



TSI POWER (P) LTD.,  
 PLOT NO. 154-155, SIDDDHI  
 INDUSTRIAL INFRASTRUCTURE  
 PARK, WAGHODIA, VADODARA-  
 391760, GUJARAT, INDIA  
 e-mail: info@tsipower.in  
 Ph: +91-8000455999

## Specifications sheet:Fast Correction PWM Automatic Voltage Regulator (AVR), ± 13% series

CATEGORY	FEATURE	THREE PHASE MODELS (PANEL TYPE)	
		VRp-130000-9339-130P	VRp-160000-9339-130P
ELECTRICAL	Capacity in KVA (KW)	130 KVA	160 KVA
	Regulator engine	High frequency 20 KHz IGBT driven voltage regulation convertor	
INPUT	*Nominal voltage	415 volts ac, three phase	
	*Normal operating voltage (typical output regulation within +/- 1% of nominal)	360 - 470 volts ac for full regulation	
	Relaxed operating voltage (relaxed output regulation within functional range of 200-250V P-N)	300 - 490 volts ac within maximum rated input current capacity	
	Maximum rated input current	209 A	257 A
	Nominal frequency	47 - 63 Hz	
	Input circuit breaker rating	250 A X 3 phase MCCB	320 A X 3 phase MCCB
	Input wire size	BUS BAR	
	Ac connection	L1in , L2in, L3in, neutral and ground bus bar provided	
OUTPUT	*Nominal voltage	415 volts ac, three phase	
	Power efficiency	typically over 97 % (with 20 - 100% load conditions)	
	Voltage regulation (typical, excluding meter error)	+/- 1%	
	Maximum rated output current	180A	223A
	System status indicator	Green LED (ON) indicates Normal ( regulating mode) operation	
PHYSICAL	Ac connection	L1op, L2op, L3op, neutral and ground bus bar provided	
	Dimensions (IN MM) approx.	600 D x 1000 W x 2000 H	
	Weight (approx.)	450 Kgs	475 Kgs
	Display	Digital output voltage display thru selector switch	
	Annunciation	LED display for Regulation mode, Bypass mode & Fault conditions	
ENVIRONMENTAL	Mounting	Pad Mounted	
	Ambient temperature	0 <sup>0</sup> to + 45 <sup>0</sup> centigrade (32 <sup>0</sup> to +113 <sup>0</sup> farhenite). 10 to 90% RH non-condensing	
PROTECTIVE FEATURES	Cooling method	Fan Cooled	
	Standards & Safety	Designed to meet UL 60950-1 standards. Protection class IP 20.	
	Overload & Short Circuit Protection	Through suitably rated input circuit breaker	
	Soft Switch-On	This feature ensure that output voltage is never higher than input voltage upon switch-on, before it commences full stabilization.	
	Automatic bypass	Automatic bypass will be activated when there is a fault condition	
	Surge Test Conditions	Per Class 2 Surge ( combination wave)	
NOTES	Surge let-through voltages	1.2 X 50µs, 6kV, 8 X 20 µs, 3 kA waveform. L-N < 300V	
	<p>1. All * marked voltage regulation ranges are based on 415V nominal output voltage. They would proportionately change in case nominal output voltage is required to be preset at any other value between 380-415V.</p> <p>2. All models of VRp's are optionally available with 400 Volts to 200 Volts step down transformers in a separate cubical.</p> <p>3. Please ask if any non-standard range or customised feature is required.</p> <p>4. Since our designs are constantly evolving, the above specifications are liable to change without prior notice.</p>		