

## **Features**

- Full Colour Touch Screen
- 42 Smart Application Suite
- iERS intelligent Energy Recovery System
- Lifetime Event Logging
- Software for Commissioning, Logging and Troubleshooting
- Automatic Reset
- Automatic Load Tuning
- Built in I<sup>2</sup>t Motor Overload Protection

# RS PRO VMX-synergy 132A-195A

RS Stock No.: 206-065, 206-066, 206-067



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.

### **Soft Starters**



#### **Product Description**

High Performance iERS Energy Saving Soft Starter:

- · Reduce mechanical stress on your motor
- · Save energy on lightly loaded applications
- Suitable for fixed speed applications with the following pre-set applications built in:

  Agitator, Compressor Centrifugal, Compressor Reciprocating, Compressor Screw, Compressor Vane,
  Compressor Scroll, Ball Mill, Centrifuge, Bow Thruster Zero Pitch, Bow Thruster Loaded, Conveyor
  Unloaded, Conveyor Loaded, Crusher, Escalator, Fan Low Inertia, Fan High Inertia, Feeder Screw, Grinder,
  Hammer Mill, Hydraulic Elevator, Lathe Machines, Mills flour Etc, Mixer Unloaded, Mixer Loaded, Moulding
  Machine, Pelletisers, Plastic and textile Machines, Press- flywheel, Pump Submersible Centrifugal, Pump Submersible Rotodynamic, Pump Positive Displacement Recip., Pump Positive Displacement Rotary,
  Pump Jack, Rolling Mill, Roots Blower, Saw Band, Saw Circular, Screen Vibrating, Shredder,
  Transformers Voltage Regulators, Moving Walkway, Tumblers, Woodchipper

#### **General Specifications**

Device Type	3-phase AC Semiconductor Energy Saving Motor Controller		
Function	Soft Starter; Fixed Speed Control; Motor Control		
Current (400V / TC10)	132A, 160A, 195A		
Power Rating (400V / TC10)	75kW, 90kW, 110kW		
Control Panel / User Interface	Yes - 3.5" Full Colour Touch Screen		
External Keypad - options	Yes - IP54 or IP65 via Cat5e / Cat6		
Bypass	Internally Bypassed		
Communication - standard	Modbus RTU		
Communication - options	Ethernet IP, Modbus TCP & Profibus DP via plug-in module		
	Other protocols available upon application		
Energy Saving	iERS - intelligent Energy Recovery System		
Data Logging	Lifetime Event Logging		
Automatic Reset	Can be used to attempt restart following fault		
Upload / Download	Via USB Memory Stick		
Motor Protection	Full I <sup>2</sup> t Motor Overload with Thermal Memory		
	English, Chinese (Mandarin simplified), Dutch, French, German,		
Languages	Greek, Italian, Japanese, Korean, Polish, Portuguese, Russian,		
	Serbian, Spanish, Turkish, Ukrainian, Vietnamese.		

# **Soft Starters**



### **Mechanical Specifications**

Overall Dimensions	erall Dimensions H318mm x W143mm x D232mm	
Weight 6.5kg		
Mounting Type	Panel	

#### **Electrical Specifications**

Supply Phases	3-phase		
Supply Voltage	200VAC, 208VAC, 230VAC, 400VAC, 480VAC *		
Supply Frequency	45-65 Hz		
Control Voltage	24VDC, 110 / 230VAC *		
Input / Outputs	3 x NO programmable output relays 1 x NC programmable output relay 3 x programmable digital inputs 1 x PTC thermistor input 1 x 0-10v/4-20mA Analogue input 1 x 0-10v/4-20mA Analogue output 1 x USB 1 x RJ12 (RS 485 / Modbus RTU for Bus network monitoring and control)		
Rated Starting Capability	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 or In-Delta		
Terminal Type	Cage Clamp		

\*+10% / -15%



#### **Operation Environment Specifications**

Ambient Temperature	-20°C to +50°C up to +60°C with derating		
Storage Temperature	-25°C to +70°C		
Altitude	1000m above sea level. 2000m with derating		

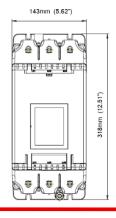
### **Protection Category**

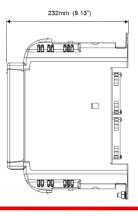
IP Rating IP20 (with fingerguards)
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#### **Approvals**

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Standards	CE, ETL, cETL			
Legislation	<u>Directives:</u>			
	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 Drawings**





# **Soft Starters**



## **Rated Power and Current**

		Standard Duty	Medium Duty	Heavy Duty
Step 1 - Select the application from the list and follow that column down.	Typical Applications	Default Agitator Compressor (Rotary Vane, Unloaded) Conveyor (Unloaded) Bow Thruster (Zero Pitch) Fan (Low Inertia <85A) Feeder (Screw) Lathe Machines Mixer (Unloaded) Moulding Machine Plastic and Textile Machines Pump - Submersible (Centrifugal, Rotodynamic) Saw (Band) Transformers or Voltage Regulators	Heavy Compressor (Centrifugal, 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 Fan (High Inertia >85A)  For a Centrifuge Application make selection at I(A) = motor FLA x 2.3 at Trip Class 30
Step 2 - Confirm the rated starting capability of the soft start against the application.	Trip Class Rated Starting Capability Max Starts per Hour	Trip Class 10 3x Motor Current - 23secs 3.5x Motor Current - 17secs 5 starts/hour or 3 starts/hour	Trip Class 20 4x Motor Current - 19secs 5 starts/hour or 3 starts/hour	Trip Class 30 4x Motor Current - 29secs 5 starts/hour or 3 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/HP by 1%, up to 2000m.  Example: For a 100A motor at 1500m make model selection based on 105A (5% higher)  Standard operating temperature is 50degC, for every 1degC above, increase motor Amps/kW/HP by 4%, up to 60degC.  Example: For a 100A motor at 55degC make model selection based on 120A (20% higher)			
Step 4 - Select your motor Voltage and	Motor Rating In Line         Motor Rating In Delta           400V         460V           kW         I₀(A)         HP         I₀(A)           kW         I₀(A)         HP         I₀(A)	Select model 5 starts/hour @ 50°C	Select model 5 starts/hour @ 50°C	Select model 5 starts/hour @ 50°C
Horsepower and select model.	75         132         100         124         110         229         150         215           90         160         125         156         150         277         200         270           110         195         150         180         185         338         250         312	206-065 (132A) 206-066 (160A) 206-067 (195A)	206-066 (160A) 206-067 (195A)	206-067 (195A)