

Pioneers in

Soft- Starter

Technology for

Asynchronous Motors-

(Squirrel Cage Induction Motors,
Slip Ring Induction Motors) and

Synchronous Motors.

COMPRESSORS



CRUSHERS



PUMPS



**MAJOR APPLICATIONS
SOFT-STARTED
SUCCESSFULLY BY
JAYASHREE**

'JAYASHREE' an ISO 9001 2008 company, established in 1972, is engaged in Designing and Manufacturing of Electrical and Electronics Control and Safety products, like **LT/HT Soft Starters, Electronic Non Contact Speed Switches, Proximity Switches** etc. The products now stand on very high Quality Rating with UL and CE approvals for some of the products and exposed to Indigenous and Global Market.

Since 1978, we have been Manufacturing, HT/LT HFSR type **SOFT STARTERS**, based on Principle of **Series Impedance Type Soft Starter**.

With the need of 'Energy saving' and intelligence for Starting an Induction motor, **JAYASHREE**, in 1990, entered in an association with **Fairford Electronics** (who are the global leaders in **Micro processors based Soft Starters**) for manufacturing of Digital Soft- Starters.

We have been catering needs of the various Industry sectors such as Infrastructure Pumping Projects, Power Plants (NTPC etc.), Atomic Research Centers, Chemicals, Sugar, Heavy Electrical, Steel and Mining, and Machine Tools Industry etc.

We Proudly mention that, '**JAYASHREE**' is a only company in India, manufacturing advance Micro Controller based Electronic Soft Starters and HFSR type Soft Starters under one roof for supply voltage ranging from **415 V. AC TO 11,000 V. AC** and Motor rating ranging from **1 KW to 35000 KW**

We have more than 3000 Soft Starters installed in India and abroad.

- **Small / Large Capacity Pumps**
- **Low / High Inertia Fans**
- **Compressors- (Reciprocating, Screw, Rotary)**
- **Crushers**
- **Grinders**
- **Conveyors**
- **Pulp, Paper & Packing**
- **Agitators**
- **Press**
- **Mixers**

Digital Soft-starters for LT Motors Up to 1000KW



PFE Series



Low Cost Soft-Starter for small AC Induction Motors
Range : 0.5 KW to 18.5 KW
Features : 2 ϕ Control / Internally Bypassed / Soft-Stop
Adjustable Pedestal Voltage
Enclosure : Compact Din Rail Mounting

Ideal for Small Compressors, Machine Tools, Cranes etc.

DFE Series

Low Cost Internally Bypassed Soft-Starter for Heavy Duty Applications
Range : 11 KW to 250 KW
Features : 2 ϕ Control / Small Size
0.5 to 30 Sec. Adjustable Start / Stop time
Pedestal Voltage Adjustable from 30% to 100%

Ideal for Small Compressors, Pumps, Crushers etc.



DSA (QFE) Series



Proven 3 ϕ , Energy Saving Soft-Starters, Fully Programmable.
Range : 5 KW to 1000 KW
Features : 3 ϕ Control with Energy Optimising Features
Fully Programmable with Keypad and LCD Display
Mod bus, Remote Keypad option Can be used as In
delta or In-line Ramp Time from 1 To 255 Sec.

Suitable for Every Application of Soft-Starting

CUSTOM BUILT

STANDARD / CUSTOM BUILT STARTER PANELS.

We offer Soft Starting solution with a complete custom built panel incorporating Switchgear, Capacitors and protection relays. Fuses etc. These are manufactured to suit specific requirement. We also offer MCC / PCC panels with built in Soft Starters.



Air Core Based HFSR Soft-starters for LT / HT Motors



LT SOFT-STARTERS

Series HFSR - 201-X LS

The HFSR type soft starters are useful for starting fixed type of loads such as Pumps, Fans, Compressors, etc. The starters are reliable and Proven over 30 years of experience.

- Range : 45 KW to 1000 KW
- Voltage : 415 V / 690V 50 / 60 Hz.
- Features : 2 Phase / 3 Phase control Internally bypassed suitable for connecting on line side of motor with suitable taps for controlling, starting current from 2.5 to 4.5 times the motor FLC.

H.T. SOFT-STARTERS

Series HFSR - 201-X LS / NS

These starters are designed as per the HFSR principle and the IS guidelines. These are suitable for applications such as Pumps, Fans, Compressors, etc.

- Range : 100 KW to 35000 KW
- Motor Voltage : 3.3 KV / 6.6 KV 11 KV 50/60 Hz
- Control Voltage : 110 V / 240V AC / DC
- Features : Can be connected on line side or on neutral side of motor starting current from 2 to 4.5 FLC Internally bypassed with failsafe supervisory circuits
- Enclosure : MS Fabricated on CNC with IP 41 / 55 grade of protection



SMSC

The SMSC slipping motor rotor controller soft starter has an automatic step less control of rotor load. The starter is a replacement for the conventional Resistance type starters with added benefits and maintenance free operation. These are available for LT and HT motors. These are useful for starting high torque applications such as crushers / Mixers / Conveyors etc.

- Range : 45 KW to 3000 KW
- Voltage : 415 / 3.3 KV / 6.6 KV / 11 KV
- Features : The SMSC controller is to be connected to the rotor. It has a built in bypass connector that activates when the motor achieves full speed. The starting current can be controlled from 1.2 to 2 times FLC
- Enclosure : MS Fabricated on CNC with IP 41 grade of protection





ELCTRONIC SOFT-STARTER

Analog Process Perfected by Digital Technique

The complex process of starting an Induction Motor is intelligently controlled by JAYASHREE make, Micro Controller based Electronic Soft Starters. These Soft Starters are manufactured by JAYASHREE with technical know how from M/s. Fairford Electronics Ltd. UK. (www.fairford.co.uk)

These Starters are much superior to conventional Motor Starting methods. With increasing shortage of power it is essential to use a intelligent Soft Starter unit for fixed speed motor drives applications to reduce the starting current burden on supply side and help to reduce energy consumption during partial loaded conditions.

Construction wise, Electronic Soft Starter comprises of 1) Main control card 2) Power Thyristor (SCR) 6 Nos. anti parallel SCR configuration mounted on suitable heat sinks. 3) Power Switchgear like MCB / MCCB / SFU / Fuses, overload, contactor, indications and etc.

Our basic Electronic Unit (EU) / Open Chassis (OC), is suitable for mounting inside a panel and comes with Electronic card, 6 Nos SCRs mounted on suitable heat sinks, Control and Power termination and suitable enclosure with IP - 00 / 30 grade of protection

Special features for specific loads/ applications like- kick-start, Soft Stop, Shear pin protection, Bypass arrangement are available. Other external protections, Local / remote Start / Stop facility, Auto / Manual facility. Mod bus Communication available on request.

Protections- All the Soft Starter model are built with protections like MOV's for voltage surges, RC Snubber for protecting SCR against dv / dt, Open / short SCR and Single phase protection on line side / Motor side.

Special feature for Water Pumps - Electronic Soft Starters provides Soft Stop option, which helps to reduce water hammer effect and enhances the pump system life.

Designed and built as per standard IEC 947-4-2.



HFSR SOFT-STARTER

Conventional Method of Motor Starting

The complex process of starting an Induction Motor is intelligently controlled by JAYASHREE make, **Harmonics Free Series Reactor (HFSR)** Soft Starters, which falls in the category of series impedance type of starters.

The HFSR modules in the soft starter, acts as impedance in series with motor winding and allows only a part of the line voltage to be applied at the motor terminals and finally gets bypassed after starting process is completed. This results in a reduced starting current coupled with reduced starting torque as compared with the DOL starters.

Construction wise, HFSR type Soft Starter comprises of- 1) HFSR modules with core less design, 2) HFSR Bypassing contactor suitable for rated voltage and current 3) Power Switchgear (for LT soft starter panel)- suitable MCB / MCCB / SFU / Fuses, overload, power contactor, indications, CSR protection and enclosure.

HT HFSR type Soft Starter comprises of - 1) HFSR modules with core less design, 2) HFSR Bypassing contactor suitable for rated voltage and current 3) Control logic with Reactor protection with current sensing relay (CSR) and bypass contactor opening during running.

Special functions for specific loads / applications like- kick-start, Special motor protection relay, Other external protections, Local/ remote Start/ Stop facility, Auto/ Manual facility, interlocks with the Main VCB / VC Panel can also be configured with the special models of soft starter panels as per customer requirements.

HFSR type Soft Starter with its simple, rugged and elegant construction makes it the most reliable, economical and convenient device for starting of cage induction motors, particularly drives such as Pumps and Compressors whose load characteristics are parabolic permitting low starting torque and involve moderate inertia.

These soft starters being complete electrical, do not need expert man power for maintenance and hence most suitable for remote Pumping stations.

Designed and built as per standard IS 5553 (Part 3)



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