

GDPD-414H Handheld Partial Discharge Detector



Pictures for reference only.

The GDPD-414H handheld Partial Discharge Detector adopts smart quick intelligent power test system (Soft No. 1010215, trademark registration number 14684481). It can flexibly configure various sensors according to different products to be tested. TEV, ultrasonic and HFCT are suitable for partial discharge detection of high-voltage switchgear and ring network cabinet; Ultrasonic and UHF are suitable for detecting GIS; Ultrasonic and HFCT are suitable for testing power cable. The built-in expert diagnosis system can analyze the test data and judge the discharge energy and possible parts. It is widely used in electric power and railway.

Features

- All PD detection hosts, tablets, sensors, chargers, and signal cables are placed in the portable ABS engineering chassis. The total weight is less than 5KG, easy for carrying and operating.
- High-speed sampling board, 4-channel synchronous data acquisition, signal processing, feature parameter extraction, data can be sent to the handheld terminal by wire and wireless.
- Analyze software based on ARM embedded system. Display software based on windows system.
- A data acquisition host can simultaneously configure 2 or 4 channels (selected by buyer) of the same or different sensors and simultaneously collect and analyze 2 or 4 channels of signals.
- 8.1inch 1280 x 800 IPS touch screen.
- The software system judges the discharge energy and location according to the detection data, and it can display the PRPS and PRPD maps, ellipse diagrams, discharge rate maps, QT maps, NT maps, PRPD cumulative maps- ϕ -Q-N maps of each signal channel, and can display amplitude and pulse number of each signal channel. All the data can be

stored.

- Over-limit alarm. Using three-color indication modes of red, yellow and blue, which indicates the severity of partial discharge and facilitates information reading.
- Average trouble-free time is over 50000hours
- Safety performance: meets GB/T 19862-2005 general requirements for switchgear monitoring equipment.
- Electromagnetic compatibility:
 - Electrostatic discharge immunity meets level IEC 61000-4-2: 2001
 - Damped oscillatory magnetic field immunity meets IEC 61000-4-10: 1993 level 3
 - Power frequency magnetic field immunity meets IEC 61000-4-8: 2001 level 3
 - Pulse magnetic field immunity meets IEC 61000-4-9: 1993 Level 3
- Power supply: powered by 12V lithium battery, power consumption < 10W, continuous working for more than 7 hours.
- Environmental conditions:
 - Storage temperature: -40℃ ~ +85℃,
 - Working temperature: -20℃ ~ +60℃,
 - Relative humidity: 5% ~ 95% without condensation at 25℃
- Lightweight and easy to carry, it is suitable for field use
 - Signal acquisition host weight <0.8kg

Specifications

PD signal acquisition host	
CPU Working frequency	1.2GHz
Operating system	Linux embedded operating system
Wired network port	LAN network port
Wireless network port	Built-in wireless WiFi
System running memory	512M
System storage memory	256M
Data acquisition frequency	100MHz
Ultrasonic detection channel	
Measurement range	AE sensor 0-10mV, or AA sensor 0-100dBμV
Frequency detection range	20~200kHz
UHF detection channel	
Detection frequency	300~1500MHz
Measurement range	-80~10dBm

Error	±1dBm
Resolution	1dBm
HFCT detection channel	
Frequency range	0.5~100MHz
Error	±1dB
Sensitivity	15mV/1mA
Dynamic Range	60dB
Measurement range	0-1000mV
Accuracy	1dB
TEV detection channel	
Frequency range	3~100MHz
Measurement range	0-60dBmV
Error	±1dBmV
Sensitivity	0.01mV
Resolution	1dBmV
Battery	
Built-in battery	Lithium battery, 12V, 2000mAh
Use time	about 6 hours
Charging time	About 2 hours
Battery protection	Over-voltage and over-current protection
Battery charging	
Rated voltage	12.6V
Charging output current	2A
Operating temperature	-20°C~60°C
Operating humidity	<80%
Handheld display terminal (industrial grade)	
CPU	Intel Quad Core Atom Z3735F
GPU	Intel HD Graphic (Gen7)
Flash	32GB
RAM	2GB
Operating system	Windows10

Display	8.1 inch 1280x800 IPS screen
Network interface	Wifi and Bluetooth
Battery	3.7V 8500mAH polymer lithium ion battery
Size	
PD acquisition host size	240mm*165mm*55mm
PD acquisition host weight	0.65kg
Display tablet terminal size	395mm*295mm*105mm
Display tablet terminal weight	0.85kg
Overall box size	570mm*360mm*240mm
Working environment	
Working temperature	20°C ~ 50°C
Environment humidity	0~90%RH
IP level	54

Accessories:

PD signal acquisition host (2 channels or 4 channels)	1 set
8.1inch industrial grade tablet	1 set
External TEV sensor (optional)	1 piece
External ultrasonic sensor (optional)	1 piece
External UHF sensor (optional)	1 piece
External HFCT sensor (optional)	1 piece
Signal acquisition cable	1 set
Charger	1 piece
Host bag	1 piece
Operation Manual	1 copy
Factory test report	1 copy
Accessory case	1 piece