KKP METERING ELECTRICITY AND WATER

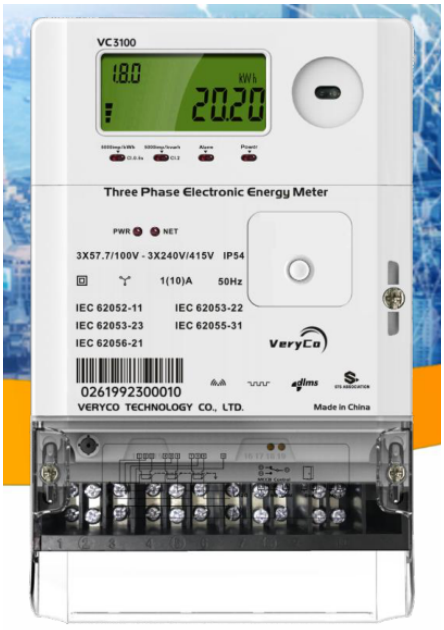
"YOU ONLY PAY FOR WHAT YOU USE"

VC3100CT

Multi-Function Meter

CT/VT or CT connection

High-accuracy three-phase smart metering



PRODUCT OVERVIEW

VC3100CT is a high-precision, multi-function three-phase smart meter for CT/VT or CT connection, designed for power plants, substations, transmission exchange points, commercial entities and industrial applications.

HIGH ACCURACY

Class 0.5 active energy and Class 2 reactive energy performance.

DLMS/COSEM

Communication protocol compliant with DLMS/COSEM for remote management and reading.

FLEXIBLE APPLICATION

Works with corresponding current transformers, voltage transformers and circuit breakers.

VC3100CT Multi-Function Meter

Overview

VC3100CT is a new generation high-precision multi-function three-phase CT/VT or CT connection smart meter with modular design. It is intended for power plants, high-voltage substations, distribution substations, transmission-line exchange points, commercial entities, and both large and small industries. The meter communication protocol is DLMS/COSEM compliant. According to site requirements, the meter can work with corresponding current transformers, voltage transformers, and low- or high-voltage circuit breakers with shunt release and motor operating mechanisms. Flexible communication ports provide multiple media for remote management and reading.

Technical Specifications

Description	Specification
Reference voltage (Un)	3 x 230/400V; 3 x 57.5/110V
Operating voltage	80% Un - 120% Un
Voltage limit	60% Un - 130% Un
Maximum switching voltage	>418V
Maximum withstand voltage	500V, 48 hours, no damage or accuracy deviation after restoration
Short-time withstand voltage	600V, 1 minute, no damage or accuracy deviation after restoration
Basic current (Ib)	1A
Maximum current (Imax)	10A
CT ratio	100A, 200A, 300A, 500A, 800A
Short-circuit current	3,000A, <3ms, no damage or accuracy deviation after restoration
Frequency	50Hz
Frequency range	47.5 - 52.5Hz
Accuracy class	Class 0.5 for active energy; Class 2 for reactive energy
Starting current	0.1% Ib (5mA)
Pulse constant	10000 imp/kWh; 10000 imp/kvarh
Utilization class	UC2
Contactor mechanical life	>3000 cycles at maximum power, PF=1

Electrical, Environmental & EMC Specifications

Parameter	Specification
Voltage circuit	<1W, 2.5VA @230V
Current circuit	<0.1VA @ base current (Ib)
Operating temperature	-25 C to 70 C
Storage temperature	-40 C to 90 C
Humidity	Average <=95%; maximum <=100%; non-condensing
Altitude	<=3000m
Electrostatic discharge (ESD)	Contact discharge: 8kV; Air discharge: 15kV, IEC 61000-4-2
Fast transient burst	4kV / 100kHz, IEC 61000-4-4
Immunity to HF fields	80MHz-2GHz @10V/m with load; 80MHz-2GHz @30V/m with no load; accuracy not affected by magnetic fields from all sides
Conducted disturbances by RF	150kHz-80MHz, 10V/m, IEC 61000-4-6
Radio interference	CISPR 22; IEC 61000-4-2, 3, 4, 6
Surge immunity	30kA/kV, 4/10s against lightning, IEC 61000-4-5

KKP METERING

Professional electricity metering solutions

Technical information retained from the original VC3100CT product document.