

Variable Frequency Drives

VS series

General Description:

Emotron's VSA Drives offer a **unique** technology not available in any other Variable Frequency Drive. Utilizing an integrated version of Emotron's renowned M20's shaft power monitor, the VS Drive reliably protects the driven equipment from abnormal overload or underload conditions.

At best, other Drives offer protection based simply on monitoring motor current with *fixed* limits. The VS series on the other hand, provides dynamic load monitoring that *automatically adjusts* the protection set points based on **motor shaft power** across the entire speed range.

Using Sensorless Vector Control, the VS series Drives provide precise speed control and highly dynamic performance for Constant Torque applications. For Variable Torque applications such as Centrifugal Pumps, the VS series dynamic load protection and PID control will provide unparalleled performance and protection.



Features:

- **VSA:** 0.25 – 3.0 HP, 230V, 1 or 3 ϕ in / 3 ϕ out
- **VSA:** 1.0 – 3.0 HP, 480V, 3 ϕ in / 3 ϕ out
- **VSC:** 5.0 – 10.0 HP, 480V, 3 ϕ in / 3 ϕ out
 - PID Control
 - Unique Load Monitor function
 - Built in Line Filter
 - DIN Rail or Screw type mounting
 - 8 Step Speed Control
- Auto Torque Boost, 100% torque at 3 Hz
- Locked Rotor Protection
- Over / Under Voltage protection
- Brake Module standard on VSC
- Modbus Communication option
- Network options on VSC

How to order:

1. Determine the Motor's supply voltage and view the appropriate table below
2. Determine the Motor's HP and select the appropriate Drive from the following table
3. For customized VFD panels, please contact Emotron Inc.

VS Series Models:**230V – 1 or 3 phase input / three phase output**

VSA Model	Rated Current (A)	HP	
VSA23-1-01	1.7	0.25	
VSA23-1-03	3.1	0.5	
VSA23-1-04	4.2	1.0	
VSA23-1-07	7.5	2.0	
VSA23-1-10	10.5	3.0	

480V – 3 phase input / three phase output

VSA Model	Rated Current (A)	HP	
VSA48-002	2.3	1.0	
VSA48-004	3.8	2.0	
VSA48-005	5.2	3.0	
VSC Model - Do not include Load Monitor - see FDU units			
VSC48-009	8.8	5.0	
VSC48-013	13.0	7.5	
VSC48-018	17.5	10.0	