94 V-0 @ 1.5 mm GWFI: 960 °C ; GWIT: 850 °C | |

* To allow for ease of testing, units are shipped with wait time disabled until 30 minutes of continuous operation has elapsed.

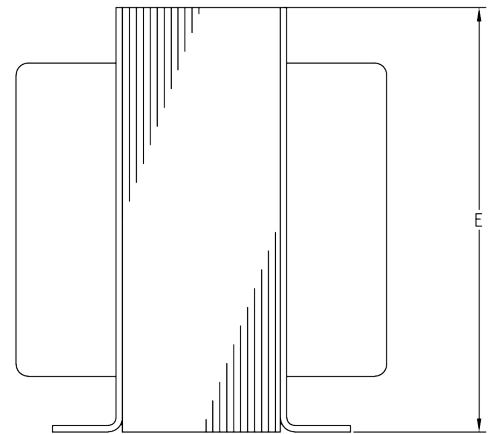
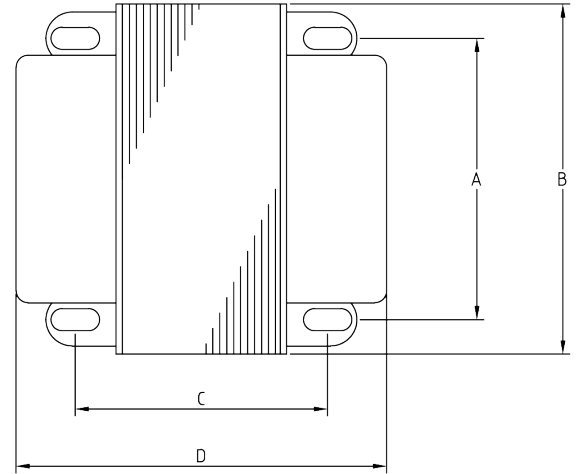
Electronic Controller Modules & Dimensions

The same controller enclosure is used for both models. Models can be identified by the printing of the model number on the top of the enclosure.



Input and Output Voltage Response

| Input Voltage | Output Voltage | | | |
|---------------|----------------|-------|-------|-----|
| | FSP ϵ | FSP | | |
| | 230 V | 115 V | 230 V | |
| 70 | OFF | OFF | OFF | |
| 73 | | 91 | | |
| 80 | | 100 | | |
| 85 | | 107 | | |
| 90 | | 113 | | |
| 95 | | 108 | | |
| 100 | | 114 | | |
| 110 | | 110 | | |
| 120 | | 120 | | |
| 130 | | 116 | | |
| 140 | 125 | | | |
| 145 | 130 | | | |
| 148 | 230 | OFF | OFF | |
| 150 | 233 | | | |
| 155 | 211 | | | |
| 160 | 218 | | | |
| 170 | 232 | | | |
| 171 | 233 | | | |
| 180 | 209 | | | |
| 182 | 212 | | | |
| 190 | 221 | | | |
| 200 | 233 | | | |
| 210 | 210 | OFF | OFF | |
| 220 | 220 | | | |
| 230 | 230 | | | |
| 240 | 205 | | | |
| 250 | 214 | | | |
| 260 | 222 | | | |
| 270 | 231 | | | |
| 280 | 239 | | | |
| 290 | OFF | | | 258 |
| 295 | | | | OFF |
| 300 | | OFF | | |



Transformer Dimensions

| Part number | Long-term current (A) | Short-term Current (A) | Nominal Voltage (VAC) | Transformer Size (mm) | | | | | |
|----------------|-----------------------|------------------------|-----------------------|-----------------------|----|-----|-----|-----|-----|
| | | | | A | B | C | D | E | |
| FSP ϵ | FSPE2A | 2.25 | 3.00 | 230 | 63 | 80 | 67 | 104 | 98 |
| | FSPE03 | 3.00 | 4.00 | 230 | 63 | 80 | 80 | 117 | 98 |
| | FSPE4B | 4.50 | 6.00 | 230 | 79 | 95 | 101 | 136 | 115 |
| FSP | FSP04-1 | 4.00 | 5.33 | 115 | 48 | 63 | 52 | 89 | 78 |
| | FSP06-1 | 6.00 | 8.00 | 115 | 63 | 80 | 52 | 89 | 98 |
| | FSP08-1 | 8.00 | 10.67 | 115 | 63 | 80 | 57 | 94 | 98 |
| | FSP02-2 | 2.00 | 2.67 | 230 | 48 | 63 | 57 | 95 | 78 |
| | FSP04-2 | 4.00 | 5.33 | 230 | 63 | 80 | 62 | 99 | 98 |
| | FSP06-2 | 6.00 | 8.00 | 230 | 63 | 80 | 77 | 114 | 98 |
| | FSP08-2 | 8.00 | 10.67 | 230 | 79 | 100 | 88 | 116 | 120 |

Note: Other sizes can be manufactured subject to requirement. MOQ may apply.

All dimensions ± 2 mm

Part Number Key

| | | |
|-------------------|----------------|--|
| FSPx | YY | -Z |
| Controller Model | Current (Amps) | Nominal Voltage |
| FSPE1 (up to 3 A) | 01 = 1A | 1 = 115 V |
| FSPE2 (up to 6 A) | 1A = 1.25 A | 2 = 230 V |
| FSP (up to 8 A) | 1B = 1.5 A | |
| | 1C = 1.75 A | * If voltage is omitted, then 230 V is assumed |

