

VE-EM4321-DT-BI

Multi-function three-phase
electric meter



1. Direct Connection up 100A
2. Standard 4 modulus width, TH35-7.5 guide rail installation
3. Provide multi-function measurement parameters, support two-way power and multi-rate power metering
4. Support 1 passive pulse output or 1 RS485 communication
5. Provide total harmonic content of voltage and current

Electrical Characteristics

Rate voltage (Un)	3*110/190V or 230/400V AC
Operational voltage	L-N: 85 to 278V AC; L-L: 85 to 480V AC
Overload capacity of voltage	2*Un for 1 second
Rate current(Ib)	5A
Maximum current(I _{max})	100A
Operational current	0.1%I _b to I _{max}
Overload capacity of current	30*I _{max} for 0.01 second
Operational frequency range	45 ~ 65Hz
Power consumption	<2W/10VA
Pulse constant	400 imp/kWh
Display	LCD with backlight
Maximum reading of energy	0 to 999999.999 kWh÷2, LCD×2→÷7+1→÷8+0.1
Measure type	Three phase four wire,
	Three phase three wire,
	Single phase two wire

Measurement accuracy

Voltage, Current	±0.5%
Active power	±1.0% / 0.5%
Reactive power	±2.0%
Apparent power	±1.0%
Active energy	±1.0% / 0.5%
Reactive energy	±2.0%
Power factor	±1.0%
Frequency	±0.2%

Environmental Characteristics

Operating Temperature	-25 ~ +55℃
Storage Temperature	-40 ~ +80℃
Humidity	≤ 85%, 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	±10kV/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 II, according IEC 61010-1
Measurement Category	CAT II, 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 Optional: Mbus
Bus 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	400/100/10/1 imp/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

