



# AUTOMATIC VOLTAGE REGULATOR / STABILIZER

CE ISO-9001 Technology In Pursuit Of Excellence

• ALL COPPER  
• CTAM SERIES



Good Inside And Outside With Cost-Effective

AVR-Specification Single-phase(1φ) series: <span style="float:right">Dimension 2 is AVR + Transformer</span>									
Model	CTAM1-2	CTAM1-3	CTAM1-5	CTAM1-7.5	CTAM1-10	CTAM1-15	CTAM1-20	CTAM1-25	CTAM1-30
Capacity	Dimension1 2KVA	Dimension1 3KVA	Dimension1 5KVA	Dimension1 7.5KVA	Dimension1 10KVA	Dimension1 15KVA	Dimension1 20KVA	Dimension1 25KVA	Dimension1 30KVA
	Dimension2	Dimension2	Dimension2	Dimension2	Dimension2	Dimension2	Dimension2	Dimension2	Dimension2
Dimension WxDxHcm	28X28X22 34X37X24	28X28X22 34X37X24	37X34X24 40X63X62	37X34X24 40X63X62	37X34X24 40X63X62	40X63X62 48X67X73	40X63X62 40X63X109	40X63X62 40X63X109	48X67X73 40X63X109

AVR-Specification Three-phase(3φ) series: <span style="float:right">380/220V is AVR + Transformer</span>							
Model	Capacity	Voltage	Dimension WxDxHcm	Model	Capacity	Voltage	Dimension WxDxHcm
CTAM3-5	5KVA	220V 380V 380/220V	40X63X62 40X63X62 40X63X62	CTAM3-55	55KVA	220V 380V 380/220V	50X83X73 50X83X73 50X83X130
CTAM3-7.5	7.5KVA	220V 380V 380/220V	40X63X62 40X63X62 40X63X62	CTAM3-60	60KVA	220V 380V 380/220V	50X83X73 50X83X73 50X83X130
CTAM3-10	10KVA	220V 380V 380/220V	40X63X62 40X63X62 40X63X62	CTAM3-66	66KVA	220V 380V 380/220V	50X83X73 50X83X73 50X83X130
CTAM3-15	15KVA	220V 380V 380/220V	40X63X62 40X63X62 50X67X73	CTAM3-75	75KVA	220V 380V 380/220V	50X83X73 50X83X73 50X83X130
CTAM3-20	20KVA	220V 380V 380/220V	40X63X62 40X63X62 40X63X109	CTAM3-90	90KVA	220V 380V 380/220V	75X95X90 75X95X90 75X95X155
CTAM3-25	25KVA	220V 380V 380/220V	40X63X62 40X63X62 40X63X109	CTAM3-100	100KVA	220V 380V 380/220V	75X95X90 75X95X90 75X95X155
CTAM3-30	30KVA	220V 380V 380/220V	40X63X62 40X63X62 40X63X109	CTAM3-120	120KVA	220V 380V 380/220V	75X95X90 75X95X90 75X95X155
CTAM3-35	35KVA	220V 380V 380/220V	40X63X62 40X63X62 40X63X109	CTAM3-150	150KVA	220V 380V 380/220V	75X95X90 75X95X90 75X95X155
CTAM3-40	40KVA	220V 380V 380/220V	50X83X73 50X83X73 50X83X130	CTAM3-200	200KVA	220V 380V 380/220V	85X105X125 85X105X125 85X105X195
CTAM3-45	45KVA	220V 380V 380/220V	50X83X73 50X83X73 50X83X130	CTAM3-250	250KVA	220V 380V	85X105X125 85X105X125
CTAM3-50	50KVA	220V 380V 380/220V	50X83X73 50X83X73 50X83X130	CTAM3-300	300KVA	220V 380V	95X115X125 95X115X125

※The model of the AVR + Transformer is CTAM3 + AUTO (Auto Transformer) or ISO (Isolation Transformer)  
 ※There is another catalogue for large capacity 300-30,000KVA stabilizer

### Single Phase A.V.R.:



### CTM Other Products:

- Top Stabilizer (On-machine)
- Induction Voltage Regulator/ High Power Stabilizer
- Magnetically Saturation Stabilizer
- Uninterruptible Power Supply(U.P.S.)
- Oil Mist Collector with Air Cleaner
- Cutting Fluid Purifier(Oil Skimmer)
- Industrial Vacuum Cleaner
- Fully Electronic Stabilizer (S.V.R.)
- Frequency Conversion Power Supply
- DC Power Supply
- Transformer , Reactor

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官方Official  
LINE ID :  
@ctm168

## Panel with the functions enhanced which able to get the operation status at any time



Visualized Digital Voltmeter

ON. OFF dust cover to avoids the entry of oil vapor and dust

When failure occurs, magnetic contactor / switch will trip the power supply with alarm indicated.

## Outer box design reduces failure rate

The enlarged outer box helps heat dissipation, and cleaner inside



Safety vent hole: Oil vapor, dust, and iron filings are not easy to invade, reducing the dirt and the failure rate

- The skeleton is one piece formed instead of assembly type, which is stronger and shockproof



## Technical Features

**Control Method:** Each phase of the three phases of voltage is separately controlled to have a balanced output from each phase. When the imbalance up to 30%, it can be corrected within 2%.

**Voltage Regulation Range:** Input rated voltage value  $\pm 15\%$  (Taking 380V for example, the range is 323V~437V) or  $\pm 20\%$ ,  $\pm 30\%$ .

**Voltage Regulation Accuracy:** The error value of voltage output is less than  $\pm 1\%$

**Response Time:** The voltage stabilization action is completed within 0.1 seconds

**Structural Equipment:** LED displays the status of machine and everything is under control, and its unitized module design is to have separate parts for reducing the maintenance costs.

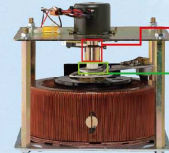
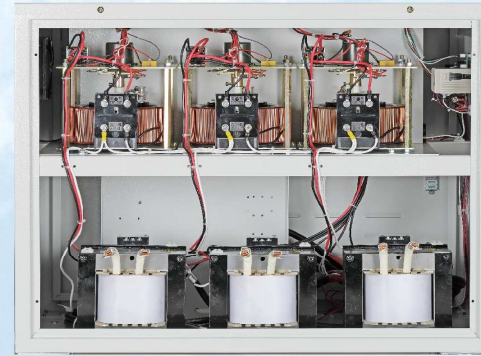
**Overload Capacity:** A momentary overload of over 150% is tolerable without causing a huge voltage drop.

**Reinforced PC Board:** It uses the with double layer glass fiber material to resist the adherence of water vapor, oil vapor and dust to the surface, and avoid bad contact.

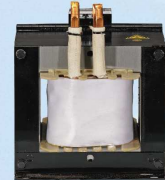
**Thoughtful Design:** It uses the concealed voltmeters and no fuse breaker to avoid improper shut-down and man-made damage. It is safe and durable.

**Output Efficiency:** From no load to full load, the output efficiency is as high as up to 95% or more

## Internal structure



※ The "clutch" made of metal and the "central shaft" is made of glass fiber, not plastic. The purpose is to prevent loosening and deformation fracture



※ All coils are made of copper wire which saves more electricity than aluminum wire, and it can avoid the problems of wire corrosion and bad contact

※ Using three main boards and one protection board to work together. It can reduce the failure rate and save future maintenance costs.



※ No Fuse Breaker 40KVA (included) ~ 150KVA models mounted the Japan's Mitsubishi industrial grade power switch

## Protection functions

- Instant Electric Power Failure Delay Protection:** Instant power failure and immediate power on will generate extremely high pulse voltage, which will severely damage the mechanical equipment, especially the controller. This function will not let the equipment restart until external power is restored to a normal state.
- Too High / Low Voltage Protection:** When the input voltage encounters abnormal voltage, the buzzer will sound a warning and trip the power automatically to avoid affecting the accuracy of machinery and equipment operation, and reduce depreciation and loss.
- R.S.T Phase Failure Protection:** If any phase failure suddenly by external power, the power will be stopped immediately to avoid damaging the machine.
- CPU Monitoring Function:** An microcomputer (CPU) performs whole process monitoring and detection, enhances various protective functions, and intercept abnormal power in an efficient way.
- When an overload and short circuit occurs, the power will be cut off automatically to ensure the safety of electricity using.**
- Abnormal Power Indicator Light:** When the AVR is abnormal, the buzzer will sound a warning and the reasons of the failure can be judged by the indicator light to save maintenance & repair time.
- Bypass Switch Change Over Function:** The AVR still has voltage abnormal protection for too high/low voltage, phase failure, instant electric power failure with power restoration.
- Adjustable Output Voltage Function:** The output voltage can be adjusted around  $\pm 10\%$  to meet the use of various types of machinery.
- Low Voltage Start and Startup Self-Detection:** In any case, the AVR is started by low voltage, and then it will perform internal self-detection after startup. The power is supplied after everything is normal to ensure the correctness and safety of the output voltage.