

# Remote Overhead Line Wave Recording Fault Indicator

## JYL-FF Datasheet

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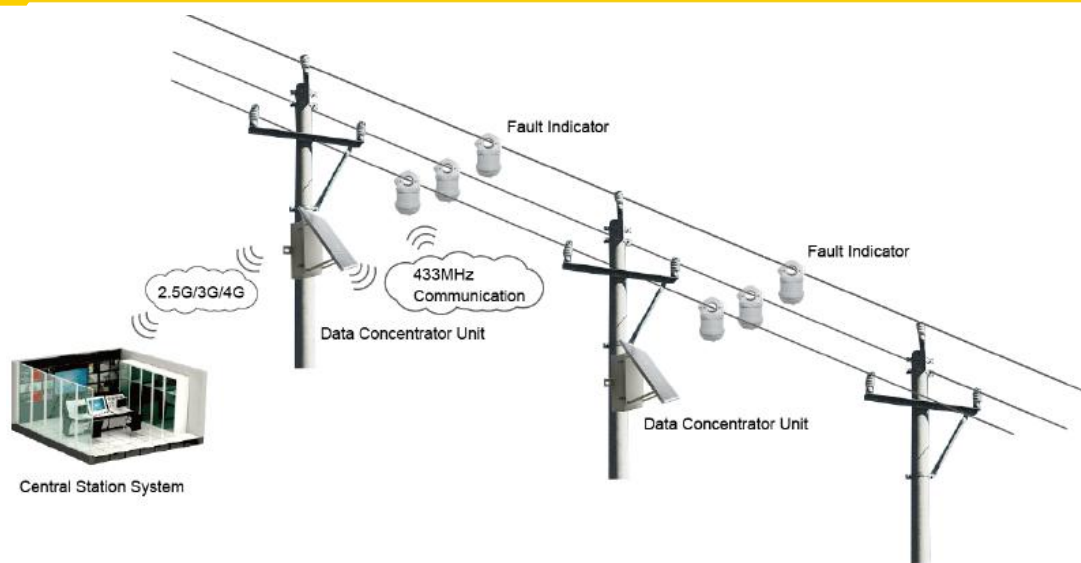


The wave record fault indicator type JYL-FF V2.0 is usually used in radial medium and high voltage overhead line distribution networks, which neutral points are ineffectively grounded. Short-circuit fault and single-phase earth fault can be detected and indicated by four ultra-bright blinking LEDs, which can be seen from 360° sight. The voltage and current wave can be recorded at all time, especially when the voltage drop or the current change suddenly. The wave records in the forms of IEEE Comtrade 1999 can also be transmitted to the SCADA by 2G/3G/4G networks.

The indicator can be mounted under live conditions with the help of an adapter and a hot stick. The parameters such as trip current, reset time, blinking interval, etc., can be read and adjusted by a bidirectional wireless tool. One DCU can link at most nine indicators.

The wave record fault indicator type JYL-FF V2.0 consists of:  
1 pcs DCU: transmission fault, load current value and wave record to SCADA  
3 pcs indicators: fault detection and indication, and wave recording

## Topology



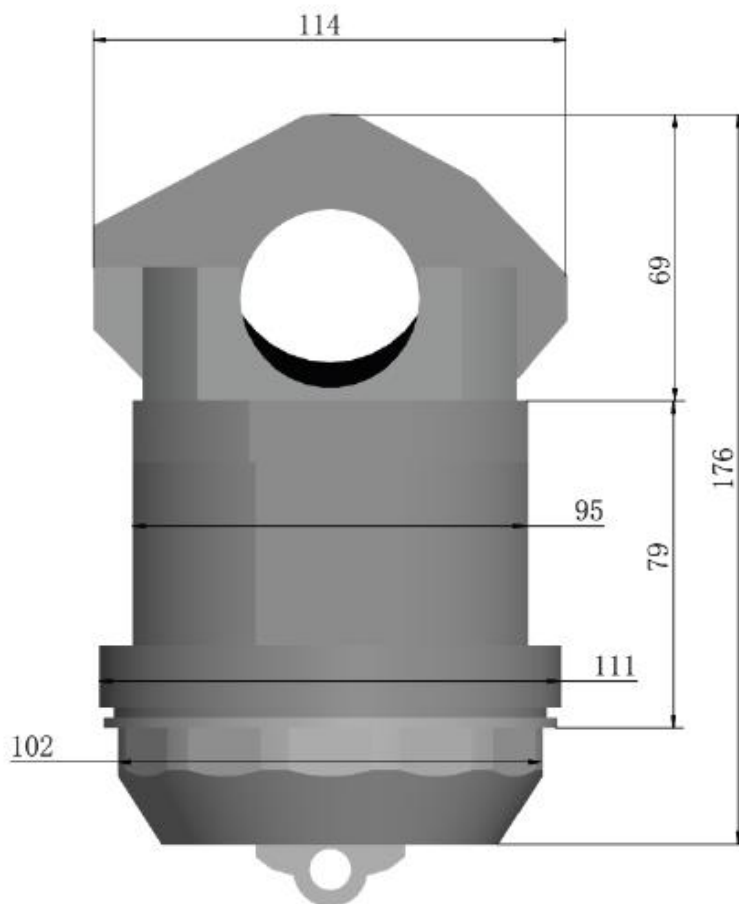
## Features

|                      |  |
|----------------------|--|
| Wave Record:         | Voltage & Current wave can be recorded and uploaded to SCADA, 80 points per cycle.   |
| Short Circuit:       | Indicated by four red ultra-bright blinking LEDs.  |
| Earth-fault:         | Indicated by four red ultra-bright blinking LEDs. Fault is confirmed by DCU(local) or SCADA(remote)  |
| Low Battery Warning: | Information will be sent to SCADA  |
| Parameter Adjust:    | The parameters can be read and adjusted by bidirectional wireless tool.  |
| Remote Transmission: | DCU can transmit data to SCADA system.   |
| Power Supply:        | The indicator can take power from overhead lines, with lithium battery as backup.<br>The DCU can take power from solar energy with lithium battery backup. |

## General Data

| Subject                                     | Value  |
|---|--|
| Short-circuit Trip Current (Phase to Phase) | 50~1200A adjustable, 1A step, 150A default   |
| Electrical filed drop record threshold      | Adjustable: 1% step, 30% default   |
| Current record threshold                    | adjustable, 1A step, 5A default ( $\geq 5A$ )  |
| Current wave upload threshold               | adjustable, 1A step, 50A default   |
| Indication Unit Reset                       | <ol style="list-style-type: none"> <li>remote reset through SCADA system</li> <li>time reset: adjustable, 1 second step, 24h default, max. 48h</li> <li>Auto delay reset after repower, 1 second step, 30s default max 5min, only for permanent fault</li> </ol> |
| Protection Class                            | IP68   |
| Internal Type Test                          | According to IEEE495-2007  |
| Operation Temperature Range                 | -40~+70°C  |
| Indicator Battery                           | Lithium battery type AA 3.6V / 9Ah, replaceable  |
| Battery Life                                | Approx. 10 years   |
| Indicator weight                            | approx. 1kg  |
| DCU weight                                  | <5kg   |
| Dimensions                                  | Diameter: 114mm<br>Height: 176mm   |
| Accuracy                                    | 0A~300A $\pm 3A$<br>300A~800A $\pm 1\%$  |
| Cable Diameter Ranges                       | 6mm~42mm   |
| Blinking Frequency                          | 10 per minute, adjustable  |
| Max. load/fault current                     | 1200A  |
| Voltage range                               | 5~38KV, can be customized to 44KV, 69KV and 110KV  |
| Current withstand                           | 31.5KA/4s  |
| Communication                               | 433MHz from indicators to DCU<br>2.5G/3G/4G from DCU to SCADA  |
| Communication Protocol                      | Indicator to DCU: private<br>DCU to SCADA: IEC101, IEC104, DNP3.0, Modbus  |
| Waveform file format                        | COMTRADE 1999, including Ua, Ub, Uc, Ia, Ib, Ic, Io  |

## Dimension



## Order Info

| Item        | Content   |
|-------------|---|
| Parameter   | Voltage level: ___KV, Frequency: ___Hz<br>SIM card quantities: 1 <input type="checkbox"/> /2 <input type="checkbox"/>                           |
| Accessories | DCU: Solar panel <input type="checkbox"/> Battery <input type="checkbox"/> Housing <input type="checkbox"/> DC adapter <input type="checkbox"/> |