

VE-EM4321-CT-BI

Multi-function three-phase electric meter



- 1.Current transformer access type, support 5A/1A, or mA/mV output current transformer
- 2.Current transformer access type, support 5A/1A, or mA/mV output current transformer correction function
- 3.Standard 4 modulus width, TH35-7.5 guide rail installation
- 4.Provide multi-function measurement parameters, support two-way power and multi-rate power metering
- 5.Support 1 passive pulse output or 1 RS485 communication
- 6.Provide total harmonic content of voltage and current

Technical parameter

Electrical Characteristics

Supply voltage	85 to 300 V AC or 120 to 420 V DC
Power consumption	< 4VA/0.5W
Rate voltage (Un)	3*110/190V or 3*230/400V AC
Operational voltage	L–N: 30 – 350V AC; L–L: 30 – 500V AC
PT1 (Primary)	30 – 50000V
Impedance of voltage measures circuit	1MΩ
Overload capacity of voltage	2*Un for 1 second
Rate current(Ib)	5A
Maximum current(Imax)	6A
Operational current	0.1%Ib to Imax
CT1 (Primary)	1 to 9999 A
Impedance of current measures circuit	<0.01 ohm
Overload capacity of current	20*Imax for 0.5 second
Operational frequency range	45 – 65Hz
Pulse constant	5000imp/kWh
Display	LCD with backlight
Maximum reading of energy	99999999 MWh/MVarh
Measure type	Three phase four wire,
	Three phase three wire,
	Single phsae two wire

Measurement accuracy

Voltage, Current	±0.5%
Active power	±0.5%
Reactive power	±2.0%
Apparent power	±0.5%
Active energy	±0.5%
Reactive energy	±2.0%
Power factor	±0.5%
Frequency	±0.1%
Harmonic distortion	±2.0%

Environmental Characteristics

Operating Temperature	–25 – +55℃
Storage Temperature	–40 – +80℃
Humidity	< 90%, non–condensing
Pollution Degree	2
Altitude	Up to 2000m
Vibration	10 Hz to 150Hz, IEC 60068–2–6
IP Degree of Protection	Designed to IP51 front display, IP30 meter body

Electromagnetic Characteristics

Electrostatic Discharge	±8kV(contact discharge),±15kV(air discharge)
Immunity to Radiated Fields	10V/m, 80 – 2000MHz
Immunity to Electrical Fast Transients	±4kV
Immunity to Surges	±4kV
Immunity to Conducted Disturbances	10V, 0.15 – 80MHz
Immunity to Magnetic Fields	IEC 61000–4–8
Immunity to Voltage Dips	IEC 61000–4–11
Radiated Emissions	Class B, according EN55011
Conducted Emissions	Class B, according EN55011
Harmonics Emissions	IEC 61000–3–2

Safety

Overvoltage Category	CAT III, according IEC 61010–1
Measurement Category	CAT III, according IEC 61010–1
Insulation	AC Voltage Test: 4kV for 1 minute
	Impulse Voltage Test: 6kV – 1.2/50μS waveform
Protective Class	II, according IEC61010–1

Communications

Interfaces standard and protocols	2–wire RS485, Modbus RTU ,wifi Optional: Mbus
Buad rate	1200 to 38400 bps, default is 9600 bps
Parity bit	None, Even, Odd, default is None
Stop bit	1 or 2, default is 1
Response time	<100ms
Transmission mode	half–duplex
Transmission distance	Up to 1000m
Max. Bus loading	64 pcs

Pulse output

Interface type	Open collector optocoupler
Pulse constant	Per pulse equal 0.001/0.01/0.1/ 1 kWh/kvarh (Configurable)
Pulse width	60/100/200 milliseconds (Configurable), default is 100milliseconds
Pulse output type	Import/export/total active energy, Import/ export/total reactive energy (Configurable)
Class	Class A, according IEC 62053–31
Input voltage	5 to 27 VDC

Product size chart

