

## FusionSolar Smart String ESS Solution



Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. With integrated solutions across four key domains - telecom networks, IT, smart devices, and cloud services - we are committed to bringing digital to every person, home and organization for a fully connected, intelligent world. Huawei's end-to-end portfolio of products, solutions and services are both competitive and secure. Through open collaboration with ecosystem partners, we create lasting value for our customers, working to empower people, enrich home life, and inspire innovation in organizations of all shapes and sizes. At Huawei, innovation focuses on customer needs. We invest heavily in basic research, concentrating on technological breakthroughs that drive the world forward.
(g) Employes $195,000+$
(10) Brand Finance Global 500 9R\&D Personnel
$107,000+$

Fortune Global 500
44
(52) $\begin{array}{ll}\text { Countries } \\ 170+\end{array}$


R\&D Investment 2

FusionSolar Smart String ESS Solution


Smart PV
Management System



Smart String ESS
DC LV Panel Smart PCS


Distribution
Transformer

## More Energy

Pack-level Optimization Rack-level Optimization

Optimal Design
Support battery augmentation
Reducing Initial configuration

## Simple O\&M

No periodic balancing No experts site visit

Safe \& Reliable
Modular Design
High Availability




More Energy


Optimal Investment


Simple O\&M


Safe \& Reliable

| Battery Container |  |  |  |
| :---: | :---: | :---: | :---: |
| Model | LUNA2000-2.0MWH-1H0 | LUNA2000-2.0MWH-1H1 | LUNA2000-2.0MWH-2H1 |
| DC Rated Voltage | 1,200 V | 1,250 V | 1,250 V |
| DC Max. Voltage | 1,500 V | 1,500 V | 1,500 V |
| Nominal Energy Capacity | 2,064 kWh | 2,032 kWh | 2,032 kWh |
| Supported Charge \& Discharge Rate | $\leq 1 \mathrm{C}$ | $\leq 1 \mathrm{C}$ | $\leq 0.5 \mathrm{C}$ |
| Rated Power | 344 kW * 6 | 338.7 kW * 6 | 338.7 kW * 3 |
| Container Configuration (W $\times \mathrm{H} \times \mathrm{D}$ ) | 6,058 $\times 2,896 \times 2,438 \mathrm{~mm}$ | $6,058 \times 2,896 \times 2,438 \mathrm{~mm}$ | 6,058 $\times 2,896 \times 2,438 \mathrm{~mm}$ |
| Container Weight | $\leq 30 \mathrm{t}$ | $\leq 30 \mathrm{t}$ | $\leq 30 \mathrm{t}$ |
| Operation Temperature Range | $-30^{\circ} \mathrm{C} \sim 55^{\circ} \mathrm{C}$ | $-30^{\circ} \mathrm{C} \sim 55^{\circ} \mathrm{C}$ | $-30^{\circ} \mathrm{C} \sim 55^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $-40^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$ | $-40^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$ | $-40^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$ |
| Operation Humidity Range | $0 \sim 100 \%$ (Without Condensation) | $0 \sim 100 \%$ (Without Condensation) | 0 ~ 100\% (Without Condensation) |
| Max. Operating Altitude | 4,000 m | 4,000 m | 4,000 m |
| Cooling Method | Smart Air Cooling | Smart Air Cooling | Smart Air Cooling |
| Configuration of HVAC | 8 HVACs | 8 HVACs | 6 HVACs |
| Fire Suppression Agent | FM-200 / Novec 1230 ${ }^{\text {TM }}$ | FM-200 / Novec 1230 ${ }^{\text {™ }}$ | FM-200 / Novec 1230 ${ }^{\text {™ }}$ |
| Communication Interface | Ethernet / SFP | Ethernet / SFP | Ethernet / SFP |
| Communication Protocol | Modbus TCP / IEC104 | Modbus TCP / IEC104 | Modbus TCP / IEC104 |
| Protection Degree | IP55 | IP55 | IP55 |
| Certificates (more available upon request) |  |  |  |
| Environment |  | RoHS6 |  |
| Safety \& Electrical | IEC62477-1, IEC62040 | IEC61000-6-2, EN55011, UL9540A, | C62619, UN3536, etc. |

## LUNA2000-1.0MWH-1H1 (Preliminary)




More Energy


Optimal Investment


Simple O\&M


Safe \& Reliable

| Battery Container |  |
| :---: | :---: |
| Model | LUNA2000-1.0MWH-1H1 |
| DC Rated Voltage | 1,250 V |
| DC Max. Voltage | 1,500 V |
| Nominal Energy Capacity | 1,016 kWh |
| Supported Charge \& Discharge Rate | $\leq 1 \mathrm{C}$ |
| Rated Power | 344 kW * 3 |
| Container Configuration $(\mathrm{W} \times \mathrm{H} \times \mathrm{D})$ | $6,058 \times 2,896 \times 2,438 \mathrm{~mm}$ |
| Container Weight | $\leq 20 \mathrm{t}$ |
| Operation Temperature Range | $-30^{\circ} \mathrm{C} \sim 55^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $-40^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$ |
| Operation Humidity Range | 0 ~ 100\% (Without Condensation) |
| Max. Operating Altitude | 4,000 m |
| Cooling Method | Smart Air Cooling |
| Configuration of HVAC | 3 HVACs |
| Fire Suppression Agent | FM-200 / Novec 1230 ${ }^{\text {TM }}$ |
| Communication Interface | Ethernet / SFP |
| Communication Protocol | Modbus TCP / IEC104 |
| Protection Degree | IP55 |
| Certificates (more available upon request) |  |
| Environment | RoHS6 |
| Safety \& Electrical | IEC62477-1, IEC62040-1, IEC61000-6-2, EN55011, UL9540A, IEC62619, UN3536, etc. |

## Smart String ESS

## Battery Pack \& Smart Rack Controller



Battery Pack

| General |  |  |  |
| :---: | :---: | :---: | :---: |
| Model | LUNA2000-2.0MWH-1H0 | LUNA2000-2.0MWH-1H1 <br> LUNA2000-1.0MWH-1H1 (Preliminary) | LUNA2000-2.0MWH-2H1 |
| Cell Material | LFP | LFP | LFP |
| Pack Configuration | 16 S 1 P | 18S 1P | 18S 1P |
| Rated Voltage | 51.2 V | 57.6 V | 57.6 V |
| Nominal Capacity | $320 \mathrm{Ah} / 16.38 \mathrm{kWh}$ | 280 Ah / 16.13 kWh | $280 \mathrm{Ah} / 16.13 \mathrm{kWh}$ |
| Supported Charge \& Discharge Rate | $\leq 1 \mathrm{C}$ | $\leq 1 \mathrm{C}$ | $\leq 0.5 \mathrm{C}$ |
| Weight | $\leq 140 \mathrm{~kg}$ | $\leq 140 \mathrm{~kg}$ | $\leq 140 \mathrm{~kg}$ |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ) | $442 \times 307 \times 660 \mathrm{~mm}$ | $442 \times 307 \times 660 \mathrm{~mm}$ | $442 \times 307 \times 660 \mathrm{~mm}$ |



## Smart Rack Controller

| Efficiency |  |  |  |
| :---: | :---: | :---: | :---: |
| Model | LUNA2000-2.0MWH-1H0 | LUNA2000-2.0MWH-1H1 <br> LUNA2000-1.0MWH-1H1 | LUNA2000-2.0MWH-2H1 |
| Max. Efficiency | 99.0\% | 99.0\% | 99.0\% |
| Battery Side |  |  |  |
| Rated Voltage | 1,075.2 V | 1,209.6 V | 1,209.6 V |
| Operating Voltage Range | 40 V ~ 1,400 V | 40 V ~ 1,400 V | 40 V ~ 1,400 V |
| Rated Power Voltage Range | 1,075 V ~ 1,320 V | 1,075 V ~ 1,320 V | 1,075 V ~ 1,320 V |
| Min. Start Voltage | 350 V | 350 V | 350 V |
| Bus Side |  |  |  |
| Max. DC Voltage | 1,500 V | 1,500 V | 1,500 V |
| Rated Voltage | 1,200 V | 1,250 V | 1,250 V |
| Rated Current | 286.7 A | 275.2 A | 275.2 A |
| Rated Power | 344,000 W | 344,000 W | 344,000 W |
| General |  |  |  |
| Dimensions (W $\times \mathrm{H} \times \mathrm{D}$ ) | $600 \times 270 \times 820 \mathrm{~mm}$ | $600 \times 270 \times 820 \mathrm{~mm}$ | $600 \times 270 \times 820 \mathrm{~mm}$ |
| Weight | $\leq 90 \mathrm{~kg}$ | $\leq 90 \mathrm{~kg}$ | $\leq 90 \mathrm{~kg}$ |
| Cooling Method | Smart Air Cooling | Smart Air Cooling | Smart Air Cooling |
| Protection Degree | IP66 | IP66 | IP66 |

## Smart PCS




Max. Efficiency 99\%


Surge Arresters for DC \& AC


Modular Design


Ethernet Communication


IP66 Protection


Smart Grid Algorithm


## LUNA2000-200KTL-H0 <br> Technical Specifications





## DTS-200K-D0

## Distribution Transformer




## JUPITER-9000K-H0 (Preliminary)

## Smart Transformer Station




Simple
Prefabricated and Pre-tested, No Internal Cabling Needed Onsite
Compact 20' HC Container Design for Easy Transportation


Smart

Real-time Monitoring of Transformer, LV Panel and RMU High Precision Sensor of LV Electricity Parameters Remote Control of ACB and MV Circuit Breaker


## Efficient

High Efficiency Transformer for Higher Yields Lower Self-consumption for Higher Yields


Reliable

Robust Design against Harsh Environments
Optimal Cooling Design for High Availability and Easy O\&M Comprehensive Tests from Components, Device to Solution


| Input |  |  |
| :---: | :---: | :---: |
| Available Inverters | SUN2000-200KTL / SUN2000-215KTL / SUN2000-185KTL / LUNA2000-200KTL |  |
| Max. LV AC Inputs | 44 |  |
| AC Power | 9,000 kVA @ $40^{\circ} \mathrm{C} / 8,250 \mathrm{kVA} @ 50^{\circ} \mathrm{C}{ }^{1}$ |  |
| Rated Input Voltage | 800 V |  |
| LV Main Inputs | ACB (4000 A / $800 \mathrm{~V} / 3 \mathrm{P}, 2 \times 1 \mathrm{pcs}$ ), MCCB (250 A / $800 \mathrm{~V} / 3 \mathrm{P}, 2 \times 22 \mathrm{pcs}$ ) |  |
| Output |  |  |
| Rated Output Voltage | 22 kV , 30 kV , 33 kV 2 | 34.5 kV ${ }^{2}$ |
| Frequency | 50 Hz | 50 Hz |
| Transformer Type | Oil-immersed, Conservator Type |  |
| Transformer Cooling Type | ONAN |  |
| Transformer Tappings | $\pm 2 \times 2.5 \%$ |  |
| Transformer Oil Type | Mineral Oil (PCB Free) |  |
| Transformer Vector Group | Dy11-y11 |  |
| Transformer Min. Peak Efficiency Index | Tier 1 or Tier 2 In Accordance with EN 50588-1 |  |
| RMU Type | $\mathrm{SF}_{6}$ Gas Insulated |  |
| RMU Transformer Protection Units | MV Vacuum Circuit Breaker Units |  |
| RMU Cable Incoming / Outgoing Units | Direct Cable Unit or Cable Load Break Switch Unit |  |
| Auxiliary Transformer | Dry Type Transformer, 3 kVA, lio |  |
| Output Voltage of Auxiliary Transformer | 400 / 230 Vac or 220 / 127 Vac |  |
| Protection |  |  |
| Transformer Monitoring \& Protection | Oil Level, Oil Temperature, Oil Pressure and Buchholz |  |
| Protection Degree of MV \& LV Room | IP 54 |  |
| Internal Arcing Fault of STS | IAC A $20 \mathrm{kA} \mathrm{1s}$ |  |
| MV Relay Protection | 50/51, 50N/51N |  |
| LV Overvoltage Protection | Type I+II |  |
| Anti-rodent Protection | C5 Medium in accordance with ISO 12944 |  |
| Features |  |  |
| 2 kVA UPS | Optional ${ }^{3}$ |  |
| MV Surge Arrester for MV VCB | Optional ${ }^{3}$ |  |
| General |  |  |
| Dimensions (W $\times \mathrm{H} \times \mathrm{D}$ ) | 6,058 $\times 2,896 \times 2,438 \mathrm{~mm}$ ( $20^{\prime}$ HC Container) |  |
| Weight | $<28 \mathrm{t}$ |  |
| Operating Temperature Range | $-25^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}{ }^{4}\left(-13^{\circ} \mathrm{F} \sim 140^{\circ} \mathrm{F}\right)$ |  |
| Relative Humidity | 0\% ~ 95\% |  |
| Max. Operating Altitude | 2,000 m ${ }^{5}$ | 2,500 m ${ }^{5}$ |
| MV-LV AC Connections | Prewired and Pretested, No Internal Cabling Onsite |  |
| LV \& MV Room Cooling | Smart Cooling without Air-across for Higher Availability |  |
| Communication | Modbus TCP, Preconfigured with SmartACU2000D |  |
| Applicable Standards | IEC 62271-202, EN 50588-1, IEC 60076, IEC 62271-200, IEC 61439-1 |  |

## STS-6000K-H1

## Smart Transformer Station




Simple

Prefabricated and Pre-tested, No Internal Cabling Needed Onsite
Compact 20' HC Container Design for Easy Transportation


Smart

Real-time Monitoring of Transformer, LV Panel and RMU High Precision Sensor of LV Electricity Parameters Remote Control of ACB and MV Circuit Breaker


## Efficient

High Efficiency Transformer for Higher Yields Lower Self-consumption for Higher Yields


Reliable

Robust Design against Harsh Environments
Optimal Cooling Design for High Availability and Easy O\&M Comprehensive Tests from Components, Device to Solution


| Input |  |  |
| :---: | :---: | :---: |
| Available Inverters / PCS | SUN2000-200KTL / SUN2000-215KTL / SUN2000-185KTL / LUNA2000-200KTL |  |
| Maximum LV AC Inputs | 34 |  |
| AC Power | 6,800 kVA @ $40^{\circ} \mathrm{C}{ }^{1}$ |  |
| Rated Input Voltage | 800 V |  |
| LV Main Switches | ACB (2900 A / $800 \mathrm{~V} / 3 \mathrm{P}, 2 \times 1 \mathrm{pcs}$ ), MCCB (250 A / $800 \mathrm{~V} / 3 \mathrm{P}, 2 \times 17 \mathrm{pcs}$ ) |  |
| Output |  |  |
| Rated Output Voltage | $11 \mathrm{kV}, 15 \mathrm{kV}, 20 \mathrm{kV}$, 22 kV , 30 kV , $33 \mathrm{kV}, 35 \mathrm{kV}{ }^{2}$ | 13.8 kV, 34.5 kV ${ }^{2}$ |
| Frequency | 50 Hz | 60 Hz |
| Transformer Type | Oil-immersed, Conservator Type |  |
| Transformer Cooling Type | ONAN |  |
| Transformer Tappings | $\pm 2 \times 2.5 \%$ |  |
| Transformer Oil Type | Mineral Oil (PCB Free) |  |
| Transformer Vector Group | Dy11-y11 |  |
| Transformer Min. Peak Efficiency Index | Tier 1 or Tier 2 In Accordance with EN 50588-1 |  |
| RMU Type | $\mathrm{SF}_{6}$ Gas Insulated |  |
| RMU Transformer Protection Units | MV Vacuum Circuit Breaker Units |  |
| RMU Cable Incoming / Outgoing Units | Direct Cable Unit or Cable Load Break Switch Unit |  |
| Auxiliary Transformer | Dry Type Transformer, 5 kVA, Dyn11 |  |
| Output Voltage of Auxiliary Transformer | 400 / 230 Vac or 220 / 127 Vac |  |
| Protection |  |  |
| Transformer Monitoring \& Protection | Oil Level, Oil Temperature, Oil Pressure and Buchholz |  |
| Protection Degree of MV \& LV Room | IP 54 |  |
| Internal Arcing Fault Classification of STS | IAC A $20 \mathrm{kA} \mathrm{1s}$ |  |
| MV Relay Protection | 50/51, 50N/51N |  |
| LV Overvoltage Protection | Type I+II |  |
| Anti-rodent Protection | C5 Medium in accordance with ISO 12944 |  |
| Features |  |  |
| 2 kVA UPS | Optional ${ }^{3}$ |  |
| MV Surge Arrester for MV VCB | Optional ${ }^{3}$ |  |
| General |  |  |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ) | 6,058 $\times 2,896 \times 2,438 \mathrm{~mm}$ ( $20^{\prime}$ HC Container) |  |
| Weight | $<22 \mathrm{t}$ |  |
| Operating Temperature Range | $-25^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}{ }^{4}\left(-13^{\circ} \mathrm{F} \sim 140^{\circ} \mathrm{F}\right)$ |  |
| Relative Humidity | 0\% ~ 95\% |  |
| Max. Operating Altitude | 1,000 m ${ }^{5}$ | $1,500 \mathrm{~m}^{5}$ |
| MV-LV AC Connections | Prewired and Pretested, No Internal Cabling Onsite |  |
| LV \& MV Room Cooling | Smart Cooling without Air-across for Higher Availability |  |
| Communication | Modbus-RTU, Preconfigured with Smartlogger3000B |  |
| Applicable Standards | IEC 62271-202, EN 50588-1, IEC 60076, IEC 62271-200, IEC 61439-1 |  |

## STS-3000K-H1

## Smart Transformer Station




Simple

Prefabricated and Pre-tested, No Internal Cabling Needed Onsite
Compact 20' HC Container Design for Easy Transportation


Smart

Real-time Monitoring of Transformer, LV Panel and RMU High Precision Sensor of LV Electricity Parameters Remote Control of ACB and MV Circuit Breaker


## Efficient

High Efficiency Transformer for Higher Yields Lower Self-consumption for Higher Yields


Reliable

Robust Design against Harsh Environments Optimal Cooling Design for High Availability and Easy O\&M Comprehensive Tests from Components, Device to Solution


| Input |  |  |
| :---: | :---: | :---: |
| Available Inverters / PCS | SUN2000-200KTL / SUN2000-215KTL / SUN2000-185KTL / LUNA2000-200KTL |  |
| Maximum LV AC Inputs | 17 |  |
| AC Power | 3,400 kVA @ $40^{\circ} \mathrm{C}^{1}$ |  |
| Rated Input Voltage | 800 V |  |
| LV Main Switches | ACB (2900 A / $800 \mathrm{~V} / 3 \mathrm{P}, 1 \mathrm{pcs}$ ), MCCB (250 A / $800 \mathrm{~V} / 3 \mathrm{P}, 17 \mathrm{pcs}$ ) |  |
| Output |  |  |
| Rated Output Voltage | $11 \mathrm{kV}, 15 \mathrm{kV}, 20 \mathrm{kV}$, 22 kV , 30 kV , $33 \mathrm{kV}, 35 \mathrm{kV} 2$ | 13.8 kV, 34.5 kV ${ }^{2}$ |
| Frequency | 50 Hz | 60 Hz |
| Transformer Type | Oil-immersed, Conservator Type |  |
| Transformer Cooling Type | ONAN |  |
| Transformer Tappings | $\pm 2 \times 2.5 \%$ |  |
| Transformer Oil Type | Mineral Oil (PCB Free) |  |
| Transformer Vector Group | Dy11 |  |
| Transformer Min. Peak Efficiency Index | Tier 1 or Tier 2 In Accordance with EN 50588-1 |  |
| RMU Type | $\mathrm{SF}_{6}$ Gas Insulated |  |
| RMU Transformer Protection Units | MV Vacuum Circuit Breaker Units |  |
| RMU Cable Incoming / Outgoing Units | Direct Cable Unit or Cable Load Break Switch Unit |  |
| Auxiliary Transformer | Dry Type Transformer, 5 kVA, Dyn11 |  |
| Output Voltage of Auxiliary Transformer | 400 / 230 Vac or 220 / 127 Vac |  |
| Protection |  |  |
| Transformer Monitoring \& Protection | Oil Level, Oil Temperature, Oil Pressure and Buchholz |  |
| Protection Degree of MV \& LV Room | IP 54 |  |
| Internal Arcing Fault Classification of STS | IAC A $20 \mathrm{kA} \mathrm{1s}$ |  |
| MV Relay Protection | 50/51, 50N/51N |  |
| LV Overvoltage Protection | Type I+II |  |
| Anti-rodent Protection | C5 Medium in accordance with ISO 12944 |  |
| Features |  |  |
| 2 kVA UPS | Optional ${ }^{3}$ |  |
| MV Surge Arrester for MV VCB | Optional ${ }^{3}$ |  |
| General |  |  |
| Dimensions ( $\mathrm{W} \times \mathrm{H} \times \mathrm{D}$ ) | 6,058 $\times 2,896 \times 2,438 \mathrm{~mm}$ ( $20^{\prime} \mathrm{HC}$ Container) |  |
| Weight | $<15 \mathrm{t}$ |  |
| Operating Temperature Range | $-25^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}{ }^{4}\left(-13^{\circ} \mathrm{F} \sim 140^{\circ} \mathrm{F}\right)$ |  |
| Relative Humidity | 0\% ~ 95\% |  |
| Max. Operating Altitude | $1,000 \mathrm{~m}^{5}$ | $1,500 \mathrm{~m}^{5}$ |
| MV-LV AC Connections | Prewired and Pretested, No Internal Cabling Onsite |  |
| LV \& MV Room Cooling | Smart Cooling without Air-across for Higher Availability |  |
| Communication | Modbus-RTU, Preconfigured with Smartlogger3000B |  |
| Applicable Standards | IEC 62271-202, EN 50588-1, IEC 60076, IEC 62271-200, IEC 61439-1 |  |

## SmartACU2000D

## Smart Array Controller




Smart

Support one-click commissioning
Patented anti-PID module


Simple

SmartPID2000 \& Smartlogger3000B pre-installed with multiple interfaces


## Reliable

Industrial-level application and high reliability

## Technical Specifications

SmartACU2000D-D-00

| Configuration |  |
| :---: | :---: |
| SmartLogger | SmartLogger3000B $\times 1$ |
| SmartModule1000A | Optional |
| RS485 | Supported |
| Number of MBUS Module ${ }^{1}$ | 1 |
| Number of SmartPID2000 Module | 0 |
| Environment |  |
| Operating Temperature Range | $-40^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F} \sim 140^{\circ} \mathrm{F}\right)$ |
| Relative Humidity | 4\% ~ 100\% |
| Max. Operating Altitude | 4,000 m (13,123 ft.) |
| Electrical |  |
| AC Input Voltage for Cabinet | $100 \mathrm{~V} \sim 240 \mathrm{~V}, \mathrm{~L} / \mathrm{N}(\mathrm{L})+\mathrm{PE}$ |
| AC Input Voltage for MBUS | $380 \mathrm{~V} \sim 800 \mathrm{~V}, 3 \mathrm{Ph}$ |
| AC Input Voltage for PID | 380 V ~ 800 V, 3Ph + FE (Functional Earth) |
| AC Input Frequency | $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$ |
| Power Supply | Standard: 12 V DC, Optional: $24 \mathrm{~V} \mathrm{DC}^{2}$ |
| Mechanical |  |
| Cable Entries | Bottom in \& out |
| Maintenance | Front |
| Dimensions (W $\times \mathrm{H} \times \mathrm{D}$ ) | $640 \times 770 \times 315$ mm ( $25.2 \times 30.3 \times 12.4$ inch $)$ |
| Weight | 29 kg (63.9 lb.) |
| Protection Degree | IP65 |
| Installation Options | Wall Mounting, Rack Mounting, Pole Mounting |

1 - Compatible with communication mode of PLC (Power Line Communication).
$2-24 V D C$ power supply is optional to power devices that require 24 Vdc input and output.

## Smart PVMS




Smart

Auto faults alarming and reports issuing
Smart I-V Curve Diagnosis supported


One-click installation on PC Fault alarms via SMS and E-mail


Reliable

Hierarchical management Up to 25 years data storage

Network Structure


[^0]
## Smart PVMS Server Standard Version




10000 devices supported


Software pre-installation, saving installation time


Leverages patented DEMT, better energy efficiency

| Technical Specification | FusionServer Pro 2288X V5 H22X-05 |
| :---: | :---: |
| Max. Devices Supported | 10,000 equivalent devices |
| Form Factor | 2 U rack server |
| Processors | 2 * Intel Xeon Silver 4208 (2.1 GHz / 8-Core / 11 MB) |
| Memory | 2 * 32 GB DDR4 RDIMM, ECC |
| Internal Storage | 2 * 1.2 TB, SAS 2.5" HDD, 10,000 RPM |
| Operating System | Euler OS |
| Database | Gauss DB |
| RAID Support | RAID 1 |
| Network Ports | Two PCle NICs, each supporting four GE electrical ports |
| Power Supply Units | 2 hot-swappable PSUs, 1+1 redundancy |
| Power Supply | Input: 100-240 V ${ }_{\text {AC }}$ / 11~5.5 A ; 240 V DC / 5 A |
| Fan Modules | 4 hot-swappable counter-rotating fan modules, $\mathrm{N}+1$ redundancy |
| Operating Temperature | $5^{\circ} \mathrm{C} \sim 40^{\circ} \mathrm{C}$ |
| Dimensions ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ ) | $86.1 \times 447 \times 748 \mathrm{~mm}$ |
| Weight | 29 kg |
| Certification | CE, UL, FCC, CCC, RoHS |

## Smart PVMS Server Premium Version




30000 devices supported


Software pre-installation, saving installation time


Leverages patented DEMT, better energy efficiency

| Technical Specification | FusionServer Pro 2288X V5 |
| :---: | :---: |
| Max. Devices Supported | 30,000 equivalent devices |
| Form Factor | 2 U rack server |
| Processors | 2 * Intel Xeon Gold 5218 (2.3 GHz / 16-Core / 22 MB) |
| Memory | 4 * 32 GB DDR4 RDIMM, ECC |
| Internal Storage | 2 * 1.2 TB + 8 * 1.8 TB, SAS 2.5" HDD, 10,000 RPM |
| Operating System | Euler OS |
| Database | Gauss DB |
| RAID Support | RAID 1, RAID 10 |
| Network Ports | Two PCle NICs, each supporting four GE electrical ports |
| Power Supply Units | 2 hot-swappable PSUs, 1+1 redundancy |
| Power Supply | Input: 100-240 V ${ }_{\text {AC }}$ / 11~5.5 A ; $240 \mathrm{~V}_{\mathrm{DC}} / 5 \mathrm{~A}$ |
| Fan Modules | 4 hot-swappable counter-rotating fan modules, $\mathrm{N}+1$ redundancy |
| Operating Temperature | $5^{\circ} \mathrm{C} \sim 40^{\circ} \mathrm{C}$ |
| Dimensions ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ ) | $86.1 \times 447 \times 748 \mathrm{~mm}$ |
| Weight | 30 kg |
| Certification | CE, UL, FCC, CCC, RoHS |

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[^0]:    - Compatible with communication mode of PLC (Power Line Communication).

