

Sprint 350 is an enhanced metering solution for three-phase direct-connected installations. It is suitable for domestic, industrial and commercial applications.

It has advanced revenue protection features, making it especially useful in areas where theft and fraud are prevalent.



### Application

- Direct connected domestic, industrial and commercial billing
- Sub metering for residential, small industrial and commercial establishments
- Remote data collection for billing and consumption analysis

### Benefits

- A wide range catering to various utilities requirement
- Power factor recording for reactive power management
- Revenue protection

### Features

- Single vector/bi vector/tri vector measurement
- Time of day metering with maximum demand registration and automatic billing
- Phase indicators for healthiness of voltages
- Backlight LCD display with annunciators for various critical events
- Forwarded energy registration under current reversal condition
- Scroll lock feature for continuous display of desired parameter
- High resolution energy mode for dial test
- Interoperable DLMS protocol for meter reading with option for remote reading port
- Advanced tamper detection features for voltage, current and magnetic influences
- Two separate metrology LEDs for accuracy testing of different energy types
- Meter reading in the absence of mains supply using internal battery

# Sprint 350

## Technical specifications

### Electrical

Connection type	Direct connected
Wiring configuration	3-phase 4-wire
Voltage range	230/240 V(P-N), 400/415 V (P-P)
Current range	5-30 A, 10-40 A, 10-60 A, 20-100 A
Accuracy	Class 1.0
Mains frequency	50 Hz $\pm$ 5%
Burden	As per standards

### Compliance

Standards	IS 13779, IEC 62052-11, IEC 62053-21, DLMS Indian Companion Standard
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### Mechanical

Dimensions (W x H x D)	191 x 255 x 82 mm (approx.)
Weight	2 kg (approx.)
Enclosure	Engineering plastic
Sealing	Provision of sealing on mains cover and terminal cover

### Environmental

Degree of protection	IP 51
Insulation class	Protective class II
Temperature	-10 °C to +55 °C (operating) -25 °C to +70 °C (storage)
Humidity	95% non-condensing

### Features

Tariff rate registers	Up to 8 rate registers, for two energy channels
Maximum Demand	Up to 2 types, configurable in 8 registers
Load Survey	Up to 70 days load profile for 8 parameters (configurable), with 30-minute integration period.
Communication	Optical port for local communication, optional RS232 (RJ11 port) for remote communication

Contact your nearest sales office for more details

# Sprint 200 family

## Modular Three Phase Smart Meter

The Sprint 200 family are intelligent three phase meters for Smart Metering applications with capability for monitoring, data storage and load control.

The provision of Mesh Radio, 3G/GPRS/GSM or Distribution Line Carrier (DLC/LV PLC) communications technologies makes Sprint 200 meters easy to integrate with remote meter management infrastructures for smart metering installations. The range includes models with modular design - enabling communications module to be changed in the field without breaking meter calibration or installation seals.

ZigBee® communications makes Sprint 200 easy to integrate with Home Area Network (HAN) and In-Home Displays (IHD).

Sprint 200 meters have supply disconnection contactor, with optional load control relays for demand side management applications.



### Application

- Domestic three-phase metering with remote billing and disconnect
- Metering for small commercial premises
- Smart metering deployment
- Metering for micro-generation installations

### Benefits

- Remote reading and disconnection functions reduce the need for routine meter visits
- Can be easily integrated into smart meter systems
- Easy diagnosis of installation faults via a complete set of instantaneous electrical parameters
- Assists consumers in reducing energy consumption and corresponding carbon dioxide emissions
- Provides an upgrade path via remote firmware upgrades
- Modular design allows change of communication module within the life of the meter – without breaking meter or installation seals

### Features

- True four-quadrant measurement with import/export registration
- Time-of-use tariffs and maximum demands
- Integrated three phase mains disconnect contactor and optional auxiliary load control switch
- Full Smart Meter functionality – including Time of Use based switch control, supply capacity control, remote firmware upgrades
- Logging of multi-parameter load survey, billing data, events such as power outage and abnormalities
- Easy diagnosis of installation faults via a complete set of instantaneous electrical parameters
- Quality-of-supply (QoS) metering
- Automatic remote notification of user-selected events to back-office system
- Communications options including mesh radio, long-range radio, DLC and 3G/GRPS/GSM

# Sprint 200 family

## Technical specifications

### Electrical

Connection type	Direct connected
Wiring configuration	3-phase 4-wire
Voltage range	230 V (L-N), 400 V (L-L), $\pm 20\%$
Current range	20 - 100 A, MID 1-20 (100) A
Accuracy	Class 1.0, MID Class B
Mains frequency	50 Hz $\pm 5\%$
Burden	Voltage Circuit: $< 1$ W, 1.5 VA per phase Current Circuit: $< 0.1$ VA per phase

### Compliance

Standards	MID Class B, EN 50470-1, 3, COP10
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### Mechanical

Dimensions (W x H x D)	145 x 230 x 112 mm (with standard terminal cover) 145 x 245 x 112 mm (with extended terminal cover)
Weight	2.4 kg (approx.)
Enclosure	Flame-retardant polycarbonate

### Environmental

Ingress protection	IP 53
Insulation class	Protective class II
Impulse withstand	10 kV @ 0.5 J 4 kV AC for 1 minute (RJ-45 port)
Temperature	-40 °C to +70 °C (operating) -40 °C to +80 °C (storage)
Humidity	95% non-condensing

### Features

Tariff rates registers	Up to 4 rate registers for five energy channels
Maximum demand registers	Up to 2 types across 4 registers
Load survey	600 parameter/days with 30 minute integration period
Communication options	LAN: Mesh radio, DLC WAN: 3G/GPRS/GSM long-range radio (via RJ-45 port) HAN: ZigBee® (2.4 GHz) Smart Energy Profile IEC 1107 hardware compatible port for local reads
Quality of supply	Maximum/minimum voltage, over-voltage, under-voltage, minimum power factor, maximum current, supply failure, exception logging
Load control	Supply disconnect switch: 100A Optional auxiliary load control switch: 31.5 A

# Sprint 200 DLC

## Three-phase direct-connected meter with DLC

Sprint 200 is an intelligent three-phase meter combining advanced monitoring, data storage and communications facilities for advanced metering infrastructure (AMI) applications.

The provision of distribution line carrier (DLC) technology makes Sprint 200 easy to integrate with remote reading infrastructure. The meter provides data to a meter data concentrator (MDC) using CENELEC C Band protocol over the low-voltage mains cables. The MDC transfers data to the network management system (NMS) in the central station using general packet radio service (GPRS) connectivity.



### Application

- Small commercial and industrial premises
- Metering for AMI deployment
- Tenant billing for residential complexes
- Special economic zones (SEZ)

### Benefits

- No manual intervention required for data collection
- Uses existing mains cabling for communication
- Fully integrated DLC functionality makes installation easy

### Features

- Tri-vector energy measurement
- Time-of-use tariffs and maximum demands, with automatic scheduled self-billing
- Automatic 'forwarding' of energy registration in case of current reversal
- Large backlit display with high-resolution mode for accuracy testing
- Option for pulse output
- Communications ports for local and remote reading
  - Optical (ANSI) port for local reading
  - RS-232 (RJ-45) port for remote reading
- Integrated DLC communication using CENELEC protocol in C-Band
- Event detection

# Sprint Dual DLC

## Technical specifications

### Electrical

Connection type	Direct connected
Wiring configuration	3-phase 4-wire
Voltage range	230 V (L-N), 400 V (L-L) $\pm$ 30%
Current range	5-65 A
Accuracy	Class A (2.0)
Mains frequency	50 Hz $\pm$ 5%
Burden	Voltage Circuit: < 1 W & 2 VA (per phase) Current Circuit: < 0.5 VA (per phase)

### Compliance

Standards	EN50470-1, EN50470-3:2006, CE mark
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### Mechanical

Dimensions (W x H x D)	180 x 272 x 93 mm (with extended terminal cover)
Weight	1.7 kg (approx.)
Enclosure	Flame-retardant polycarbonate
Sealing	Facilities are provided for sealing

### Environmental

Degree of protection	IP 53
Insulation class	Protective class II
Temperature	-40 °C to +70 °C (operating) 40 °C to +80 °C (storage)
Humidity	95% non-condensing

### Features

Tariff rate registers	Up to 8 rate registers, for two energy channels
Maximum Demand	Up to 4 registers, for two energy channels
Load Survey	440 parameter-days (up to 4 channels with 110 days each) with 30-minute integration period
Communication	DLC: CENELEC C-Band RS-232 for remote reading (via RJ-45 port) ANSI port for local reading
Quality-of-supply monitoring	Maximum/minimum voltage, over-voltage, under-voltage, voltage sag, voltage swell, over-current and supply failure

## Direct-connected Three-phase Energy Meter

Sprint is a full four-quadrant, three-phase whole-current metering platform for use in markets where flexible time-of-use tariff facilities are required.

Sprint offers a cost-effective solution for everything from basic direct-connected applications to full time-of-use and maximum demand metering.



### Application

- Direct-connected domestic, industrial and commercial billing
- Single-phase, two-phase or three-phase low-voltage circuits

### Benefits

- Compact and accurate
- Reliable and flexible in use
- Easy to install; wiring faults can be diagnosed from instantaneous parameters

### Features

- True four-quadrant measurement
- Time-of-use tariffs and maximum demands
- Multi-drop network capability via PACTLAN addressing
- Logging of events such as power outage and communications activity
- Build option of 1 pulse output and 1 input

## Technical specifications

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### Electrical

Connection type	Direct connected
Wiring configuration	3-phase 4-wire
Voltage range	220-240 V (L-N)
Current range	20-100 A, 40-100 A
Accuracy	Class 1.0, Class 2.0
Mains frequency	50 Hz $\pm$ 5%
Burden	Voltage circuit: < 1 W, 1.5 VA (per phase) Current circuit: < 0.1 VA (per phase)

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### Compliance

Standards	IEC 62052-11, IEC 62053-21
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### Mechanical

Dimensions (W x H x D)	175 x 191 x 54 mm
Weight	1.2 kg (approx.)
Enclosure	Engineering plastic
Sealing	Sealable screws on main cover and terminal cover

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### Environmental

Degree of protection	IP 51
Insulation class	Protective class II
Impulse withstand	6 kV
Temperature	-10 °C to +45 °C (operating) -25 °C to +70 °C (storage)
Humidity	95% non-condensing

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### Features

Tariff	Up to 8 rates
Maximum demand	Up to 2 types, configurable in 4 registers
Load survey	150 parameter-days with 30-minute integration period
Communication	IEC 1107 hardware-compatible port for local communication, PACT port for remote communication
Pulse output	Voltage rating 230 V AC . Cable entry 2.5 mm <sup>2</sup>
Pulse output (build option)	Voltage rating 230V AC, 24-240 V DC max. Cable entry 2.5 mm <sup>2</sup>