

## Energy Optimising Soft Starters, 9 – 1800 Amp

The QFE Soft Starter is Fairford's ultimate range of Energy Optimising Soft Starters. Its rugged construction, innovative engineering and outstanding overload protection is particularly suitable when starting motors under heavy load. It has been specifically designed to start a variety of applications with differing load types, making it an extremely robust unit.



### Main Features

#### Automatic Application Set Up.

- ✓ Choose your application from the menu "Fan, Pump, Conveyor, crusher ..." and the automatic features select the correct ramp profiles, saving setup costs.

#### Patented 'Fairford System' of Energy Optimising.

- ✓ In certain load conditions Fairford System of Optimising can reduce energy costs by reducing power required by the application, without loss of performance.

#### 6 Button Keypad, 2 Line 32 Character Display.

- ✓ Saves time programming and fault finding because the messages are displayed in English rather than in code format.

#### Protection

- ✓ IP20: QFE 9 to QFE 370. IP00: QFE-O 500 to QFE-O 1800.

#### Fully Programmable.

- ✓ Inputs: 12V DC – 230V AC, Outputs: AC1 230V 3A

#### Continuous display.

- ✓ Of motor phase current and control status: Starting, Stopping, Full Volts, Optimising, Current Limitations, Overload and fault indication.

#### Unit Records History of Last 5 Trips.

- ✓ Allows the user to quickly determine which fault the Soft Starter has identified.

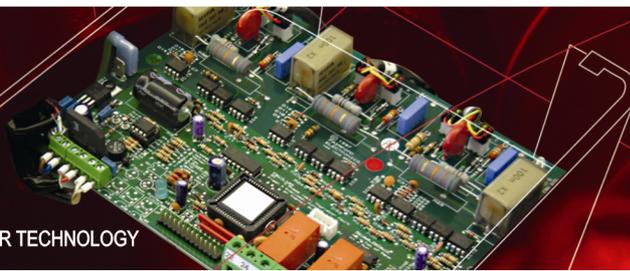
#### Optional Loads; Static Loads, Resistive (Heaters), Inductive (Transformers).

- ✓ Allows the unit to be used on a variety of differing applications so one unit is highly versatile and therefore saving money.

#### Modbus or Remote Keypod Option.

- ✓ Eliminating many control items, can be used on a one to one basis or one keypod can control up to 10 Soft Starters.

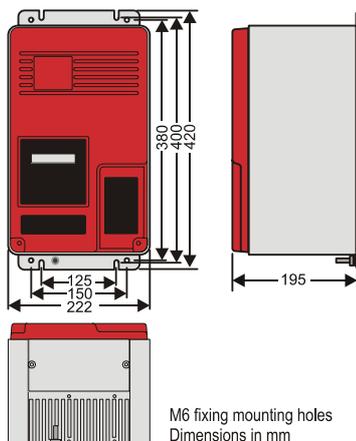
- ✓ **In Delta Capability.** Could reduce the size of the unit needed for the application.



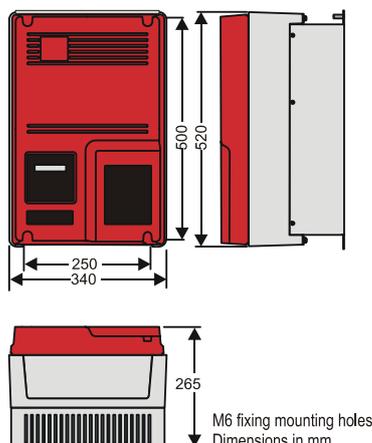
<b>Operational Voltage (Ue)</b>	230-460VAC rms, 400-575VAC rms or 500-690VAC rms 3-Phase (-15% +10%)		
<b>Rated Frequency</b>	50 - 60Hz +/- 2Hz		
<b>Index Ratings</b>	QFE 9 to QFE 105:	AC53a:	5 - 4: 99-10 3-35: 99-10
	QFE 146 to QFE 202:	AC53a:	4 - 6: 99-10 3-35: 99-10
	QFE 242 to QFE 900:	AC53a:	4 - 6: 60-3 3-35: 60-3
<b>Start Time</b>	1 to 255 Seconds		
<b>Stop Time</b>	0 to 255 Seconds		
<b>Control Supply Us</b>	X1, X2 115V or 230V AC rms (-15% +10%)		
<b>Control Supply Uc</b>	S0, S1 12V/24V DC or 115/230VAC.		
<b>Ingress Protection</b>	IP20 or IP00		
<b>Ambient temperature</b>	0°C to 40°C. Above 40°C de-rate linearly by 2% of unit FLC per °C to a maximum of 40% at 60°C.		
<b>Transport and Storage</b>	-25°C to +60°C (continuous), -25°C to +75°C (not exceeding 24 hours).		
<b>Altitude</b>	Above 1000m de-rate linearly by 1% of unit FLC per 100m to a maximum altitude of 2000m.		
<b>Humidity</b>	max. 85% non-condensing, not exceeding 50% at 40°C.		
<b>Design standards and Approvals</b>	IEC 60947-4-2; EN 60947-4-2 'AC Semiconductor Motor Controllers and Starters'. QFE and QFE-G bearing the UL Listing mark are UL Listed to U.S. and Canadian safety standards.		



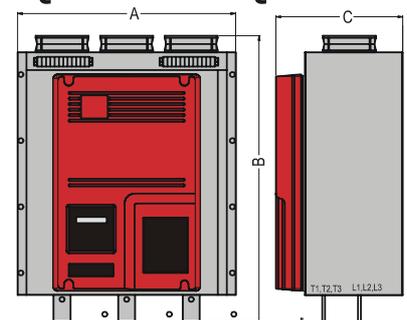
**QFE9 to QFE146**



**QFE174 to QFE370**



**QFE-O 500 to QFE-O 1800**



QFE-O Range Approximate Dimensions (mm)			
	A	B	C
QFE-O 500 to 600	490	648	285
QFE-O 750	508	738	282
QFE-O 900 to 1100	635	746	322
QFE-O 1200	635	782	322
QFE-O 1400 to 1800	775	775	475

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