i-POWER

EMPOWERING GLOBAL NETWORKS

2025

IPOWER GLOBAL HOLDINGS LTD

RM NO.32,BLOCK F, 9/F, MAI TAK INDUSTIAL BUILDING, 221 WAI YIP ST, KWUN TONG, HONG KONG.

TABLE OF CONTENT

Our Company

I-POWER GLOBAL Holdings LTD

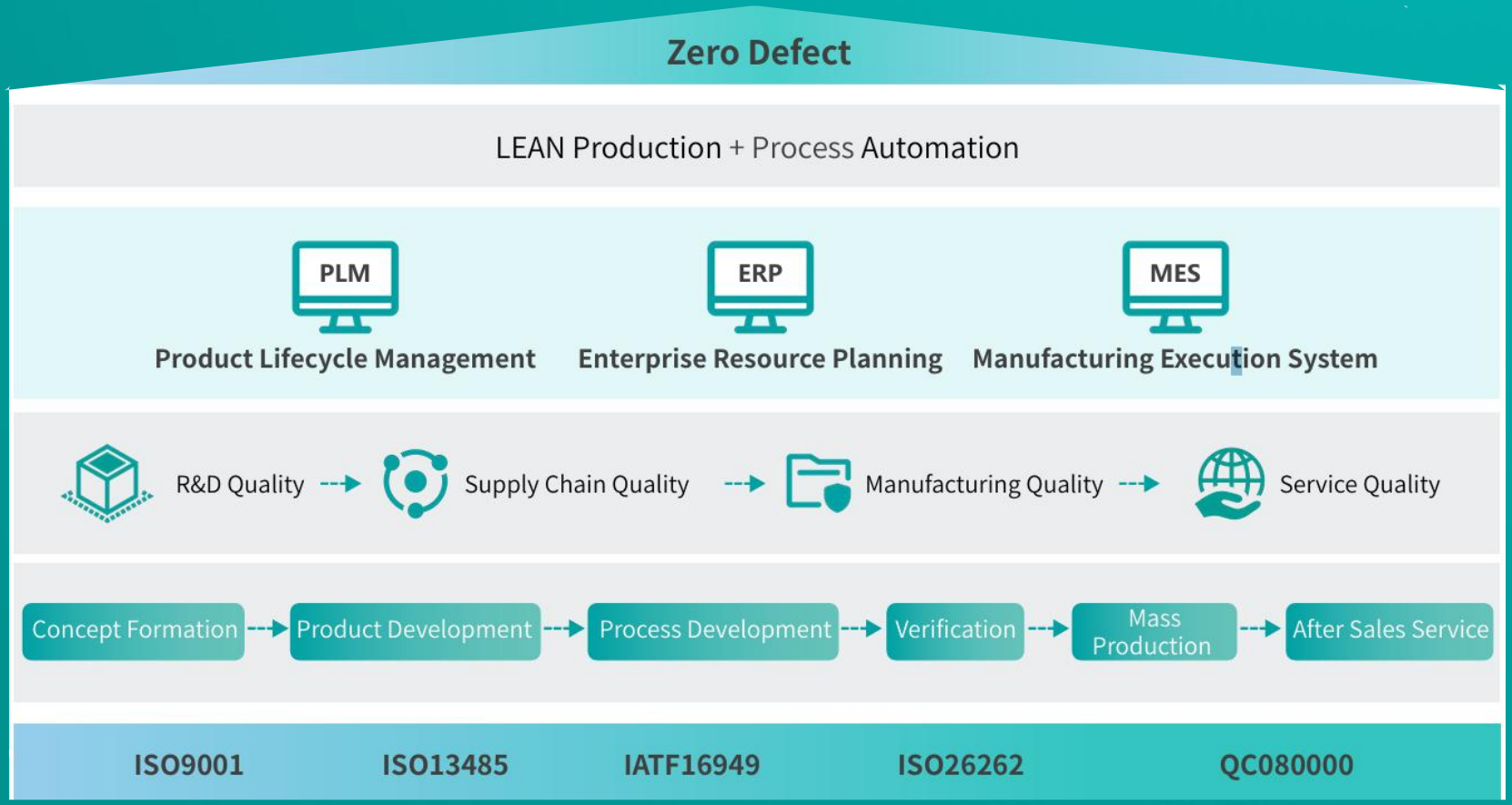
is committed to delivering reliable, high-efficiency power and energy solutions, purpose-built for the telecommunications industry. Focused on mission-critical telco tower operations, our systems are designed to perform in the toughest environments, ensuring stable, uninterrupted power anytime, anywhere.

Backed by a zero-defect manufacturing philosophy, I-Power employs advanced production systems, including PLM, ERP, MES, and lean automation **to ensure the highest level of quality control from concept to deployment**. Every component undergoes rigorous reliability and stress testing to meet international standards.

Our smart, scalable solutions are optimized **for energy efficiency, helping reduce operational costs while improving sustainability.** Beyond the product, we take pride in our exceptional after-sales support, responsive, responsible, and fully committed to your operational success

I-Power - Empowering Global Networks

OUR QUALITY MANAGEMENT SYSTEM



I-Power - Empowering Global Networks

PRODUCT QUALITY CONTROL

1. **Reliability Engineering Lab** simulates long-term operational conditions across millions of cycles. The 10M and dual 3M-cycle tests validate the mechanical and electrical endurance of key components such as relays, switches, and connectors**.** ***This ensures long-term mechanical and electrical durability over millions of cycles.***

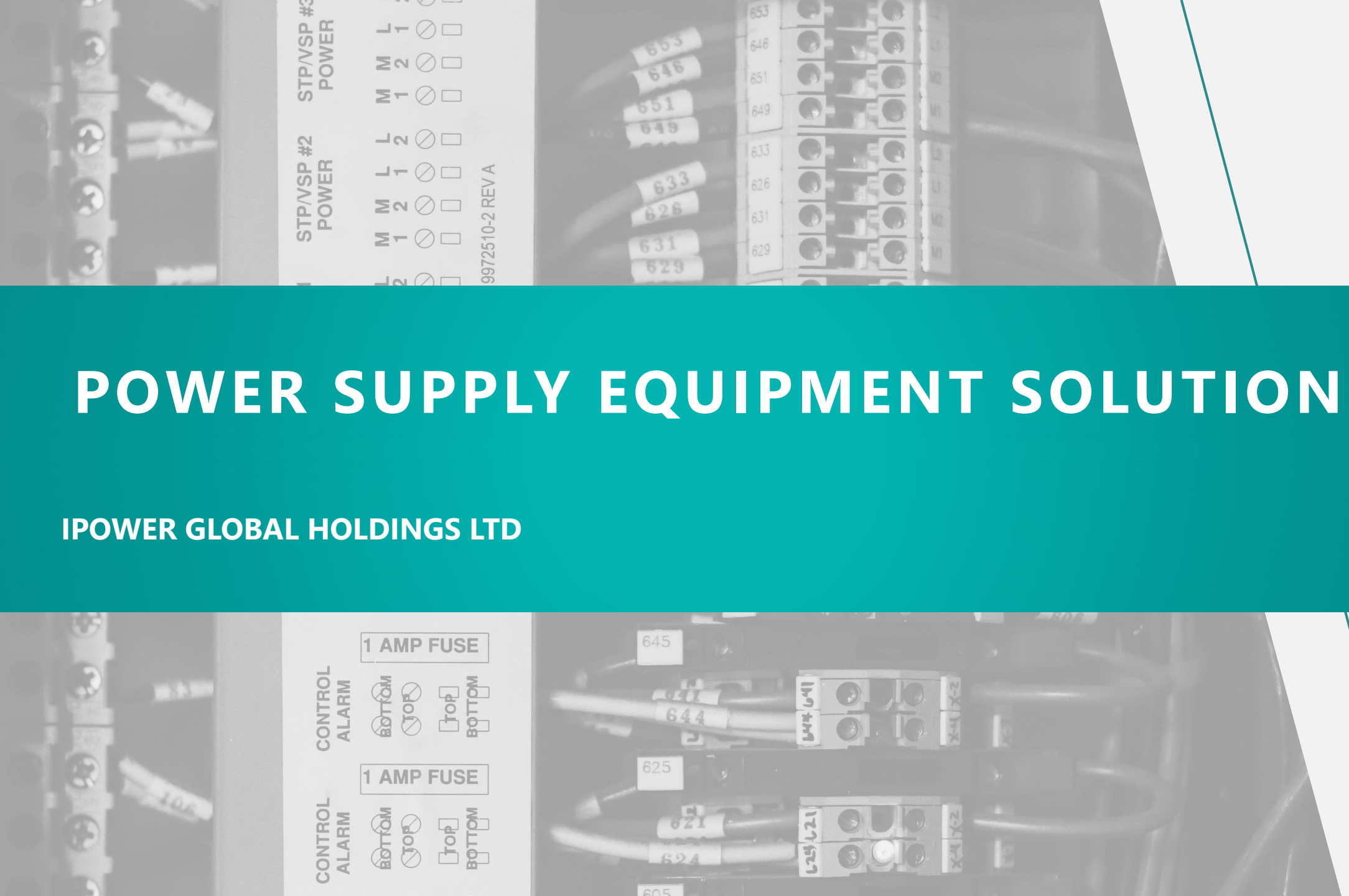
2. **Burn In Lab** exposes all units to elevated temperatures and loads for a defined period (typically 24–72 hours) to detect early-life component failures. Only stable, fault-free units proceed to the next phase. ***This ensures early failures are detected before deployment.***

3. **High-Speed Bench Testing** is a part of functional verification of system response, accuracy, and performance at maximum rated speeds and loads. This includes rapid communication, control signal response, voltage accuracy, and interface validation under simulated site conditions. ***Ensures system accuracy and fast response under full load conditions.***

4. **Highly Accelerate Life Test Lab (HALT)** exposes products to extreme stresses (temperature, vibration, voltage spikes) beyond normal operating ranges to identify potential weak points and failure modes early in the design**.** ***This ensures robust operation even under extreme field conditions.***

5. **Climate/Environment Lab** simulates temperature and humidity cycles from freezing cold to tropical heat, as well as moisture ingress. This test verifies thermal stability, conformal coating integrity, and component behavior in challenging climates**.** ***This ensures reliable operation in varying temperature and humidity environments.***

6. **Mechanical Reliability Lab** does test resistance to vibration, shock, drop, tilt, and mechanical fatigue, essential for transportation, tower mounting, and field handling. ***Ensures our DC systems, rectifiers, batteries, and cabinets stay structurally and electrically sound during global deployment.***



POWER SUPPLY EQUIPMENT SOLUTION

IPOWER GLOBAL HOLDINGS LTD

OUR PRODUCTS

Integrated DC Power System — From Source to Load, All in One Ecosystem

72-96 kW

27-36 kW

18-24 kW

Subrack

IPR-4817K

IPR-482K

IPR-483K

IPR-484K

Rectifier Module

IPS-483KP

IPS-483KS

Solar Module

IPDC-447

IPDC-223

Cabinet System

IPSM-C101

Controller

IPLif-348150T1

IPLif-348100T1

Battery

RECTIFIER SYSTEM

Modular Rectifier Series with High Performance & Efficiency

IPR-481K

Maximum Capacity : 1700 W
Operating Voltage : 85-290 VAC
Max. Input Current : 12 A
Output Voltage Range : 42 to 58 VDC
(Rated 53.5V)
Max Output Current : 33 A
Peak Efficiency : >94 %
Dimension : 41.5 x 96.9 x 230.1 mm
Communication Protocol : CAN

IPR-482K

Maximum Capacity : 2000 W
Operating Voltage : 85-290 VAC
Max. Input Current : 13 A
Output Voltage Range : 42 to 58 VDC
(Rated 53.5V)
Max Output Current : 41.7 A
Peak Efficiency : >96 %
Dimension : 41.5 x 106.4 x 291 mm
Communication Protocol : CAN

IPR-483K

Maximum Capacity : 3000 W
Operating Voltage : 85-290 VAC
Max. Input Current : 18 A
Output Voltage Range : 42 to 58 VDC
(Rated 53.5V)
Max Output Current : 56.1 A
Peak Efficiency : >96 %
Dimension : 41.5 x 106.4 x 291 mm
Communication Protocol : CAN

IPR-483KH

Maximum Capacity : 3000 W
Operating Voltage : 85-290 VAC
Max. Input Current : 16 A
Output Voltage Range : 42 to 58 VDC
(Rated 53.5V)
Max Output Current : 62.5 A
Peak Efficiency : >98 %
Dimension : 41.5 x 106.4 x 291 mm
Communication Protocol : CAN

IPR-484K

Maximum Capacity : 4000 W
Operating Voltage : 85-290 VAC
Max. Input Current : 26 A
Output Voltage Range : 42 to 58 VDC
(Rated 53.5V)
Max Output Current : 81.3 A
Peak Efficiency : >96.5 %
Dimension : 41.5 x 106.4 x 291 mm
Communication Protocol : CAN

IPR-484KH

Maximum Capacity : 4000 W
Operating Voltage : 85-290 VAC
Max. Input Current : 26 A
Output Voltage Range : 42 to 58 VDC
(Rated 53.5V)
Max Output Current : 81.3 A
Peak Efficiency : >97 %
Dimension : 41.5 x 106.4 x 291 mm
Communication Protocol : CAN

MPPT MODULES

IPS-483KS

Parameter	Description
Operating Voltage	120 – 420 VDC
Max. Input Current	17 A
Output Voltage Range	42 to 58 VDC (Rated 54.5V)
Maximum Capacity	3000 W
Max Output Current	62.5 A
Peak Efficiency	>94 %
Dimension	41.5 x 96.9 x 230.1 mm
Communication Protocol	CAN

Ideal for high-voltage series setups, this MPPT maximizes energy yield over long distances and changing light conditions

IPR-483KP

Parameter	Description
Operating Voltage	58 – 165 VDC
Max. Input Current	46 A
Output Voltage Range	43.2 to 58 VDC (Rated 54.5V)
Maximum Capacity	3000 W
Max Output Current	52 A
Peak Efficiency	>97 %
Dimension	41.5 x 106.4 x 291 mm
Communication Protocol	CAN

Optimized for shaded or irregular arrays, this MPPT handles low voltage and high current to deliver stable, reliable output

DC SYSTEM

1.7 kW – 3.4 kW

Module Capacity : 2 Slots
Input Mode : 220 VAC Single Phase
Input Capcity : 30A/2P x 1 Terminal
Input Frequency : 45 to 66 Hz, (Rated Value 50/60 Hz)
Dimension : 2U
Battery Breakers : 65A/2P x 1 Terminal
Load Breakers : Blvd: 65A/2P×3terminals
Signal Input : 3 AI (2 Battery temp.,1ambient temp.), 2RS485, 7DI
Signal Output : 6 Dry Contact
Cooling Mode : Natural Cooling
Protection Level : IP20

18 kW - 24 kW

Module Capacity : 6 Slots
Input Mode : 380 VAC Three Phase
Input Capcity : 63A/4P x 1 Terminal
SPD : 20kA/40kA,8/20μs
Dimension : 222.25 mm x 482.6mm x 350.6mm
Battery Breakers : 3×125A/1P
Load Breakers : LLVD :32A/IPx2+40A/IP×2+63A/IP×2 BLVD :6A/IPx1+10A/iP×2+16A/1Px2
Signal Input : 3AI (2 Battery temp.,1 ambient temp), 8 DI, 8 DO,12V,1SPD
Signal Output : 6 dry contact
Cooling Mode : Fan Cooling
Protection Level : IP20

42 kW - 56 kW

Module Capacity : 14 Slots
Input Mode : 380 VAC Three Phase
Input Capcity : 63A/4P x 1 Terminal
SPD : 20kA/40kA,8/20μs (AC), 10kA/20kA,8/20μs (DC)
Dimension : 311.15 mm x 482.6 mm × 350mm
Battery Breakers : 125A/1P x 2 Terminal
Load Breakers : LLVD :32A/1P×2+40A/1P×2+63A/1Px3 Blvd:6A/1P×2+10A/IP×2+16A/1P×2
Signal Input : 3AI (2battery temp.,1 ambient temp.),2RS485, 7DI
Signal Output : 6 Dry Contact
Cooling Mode : Fan Cooling
Protection Level : IP20

72 kW - 96 kW

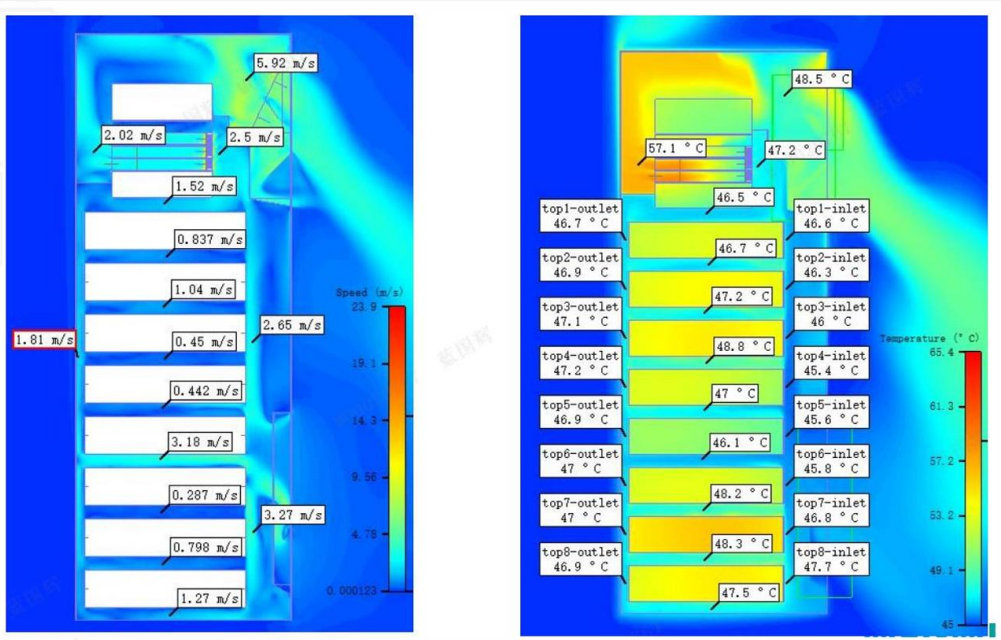
Module Capacity : 48 Slots
Input Mode : 380 VAC Three Phase
Input Capcity : 63A/4P x 1 (AC), 63A/2P x 3 (DC)
SPD : 20kA/40kA,8/20μs (AC), 10kA/20kA,8/20μs (DC)
Dimension : 482.6×350.6×8U,≤30kg
Battery Breakers : 125A/1P x 6 Terminal
Load Breakers : Llvd:125A/1P×1 + 63A/IP×3; Blvd: 32A/1P×3 + 16A/1P×3
Signal Input : 3AI (2battery temp.,1 ambient temp.),2RS485, 7DI
Signal Output : 6 Dry Contact
Cooling Mode : Natural Cooling
Protection Level : IP20

CABINET SYSTEM

IPDC-447

Smart DC Cabinet. Tough on the Outside, Smarter Inside

Parameter	Description
Total Space	44 U
Dimension (WxDxH)	800 mm x 750 mm x 2200 mm
Circuit Breaker	400A /2P MCCB 1PCS for battery, And 6A/1PMCB 2PCS for LED light and DC fan
Protection Grade	IP55
Wall & Door Material	1.5mm SGCC, 2 mm for Plinth
Direct Ventilation	6 DC fan + G4 filter
Cable Routing	Bottom In, Bottom Out
Sensors and Additional	Smoke sensor, Door Sensor, Water Sensor, LED Lights



SMART BATTERY MONITORING SYSTEM

IPLif-348150T1

Our Smart BMS supports hybrid battery systems : read, protect, and balance both lithium and lead-acid types.

Parameter	Description
Rated Capacity	150 Ah
Voltage Nominal	48 V
Energy	7,200 Wh
Max Discharge Current	100 A
Max Charging Current	95 A
Standard Charging Current	75 A (0.5C)
Battery Type	LiFePO4
Dimension & Weight	530*442*132 mm & 55 kg
Cycle Life (DOD 80%)	4000 Cycle

Our Smart BMS is engineered to support hybrid battery systems, **enabling seamless integration of both lithium and lead-acid batteries within a single setup**. It intelligently monitors, protects, and balances multiple battery types simultaneously, providing maximum flexibility for system upgrades and lifecycle extension

This capability allows users to retain existing battery assets while transitioning to newer technologies, reducing overall costs and simplifying energy infrastructure management

CONTROLLER

IPSM-C101

Unified Control for Rectifier, Solar, Battery, and Load Management

IPSM-C101 is the new generation DC power controller developed by I-Power . It offers many features and functions, with a more robust, user-friendly, and easy-to use interface. This power controller system is formed by this control module together with I-Power rectifier modules, solar modules and distribution plug-in frame (or distribution cabinet), realizing interactive operations in human-machine interfaces, controller of system operating state, intelligent battery management, and automatic energy-saving management. Northbound integration protocol: Modbus, SNMP V3, YDT-1363

POWER AS A SERVICE SOLUTION

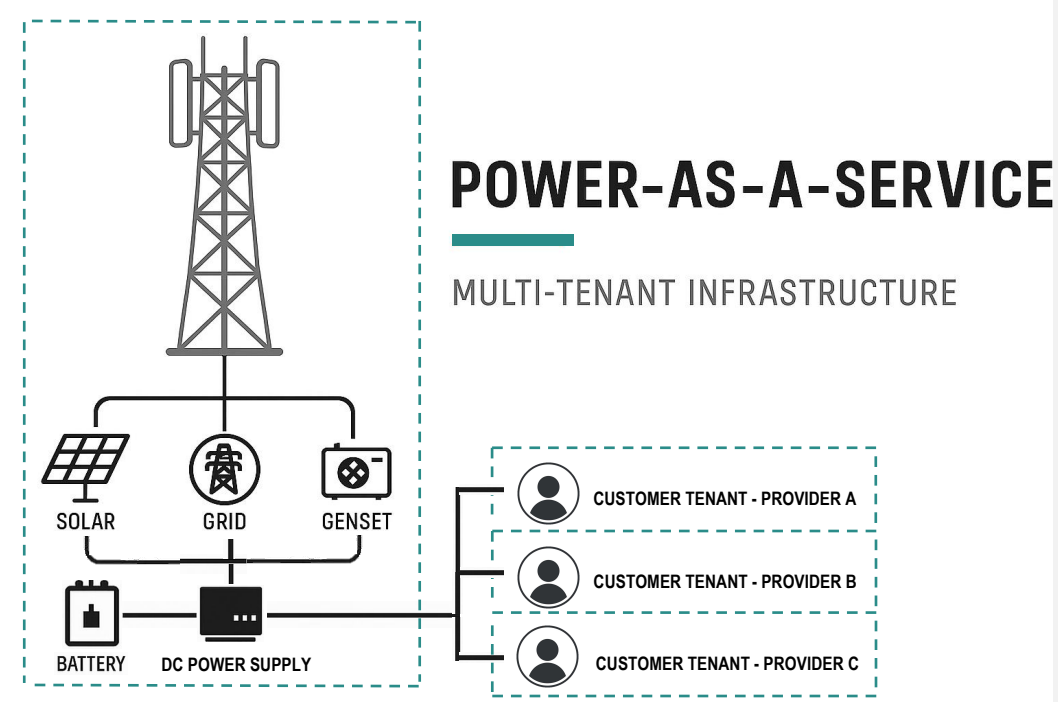
IPOWER GLOBAL HOLDINGS LTD

TELCO POWER AS A SERVICE

Best Solution for tower provider MultiLoad with energy meter billing system

Power as a Service (PaaS) business model for Telco Basestations. Traditionally, cellular service providers pay colocation (colo) fees to tower companies based on physical space and rental agreements. Our innovative model shifts this to a usage-based **power** and **energy** consumption billing system, optimizing costs and efficiency **for telecom operators.**

Power as a Service (PaaS) a game-changing business model that decouples energy infrastructure from tower leasing, offering a flexible, scalable, and SLA-backed power solution for telecom operators.



FLEXIBLE INVESTMENT & OPERATIONAL BENEFITS OF POWER AS A SERVICE

Reduced Upfront Investment & Flexible Power Equipment Choices
With the Power as a Service business model, tower companies have the flexibility to choose their own power equipment without being locked into exclusive assets for each tenant provider. This eliminates the need for large capital investments.

Value added & SLA-Based Performance
Tower companies can offer multi-level SLA pricing based on energy availability and backup duration, such as 3-hour, 6-hour, or 12-hour backup times. This flexibility maximizes revenue while ensuring reliable power supply and service differentiation.

Sustainability & Energy Efficiency
Enables integration of renewable energy (solar, lithium batteries) to reduce carbon footprint and dependence on diesel generators. Enhances overall energy efficiency, supporting ESG (Environmental, Social, and Governance) initiatives.

BUSINESS VALUE FOR TOWER COMPANIES

1. New Revenue Streams & Differentiation

- Diversifies beyond passive tower leasing into active energy services.
- Generates new income through power leasing and energy management.
- Positions the tower company as a key energy enabler in telecom.

2. Higher Margins & Asset Monetization

- Delivers recurring revenue with predictable cash flow.
- Enables dynamic pricing based on energy demand.
- Reduces power costs through scale, improving profitability

3. Stronger Retention & Long-Term Value

- Bundles power with tower leasing, increasing switching barriers.
- Secures stable revenue via long-term agreements.

4. Operational Efficiency & Cost Savings

- Lowers reliance on diesel, reducing fuel and maintenance expenses.
- Centralized power control optimizes energy use across sites.

5. Sustainability & Compliance

- Supports green energy adoption and ESG goals.
- Reduces carbon footprint and meets regulatory standards.

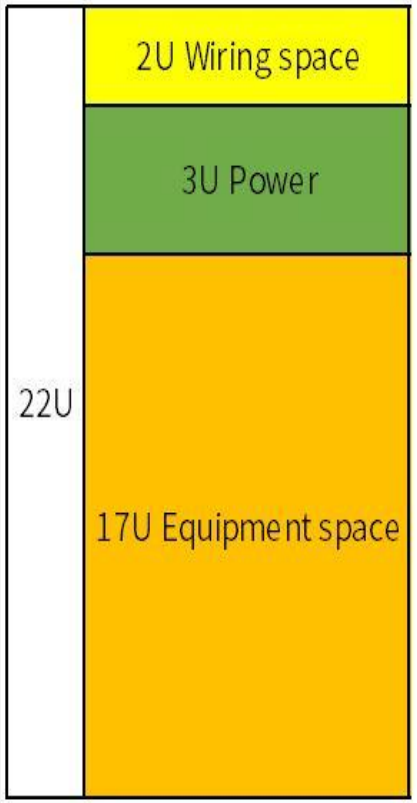
6. Scalability & Tower Utilization

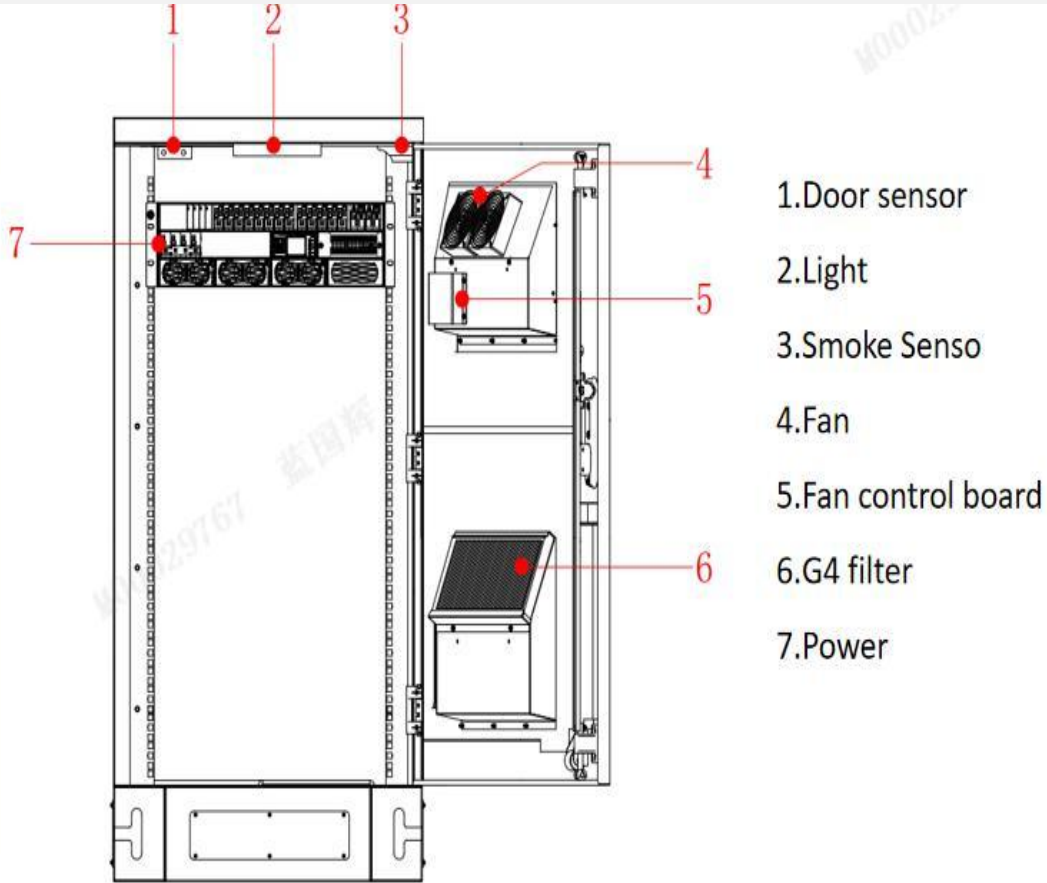
- Enables fast deployment in off-grid and rural areas.
- Future-ready for storage, microgrid, and energy innovations.
- Scales to meet 5G growth and network densification

EXCLUSIVE POWER SYSTEM

IPDC-223E

Smart DC Cabinet. Tough on the Outside, Smarter Inside



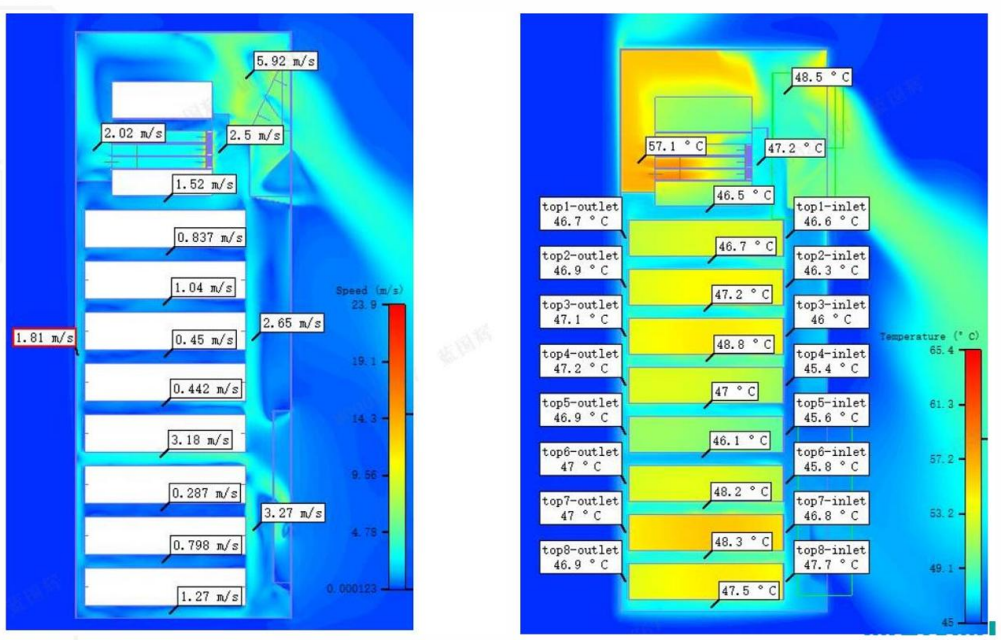


DUAL TENANT POWER SYSTEM

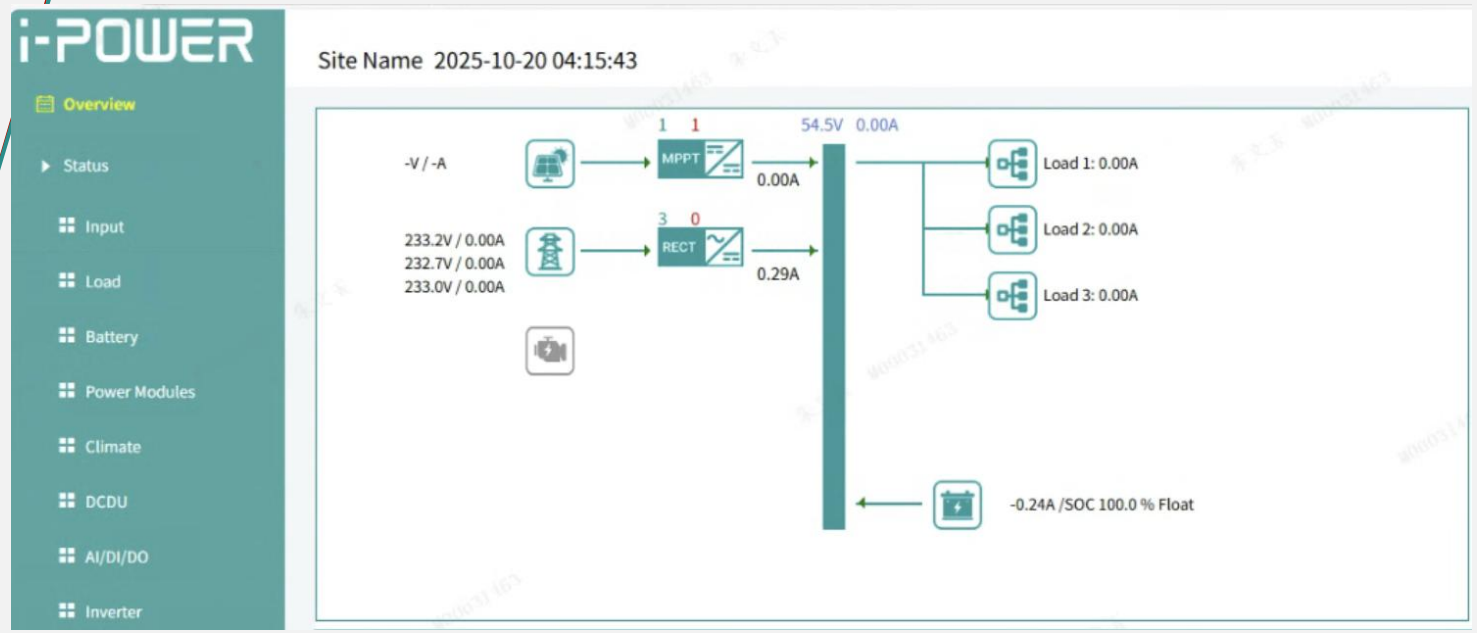
IPDC-447

Smart DC Cabinet. Tough on the Outside, Smarter Inside

Parameter	Description
Total Space	44 U
Dimension (WxDxH)	800 mm x 750 mm x 2200 mm
Circuit Breaker	400A /2P MCCB 1PCS for battery, And 6A/1PMCB 2PCS for LED light and DC fan
Protection Grade	IP55
Wall & Door Material	1.5mm SGCC, 2 mm for Plinth
Direct Ventilation	6 DC fan + G4 filter
Cable Routing	Bottom In, Bottom Out
Sensors and Additional	Smoke sensor, Door Sensor, Water Sensor, LED Lights



DUAL TENANT POWER SYSTEM



The i-POWER controller does support up to 4 independently metered load outputs, making it ideal for dual or multi-tenant telecom power deployments. Each output can be assigned, measured, and monitored individually, supporting precise billing and energy management for each tenant or system branch.

POWER SOLUTION IN TELECOMMUNICATION

IPOWER GLOBAL HOLDINGS LTD

GRID-POWERED SITE

For locations with stable utility power, our **on-grid configuration** focuses on maximizing solar energy utilization while staying connected to the grid.

Solar panels are connected through **MPPT controllers**, sending power to the DC bus and directly supporting the site load, while the grid acts as backup. **Rectifiers** remain on standby, ready to charge batteries or take over in case of solar failure. The **DC cabinet** manages load distribution via LLVD/BLVD, and the **controller** ensures real-time monitoring.

Ideal for commercial and urban telecom sites aiming to cut electricity bills while maintaining uptime

HYBRID-POWERED SITE

In our **hybrid solution**, solar, grid, and battery work together under one intelligent power logic.

MPPTs harvest solar energy as the primary source. When solar drops, the **rectifiers** automatically switch to grid mode to recharge the battery or power the load. The **Smart BMS** ensures safe battery operation, and our **controller** communicates between all components, managing alarms, logic priorities, and remote diagnostics. **Subracks** and **DC cabinets** handle modular expansion and clean cable distribution.

Perfect for rural sites, telecom towers, or industrial facilities that demand 24/7 uptime and energy cost savings

OFF-GRID SOLAR SITE

For remote areas without any grid connection, our **off-grid configuration** delivers full autonomy.

Solar panels connect to **MPPT controllers** (supporting both series or parallel strings), charging the battery bank via smart logic. **Smart BMS** manages lithium or lead-acid batteries, and the **controller** prioritizes power flows, load shedding (LLVD/BLVD), and site alarms. The entire system fits into a rugged **DC cabinet**, ready for harsh field conditions.

Best for isolated sites, rural telecom towers, and energy-resilient applications.

SUCCESSFUL PROJECTS

IPOWER GLOBAL HOLDINGS LTD

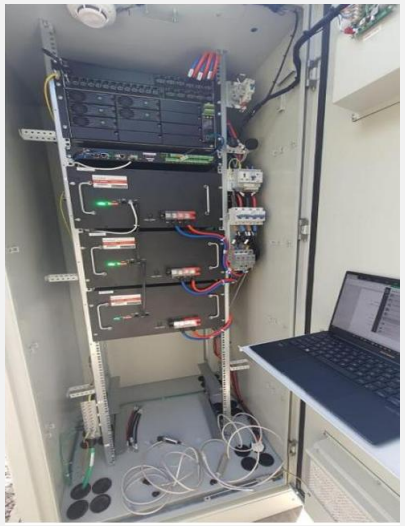
SITE DEPLOYED

Trusted Power Partner with Proven Track Record

We go beyond deployment , **our strong after-sales support** ensures fast response, accountable service, and long-term operational reliability, we have successfully deployed the solution in the Philippines

Project Name	Project Scale
Number of site	875+
Power Capacity	18.000+ KW
Battery Capacity	590.100+ Ah

PHILTOWER MIDC



- End of Presentation -

Thank You

The Attention & Appreciation

We are I-Power and We are Glad to Work With You for Your Next Digital Transformation