

The Advantages of Smart Transformer Monitoring System

Power Management



- Balance Phase
- Optimization peak Charge

Data Analysis



- Trouble Shooting
- Planning

Anywhere in the world
ON YOUR HAND

CLOUD



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Smart Transformer Monitoring System



QTC
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Key Features

- Real time online monitoring
- Data record on cloud
- Real time alert
- Auto GPS Location
- Monitoring report
- Peak History

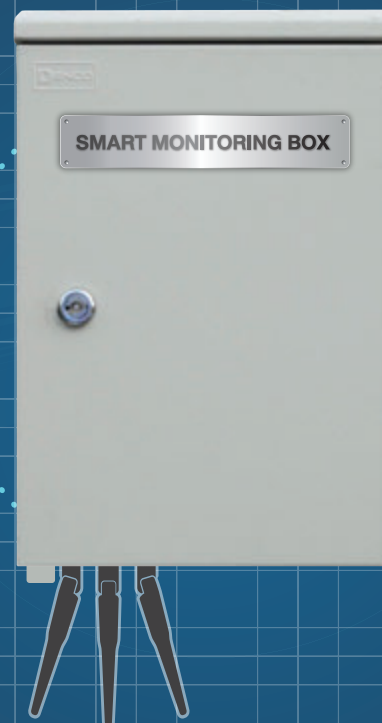
Online Monitoring Functions

- Voltage
- Current
- Unbalance Voltage
- Unbalance Current
- Power (kVA, kW, kVAR)
- Top Oil temperature
- Pressure (Optional)
- Oil level (Optional)
- Event Log
- Service History
- Service report

Alert Functions

Available on Line application and e-mail

- Unbalance Voltage
- Over Voltage
- Under Voltage
- Unbalance Current
- Over Current
- Top Oil temperature
- Under Oil Level
- Over Pressure



BOTTOM VIEW



GSM

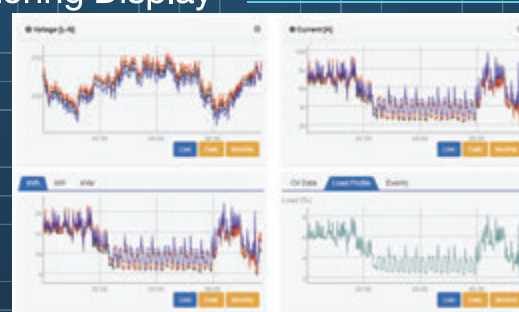
GPS

Wifi

Cable inlet

Alarm lamp

Online Monitoring Display



Technical Specification Smart Monitoring Box (SMB)

Physical

Dimension	L 300mm x W 150 mm x H 650 mm
Weight	4 kg
Protection degree	IP 55

Electrical

Working Voltage	3 Phase (with neutral) 150 to 450 Vrms 50/60 Hz
Power consume	10 VA
Working temperature	0°C to 55°C
Humidity resistance	90% non-condensing

Electrical Measurements

Phase voltage	0.0 to 265.0 V (scaling : PT ratio 1 to 200)
Line current	0-5 A (scaling : CT ratio 40/5A to 6000/5A)
Power quantity	Appearance power (kVA), Active power (kW), Reactive power (kVAR)
Power quality	Power factor, Frequency (45.00 to 65.00 Hz)

Input for Transformer status Measurements

Top oil temperature	PT100
Top oil pressure	4-20mA / 0.00 to 1.00 bar
Oil level	2 contacts for alarm level and trip level
Communication	RS485 MODBUS RTU

Output

Lamp	Overload lighting
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Other Monitoring

Location	GPS
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Communication

Primary communication	3G GSM frequency 850 / 900 / 1800 / 1900 MHz
Logging & upload period	1 to 60 minutes
Setup Communication	Wifi

Bundle set

Smart Monitoring Box (SMB) x 1 set
CT class 1 x 3 pcs.
PT100 x 1 pcs.
TEC SYSTEM Sensor x 1 set (optional)
Internet Sim (Package 2 Yr.)