

AVST Series Controller

ADVANCED VARIABLE SPEED TRANSFORMER

Description

ZOO Fans' Advanced Variable Speed Transformer Controller is an autotransformer based microprocessor controller designed to provide various options for the control of ZOO Fans. This Controller supports dynamic speed control for quiet, variable speed operation of the fans, and eliminates the undesirable motor hum often associated with Triac controllers. The fans can be controlled via Building Automation Systems (BAS), Manually (MAN), or Automatically (AUTO) with the addition of two dedicated temperature sensors. AUTO operation is based on the temperature difference (delta T) between these two sensors, typically placed near the floor and the ceiling. Fan speed and airflow are automatically controlled, based on the delta T and on the ceiling height as programmed via the configurable User Interface. Dynamic management of fan speed via the AUTO function or via BAS, typically results in fans running at lower speeds overall, while still maintaining thermal equilibrium in the space. By defaulting to LOW fan speed instead of OFF, constant background mixing continues to maintain comfort levels and save energy by supporting existing HVAC.

Typical Specifications

Controller shall be an autotransformer based microprocessor controller with two 0-10VDC inputs; one input for BAS integration and the other input for connecting to a configurable LED User Interface. Controller can be operated in BAS, Manual, or Automatic mode. The Automatic mode is configurable for various ceiling heights and utilizes dedicated temperature sensors that enable automatic adjustments to fan speed based on the temperature differential between these sensors. Electrical input is AC single-phase; input may be 115V and output may be 115V, depending on the model.

BAS

TRANSFORMER



Manual

LED USER INTERFACE



Optional Remote Control



Automatic

LED USER INTERFACE



TEMPERATURE SENSORS



Speed Controllers

Part #	Description	Quantity
AVST-__-__	Advanced Variable Speed Transformer	
Voltage:		
AVST-115V-10A-__	115V 10 Amp	
Control Methods:		
AVST-__-BAS	BAS: 0-10VDC Analog Control Signal	
AVST-__-MAN	Manual: User Interface	
AVST-__-AUTO	Automatic: User Interface, 2 Temperature Sensors	

Additional Option

Model	Description	Quantity
AVST-RC	Remote Control	



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Technical Specifications

Autotransformer

Mounting	8 Step Autotransformer Based Speed Controller
Dimensions	Transformer Casing 11"L X 7"W X 5-1/2"H
Weight	26 lbs
Input	115V
Output	115V
Control Modes	BAS, Manual, Automatic

User Interface

Mounting	Standard 2 X 4 Job Box
Control Capabilities	On/Off, Manual/Automatic Speed Control, Optional Remote Control
Ceiling Heights	Configurable for Various Ceiling Heights
Display	Local Temperature Display
Input	24VDC (supplied by autotransformer)

Electrical Table

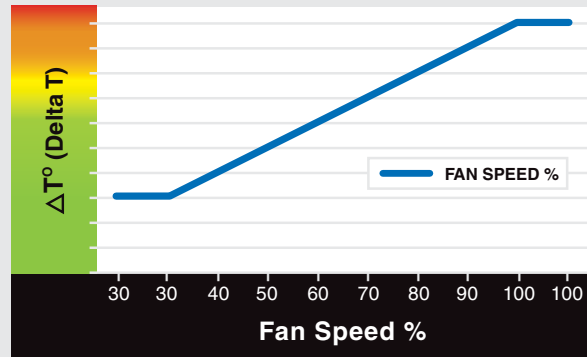
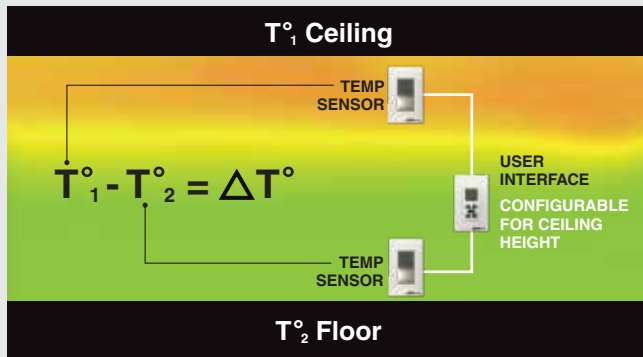
Model	Input	Output	Amps
AVST-115V-10A	115V	115V	10

Certifications

ETL Listed in USA and Canada.
Conforms to UL Standard 508 and Certified to CAN/CSA Standard CSA C22.2 #14.

Automatic Mode

To maintain equilibrium, the ZOO Fans AVST Controller system will automatically speed-up and slow-down the fans based on Delta T and Ceiling Height.



Project

Comments

Job Name:		Date:	
Job Address:			
City:	State:	ZIP:	
Architect:			
Engineer:			
Contractor:			