Factory Energy Management Solution

iFactory/FEMS

WebAccess/SCADA

Features

- Enhance KPI tracking and management
- Standard visualized dashboard
- Open database for data integration
- Easy deployment and maintenance
- Domain focused edge gateway

Introduction

In today's harsh economic climate, most manufacturers are seeking ways to save cost. Best-in-class manufacturers are already road mapping plant strategies to implement energy management in the factory for decreasing energy consumption per unit production. For this Factory Energy Management Solution (FEMS), Advantech's iFactory Solution Ready Package (SRP) integrates hardware and software within industrial applications where typically a 7-10% energy saving can be achieved in facilities, compared to where FEMS SRP is not used.

Based on real-time data obtained from smart meters, FEMS SRP allows users to monitor energy consumption information, accurately evaluate energy costs, and optimize energy efficiency, aiding business intelligence strategies for energy management.
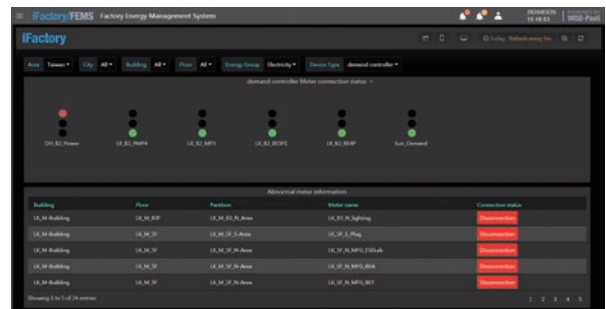
Key Functions

Energy Consumption Overview

An overview of past energy profiles and current energy consumption data provides a systematic approach to identify problem areas and prime targets for energy reduction.

Meter Status

When the power connection is lost, an alert notification of meter status change is sent immediately to prevent energy data loss.
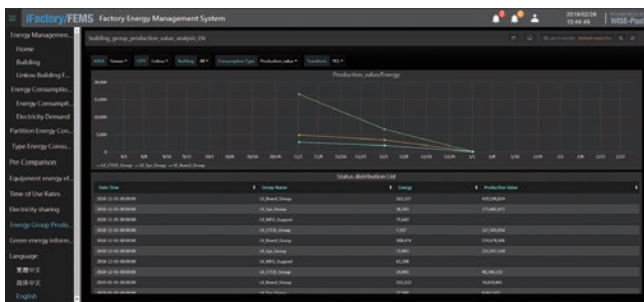

Energy Consumption and Cost Analysis

Production is usually the largest energy consuming part of a factory. Energy consumption data and costs can be analyzed and compared with utility bills to help improve energy efficiency and wastage.

Machine Utilization and Energy Efficiency

Production-integrated energy management enables machine availability tracking with machine energy consumption, to enhance operational efficiency and allow preventive maintenance.

Selection of FEMS Computing Carrier

FEMS Enterprise Server

iFactory/FEMS

WebAccess/SCADA

ME edge - Shop

iFactory/FEMS

WebAccess/SCADA

ME edge - Line

iFactory/FEMS

WebAccess/SCADA

ME Edge - Cell

iFactory/FEMS

WebAccess/SCADA

Specifications

Solution Ready Package		Enterprise Server	ME edge -Shop	ME edge - Line	ME edge - Cell
SRP Software	Operation System	Windows server 2016	Windows 10	Windows 10	Windows 10
	Office	MS Office 2016	N/A		
	SCADA	WebAccess 8.4			
	Container Tech	Docker Desktop for Windows Stable; Edition 2.0			
	Database	Postgre SQL Version 11 & Mongo Version 4			
	Customized Graphic Platform	WISE-PaaS/Dashboard			
	Browser	Support HTML5 Browser (Recommend Google Chrome)			
	Language	Chinese / English			
On-Premise Carrier	SCADA Maximum Communication Linkage	Unlimited	5000	1500	300
	OEE Device Linkage	2000	200	50	5
	Data Retention Period	10 years	1 year	1 year	1 year
	Hardware Platform	HPC-8212	MIC-7700H	MIC-7700H	MIC-7700H
	CPU	Intel Scalable XEON 2.1G 11M 8Core Silver	Intel Core 2.9G 8M 4Core i7-7700T	Intel Core 2.3G 6M 4Core i5-7500TE	Intel Core 2.3G 6M 2Core i3-7101E
	Memory	32G DDR4	32G DDR4	16G DDR4	16G DDR4
	Storage	4T SAS HDD *4pcs by Raid5 C drive: 2T / D drive: 10T	C drive: 128G SSD D drive: 1T HDD	C drive: 128G SSD D drive: 512G SSD	C drive: 128G SSD D drive: 128 SSD
	PSU	550W redundant PSU	150W Adapter	150W Adapter	150W Adapter
	I/O & Port	RJ45 x 2 VGA x 1 HDMI x 1 USB x 2 COM x 1	RJ45 x 2 VGA x 1 HDMI x 1 USB x 8 COM x 4	RJ45 x 2 VGA x 1 HDMI x 1 USB x 8 COM x 4	RJ45 x 2 VGA x 1 HDMI x 1 USB x 8 COM x 4
	Remote Hardware Control	Support IPMI	Support Device On	Support Device On	Support Device On
	Certification	CE / FCC	CE / FCC / UL / CCC	CE / FCC / UL / CCC	CE / FCC / UL / CCC

Ordering Information

FEMS Enterprise Server

Description	Part Number
FEMS Enterprise Server	SRP-IFS250-H82F01A
Power Cord UL 10A 125V 180cm	1702002600
Optional CPU (Scalable XEON 2.1G 11M 8Core Silver)	96MPXE-2.1-11M36
Optional CPU Cooler	1960081603N001
Optional DDR4-2666 REG Memory (16GB)	96D4-16G2666ER-MI
Optional SAS HDD (4TB)	XCON-ST4000NM0025

ME Edge – Shop

Description	Part Number
ME edge – Shop	SRP-IFS250-M77F03A
Power Cord UL 10A 125V 180cm	1702002600
Optional DDR4-2400 Memory (16GB)	AQD-SD4U16N24-SE

ME Edge - Line

Description	Part Number
ME edge - Line	SRP-IFS250-M77F02A
Power Cord UL 10A 125V 180cm	1702002600
Optional DDR4-2400 Memory (16GB)	AQD-SD4U16N24-SE

ME Edge – Cell

Description	Part Number
ME edge - Line	SRP-IFS250-M77F01A
Power Cord UL 10A 125V 180cm	1702002600
Optional DDR4-2400 Memory (16GB)	AQD-SD4U16N24-SE