

EXERON

M | METKA | IPS

METKA IPS offers innovative containerized hybrid solar systems with battery backup, which deliver uninterrupted AC power supply through our award winning power conversion technology (EXERON) to mini grid projects around the globe. Our design is standardized for ease of operation & maintenance, but allows for customization in order to fit every customer's needs.



STANDARD CONTAINERIZED SOLUTION

Technical Data		
System Specification	SCS 20	SCS 40
PV Peak Power	up to 70 kWp	up to 140 kWp
PV Panel Technology	Monocrystalline, Polycrystalline, Thin-film PV modules	
Total Installed Battery Capacity	up to 260 kWh	up to 520 kWh
Battery Types Compatibility	Lead-Acid battery, Li-ion battery, LiFePo4 battery, Zinc battery	
Load Capacity	60 kW	120 kW
Energy Management System	EXERON Awarded system using Intelligent Control through smart Monitoring	
AC Voltage Output	110 V to 400 V	
Frequency	50/60 Hz	
Output Phases	1 or 3 phases	
Remote Monitoring & Control	Web / Cloud based	
Scalability	Easily Scalable Solution Parallel connection of more than one containers for higher output capacities	
Provided Equipment ⁽¹⁾	PV, Batteries, EXERON EMS	
Optional Equipment	DG, Wi-Fi, Touch Screen	
Container Specifications		
Standard Cargo Container	20'	40'
Internal Dimensions (L/W/H)	5,7 / 2,21 / 2,39 m	11,9 / 2,21 / 2,39 m
Gross Weight	12.500 kg	24.100 kg
Certification for Sea Transportation	✓	
Air Conditioned Battery Room	✓	
Insulated	✓	
Suitable for High-Temperature Areas	✓	
Fire Detection System	✓	
Tropical Roof	✓	

Specifications are subject to change without notice.

(1) Two additional containers are needed for the accessories of the overall hybrid solution.



CASE STUDIES

Assumptions

Load	Typical Commercial Load		Typical Residential Load	
Daily Profile				
Energy Consumption Loads (Daily/Annual)	459 kWh / 167 MWh		542 kWh / 198 MWh	
Configuration	Conventional DG 24/7	SCS 40	Conventional DG 24/7	SCS 40
PV Power	0 kWp	140 kWp ⁽²⁾	0 kWp	140 kWp ⁽²⁾
Battery Capacity	0 kWh	288 kWh	0 kWh	288 kWh
DG Power	40 kW	0 kW	60 kW	60 kW
Annual Diesel Fuel Consumption	62.457 Lt	0 Lt ⁽³⁾	69.104 Lt	29.442 Lt
Annual DG Operating Hours	8.760 h	0 h	8.760 h	3.829 h
Hybrid Benefits (annually)				
Renewables Penetration	100%		67%	
Diesel Fuel Saving	100%		57%	
DG Working Hours Saving	100%		56%	
CO2 Emissions Saving	166.385 tons CO2		105.660 tons CO2	
Standards / Certificates:				

- CSC – International Convention for Safe Containers Approval.
- ISO – 668 (Classification, dimension & ratings).
- ISO – 830 (Terminology).

- ISO – 1161 (Corner Fittings – Specifications).
- ISO – 1496-1, Amendment 1+2.
- ISO – 1496-4, Amendment 1.
- ISO – 6346 (Coding, identification & marking).

⁽²⁾ Solar park can produce up to 192 MWh/year.

⁽³⁾ 82% of annual demand is covered without DG in operation.

METKA IPS HEADQUARTERS

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