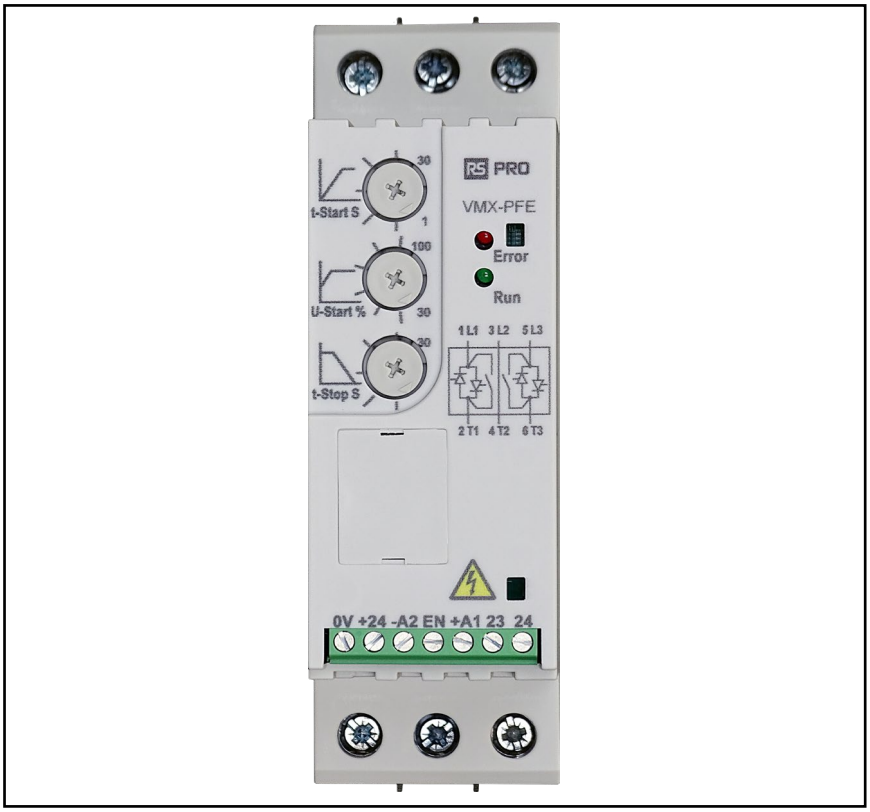
Features

- Compact Design
- 3S Technology integrated
- Built in Over Current protection
- Internal bypass
- Suitable for single and 3-phase motors

RS PRO VMX-PFE 5A-16A

RS Stock No.: 206-080, 206-082, 206-083, 206-085, 206-086



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

Compact Soft Starter:

- Reduce mechanical stress on your motor
- Suitable for use in the following applications;
  Agitator, Ball Mill, Bow Thruster, Compressor, Conveyor, Crusher, Fan, Flywheel Press, Grinder, Hammer Mill, Lathe, Mill, Mixer, Moulding Machine, Pelletizer, Plastic / Textile Machine, Pump, Saw, Shredder, Transformer, Tumbler, Vibrating Screen, Voltage Regulator, Woodchipper

General Specifications

Device Type	3-phase AC Semiconductor Compact Motor Controller
Function	Soft Starter; Fixed Speed Control; Motor Control
Current (400V / TC2)	5A, 7A, 9A, 12A, 16A
Power Rating (400V / TC2)	2.2kW, 3kW, 4kW, 5.5kW, 7.5kW
Indication	Multifunction LEDs on front panel
Bypass	Internally Bypassed
Motor Protection	Built in Over Current protection
Soft Start Time	1 to 30 seconds
Soft Stop Time	0 to 30 seconds

Mechanical Specifications

Overall Dimensions	H140mm x W45mm x D118mm
Weight	400g
Mounting Type	DIN-Rail mounted

Electrical Specifications

Supply Phases	Single-phase or 3-phase
Supply Voltage	230VAC, 400VAC, 460VAC *
Supply Frequency	45-65 Hz
Control Voltage	24VDC *
Inputs / Outputs	1 x enable input, 1 x soft start / soft stop input 1 x NO ready output relay
Rated Starting Capability	Trip Class 2 - 3 x Motor Current for 5 secs Trip Class 10 - 3 x Motor Current for 23 secs - 3.5 x Motor Current for 17 secs Trip Class 20 - 4 x Motor Current for 19 secs Trip Class 30 - 4 x Motor Current for 29 secs
Connection	In Line
Terminal Type	Cage Clamp

*+10% / -15%

Operation Environment Specifications

Ambient Temperature	0°C to +40°C up to +60°C with derating
Storage Temperature	-25°C to +60°C
Altitude	1000m above sea level. 2000m with derating

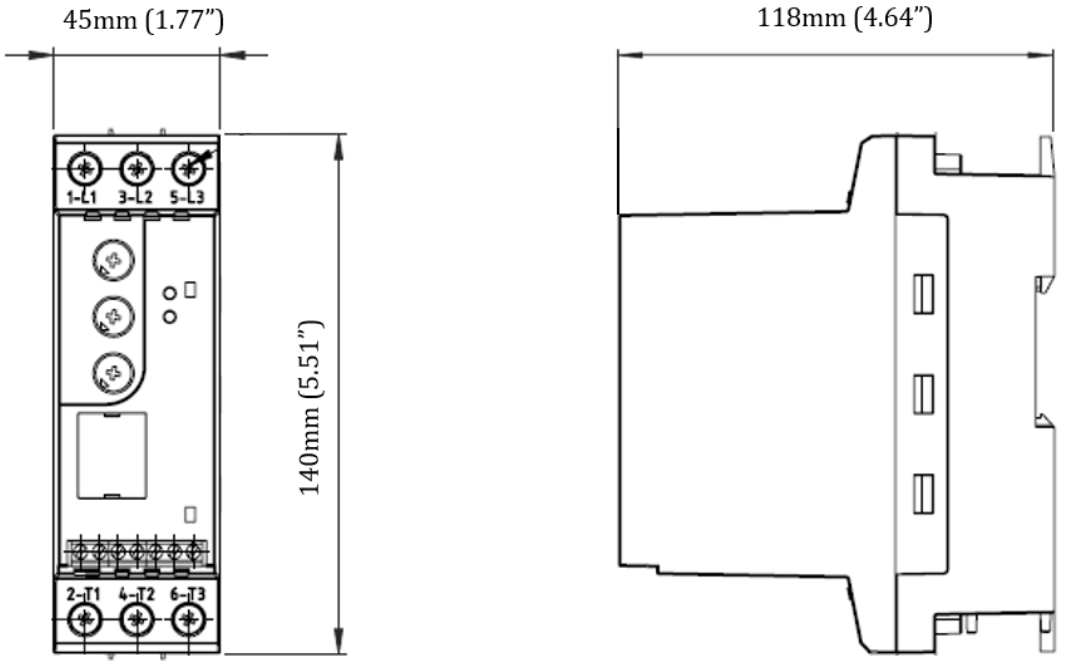
Protection Category

IP Rating	IP20

Approvals

Standards	CE, UL
Legislation	**Directives:** 2014/35/EU - Electrical equipment designed for use within certain voltage limits [Low Voltage Directive - LVD]. 2014/30/EU - Electromagnetic compatibility [EMC] 2011/65/EU - Restriction of the use of certain hazardous substances in electrical and electronic equipment [RoHS] and amending Commission Delegated Directive (EU) 2015/863 with effect from 22 July 2019. **Harmonised Standards:** EN 60947-4-2:2012 - Low Voltage switchgear and controlgear. Part 4: Controlgear and motor-starters. Section 2. AC Semiconductor motor controllers and starters. EN IEC 63000: 2018 - Technical documentation for the assessment of electrical and electronic products with respect to RoHS.
Environmental	Products comply to RoHS and REACH

Dimensional Drawing



Rated Power and Current

		Light Duty	Standard Duty	Medium Duty	Heavy Duty
Step 1 - Select the application from the list and follow that column down.	**Typical Applications**	Compressor (Unloaded) Mixer (Unloaded) Conveyor (Unloaded) ***Do not use Light Duty when there is a possibility of the motor starting under a heavy load.***	Default Agitator Compressor (Rotary Vane, Unloaded) Bow Thruster (Zero Pitch) Fan (Low Inertia <85A) Feeder (Screw) Lathe Machines Moulding Machine Plastic and Textile Machines Pump - Submersible (Centrifugal, Rotodynamic) Saw (Band) Transformers or Voltage Regulators	Heavy Compressor (Cebtrifugal, Reciprocating, Rotary Screw) Ball Mill Bow Thruster (Loaded) Conveyor (Loaded) Grinder Hammer Mill Mills (Flour etc..) Mixer (Loaded) Pelletisers Press, Flywheel Positive Displacement Pump (Reciprocating, Rotary) Pump Jack Rolling Mill Roots Blower Saw (Circular) Screen - Vibrating Tumblers	Crusher Shredder Wood Chipper ***The VMX-PFE is not suitable for very high inertia loads such as loaded crushers centrifuges, or start times >30s.***
Step 2 - Confirm the rated starting capability of the soft start against the application.	**Trip Class**	**Trip Class 2**	**Trip Class 10**	**Trip Class 20**	**Trip Class 30**
	Rated Starting Capability	3x Motor Current - 5secs	3x Motor Current - 23secs 3.5x Motor Current - 17secs	4x Motor Current - 19secs	4x Motor Current - 29secs
	Max Starts per Hour	10 starts/hour	5 starts/hour	5 starts/hour	5 starts/hour
	with Optional Cooling Fan	60 starts/hour	30 starts/hour	30 starts/hour	30 starts/hour
Step 3 - Consider the operating environment and make the model selection on a higher horsepower rating.	**Height Above Sea Level**	Standard operating height is 1000m, for every 100m increase motor Amps/kW by 1%, up to 2000m. Example: For a 10A motor at 1500m make model selection based on 10.5 A (5% higher)			
	Operating Temperature	Standard operating temperature is 40degC, for every 1degC above, increase motor Amps/kW by 2%, up to 60degC. Example: For a 10A motor at 50degC make model selection based on 12 A (20% higher)			
	Increased Starts per Hour	Fit optional fan to increase maximum starts per hour or where advised below.			

Step 4 - Select your motor Voltage and Horsepower and select model.

Motor Rating						Select Model 10 starts/hour	Select Model 5 starts/hour	Select Model 5 starts/hour	Select Model 5 starts/hour
230V		460V		400V					
HP	I_e(A)	HP	I_e(A)	kW	I_e(A)				
0.5	2.2	**1.5**	3	**1.1**	2.7	206-080 (5A)	206-080 (5A)	206-082 (7A)	206-083 (9A)
0.75	3.2	**2**	3.4	**1.5**	3.6	206-080 (5A)	206-082 (7A)	206-083 (9A)	206-085 (12A)
1	4.2	**3**	4.8	**2.2**	4.9	206-080 (5A)	206-083 (9A)	206-085 (12A)	206-086 (16A)
2	6.8	**3**	4.8	**3**	6.5	206-082 (7A)	206-085 (12A)	206-086 (16A)	
3	9.6	**5**	7.6	**4**	8.5	206-083 (9A)	206-086 (16A)		
3	9.6	**7.5**	11	**5.5**	11.5	206-085 (12A)			
5	15.2	**10**	14	**7.5**	15.5	206-086 (16A)			