PM180: Multifunction device with Phasor Measurement Unit
Main Substation Applications

PQA
Power Quality Analyzer

DFR
Digital Fault Recorder with distance to fault calculation

SCADA + Monitoring
Real time data from Substation

BCU
Bay Controller Unit

PMU
Phasor Measurement Unit

SOE
Sequence of Events (SoE)

SATEC

DFR + SOE

Billing Revenue

SCADA Monitoring Control
SATEC’s PM180 Multi-function Device

- Full IEEE C37.118.1 compliance, for both:
  - M - Class
  - P - Class

- Full interoperability, featuring:
  - IEEE C37.118.2 protocol
  - IEC 61850-9-2 protocol
  - 5 streaming slots (UDP and TCP protocol)

- Optional clip-on CTs: no outage needed!

- Versatile micro-sec resolution time sync: PTP and IRIG-B

- Expected steady-state total vector error (TVE): < 0.05%
<table>
<thead>
<tr>
<th>Device</th>
<th>PM180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td></td>
</tr>
<tr>
<td>Measurement</td>
<td>½ cycle</td>
</tr>
<tr>
<td>Event &amp; Data Log</td>
<td>✓</td>
</tr>
<tr>
<td>Waveform Log</td>
<td>✓</td>
</tr>
<tr>
<td>Sag/Swell</td>
<td>✓</td>
</tr>
<tr>
<td>Harmonics</td>
<td>✓</td>
</tr>
<tr>
<td>Transients</td>
<td>78/19 μS</td>
</tr>
<tr>
<td>PMU</td>
<td>50/60 fps</td>
</tr>
</tbody>
</table>

Multiple measurement capability and configurability
Thank you

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