



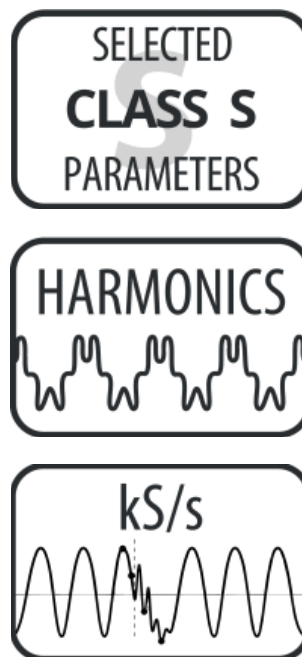
NP41 Advanced Class S Power Quality Analyser

The natural upgrade from NP40

- Deeper diagnostics
- Faster disturbance capture
- Touch workflow
- Connectivity



A capability led replacement story



Launch of “NP41”

**Advanced Class S field analysis
with modern diagnostics and workflow.**

- Replace the legacy NP40 with a more capable Class S platform.
- Add high value diagnostic functions without moving into the NP45 / Class A segment.
- Create a clear portfolio: NP41 for advanced field analysis; NP45 for highest accuracy Class A work.

NP41:

- **Advanced Class S troubleshooting**

NP45:

- **Premium Class A verification /
compliance oriented analysis**

Recommended sales phrase: Same Class S role, but with a modern touch interface, deeper harmonic analysis and faster disturbance capture.



The technical story sales engineers should lead with

CLASS S

IEC 61000-4-30

1-1000

Vrms • AC + DC

6000 A

with configured flexible coils

1st 100th

harmonics • 50/60 Hz

200 kS /s

transient sampling

5.6 in

640 × 480 colour touch LCD



Eight differentiators that create customer value

1

100th harmonic

- 1st 100th @ 50/60 Hz

2

Harmonic power

- 1st 50th + K factor

3

200 kS/s transients

- 5 μ s minimum test time

4

Mains signalling

- 60 3000 Hz

5

Inverter efficiency

- DC to AC conversion checks

6

Waveform recording

- Root cause documentation

7

32 GB logger

- 1 s to 60 min intervals

8

Touch + WiFi

- 640 × 480 colour LCD



Touch first workflow with dedicated navigation keys

5.6 in colour touch LCD

- Modern field workflow

640 × 480 display

- High information view

Menu / Setup / Fn

- Fast access controls

Cursor / Run Hold

- Field operation

Enter + navigation

- Program and scroll

Save Screen / power

- Capture & operate





Measurement domain → capability → customer outcome

Voltage / current / frequency

Vrms , Vpk , crest factor, Arms, frequency

Routine PQ survey, commissioning, troubleshooting

Dips & swells

Vrms1/2, Arms1/2, event duration

Find sags, swells, interruptions and rapid voltage changes

Harmonics

1-100th (50/60 Hz),
1-12th (400 Hz), THD

Non linear loads, VFDs, UPS, converters, overheating risk

Harmonic power + K factor

1-50th harmonic power;
K-factor 1-50

Transformer / neutral stress and harmonic contribution

Power & energy

P, S, Q1, PF/cos ϕ , kWh/ kVAh kvarh

Energy audits and electrical loading

Flicker / unbalance

Pst Plt , voltage/current unbalance, phase

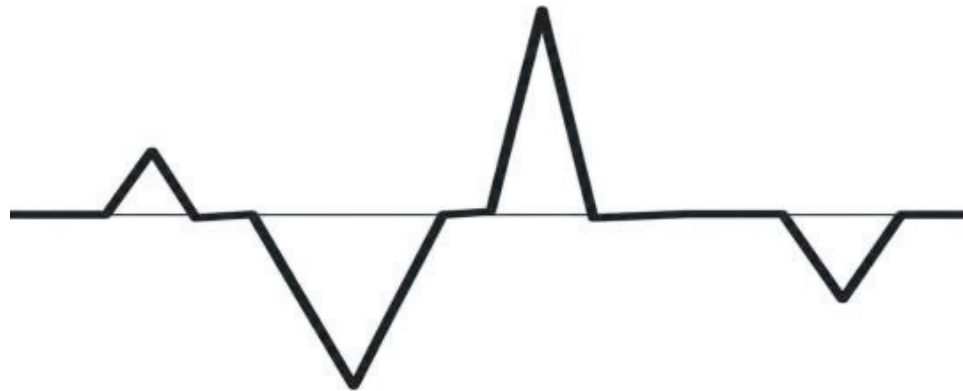
Motor and sensitive-equipment issues



The features that turn a measurement into a diagnosis

200kS /s transient sampling

Minimum test time: 5 μ s



- Fast switching events • surges • electronic disturbances

Waveform recording supports event documentation and root cause analysis.

Long term logger

32 GB Micro SD storage

1 s - minimum interval

- Capture short term trends

60 min maximum interval

- Long duration surveys

EN50160 default / user defined

- Standardized PQ surveys



Selected headline values:

Voltage

Range / resolution	1-120 V: 0.001 V resolution
	120-400 V: 0.01 V
	400-1000 V: 0.1 V
Accuracy	U _{din} <100 V: ± 0.2 V
	U _{din} >100 V: $\pm 0.2\%$ U _{din}

Current

Range / resolution	10 mV/A: 0-150 A
	1 mV/A: 1-2000 A
	Flexible coils: 10-6000 A
Accuracy	$\pm(0.1\% \text{ reading} + 0.05\%)$
	Flexible coils: $\pm(0.1\% \text{ reading} + 0.1\%)$

Harmonics / THD

Range / resolution	Harmonic V/I: 0.0-100.0%
	THD: 0.0-100.0%
Accuracy	Harmonic V/I: $\pm 5\%$ reading*
	THD: $\pm 2.5\%$

Power / Flicker

Range / resolution	P/S/Q1: min. 0.01 kW
	Pst: 10 min / Plt : 2 h
Accuracy	Power: $\pm (1\% + 10 \text{ digits} + \text{CT})$
	Pst: $\pm 5\%$



Same Class S role. A materially stronger field platform.

Feature	NP40	NP41	SALES TAKEAWAY
Harmonics	1st-50th	1st-100th	Double the harmonic order capability
Harmonic power	N/A	1st-50th; 1st-12th @ 400 Hz	Adds harmonic contribution view
K-factor	N/A	1-50	Supports transformer / heating stress evaluation
Transient sampling	20 kS/k	20 kS/k	Distributed multi-meter installations
Min. transient test	50 μ s	5 μ s	Captures faster disturbances
Display	5.6 in 320×240 TFT	5.6 in 640×480 colour touch	4×pixel count + touch workflow
Connectivity	USB Host, LAN	USB Host, LAN, Wi-Fi	Wireless field workflow / data access
Current capability	Up to 5000 A	Up to 6000 A	Higher current headroom



Protect the premium model while making NP41 the default advanced field analyser

NP41

Advanced Class S field analyser

- IEC 61000 4 30 Class S
- Voltage accuracy: 0.2% of U_{din} above 100 V
- Up to 100th harmonics
- 200 kS /s transient sampling
- Up to 6000 A with configured flexible coils
- Inverter efficiency supported

Win on value + field diagnostics

NP45

Premium Class A analyser

- IEC 61000-4-30 Class A
- $\pm 0.1\%$ of nominal voltage
- Up to 100th harmonics
- 200 kS /s transient sampling
- Up to 6000 A
- Keep for high-accuracy projects

Win when Class A + highest accuracy matter

Trade-up rule: “More advanced Class S?” → NP41 | “Class A / highest accuracy?” → NP45



Where NP41 creates the strongest field value

1

VFD / UPS / SMPS

- 100th harmonics + harmonic power + K factor

4

Switching/Electronic Dist.

- 200 kS /s transients + waveform recording

2

Solar / inverter systems

- Inverter efficiency + power/energy + logger

5

Motor / sensitive loads

- Flicker + unbalance + dips swells

3

High frequency grid signals

- Mains signalling 60-3000 Hz

6

Long term PQ surveys

- EN50160 default or user defined + 32 GB logger

Default advanced field analyser for customers moving beyond NP40 capability.



A practical discovery framework for field conversations

Has NP40 and wants more capability	NP41	Lead with 100th harmonics, 200 kS /s transients, touch screen, Wi Fi, waveform recording.
Needs standard Class S troubleshooting	NP41	Good default advanced field analyser.
Has VFD / UPS / SMPS harmonic problems	NP41	Lead with 100th harmonics + harmonic power + K factor.
Works on solar / inverter efficiency	NP41	Lead with inverter efficiency + power/energy + long term logger.
Investigates high frequency grid signals	NP41	Lead with mains signalling 60 3000 Hz.
Needs highest accuracy / Class A	NP45	Do not over position NP41; qualify directly to NP45.

Legacy → current core → premium



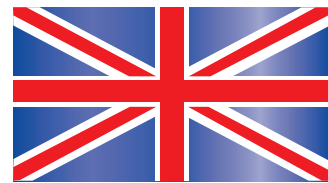
Launch message

NP41 is the natural upgrade from NP40: same Class S role, but with a modern touch interface, deeper harmonic analysis and faster disturbance capture

When the customer needs Class A, move to NP45.



THANK YOU



Sifam Tinsley Instrumentation Ltd

1 Warner Drive
Springwood Industrial Estate
Braintree
Essex
CM7 2YW

Tel: 01376 335271

Email: sales@sifamtinsley.com

www.sifamtinsley.co.uk