



# ES-PDC

Phasor data concentrator



Phasor data concentrators are installed at power plants to collect data from phasor measurement units, and stream it to data processing centers. Synchrophasor data allows power system operator to identify power system conditions and to monitor its dynamics. Real-time data provide instantaneous overview of the power system, allowing the operator to detect the abnormal conditions and to determine their source.

ES-PDC runs on industrial fanless PC. ES-PDC supports data exchange via IEEE C37.118.2, calculates the values of additional electrical quantities on the fly, records cyclic and emergency archives of a configurable depth.

## Specifications

|                                 |  |
|---------------------------------|--|
| Processing power                | up to 20 polled devices (PMU), up to 6 uplink channels   |
| Calculated data                 | $U_1, U_2, U_0, U_{ab}, U_{bc}, U_{ca}, I_1, I_2, I_0, P, Q, S, P_1, P_2, P_0, Q_1, Q_2, Q_0, P_a, P_b, P_c, Q_a, Q_b, Q_c, S_a, S_b, S_c, S_1, S_2, S_0, \varphi_a, \varphi_b, \varphi_c, \Phi$ |
| Database timeout                | receiving PMU dataset / transmitting to the upper level: up to 1 s   |
| Cyclic storing data             | up to 180 days (1000 GB / 10 PMU, 2000 GB / PMU)   |
| Threshold archive               | the number and length of threshold records to be logged are configurable   |
| Interfaces / protocols          | 4 × Ethernet: 100Base-TX or SFP;<br>IEEE C37.118.2, МЭК 60870-5-104, SOAP (HTTP), FTP;<br>CSV, COMTRADE (IEEE/IEC C37.111-2013)  |
| Time synchronization            | NTP  |
| Power supply                    | redundant power supply 10...24 VDC, 30 W   |
| Operating conditions and design | -40...+70 °C, 75 × 170 × 163 mm, DIN rail mounting, IP30   |

## Ordering Information

|                                   |                                  |
|-----------------------------------|----------------------------------|
| ES-PDC- <input type="text"/> -001 | <b>Storage size</b>              |
|                                   | 1000 – 1000 Gb<br>2000 – 2000 Gb |

## Options and accessories

Surge protection devices for Ethernet: [ESP-LAN](#)

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