ABB 1SDA083360R1

01 Function and selected configuration

Product function

ABB 1SDA083360R1 adds electronic protection and measurement to an existing switching arrangement while retaining the separately engineered trip and sensing circuits.

Selected configuration

The Protect version adds protection based on current, voltage, frequency and power to the Ekip UP measurement functions. Advanced generator, directional and adaptive functions belonging to Protect+ must not be assumed for this article.

Functional path

Current / voltage sensors	Measurement processing	Protection logic	Switching-device trip

Version	Ekip UP Protect
Measured quantities	Current, voltage, frequency and power
Integration	Separate sensing and switching circuits

The installation uses the selected current sensors, rating plug and voltage inputs to establish its measurement range. Metering precision with sensors differs from unit-only precision, so the complete sensing chain and transformer accuracy must be considered.

1SDA083360R1

02 Technical operating envelope

Protection version	Ekip UP Protect
System voltage	Up to 1150 V
Current application range	100–6300 A with the selected sensors and rating plug
System frequency	50–60 Hz
Operating temperature	-25 to +70°C; maximum +60°C for UL
Protection degree	IP40; IP54 with suitable external cover

System current precision	1% under Type C sensor reference conditions
System voltage precision	0.7% under stated reference conditions
System power precision	2% under stated reference conditions
Harmonic analysis	Up to 50th harmonic
Data-logger sampling	1200, 2400, 4800 or 9600 Hz
Maximum recording duration	16 seconds

Ranges and precision refer to the configured Ekip UP Protect system. Accessories and advanced software functions must be confirmed individually.

Signal interpretation

The 100–6300 A range is a system application range requiring the selected sensors and rating plug; it is not a direct-current rating for the unit terminals.

Interface boundary

Type C reference conditions govern the stated system precision. Voltage transformers, when used for those values, require class 0.2 or better.

Why are sensor-system precision values different for 1SDA083360R1?

Sensor and installation errors add to unit measurement error. Under Type C reference conditions, system current precision is 1% rather than the unit-only 0.5%.

1SDA083360R1

03 System integration and applications

Feeder protection

Apply current, voltage, frequency and power protection to the designed feeder.

Switchgear modernization

Add electronic functions to an existing switching arrangement.

Power-quality review

Inspect harmonic and voltage-event measurements under the configured limits.

Fault investigation

Use event and waveform records to evaluate protection operation.

System and supply context

The unit acts as a protective relay in a separately engineered low-voltage switching system.

Application boundary

Use only functions enabled for the Protect version and the actual fitted accessories and software.

Which electrical quantities support protection on 1SDA083360R1?

The Protect version uses current, voltage, frequency and power protection functions.

1SDA083360R1

04 Engineering selection decisions

Is 1SDA083360R1 the Ekip UP Protect+ version?

No. Article 1SDA083360R1 identifies Ekip UP Protect.

Can the 6300 A application limit of 1SDA083360R1 be connected directly to its terminals?

No. The application range depends on the selected current sensors and rating plug; it is not a direct terminal current rating.

How far does harmonic analysis extend on 1SDA083360R1?

The network-analysis function covers harmonics up to the 50th order.

Why must the trip path be tested separately on 1SDA083360R1?

Correct measurements do not prove that the switching device opens. Test the trip interface, continuity diagnostics and actual protection action.

Trip coordination	Prove the actual switching-device opening path.
Settings control	Retain approved protection thresholds and delays.

1SDA083360R1

05 Configuration boundary and references

Lifecycle and support

The current production and factory-support status of 1SDA083360R1 is unconfirmed.

Replacement assessment

Retain the selected sensor ratios, rating plug, protection settings and switching-device trip interface.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; it does not replace manufacturer instructions.

Technical basis

ABB Ekip UP Technical Catalogue, 1SDC001051D0201, May 2020.

Related product navigation

ABB CI867K01 3BSE043660R1

ABB BSFC-02C 3AXD50000011461

These are related references, not confirmed substitutes or an automatically approved assembly.

Product enquiries