



# SMART GRID SOLUTIONS

SIMA Grid, SIMA City, SIMA Home, SIMA Universe, SIMA Big Data

**DRCs** 

## DRC-010



VP-DOC-S.CTL-DRC-010.EN-V2.1

Creating a one-stop eco-sustainability system to transform the entire conventional grids into digital smart grid systems that streamline electrical grid management, optimize efficiency, reduce operational costs, and increase cost efficiency, making the grid more reliable and sustainable.



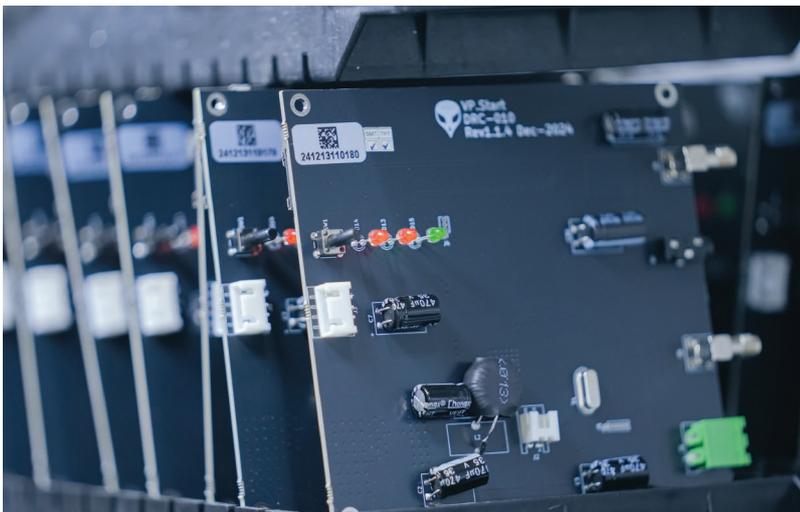
# DRC-010

## Smart Grid IoT Controller for Overhead Line Fault Indicator

Overhead distribution grid networks commonly experience various types of faults; both temporary and permanent. These faults can arise from natural disasters, human errors, and other environmental issues. Consequently, managing these faults becomes a complex and time-consuming task for energy providers.

With the DRC-010 by VP.Start, the complexity of these operations is reduced, allowing utilities to better manage their overhead line sections through remote-monitoring capabilities.

Its advanced features and ease of integration make it an essential solution for modernizing power distribution networks and ensuring an uninterrupted energy supply.



▲ DRC-010 Installation



RPM Grid System



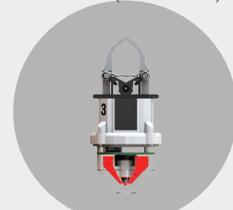
PLUM App



▲ DRC-010 Remote Control for Fault indicator



DRC-010  
SNOVA (SNV-308)



Fault Indicator

# Key Features

**Real-Time Data Grid Monitoring:** The DRC-010 shows real-time data on the powerlines, allowing utilities to monitor its condition in real-time. They also can set its parameters quickly or adjust the settings conveniently from a palm of their hand.

**Fault Detection:** This cutting-edge smart grid device has the ability to detect powerline failure and enables operators to identify the fault location quickly. This capability reduces downtime while increasing the grid management more reliably.

**Map:** The Map function allows operators to view the actual location of DRC-010. Operators utilize this feature to quickly locate DRC-010 when faults occur, making network management convenient and efficient.



# Product Look and Dimension



# DRC-010 Alarms Notification



Temporary Fault



Permanent Fault



Communication Maintenance



Battery Low



Current Warning

## Product Specification

### Remote Control Unit

Battery	• 12 VDC
Working Temperature	• 0 to 65 °C
Working Humanity	• 30 to 95 %
Solar Panel Supply for Rechargeable Battery	• Yes
Solar Panel	• 20W
SIM Card Support	• Micro SIM
GSM & GPRS Antenna	• Yes
GPS Antenna	• Yes
RF (433MHz) Antenna	• Yes
Load Current/Event Display	• Via Smartphone/PC

### Alarm Notifications

Permanent Fault Alarm	• Yes
Temporary Fault Alarm	• Yes
High Current Warning Alarm	• Yes
System Low Battery Alarm	• Yes

### Call Control Features

#### Key Tone Control

Read Load Current	• 3 Phase, & Up to 3 Feeders on Same Pole
Power Line Status	• Permanent/Temporary/Normal

#### Supporting Features

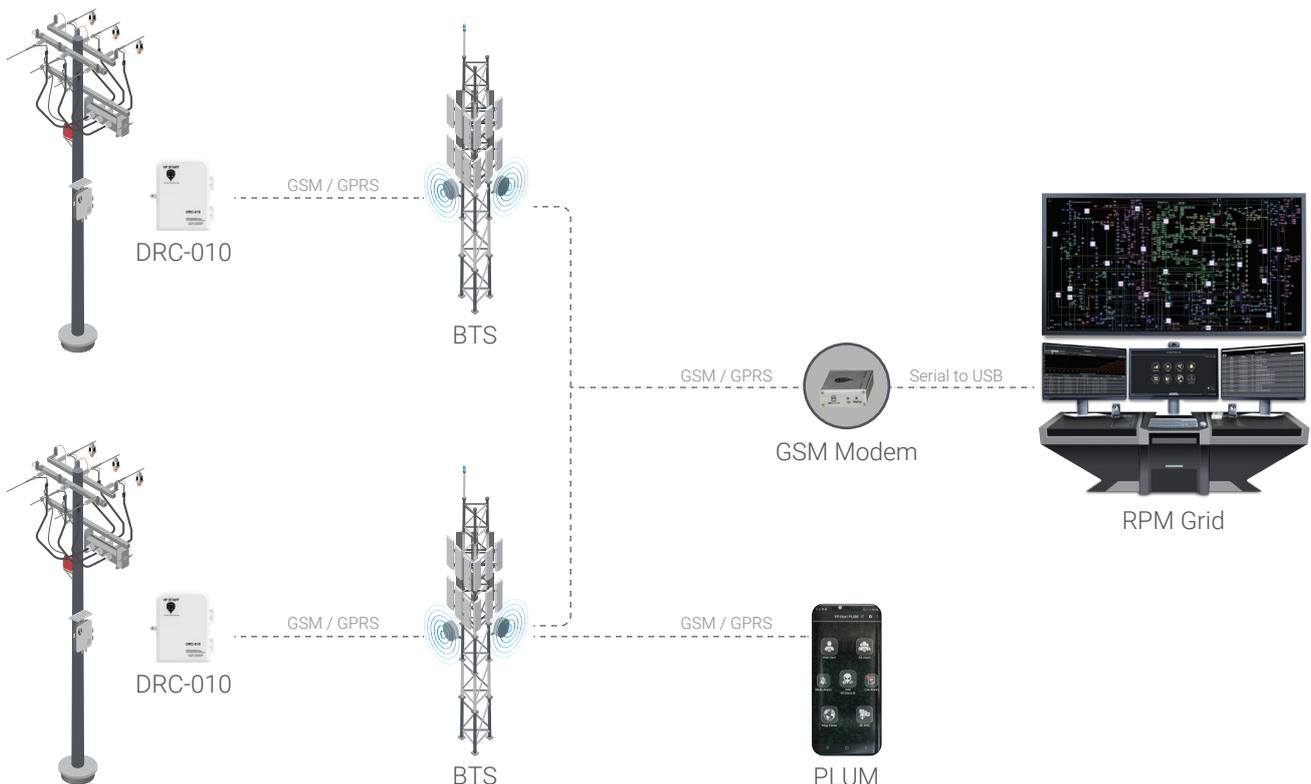
Language: Khmer	• Yes
Voice Instruction	• Yes
Be able to Control Fault Indicators	• Up to 9 (FI) Modules for 3 Feeders on Same Pole (Above, Middle and Below)
User Management	• Yes
Fault Indicator Setting Group	• Yes
Software Support	• Support PC/Smart Grid System/Android Application
Support Google Map View	Yes

### Overhead Fault Indicator

Model	• SNV-308
Manufacturing Standards	• ANSI/IEEE495-1988; Q/GPW 436-2010
Type of Installation	• Overhead Line
Rated Voltage	• 6 to 76 kV
Current Rating	• up to 1,000 A
Rating Frequency	• 50/60 Hz
Fault Indicator	• Permanent fault • Temporary fault
Automatic Alarming of Fault	• Permanent • Temporary

Communication Rang with DRC-010	• ≤50 (Line of Sight, Max to ≤100m)
Two Battery in Side	• Yes
Li-Iron Rechargeable Battery for Working	• Li-Ion, 3.2V 600mAh
Li-Iron Battery for Back Up	• Li-Ion, 3.6V 2200mAh
Solar Panel Supply for Rechargeable Battery	• Yes
Self Power Charging From MV Line	• Yes
Battery Life	• 8 to 10
Angle of Visibility	• o360 Flashing Insight
Fault Flashing	• Every 1 Second
LED Indicator Fault	• Flashing
Sampling Accuracy	• I <10 (±1%) • I >10 (±2%)
Static Power Consumption	• 20 uA
Auto Reset Time	• 1 to 48 (User-Selectable) Hour
Identification of Fault Current Duration	• ≥40 ms
Short Circuit Current	• 16 (2 Seconds) KA
Protection Rating Level	• IP67
Operating Humidity	• 30 to 93 %
Temperature	• 0 to 55 oC
Weight	• 750 g
Controller Dimensions	• L=80 x W=80 x H=185

## System Architecture





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