

**The Softstart MV DS digital soft-starter**  
**The UK's first 2.3 / 11kV high power soft-starter**





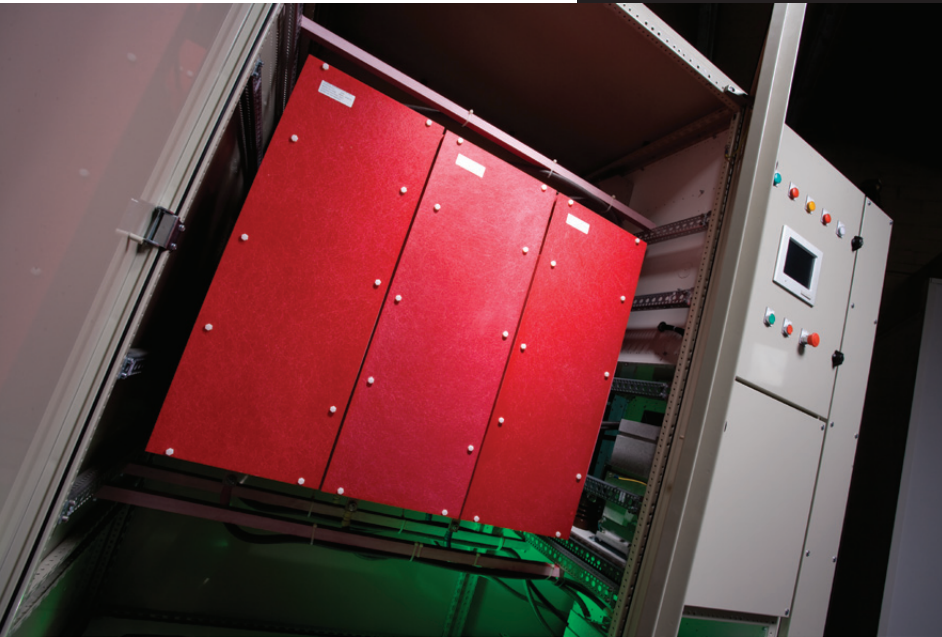


## The Softstart MV DS digital soft-starter

Designed for the controlled starting – and stopping – of large medium voltage motors up to 6.6kV with 11kV models in development.

Such motors generate huge torques and draw enormous currents when started direct-on-line and auto-transformer starting is expensive, bulky and provides only a moderate solution.

Controlled starting by precise digital voltage control offers the smoothest starting torque solution, maintaining the line current below current limit levels. This not only protects the whole drive installation but also protects the driven machinery from excessive torque surges that can cause substantial damage and expensive plant downtime.



### Custom built to your needs

The MV DS is designed to host a wide variety of options, enabling it to be customised to the client's precise needs. Slip-ring motors can be accommodated by incorporating a rotor shorting resistor package, bi-directional motor control is available and power factor correction is offered, along with 110V or 230V control. Cable entry can be accommodated from the bottom, the top or the rear and internal and external cable boxes can be incorporated in the design.

### Power when you need it

The MV DS is a heavy-duty fully-rated design, allowing a start capacity of up to 400% FLC for 30secs at a rated temperature of 50°C without derating. Designed for arduous environments, a comprehensive motor protection package is included and a motor insulation test facility is offered as an option. Variations in the supply voltage are catered for by a 45- 65Hz tracking capability and the construction is designed for corrosive environments. Tacho feedback enables uneven torque loads, such as encountered on crushers and long conveyors, to be smoothly controlled, protecting the plant as a whole.

Standards	
ISO 9001 : 2008	Quality Standard
IEC 60470 : 2000	Vacuum Contactors
IEC 60228 : Class 5	High Voltage Cables
UCI 895, BSS 6195 Type 5	High Voltage Cable Dielectric Strength
IEC 60332-2 IEEE 383	High Voltage Cable Fire Propagation
EN 62271 : 2004	Part 200 High Voltage Switchgear and Control Gear
IEC 60694 : 1996	Common Specification for High Voltage Switchgear
IEC 60270 : 2000	High Voltage Test Techniques
IEC 60071 : 1996	Insulation Co-ordination
EN 50178 : 1998	Electronic Equipment for use in power installation
IEC 60664 : 2007	Insulated coordination within low voltage systems.
IEC 61238 : 2003	Cable Lugs (High Voltage)
2006/95/EC	Low Voltage Directive
	CE Certificate of Incorporation.
IEC 61000-6-2	Electromagnetic Compatibility - Immunity
IEC 61000-6-3	Electromagnetic Compatibility – Emission
	Type test certification

### Simple Control and Monitoring

For precise and simplified control and monitoring, the MV DS is digitally controlled via a powerful industrial PC, mounted on the cabinet door. The full colour 8.4" (12.1" optional) display enables the engineer to commission the starter quickly and simply and thereafter to see exactly what is happening with the plant. Ethernet and Modbus control facilitates full remote monitoring and control in a wide variety of languages.

SoftStart HMI control unit





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### SPECIFICATIONS

System Voltage (Vac)	Output Current (Amps)	Motor Power (kW) *	Dimensions (mm)			Stack Weight (kg)	Total Weight (kg) **			
			Length	Depth	Height					
2300	60	200	1520	760	2025	90	360			
	110	360								
	200	660								
	320	1060				1710	760	2025	130	400
	400	1330							160	430
	600	2000							200	470
720	2400	350	690							
3300	60	280	1520	760	2025	140	410			
	110	520								
	200	950								
	320	1530				1710	760	2025	200	470
	400	1910							250	520
	600	2850							400	740
720	3440	400	740							
4160	60	360	1520	760	2025	140	410			
	110	660								
	200	1200								
	320	1930				1710	760	2025	150	420
	400	2410							180	450
	600	3610							195	465
720	4330	450	790							
6600	70	670	1710	760	2025	250	570			
	140	1340								
	250	2390								
	300	2870				2090	950	2025	300	620
	400	3820							450	790
	500	4780								
700	6740	450	790							

\* kW sizes are for indication only.

\*\* Total weights are estimated and may vary depending upon components used.

# SOFTSTART UK

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