VTU

Voltage Tracking Unit

Device Description

VTU (Voltage Tracking Unit) is a generation digital input module that provides voltage tracking in single phase or three phase systems. Digital input module has network analyzer specification that provides 4 channel voltage and 3 channel current input on device. In addition to network analyzer and voltage tracking, VTU provides to monitoring of energy parameters of single phase or three phase information that connects.

Logical 1 and 0 informations can be set with VTU Configuration Software which voltage range will work. At the same time, power parameter may also be observed which is calculated as real time.

Device Specifications	
Supply Voltage Range	9-18 V_{DC} / 18-36 V_{DC}
Nominal Supply Voltage	12 V_{DC} / 24 V_{DC}
CPU	ARM Cortex-M4 32 Bit
Flash	256 kB
RAM	32 kB
Watchdog Timer	System Reset / 5 sec
Power Consumption	1.5W @ 24 V_{DC}
Real Time Clock	Available
Configuration	Inavitas VTU Configuration Software
Communication Specifications	
Communication Protocols	Modbus-RTU (Slave) g/n
Serial Interfaces	RS-485 (Isolated), Micro USB Type 2.0
Serial Communication Speed	1200bps – 115200bps
Connection Type	3-Wired (A, B, GND), Semi Duplex
Data Type	8 Bit Data, No Parity, 1 Bit Stop
Insulation	2.5 kV_{AC} RMS 1 Minute
Usb Data Transfer Speed	480 Mbit/s

Digital Input Specifications	
Voltage Measurement Range	0 - 275 $V_{AC,RMS}$
Number of Digital Channels	18 Voltage Inputs
Logical "1" Value	Programmable, Default : ≥ 150$V_{AC,RMS}$ ≤ 275 $V_{AC,RMS}$
Logical "0" Value	Programmable, Default : ≤ 150$V_{AC,RMS}$
Input Current	1.5 mA / Channel
Input Filter	Programmable, Default : 100ms
Input Change Counter	32 Bit
Power Measurement Specifications	
Voltage Measurement Range	0 - 275 $V_{AC,RMS}$ (L - N), 0 - 500 $V_{AC,RMS}$ (L - L)
Current Measurement Range	1 - 4000 $A_{AC,RMS}$ (Split Type)
Frequency	50 / 60 Hz ±5%
Voltage Channels	3P + N (3 Phase Voltage and Neutral)
Current Channels	3 Current Inputs
Sampling Frequency	128 Sample / Cycle
Voltage Accuracy	±0,5%
Current Accuracy	±1%
Active Energy Accuracy	IEC 62053-22 Class 0.5S
Accuracy Class	IEC 61000-4-30 Class S
Environment Conditions	
Operating Temperature	-25°C / +85°C
Storage Temperature	-40°C / +70°C
Operating Humidty	25% - 95% RH
Protection Class	IP20
Mechanical Specifications	
Device Dimensions (W x H x D)	35mm x 100mm x 115mm
Weight	150gr