DAX View

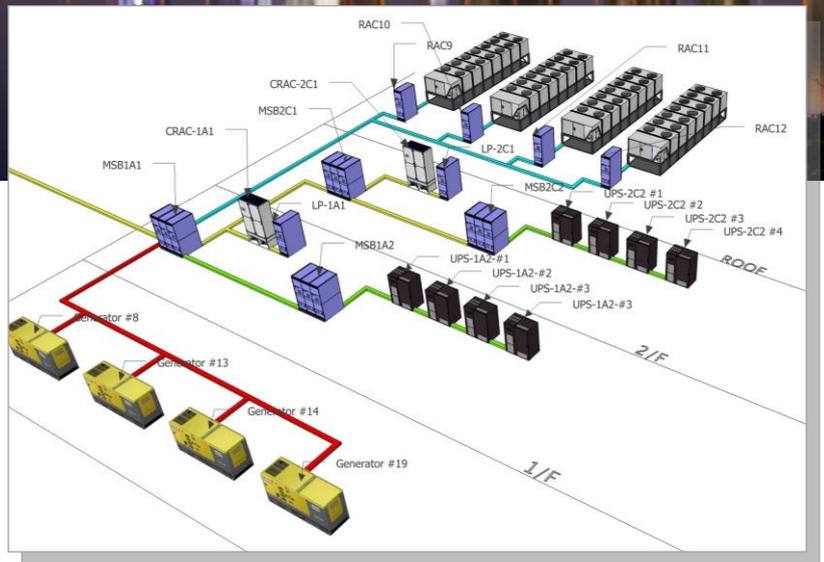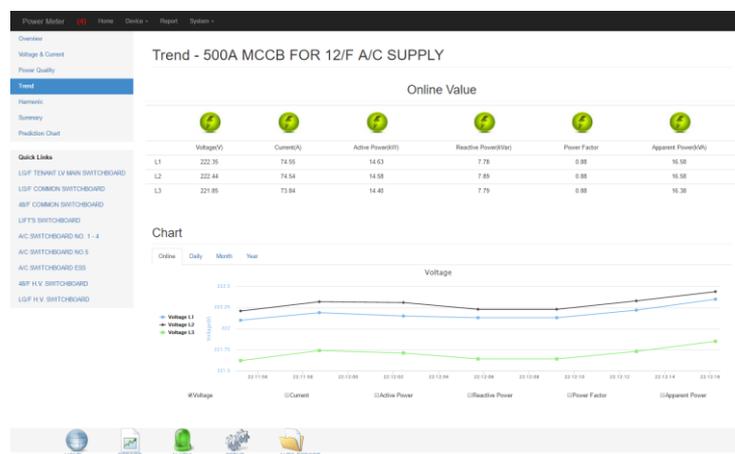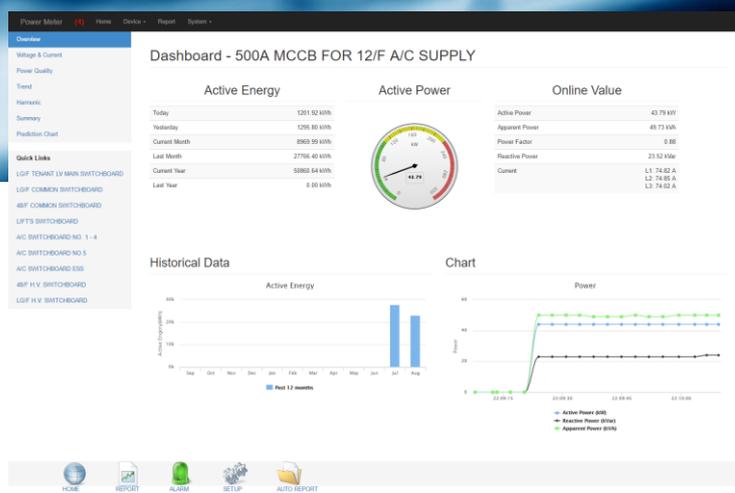# Web Based EMS
For Commercial/ Industrial & Critical Facilities

Compliance:

SS 564:2013 Green Datacenter
SS 591:2013 Chilled Water System

Power Quality Monitoring | Power Management | Operation Technical Reporting

DAX View™ is a highly customizable Energy Management System for commercial/ industrial building and critical facilities.

The specialized application of Energy Management Reporting is the core function of DAX View. Developed with the input of industrial expert on electrical energy and power quality management, we have a suite of report and analysis tools to help Facility Operation Management, Plant Engineer and System Analyst to have the complete consolidated view on both technical and financial status of the plant. Each report can be customized and Key Performance Index such as PUE and COP calculation can incorporate external operation data sources such as human traffic volume, weather condition, production volume, carbon footprint etc.

Specialized power quality reporting with compliance to industry standard such as IEC 61000-2, EN 50160, SEMI-F47, ITIC are available with auto assessment routine, producing a pass/failed summary report to reduce the workload of operation teams. Live view mimic diagram with geographic zooming function allow displaying of the current realtime status of all plant devices eg. Circuit Breaker On/Off, Load

Flow, Operation Status of VFD, Harmonics Filters and Power Factor Correction system. Interactive drill down can provide more details for query on specific device function.

Alert alarms ticketing are built into the dashboard Alarm Management with configurable limit level setting for every device. Upon exceeding a limit level, an alarm ticket will be displayed on the dashboard and emails sent to the respective operation personnel. SMS notification is also available. Operation personnel can login to their working page and acknowledge and update alarm status. When the incident has been cleared, the Operation Supervisor can input a Ticket Close and associated resolution records.

Early Warning Alert is a special function of DAX View Alarm Management. With the use of Earth Leakage Monitors, the system is able to detect abnormal leakage pattern of electrical load operation. Abnormal raise of Earth Leakage is an indication of a failing electronics power supply or damaged insulation. This Early Warning Alarm provides sufficient time for the operation team to react before a circuit or equipment is tripped. The operator will be able to prepare for a planned shutdown and safely transfer out the failing equipment. The smart algorithm of the Early Warning Alert is able to differentiate "normal" vs "abnormal" condition by analysing the historical data and user defined hysteresis limit. The application can be applied to main load equipment such as chiller plant VFD, datacentre rack server SMPS, UPS module and other critical equipment load such as PLC, robotic control etc.

The DAX View software is built on secured web based technology that supports high availability auto fail over server architecture to safeguard against information lost. To provide the most versatile connectivity, DAX View has developed an extensive range of communication protocol interfaces and deep data extraction technology to interface with any RTU devices over Modbus, Profibus, Profinet, BACnet, LONworks, DNP3, SNMP, RESTful, IEC 61850, IEC 60870-5-104. Special protocol can be customized upon request.

Security is placed as a primary architecture element in the design of DAX View. Users can be assigned role and access rights to specific application area with option to implement Single Sign On service such as MS Active Directory or other LDAP directory service. 2FA authentication can be provided on all user login via mobile device apps. Backend database access is isolated from the frontend and only allow access via strict set of API control. The DAX View server can be operated as a hosted service over Internet or as a standalone server within the customer premised within an Intranet zone.
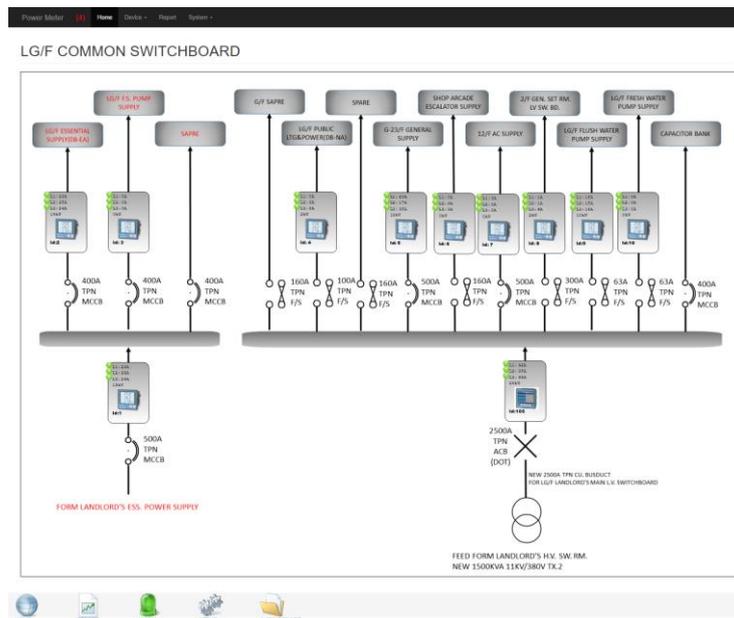
Wide Area Network is supported in the structure of DAX View. Geographically disbursed remote monitoring can be networked with high degree of time accuracy via IRIG-B and GPS time synchronization input to the respective RTU devices. The DAX View node master can be equipped with 3G/4G wireless broadband radio receiver to link remote sites RTU to the DAX View server service.

The system is extensible to provide monitoring to other non-electrical automation devices. System such as traffic counter, temperature and humidity sensors, water usage meter, exhaust ventilation fan speed, pollution particle monitor are ready to be incorporated into the DAX View display. Providing a comprehensive dashboard for the complete building status. OPC service and IEEE 1159.3 PQDIF format data export is built into the system and allows external 3rd party system such as BMS, DCIM platform to extract live and historical data directly from DAX View. Fostering a complementary system extension to your existing or legacy operation needs.
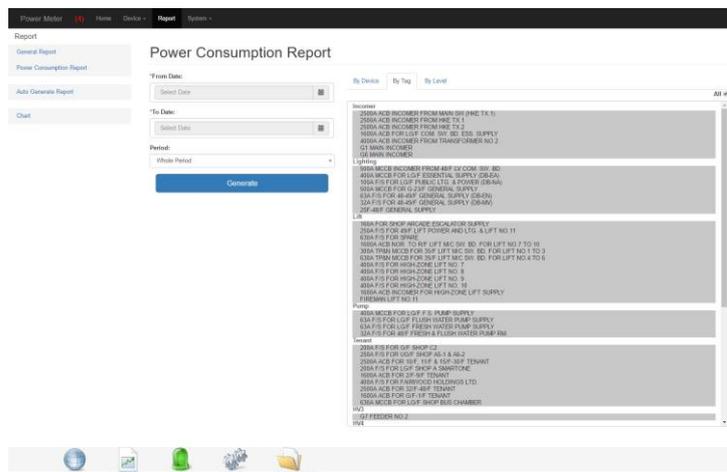
Key Features

1. Web based Live View Dashboard Monitoring and Reporting platform
2. Highly customizable Operation Report to generate KPI figures with data sources from any RTU devices into any customer specified data fields
3. Open interface with any RTU devices from any manufacturer any protocol
4. Power Quality trending & historical chart on key parameters e.g. PeakDemand, kWh group & zone, PowerFactor, Volt Sag, Harmonics, Abnormal Events, Transient Waveforms
5. Alarm event auto notification and escalation management
6. Compliance on reporting for Singapore Standards SS 564:2013 and SS 591:2013
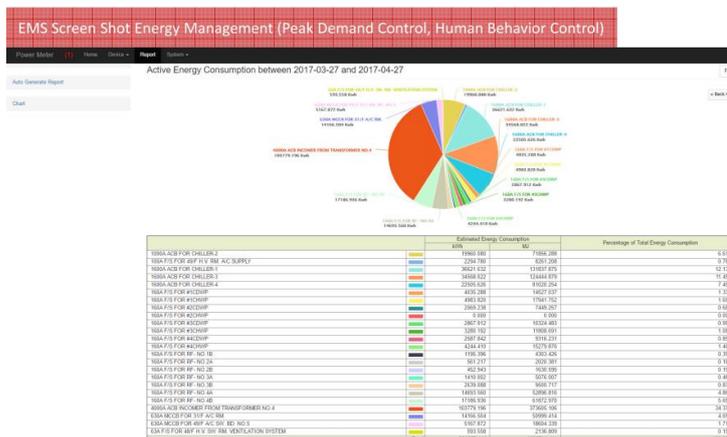
Specifications

- Native protocol supported BACnet, LonWorks, Profibus, Profinet, OPC, Modbus, SNMP, IEC 61850, IEC 60870-5-104, IEEE 1159.3 PQDIF, DNP3, SNMP, RESTful, IRIG-B
- Platform supported Windows Servers, Linux Servers
- Dual Redundancy Server Auto Failover & Recovery architecture option
- Archiving data storage on MySQL, Microsoft MS-SQL server, supporting redundant SQL & replication management

Notice:

Software and Standards are subjected to change without prior notice.
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Native Driver supported: