NAT SYSTEMS

HIGH PERFORMANCE & MULTI FUNCTION

DIGITAL POWER FAILURE MONITOR / VERTICAL AXIS DROP PREVENTOR

Model DSP 1

Features

- Advanced Digital Signal Processor for high speed operation
- Accurate over & under voltage Monitoring
- Single Phase Monitoring
- Individual Phase voltage Monitoring
- 7 Segment LED for Monitoring and user programmability
- Key pad for Programming
- Alarm Display
- Easy and fast bypass facility
- Buzzer in alarm condition
- Din rail / panel Mounting facility

Power Failure Monitor:
In the latest generation of CNC machine tools the axis working against gravity cannot be equipped with counter balance either mechanically or hydraulically owing to higher acceleration and deacceleration .The electrical power interruptions imposes the demerit of gravity axis dropping during power failure , which might cause tool breakages based upon various working conditions.
To overcome this, an external electronics device is used to monitor line voltage frequency and sense the power failure in advance to apply emergency to machine automatically with in 6 mill seconds, when the voltage drops to a set value.
By the above system the axis drop is contained within 15 – 20 Microns, to avoid tool breakage.

Advantages:
Avoid Cutting Tool breakage
Avoid spindle damage
Avoid job damage

Digital Power Failure Monitor-DSP 1

Technical Specification

Input Power supply Voltage	100VAC ~ 230VAC +10% ,3PH, 3-wire 50HZ
Power Rated	5 Watts Max
Internal power supply generation	SMPS based on input AC with Line filter
Monitoring voltage	R-Phase with respect to Gnd Y-Phase with respect to Gnd B-Phase with respect to Gnd
On PCB LEDs	LED OK → Green indicates no fault LED FLT → Red Indicates trip Power ON → Green LED 7- Segment LED is used for setting voltage and time for trip.
Keypad	3- keys tactile switches
Interface outputs	2 No.s of relays each with 1 Nos. 1 No of Open Collector Output – Normally High. Low for trip.
Interface inputs	Opto-Isolated digital input from external -1 Nos Implemented for Earth fault
Faults sensed	Individual Phase failures Power failure Over voltage Under voltage External fault
Monitoring	Individual Phase voltage
Buzzer	In Alarm Condition
Programming	Possible to program trip voltage & time setting using the 7-Segment LED and keys
EMI filter	Built in
Product Dimension	(WxDxH)55 X 172 X 205 without din rail Mounting (WxDxH) 55 X 182 X 205 with din rail Mounting