

Super-Smart AVR (Three Phase)

PS three phase series



Specially for 3 phase CNC industrial equipment

Intelligent logic assemble function programming, it is suitable for all kinds of load and premises. The product lines have complete series and are all CE certified. Also, its with compact size, high efficiency, and easier to operation. Electrical and servo module mass producing, with several patents and anti-mistake circuit design, the producing procedure meet international standard, with high reliability quality and long MTBF.

Feature:

- Intelligently logic regulation
- Self-detecting function
- Powerful overload 150% ability
- With bypass device and protect function
- Big Range high/low voltage protect device
- Phase failure, instant black-out, short circuit protection
- Start over voltage protection
- Independent regulation and protection design
- Full series with the same control system and multi anti-mistake circuit design
- Front panel with LED indicator displayed AVR regulating status
- With O/P voltmeter to monitor O/P voltage
- With dip sw. and easier for setting
- Electronics double circuitry switch design
- Separated voltage regulation design, 3 phase unbalance 100%
- Taiwan patent no. 160215, 162577
- China patent no. 125595, 390066
- Double overload and short circuit protection
- With surge suppressor/LC filter/EMI filter (option) to provide pure power.

✧ Application:



PCB Drilling Machine



Integrated Processing Machine



SMT



EDM



Milling Machine



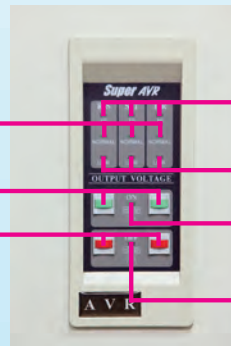
AI Component Inserting Machine

Super-Smart AVR



Innovative Panel Design

Three Phase Normal Output Voltage Indicator (Green)
 Electronic Double-Circuit O/P ON Switch
 Electronic Double-Circuit O/P OFF Switch



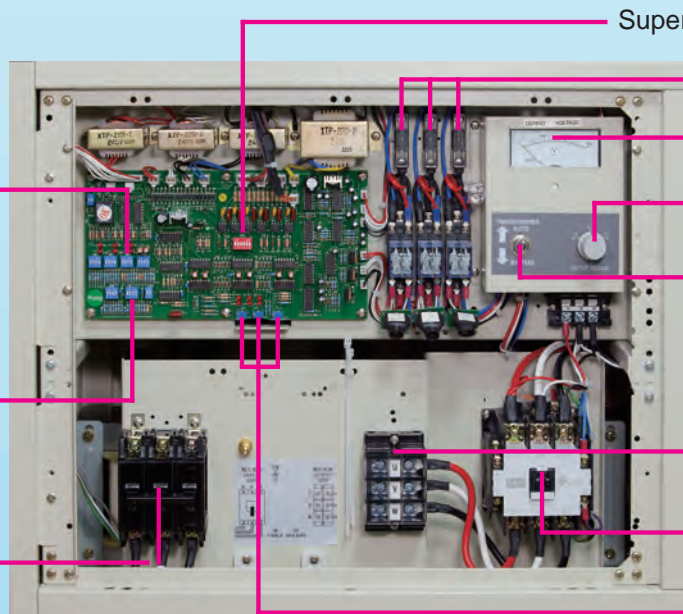
Three Phase Output Over Voltage Indicator (Red)
 Three Phase Output Low Voltage Indicator (Red)
 AC Output Indicator (Green)
 AC Output OFF Indicator (Red)

Excellent and Precision Main Control Circuit

High / Low Voltage Protection based on various/multi/big range select can be pre-set to suit various load condition very precisely

Intelligent mode built-in to match up various voltage on the spot, it is designed to be easily adjusted to the required mode and the required response time as well

Concealed Power Switch equipped with additional Over Load Protection



Super-Smart Voltage Regulation Board
 Three Phase Short-Circuit Protection
 Three Phase Voltage Meter
 Three Phase Voltage Selection Knob
 Electronic Bypass Switch, equipped with High / Low Voltage Protection and Phase Failure Protection even during Bypass status
 Output Terminal
 Abnormal Voltage Trip Device
 The most precise type Output Voltage Adjustment Knob



Grinding Machine



WEDM



Production Process Equipment



SMT



Laboratory



Medical Monitoring Equipment

● **Intelligently Logic Regulation :**

The Powerful PS series can completely adjust the regulating speed and regulation range in accordance with power's variation and the load character on the spot by a precise and unique motor to gain the most satisfactory power regulation required

● **Separate Regulators Design :**

Whenever AC power encounters three phase unbalanced, non-linear power or heavy load, the Separate Regulators will still maintain its accurate output

● **Innovative Panel Design :**

Almost every average user who considers AVR only as one of the power product seldom pays confirm its nominal reading. To renovate the traditional meter reading, this Super-Smart AVR provides user a very clear reading only by checking the indicators' colors to realize it is normal or abnormal. The green indicator stands for normal, red indicator shows abnormal

● **All Module Design :**

All the technical design inside the Super-Smart AVR is of Module Designed and separately assembled, components used on PCB are very stringently quality controlled and tested by computerized ICT satisfactory quality reliability

● **Self-Detect Function Design :**

The Self-Detect result is displayed by light indicators providing an immediate, exact malfunction information to users making maintenavce more easy and efficient

● **Powerful Overload Capability :**

The Super-Smart AVR is specially designed to withstand 150% of its nominal load and cause nothing to output voltage, no voltage decrease will happen

● **Start Over Voltage Protection :**

Whether it is switch on or recovers from power outage, the Start Over Voltage Protection will always to start from low voltage to protect the load side equipment

● **Humanized Anti-Mistake Circuit Design :**

To prevent from inappropriate operation or touch by which causing AC output switch ON or AC output switch OFF, Super-Smart AVR has a very delicate Electronic Double-Circuit Control design, one must simultaneously push two ONs or two OFFs to start or shut down the Super-Smart AVR

● **Big Range High / Low Voltage Protection :**

Whatever the load side it may be like, for instance, heavy load equipment or precise equipment, even there is a very massive power variation, the Super-Smart AVR has a very special feature design of Various/Multi/Big range Select to pre-set the most appropriate and precise adjustment in accordance with the load requirement

● **Phase Failure Protection :**

If there is any failure within three phase power, the Super-Smart AVR will immediately complete the detect and have it displayed and trip off to protect the load side equipment

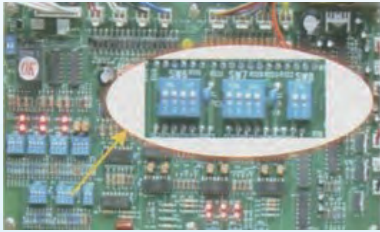
● **Instant Trip Device :**

This Instant Trip Design will always trip before AC recovers from an instant black-out, it features a re-set function making sure a stable power is in operation again while AC power gets back to normal. The purpose of this is to protect the load equipment from damaging by a frequently happened abnormal high voltage

● **Bypass Device :**

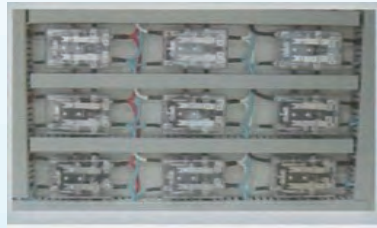
The AVR can still provide High/Low Voltage Protection, Phase Failure Protection...and all the other featured Protection when it is in status of Bypass under maintenance or repairing

Logic Assemble Function Programming



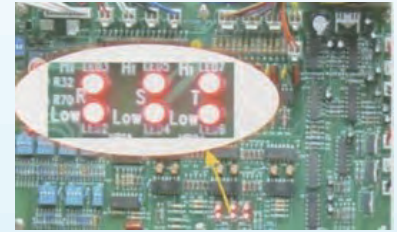
Adopt with multilayer and big range DIP SW logic assemble design, include high/low voltage, delay, and O/P accuracy setting. All setting can operate and select easier, user can pre-set the most appropriate adjustment in accordance with the load requirement

SOVP Device



Whether it is switch on or recover from power outage, the Start Over Voltage Protection will always re-start from low voltage

Self-Detecting Function



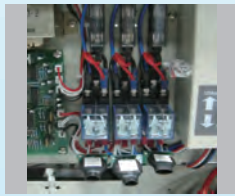
Each time during the unit turn on the AVR, fast detect utility and itself whether under protect setting quickly, then supply precise voltage to the equipment

With Surge Protection



With lightning and surge protect function

Separated Regulation



Three phase separate regulators design

I/P & O/P Wires Protection



Wiring fixed, I/P, O/P wires well sealed, stable & safety

Bypass & Indication



With three phase voltage indicator and bypass device

H Class Protection



With Class H insulation materials transformer

Model & Specification:

Model No. (PS-)	310 X/N/Y	315 X/N/Y	320 X/N/Y	330 X/N/Y	345 X/N/Y	360 X/N/Y	375 X/N/Y	3100 X/N/Y	3120 X/N/Y	3150 X/N	3180 X/N	3200 X/N	3250 X/N	3300 X/N	3400 X/N
Capacity (KVA)	10	15	20	30	45	60	75	100	120	150	180	200	250	300	400
Voltage	X2 : 3 φ 3W 200V, 220V, 230V, 240V system (I/P and O/P are the same) X3 : 3 φ 3W 380V, 400V system (I/P and O/P are the same) X4 : 3 φ 3W 415V, 440V system (I/P and O/P are the same) N1 : 3 φ 4W 110/190V, 120/208V, 127/220V system (I/P and O/P are the same) N2 : 3 φ 4W 220/380V, 230/400V, 240/415V system (I/P and O/P are the same) (Indicate phase voltage) N3 : 3 φ 4W 220/380V, 230/400V, 240/415V system (I/P and O/P are the same) (Indicate line voltage) Y : Input 3 φ 3W 380V, Output 3 φ 3W 220V (I/P and O/P are different) Y2 : Input 3 φ 3W , Output 3 φ 4W (I/P and O/P are different)														
Input Range	Nominal Voltage: ±15% (±20%~±40% can be customized) Frequency: 50/60Hz±5%														
Output Accuracy	≤ 1%														
Power Factor	0.95~1														
Efficiency	≥ 98%														
Response Time	< 0.1 Second														
Waveform Distortion	No distortion														
Protection	High Voltage	Standard Feature (can be Various / Multi / Big range pre-set and LED displayed)													
	Low Voltage	Standard Feature (can be Various / Multi / Big range pre-set and LED displayed)													
	Phase Failure	Standard Feature (can be Various / Multi / Big range pre-set and LED displayed)													
	Bypass	Standard Feature (with Phase Failure, Instant Trip, High / Low Voltage Protection at work)													
Indicators	Power	Standard Feature													
	Voltage	Standard Feature													
	Abnormal	Standard Feature													
Overload	150% for 10 seconds														
Environment	Temperature: 0°C~45°C Humidity: 0%~95% RH (Non-Condensing)														