

SMART METERING • RESIDENTIAL

# NV30CT

## Polyphase network 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 NV30CT is a versatile 3-phase meter for external current transformers installations, featuring independently controlled relays. It supports both solid-core and split-core CTs rated up to 5 A on the secondary, delivering improved accuracy at lower load currents.



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.
- Three control relays for switch gear signalling and actuator control.
- 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.

|                             |                        |                            |                           |
|-----------------------------|------------------------|----------------------------|---------------------------|
| <b>5 A</b><br>RATED CURRENT | <b>IP54</b><br>INGRESS | <b>3</b><br>RELAY CHANNELS | <b>20 yr</b><br>RETENTION |
|-----------------------------|------------------------|----------------------------|---------------------------|



TECHNICAL SPECIFICATION

# NV30CT Polyphase network meter

| PHYSICAL WIRING |                                  |
|-----------------|----------------------------------|
| Forms           | 3-Phase 4W + 3x CT + 3x 16A RLY  |
| Security        | Security Tags & Tamper Detection |
| Dimensions      | 165 mm x 218 mm x 79 mm          |
| Weight (net)    | 1.4 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                      |

| SECONDARY CURRENT |          |
|-------------------|----------|
| Start             | 20 mA    |
| Rated             | 5 A      |
| Maximum           | 6 A      |
| VA Burden         | < 0.5 VA |

| CURRENT TRANSFORMER |                                    |
|---------------------|------------------------------------|
| CT Ratio            | (5 A) : (50—1000 A) (programmable) |

| 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)<br>Active & Reactive, Import & Export |
| Power Quality | IEEE 1159.3 (PQDIF)<br>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 200th. |
| Parameters            | Vrms, Irms, PF, Hz, kW, kVA, kvar, THD, Impedance |
| Analog Sampling       | 200 kHz                                           |
| Waveform Capture      | 100 kHz for 1-cycle<br>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—10,000 imp/unit |

| STANDARDS & COMPLIANCE |                                           |
|------------------------|-------------------------------------------|
| Accuracy Class         | 0.5% Active & 1% Reactive                 |
| IEC (Pending)          | 62052-11, 62052-11,<br>62053-21, 62053-23 |
| AS (Pending)           | 62052-11, 62052-11,<br>62053-21, 52053-23 |
| EN (Pending)           | 50470-1, 50470-3                          |

