# W27 Series

## Power Quality Analyzer


affra

www.affratech.com

## Measurement

**Voltage**
Phase, Line, Average

**Current**
Phase, Average

**PF** (Power Factor)
Phase, Average

**P** (Active Power)
Phase, Total

**Q** (Reactive Power)
Phase, Total

**S** (Apparent Power)
Phase, Total

**Frequency**

## Quality Measurement

**THD** (Total Harmonic Distortion)
Phase Voltage
Current

**Harmonic** – odd, even *
Phase Voltage
Current

**Unbalance**
Voltage
Current

*: 2-15th: W2720
2-31th: W2730

## Demand

**Fixed Window, Sliding**

**Maximum Demand**

**Time Tag**

**Reset**
Manual: HMI, Modbus
Scheduled: Daily, Weekly, Monthly, Yearly

**Parameter**
Total Active Power
Total Reactive Power

## Event Recorder

**Event Profile ***

**Reset**
Manual: HMI, Modbus

**Time Tag**

**Parameter**
Power On
Power Off
Alarm Activation/Deactivation

*: Last 64: W2710
Last 128: W2720, W2730
Last 128: W2720, W2730

## Alarm

| |
|---|
| Pickup/Dropout Value |
| Pickup/Dropout Delay<br>Res:0.1sec |
| Selectable Output (0 – 7) |
| Time Tag |
| Reset<br>Manual: HMI, Modbus |
| Parameter<br>Over Voltage<br>Under Voltage<br>Over Current<br>Under Current<br>Over Active Power<br>Under Active Power<br>Over Reactive Power<br>Over Voltage Unbalance<br>Over Current Unbalance<br>Voltage Sequence |

## Accuracy

| | W2710 | W2720 | W2730 |
|---|---|---|---|
| Voltage | 0.5 | 0.5 | 0.5 |
| Current | 0.5 | 0.5 | 0.5 |
| Power Factor | 0.5 | 0.5 | 0.5 |
| Active Power | 1 | 1 | 1 |
| Reactive Power | 2 | 2 | 2 |
| Harmonic | - | 4 | 4 |
| Frequency | 0.02 | 0.02 | 0.02 |

## Network Connection

| |
|---|
| Network Frequency<br>50 Hz |
| CT<br>Primary: 5 – 2500<br>Secondary: 5 |
| Supported Network<br>4 Wire – Wye |

## Input Rating

| |
|---|
| Voltage – Phase to Neutral<br>40 – 300 V |
| Current<br>20 mA – 6 A |

## HMI

| |
|---|
| Display<br>28 * 27 Graphic Dot Matrix<br>White Backlight |
| Keyboard<br>4 button |

## Communication Port

### RS485

3 Terminal
Modbus RTU
Baud Rate: 1200 – 19200 b/s
Endianness: Big, Little
Format: Int, Float

## Input / Output

### Analog

Voltage: 3 Input, 6 Terminal
Current : Galvanic Isolated

### Digital

Input: 1 Opto Isolated
Output : 1 Opto Isolated

## External Module

| | Wa1 | Wa2 | Wa3 | Wa4 | Wa5 | Wa6 | Wa7 |
|---|---|---|---|---|---|---|---|
| Relay digital output | 2 | 4 | - | 2 | 2 | 2 | 2 |
| Digital input | 2 | 2 | - | 2 | 2 | 2 | 2 |
| Analog input | - | - | - | - | 2 | 2 | 2 |
| Ethernet | - | - | • | • | - | • | • |
| Serial | - | - | • | • | - | • | • |

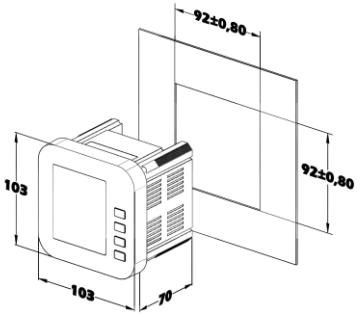
## Supply

### Switching Power Supply

AC: 80 – 265 V, ±10% , DC: 100-300 V, ±10%

## Installation

### Front Panel Mount




## Environment

### Operating Temperature

-20 – 70 °C

### Storage Temperature

-30 – 80 °C

### IP Degree Of Operation

54 front panel

### Weight

400 – 410 gr