



ENERGYSAVER / Microcontroller Based Power Optimizer Three Phase Motor Soft Start / Soft stop



Features:

- Power range up to 710 kw at 440 V
- Compact and Efficient Thyristorised microcontroller Design
- Choice of startup functions; breakaway pulse, voltage ramp, voltage or current limiting
- Energy-saving mode
- Power Optimizer
- Soft Start/ Stop
- Adjustable Torque i.e Pedestal voltage
- Adjustable Ramp up Start time
- System Run, fault, Power, start and Optimize
- LED indication on front panel

Electrical specifications

Supply Voltage	240-460 VAC
Frequency	47/ 63 Hz
Pedestal Voltage	20%,30%,50%,70% of I/P voltage

Environmental Specifications

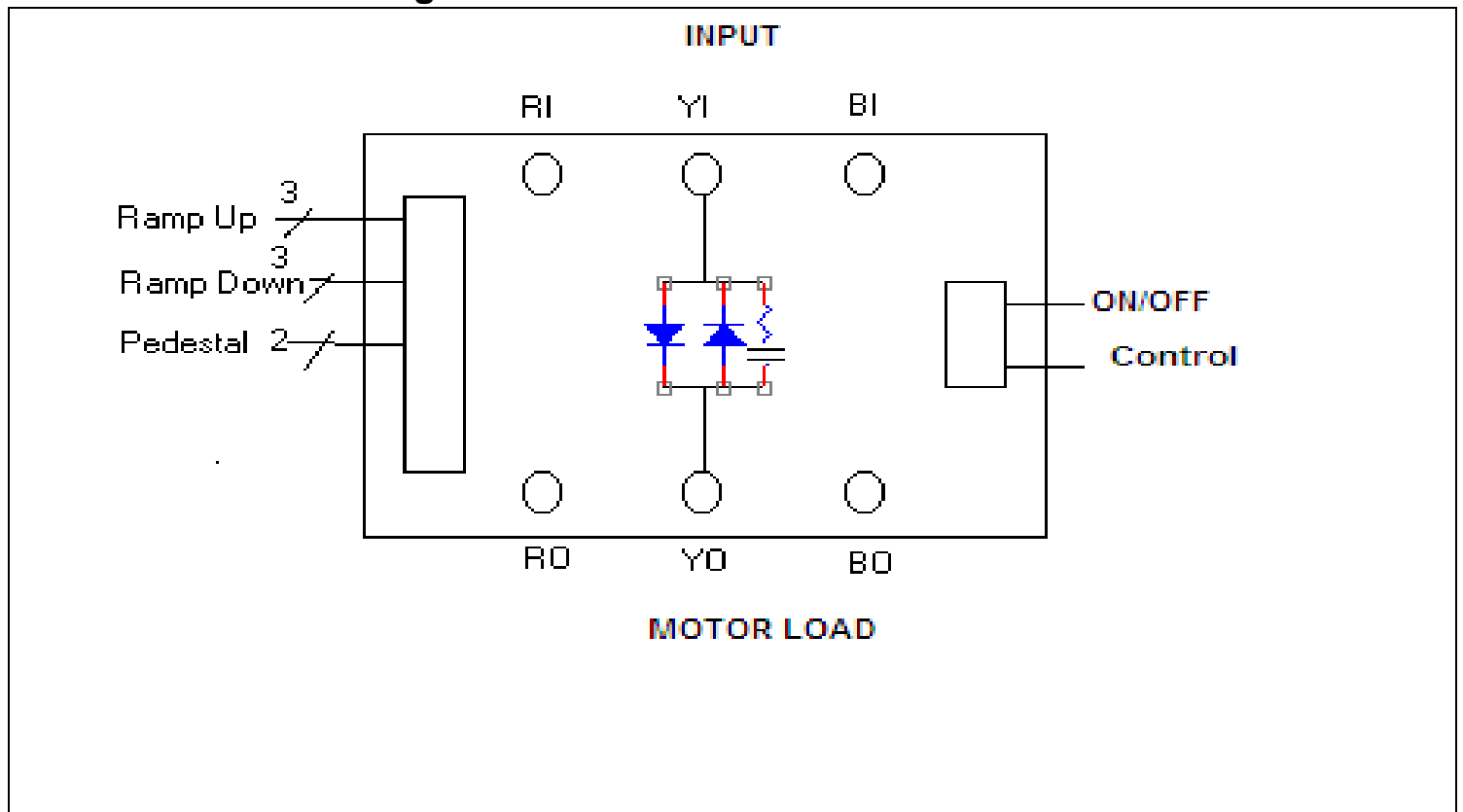
Operating Temp	0 To 40 C
Storage Temp	-10 C to C
Cooling	Cooling with heatsink
Relative humidity	< 95% no condensation allowed
Altitude	Maximum 1000 m reduce kW Rating by 1 % per additional 100 M

Control Specifications

Pedestal Voltage	20%,30%,50%,70% of I/P Voltage
Ramp Up Time	0.5 Sec To 120 Sec
Ramp Down Time	0.5 Sec To 120 Sec
Starting Duty	2.5 X unit rating in amperes for 60 Sec 3 X unit rating in amperes for 30 Sec 4X unit rating in amperes for 10 Sec 4.5 X unit rating in amperes for 5Sec CONTD
Starts Per Hour	12 evenly spaced starts per hour at the Starting Duty

Starting Torque	9-49% of the DOL starting torque
Current Limit	30% DOL current for 60 Sec 40%DOL current for 60 Sec 50%DOL current for 60 Sec 70%DOL current for 60 Sec
Protection	Microcontroller based motor protection system
Fault Detection	Shut down for loss of phase and short-circuit Thyristers, indication on LED
Cooling	Naturally cooled<39 amps, force cooled>53 amps
Relays	Run, fault/ top of ramp
Relay Contact Rating	1.2 KVA,250AX Max
LED indication	Power, Run, rampup, ramp down,Fault, start and Optimizing/top ramp
Control Circuitry	High frequency Microcontroller for controller

Block Diagram



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ENERGY SAVER



Microcontroller Based Power Optimizer / Soft Start- Soft stop for Three Phase Motors

Satronix Energy saver is a field - proven thyristorised micro controller based unit. Energy saver is able to instantly detect by microprocessor control any change in load variation & automatically adjust the output voltage by matching output to load. The losses (iron/magnetizing & copper loss) inherent in all AC induction motors are thereby considerably reduced dramatically. Thus improving the motor efficiency and reducing electricity bills. The soft start facility is incorporated in all 3 Phases of the Energy saver. It provides a gradual and controlled increase (soft start)/(decrease in case of soft stop) in the voltage applied to the motor terminals, thus eliminating the high peak current created during the starting cycle of induction Motors.

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- Compact and Efficient Thyristorised microcontroller Design
- Choice of startup functions; breakaway pulse, voltage ramp, voltage or current limiting
- Power Optimizer
- Adjustable Torque i.e Pedestal voltage
- Adjustable Ramp up
- Start time
- System Run, fault, Power, start and Optimize
- Additional microcontroller Motor protection Device

Applications : Air Conditioning Systems at (Malls, Office Complexes,.etc..), Elevators, Industrial Presses, Die casting machines, Injection Moulding machines, Conveyors, Quarries/ Mines(Crushers) & many more..

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