



ENGLISH

RS PRO Datasheet

Article No: 136-5377

Digital Multi-Function Meter, 96x96, 3Ph, V A F

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Digital Multi-Function Meter, 96x96, 3Ph, V A F, with Limit Relay/Switch option





RS PRO

- True RMS Measurement
- Onsite Programmable
- Limit Switch Output
- Low Back Depth
- 3 Line Ultra Bright LED Display
- Run Hour / On Hour indication

RS Pro measures important electrical parameters in 3 phase 4 Wire, 3 phase 3 Wire and 1 phase Network & replaces the multiple analog panel meters. It measures electrical parameters like AC Voltage, AC Current, Frequency & many more. The instrument also has an optional limit switch.

Applications:

- Distribution Panels
- Electrical load monitoring
- Genset, Test Benches and Laboratories
- Motor Control Panels

Product Features

True RMS measurement

Measures distorted waveform up to 15th Harmonic.

Onsite programmable

Onsite Programmable System Configuration 3PH4W / 3PH3W and Single phase. Onsite Programmable CT ratios and PT ratios

Limit Switch (Optional)

Potential free, very fast acting relay contact configurable as limit (alarm) switch. The instrument will trip the relay if the programmed parameter exceeds the programmed Trip Limits.

3 line 3 digits Ultra Bright LED display

Simultaneous display of 3 different parameters.

Run Hour, ON Hour, Number of Interruptions

Run Hour records the number of hours load is connected. ON Hour is the period for which the auxiliary supply is ON. Number of Interruptions indicates the number of times the Auxiliary Supply was interrupted.



RPM Measurement

The instrument display Rotation per minutes for generator applications. Number of poles can be set on site depending upon application requirement.

Storage of Parameters possible

The instrument stores minimum and maximum values for System Voltage, System Current, Run Hour, ON Hour & number of Interrupts. Every 60 sec stored values are updated.

Low Back Depth

The instrument has very low back depth (behind the panel) of less than 55 mm.

Parameter Screen recall

In case of power failure, the instrument memorizes the last displayed screen.

Onsite selection of Auto scroll / Fixed Screen

User can set the display in auto scrolling mode or fixed screen mode locally via front panel keys by entering into Programming mode.

Enclosure Protection for dust and water

Conforms to IP 54 (front face) as per IEC60529

Compliance to International Safety standards

Compliance to International Safety standard IEC 61010-1- 2010

EMC Compatibility

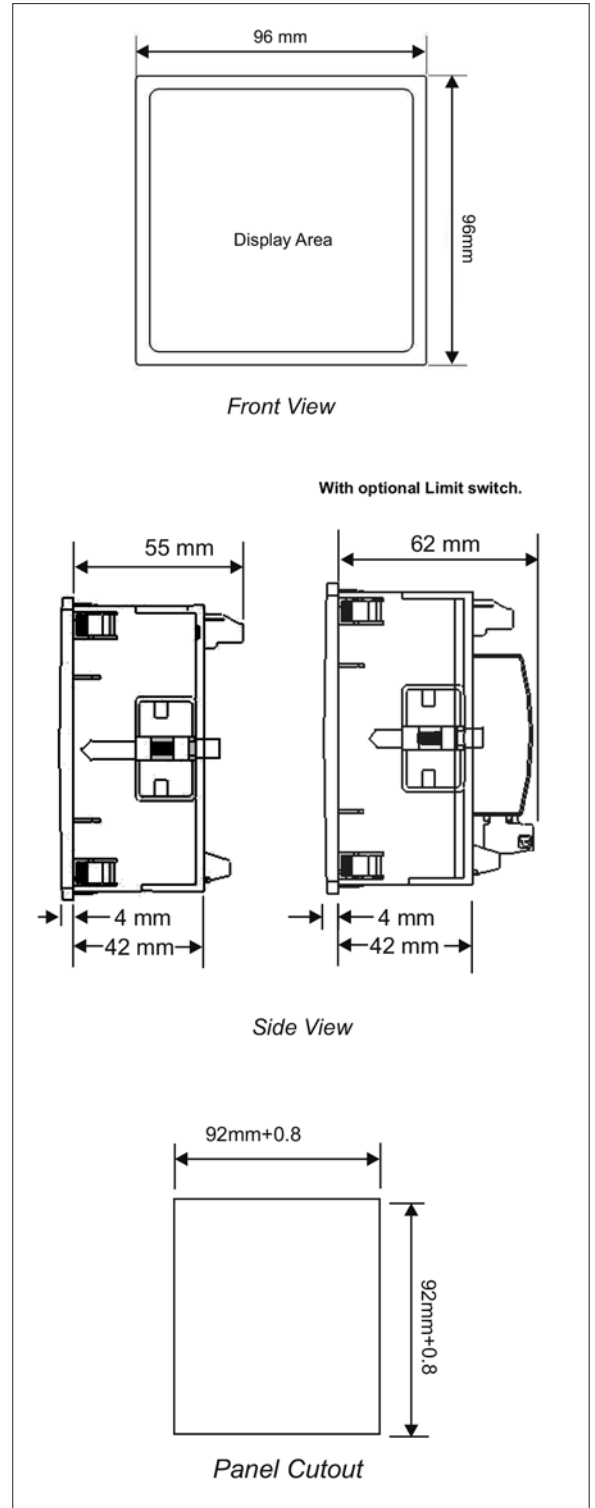
Compliance to International standard IEC 61326



Technical Specifications

| Input Voltage: | |
|--|--|
| Nominal input voltage (AC RMS) | 100 VL-L - 500 VL-L (57.7 VL-N - 290VL-N) |
| System PT primary values | 100 VLL to 799 kVLL programmable on site. |
| System PT secondary values | 100 VLL to 500 VLL programmable on site. |
| Max continuous input voltage | 120% of Nominal value |
| Input Current: | |
| Nominal input current | 1A / 5A AC RMS |
| System CT primary values | From 1A up to 799 kA programmable on site. |
| System CT secondary values | 1A / 5A Programmable at site. |
| Max continuous input current | 120% of Nominal value |
| Auxiliary Supply: | |
| External Aux | 40 V - 300V AC-DC ($\pm 5\%$) |
| Aux supply frequency | 45 to 65 Hz range |
| VA Burden: | |
| Nominal input voltage burden | < 0.3 VA approx. per phase |
| Nominal input current burden | < 0.2 VA approx. per phase |
| Auxiliary Supply burden | < 4 VA approx |
| Operating Measuring Ranges: | |
| Current | 5... 120% of Nominal value |
| Voltage | 10... 120% of Nominal value |
| Frequency | 45 - 65 Hz |
| Reference Condition for Accuracy: | |
| Reference Temperature | 23°C \pm 2°C |
| Input Frequency | 50/60 Hz \pm 2% |
| Current | 10... 100% of Nominal value |
| Voltage | 20... 100% of Nominal value |
| Auxiliary Supply Voltage | Nominal Value \pm 1% |
| Auxiliary Supply Frequency | Nominal Value \pm 1% |
| Accuracy: | |
| Voltage | \pm 1.0% of Nominal Value |
| Current | \pm 1.0% of Nominal Value |
| Frequency | \pm 0.5% of Mid Frequency |

Dimension Details

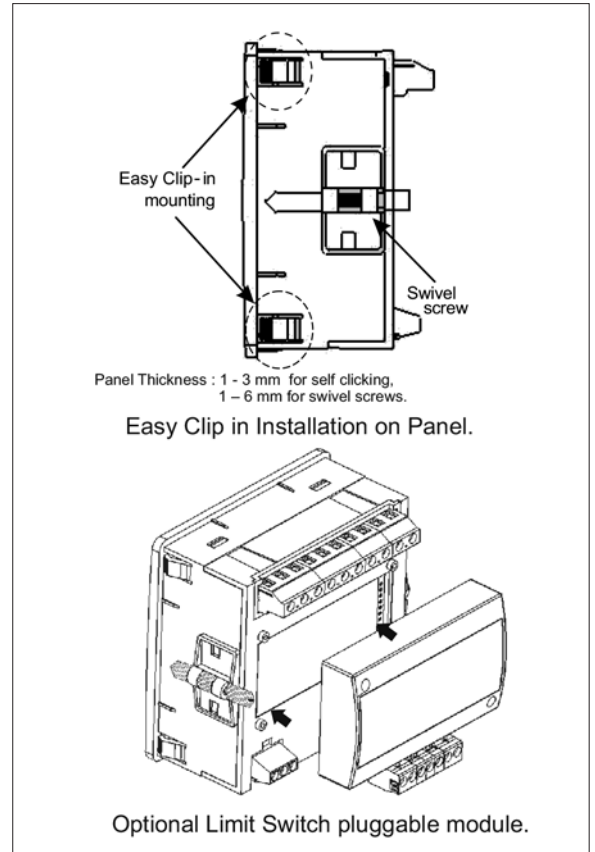




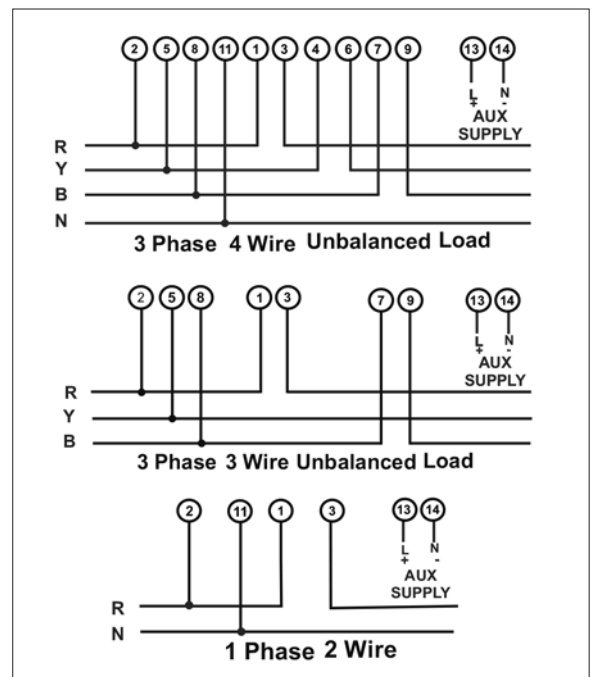
Technical Specifications

| | |
|---------------------------------|--|
| Overload Withstand: | |
| Voltage | 2 x Nominal value for 1 second, repeated 10 times at 10 second intervals |
| Current | 20x Nominal value for 1 second, repeated 5 times at 5 min intervals |
| Influence of Variations: | |
| Temperature coefficient | 0.05%/°C |
| Display update rate: | |
| Response time to step input | 1 sec approx. |
| Applicable Standards: | |
| EMC | IEC 61326 |
| Immunity | IEC 61000-4-3. 10V/m min – Level 3 industrial Low level |
| Safety | IEC 61010-1-2010, Permanently connected use |
| IP for water & dust | IEC60529 |
| Pollution degree | 2 |
| Installation category | III |
| High Voltage Test | 3.3 kV AC, 50Hz for 1 minute between all Electrical circuits |
| Environmental | |
| Operating temperature | -10 to +55°C |
| Storage temperature | -20 to +65°C |
| Relative humidity | 0... 90% non condensing |
| Warm up time | Minimum 3 minute |
| Shock | 15g in 3 planes |
| Vibration 1 | 0... 150 ... 10 Hz, 0.15mm amplitude |
| Interfaces | |
| Relay(Optional) | 240 VAC, 5 A Configured as Limit Switch |

Installation



Electrical Connection





Display Parameter:

| Sr No | Parameter | 3 Phase 4 Wire | 3 Phase 3 Wire | Single Phase 2W |
|-------|---------------------------------------|----------------|----------------|-----------------|
| 1. | System Voltage | ✓ | ✓ | ✗ |
| 2. | Voltage R-N | ✓ | ✗ | ✓ |
| 3. | Voltage Y-N | ✓ | ✗ | ✗ |
| 4. | Voltage B-N | ✓ | ✗ | ✗ |
| 5. | Voltage R-Y | ✓ | ✓ | ✗ |
| 6. | Voltage Y-B | ✓ | ✓ | ✗ |
| 7. | Voltage B-R | ✓ | ✓ | ✗ |
| 8. | System Current | ✓ | ✓ | ✗ |
| 9. | Current R | ✓ | ✓ | ✓ |
| 10. | Current Y | ✓ | ✓ | ✗ |
| 11. | Current B | ✓ | ✓ | ✗ |
| 12. | Frequency | ✓ | ✓ | ✓ |
| 13. | RPM | ✓ | ✓ | ✓ |
| 14. | Max (System Voltage / System Current) | ✓ | ✓ | ✓ |
| 15. | Min (System Voltage / System Current) | ✓ | ✓ | ✓ |
| 16. | Run Hour | ✓ | ✓ | ✓ |
| 17. | On Hour | ✓ | ✓ | ✓ |
| 18. | Number of Auxiliary Interruptions | ✓ | ✓ | ✓ |

✓- Available ✗ - Not available

Ordering Information:

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RS Pro Volts, Amps and Frequency, 96X96mm 3 Phase 3/4W programmable onsite,
 AC VAF meter, 14mm display,
 Input. 100-500VLL,
 Input. 1 or 5 Amps AC,
 Supply Voltage. 40-300V AC/DC auxiliary (Programmable CT/PT primary and secondary values)

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 Supply Voltage. 40-300V AC/DC auxiliary (Programmable CT/PT primary and secondary values with Limit Switch/Relay O/P)