

SMART METERING • RESIDENTIAL

NV33

Polyphase revenue meter

Nexbe delivers next-generation AML, unifying revenue metering, power quality, and load control with a cloud platform that gives customers real-time visibility into every metering asset.

The NV33 is a flexible 3-element, 100 A monitoring meter featuring independently controlled relays. Configure it as a 3-phase meter or as a single-phase meter with two controllable loads, ideal for hot-water, solar, or EV charging control.



200 kHz ANALOG SAMPLING



Control
Relay & load management



Quality
IEEE & IEC reporting



Faults
Waveform analysis

FEATURES

- Revenue-grade energy metering with integrated confirmed data delivery.
- Two remote relay control channels for residential single-phase installations.
- 100 kHz waveform capture and spectrum analysis, including sub-harmonics.
- Power quality reporting compliant with IEEE 1159.3 and IEC 61000-4-30.
- Supply impedance estimation for connection integrity monitoring.

BENEFITS

- Revenue collection with revenue-grade accuracy, reducing risk of financial loss.
- Flexible load management via traditional ripple control or cloud-based services.
- Remote, high-resolution fault analysis on voltage and current waveforms.
- Standardised power quality reporting for easy integration with existing systems.
- Early warning of degraded supply quality, including unsafe electrical connections.

100 A MAXIMUM CURRENT	IP54 INGRESS	2 RELAY CHANNELS	20 yr RETENTION
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TECHNICAL SPECIFICATION

NV33 Polyphase revenue meter

PHYSICAL WIRING	
Forms	1-Phase 2W, 2-Phase 3W, 3-Phase 4W
Security	Security Tags & Tamper Detection
Dimensions	165 mm x 218 mm x 79 mm
Weight (net)	1.6 kg
ENVIRONMENT	
Operating	-25 °C to +60 °C
Storage	-40 °C to +70 °C
Rel. Humidity	75% mean
Ingress	IP54
Protective Class	II
VOLTAGE	
Nominal	240 V (L-N) / 415 V (L-L)
Operating	184 — 264 V (L-N)
Impulse	10 kV
Surge	4 kV
CURRENT	
Start	40 mA
Base	10 A
Minimum	0.5 A
Maximum	100 A
RELAY	
SCS	100 A IEC 62055-31 UC3
LCS	50 A IEC 62055-31 UC3
REAL TIME CLOCK	
Accuracy	< 5 s/mth (unsynchronised)
Sync. Method	NTP server when connected
Battery Backup	10 yrs at 23 °C unpowered
REPORTING	
Revenue	HHR & TOU (in HERM, EIEP3 formats) Active & Reactive, Import & Export
Power Quality	IEEE 1159.3 (PQDIF) IEC 61000-4-30

RIPPLE CONTROL	
Protocol	Decabit, Telenerg
Carrier Freq.	120 — 2,000 Hz
Bandwidth	1 — 50 Hz
Signal Level	(0.1—3.0 V) to (1.0—20 V)
POWER QUALITY METRICS	
Harmonics	Sub, Odd, Even, and Inter-harmonics to the 400th.
Parameters	Vrms, Irms, PF, Hz, kW, kVA, kvar, THD, Impedance
Analog Sampling	200 kHz
Waveform Capture	100 kHz for 1-cycle or 20 kHz for 1-cycle
Revenue	20 kHz
DATA MEMORY	
Energy	6 MB storage
Events	1 MB storage
Register Memory	> 48 mths
Retention	20 yrs
Encryption	256 bit AES
COMMUNICATION	
Wi-Fi	2.4GHz 802.11 b/g/n
Cellular	LTE CAT-M1 (eSIM)
METER CONSTANT	
Active	1 imp/kWh
Reactive	1 imp/varh
Programmable	1—1000 imp/unit
STANDARDS & COMPLIANCE	
Accuracy Class	1% Active & 2% Reactive
IEC	62052-11, 62052-31 62053-21, 62053-23 62054-21
AS	62052-11 62053-21, 52053-23 62054-21
EN	50470-1, 50470-3

