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UNINTERRUPTIBLE POWER SUPPLIES
DC SOLUTIONS

CATALOG 2021

BW POWER SYSTEMS

DC SOLUTIONS
INDEX

19” & 21” RECTIFIERS

The Slimline Power System provides advanced controller features in a compact, cost-efficient footprint. The SPS platform is based around a 1RU shelf configuration with an array of combinations of rectifier shelves and distribution options to address 500W to 19200W applications. The Pulsar Edge controller has Ethernet connectivity to facilitate remote network management to monitor and control rectifiers, batteries, and distribution. The SPS is a full featured and reliable DC power solution where system height and depth are restricted, but large system performance is critical to success.

1RU TECHNICAL INFORMATION

- Independent system for integration in 19” rack.
- 2 1000W EP100 rectifier modules. Up to 2kW
- Battery protection, monitoring and control (Shunt, LVBD) Pulsar IP controller, integrated distribution.

6RU TECHNICAL INFORMATION

- Independent system for integration in 19” rack.
- 6 1000W EP100 rectifier modules. Up to 6kW
- Battery protection, monitoring and control (Shunt, LVBD) Pulsar IP controller, integrated distribution.

▼▼ SPS Data-Sheet DOWNLOAD ▼▼

IMS 48

The IMS 48 is a 48Vdc DC power system for mid-range power requirements. The modular equipment allows 200, 400 and 600Adc configurations, up to 40 distribution positions in CB DIN/FH system and up to 4 sections of frontal access batteries.

The final configuration of the system can be adapted to the needs of each site using standard production, distribution and battery modules.

■ 10U CONFIG ■ ■ 20U CONFIG ■ ■ 43U CONFIG ■

TECHNICAL INFORMATION

- Modular DC plant for INDOOR installations. 600×600 Cabinets with different height options 10U, 20U, 43U.
- High efficiency (>97%) 3kW CP2725 Rectifiers.
- 200Adc, 400Adc, 600Adc system capacity options.
- Standard components for modular and flexible configurations.
- Battery connection, monitoring and protection (LVBD, Shunt controller).
- Internal battery bank or external battery bank options.
- Sophisticated system controller with IP capability supporting SNMP V3.1/MODBUS/ETHERNET.
- Frontal access for installation and maintenance.

▼▼ IMS 48 Data-Sheet DOWNLOAD ▼▼

▼▼ CP 2725 Data-Sheet DOWNLOAD ▼▼

HPS 48

The HPS 48 is a distributed architecture DC-48VDC power system for high power requirements. The modular equipment allows configurations from 800 to 48000A (261kW) with different options for distribution in both CB DIN and NH fuses.

The equipment can manage and monitor up to 12 battery sections and 96 3kW rectifiers.

The final configuration of the system can be adapted to the needs of each site using standard production, distribution and battery modules.

■ **HPS484800 Distributed System** ■

TECHNICAL INFORMATION

- Modular DC plant for INDOOR installations.
- Flexible configuration cabinets for 600Adc, 800Adc, 1200Adc and 1600 Adc.
- Plant extensions in distributed configuration of up to 3 cabinets and 96 rectifiers.
- High efficiency (>97%) 3kW CP2725 rectifiers.
- Standard components for modular and flexible configurations.
- Battery connection, monitoring and protection.
- Flexible distribution options to suit site requirements.
- Battery connection, monitoring and protection.
- Sophisticated system controller with IP capability supporting SNMP V3.1/ MODBUS/ETHERNET.
- Front access for installation and maintenance.

▼▼ HPS 48 Data-Sheet DOWNLOAD ▼▼

▼▼ CP 2725 Data-Sheet DOWNLOAD ▼▼

HYBRID CUBE

The main innovation of the Hybrid Cube system is the exclusive use of a DC bus, which eliminates DC/AC and AC/DC conversion losses. The compact design includes a 14kW solar panel, a DC generator (5 kW DC Genset), batteries (Long Life Li-Ion Batteries), a fuel tank and a controller system that integrates the solution and optimizes power generation to reduce maintenance costs.

TECHNICAL INFORMATION

- OUTDOOR Power generation plant stations without AC
- Solar panel up to 14kW
- 5kW Genset DC generator
- Fuel tank of 1440L (for consumption of 1kW it would only need an annual recharge)
- Long-life Li-Ion batteries between 270 and 1280Ah (4300-8200 charge/ discharge cycles) or AGM batteries
- Possibility of adding a 1kW wind generator with DC converter
- Controller that optimizes the operation of the system adapting the moments of solar production with the recharge of batteries and the support of the generator.
- Sophisticated system controller with IP capability supporting SNMP V3.1/ MODBUS/ETHERNET
- Total system weight without fuel 1375kg
- OUTDOOR cabinet with IP 67

▼▼ HYBRID CUBE Data-Sheet DOWNLOAD ▼▼

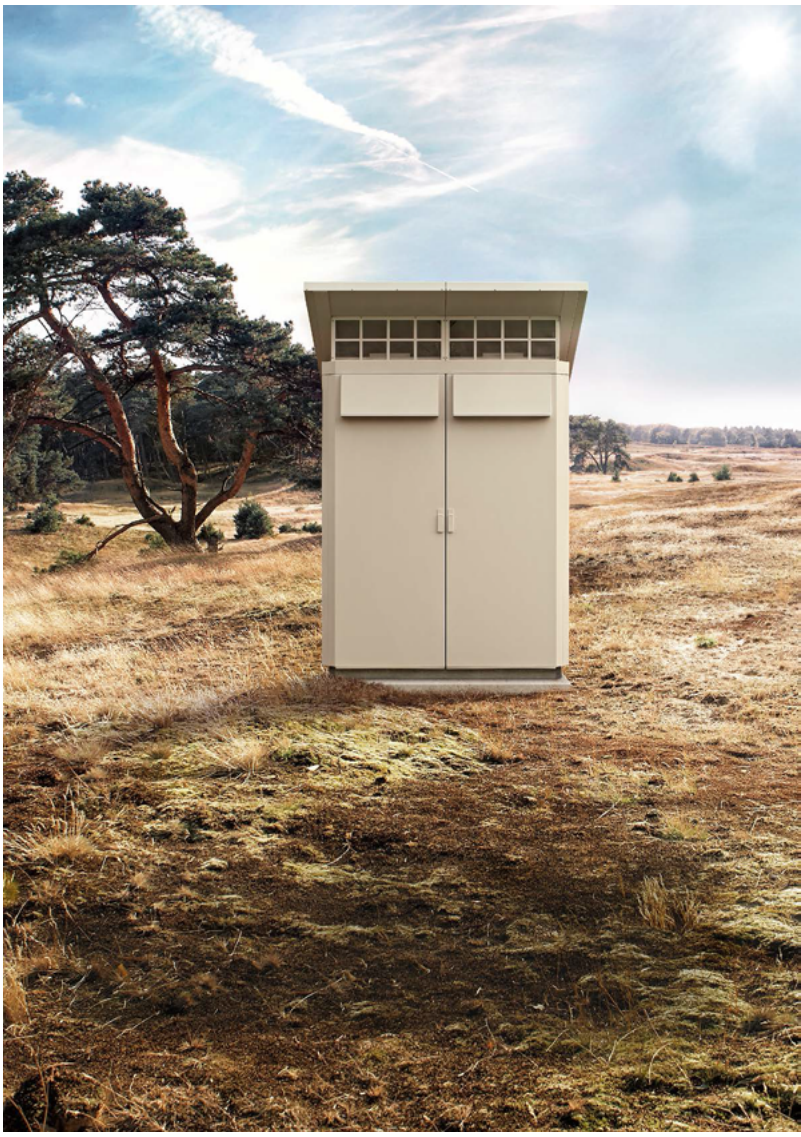
▼▼ HYBRID SOLUTIONS Data-Sheet DOWNLOAD ▼▼

SOLAR CUBE

The SolarCube is a low-power outdoor cabinet designed to meet high-performance telecommunications requirements, in hard-to-adapt operating conditions.

The cabinet uses its own energy production for the internal cooling of the system, improving efficiency with double insulating layer technologies in aluminium cabinets and forced ventilation.

The system allows the complete housing of a telecommunication node including the DC equipment and its batteries, maintaining operational conditions and reducing energy consumption by up to 85%.



TECHNICAL INFORMATION

- Telecommunications cabinet for OUTDOOR applications.
- Solar panel for cooling consumption. The solar panels prevent direct radiation by reducing internal temperature surges.
- Self-cooling of the panels with the interior convection outlets
- Self-cooling IP55 cabinet with double-layer aluminium technology
- Interior design with high contact zones to improve the internal cooling of the installed elements
- Designed to house Powerful Equipment, its batteries and all the necessary equipment for a Base Station.
- The station's internal cooling system optimizes energy consumption by up to 85% for 1kW consumption in 24/7 mode.

▼▼ SOLAR CUBE Data-Sheet DOWNLOAD ▼▼

▼▼ SOLAR CUBE 6s Data-Sheet DOWNLOAD ▼▼

INDOOR DC

The DC distribution cabinets are based on a modular design that allows different configurations to adapt the distribution cabinet to the requirements of the energy system.

Using standard DIN protection components (circuit breaker) the different panels are formed and then assembled into the cabinet. Each panel can be independently configured with a multitude of options; status supervision, measurement elements such as Voltmeter Amperemeters (analogue and/or digital) with the possibility of remote supervision in 4/20mA, SNMP, MODBUS, ETHERNET.

There are cabinets with different sizes from 1400 to 2200 in height and widths of 400, 600, 800.

Simple wall panels from 4 distribution positions up to 44. Anchorage system on wall rail with easy installation.

■ Electrical diagram of the status monitoring system ■

TECHNICAL INFORMATION

- DC distribution cabinets in “Frame” format 19”, 23” and wall frames.
- Solid cabinets made of galvanized sheet metal and finished with epoxy insulation. RAL 9005 BLACK.
- Distribution with standard monopolar CB on DIN rail up to 125A. Up to 132 CB DIN positions per cabinet.
- Capacity to distribute up to 4800Adc per cabinet.
- Different height options in 1400, 1600, 1800, 2000, 2200mm cabinets.
- Composition of standard panels in DIN format 200Adc, 400Adc, 600Adc, 800Adc with 22 distribution positions per panel.
- Total accessibility for safe hot swapping.
- Upper and lower cabinet mechanization to allow access to the wiring.
- Schneider Components.
- Voltmeter Amperemeter with 4/20mA analogue or digital connectivity SNMP, Modbus, ETHERNET.
- Status monitoring relay system. NC or NO.
- Up to 6 panels in a 43U cabinet.

▼▼ INDOOR CABINETS Data-Sheet DOWNLOAD ▼▼

OUTDOOR DC

The outdoor cabinets are manufactured in aluminum with corrosion-free “double wall” or “single wall” technologies. There are different formats of forced and directed convection cooling, A/C or heat exchangers.

The outdoor cabinets have IP65 exterior protection and anti-vandalism systems, the access to the cabinets is frontal and can accommodate any type of system both DC, AC and telecommunications. The cabinets are designed to accommodate batteries.

■ EXTERNAL ■ ◄ Advantages of Double Wall system ► ■ INTERNAL ■

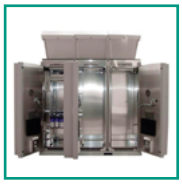
TECHNICAL INFORMATION

- Outdoor equipment cabinets IP65
- Corrosion-free aluminum construction
- Half-height, full-height and multi-cabinet configurations
- Single wall and double wall construction options
- Air conditioning, heat exchanger and fan cooling options
- Space for placing power supply equipment and BTS
- Configurable for environmental and site requirements
- Custom DC and AC power solutions
- Connection, monitoring and protection of the battery
- Internal or external battery options
- Sophisticated system controller with IP capability, SNMP, MODBUS, ETHERNET
- Front access for installation and maintenance.
- Vandal-proof multipoint locking mechanisms









▼▼ OUTDOOR CABINETS Data-Sheet DOWNLOAD ▼▼

INVERTERS

The solutions for DC/AC inverters are divided into 2 options:

INDEPENDENT TSI MODULES of 0.5kVA, 0.75kVA and 1.5kVA. They are DC to AC conversion systems for 48Vdc input and 230-50Vac 50/60hZ output. The systems do not require an external control system.

HIGH POWER MODULAR SYSTEM from 3.5kVa to 21kVA in an N+1 redundant configuration for optimum reliability up to 17.5 kVA This modular scalability makes the system ideal for most applications where future energy growth is anticipated. Built-in bypass.

■ Architectural wiring diagram ■

TSI TECHNICAL INFORMATION

- Systems available in 0.5kVA, 0.75kVA and 1.5kVA
- DC input with a wide input range of 40 to 60Vdc
- Wide Vout range between 156 and 265Vac. Configurable for 220/230/240 in 50 and 60Hz
- 93% efficiency with 99% power factor and less than 3% harmonic distortion

ALPHATRAN TECHNICAL INFORMATION

- NEBS/Telecom industry compliant. 48Vdc input 220/230-50-60Hz. single phase output
- True modular scalability: 3.5 kVA – 21 kVA (3.5 kVA modules)
- Parallel for redundancy or N + 1 capacity
- Secure hot-swappable module exchange technology
- Total front accessibility.
- Ultra-low profile: 21 kVA in 24 U with Clean DC input <30 dBrnc
- Precision output voltage regulation: line <1% and integrated static bypass for greater safety LCD Status Display Module
- IP / SNMP monitoring
- International agency certifications (UL, CE,TUV)

▼▼ TSI Inverter Data-Sheet DOWNLOAD ▼▼

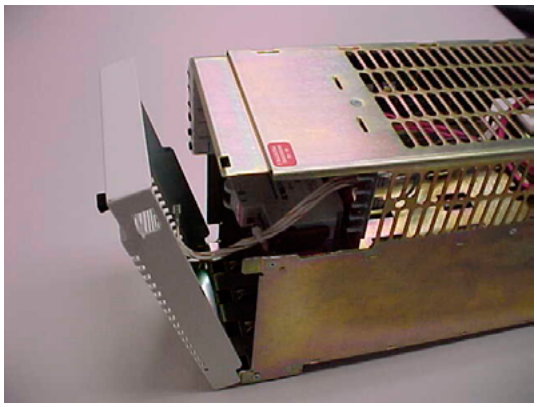
▼▼ Alphatran Inverter Data-Sheet DOWNLOAD ▼▼

OTHER

The DC-Converters are a full featured and reliable DC power solution where system needs a conversion from 12Vdc-24Vdc-48Vdc to 12Vdc-24Vdc-48Vdc with high efficiency (more than 98%). Electronic technology used by BW is highly efficient, no warming up of the environment, modular solution that ca be inserted in parallel and Galvanic isolation.

DC/DC CONVERTERS

- 24-48 Vdc dc/dc converters
- 48-24 Vdc dc/dc converters



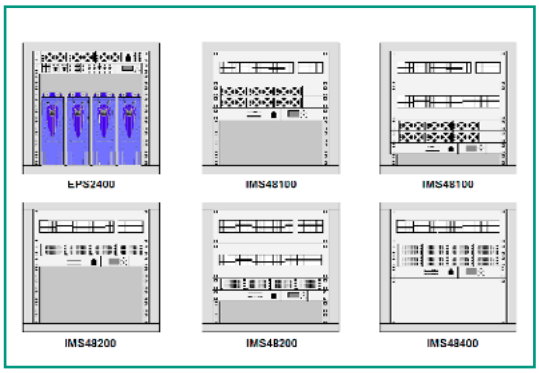
SINGLE RECTIFIER

- MPR1348FP 48Vdc rectifier that provides efficient isolated power from the AC power grid in a universal format (50-60 Hz, 220-230-240Vac) 1U module that works independently and reports alarms by relay.
- 1350W total power with 92% efficiency

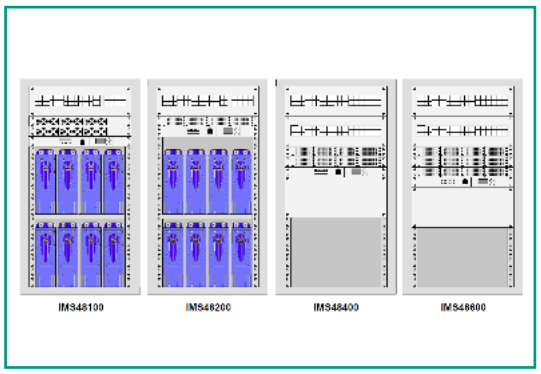
▼▼ SPS Data-Sheet DOWNLOAD ▼▼ ▼▼ MPR1348FP Data-Sheet DOWNLOAD ▼▼

▼▼ PULSA EDGE Data-Sheet DOWNLOAD ▼▼ ▼▼ EP1000 Data-Sheet DOWNLOAD ▼▼

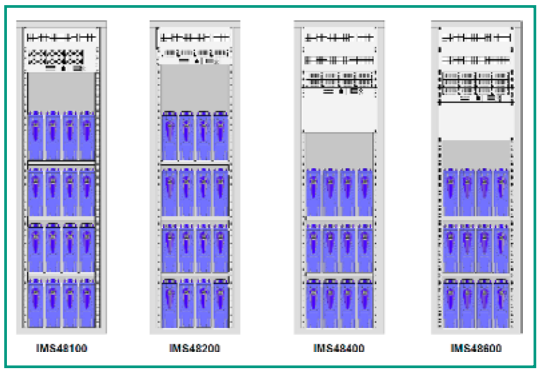
IMS 48



10U CONFIGURATION

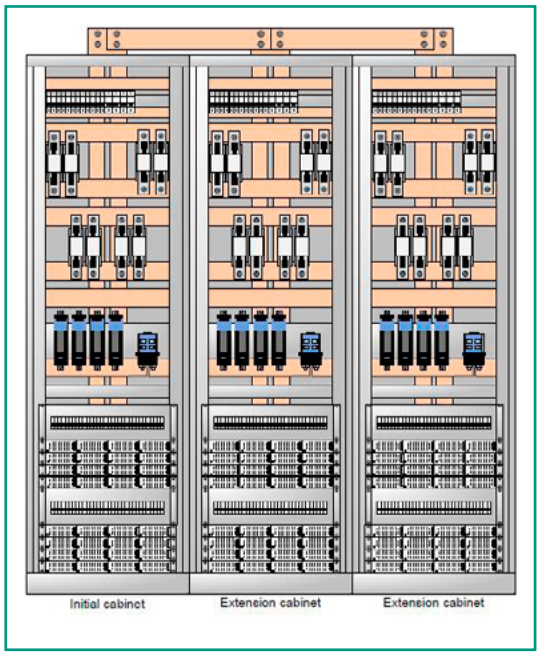


20U CONFIGURATION



43U CONFIGURATION

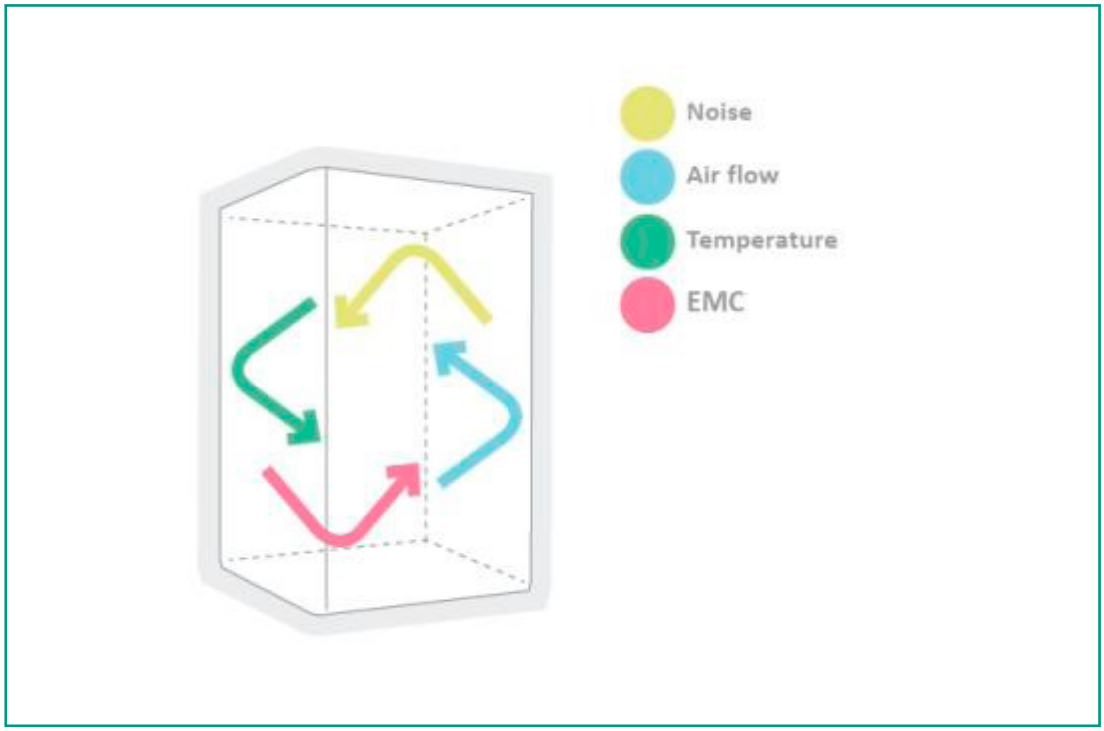
HPS 48



DISTRIBUTED SYSTEM

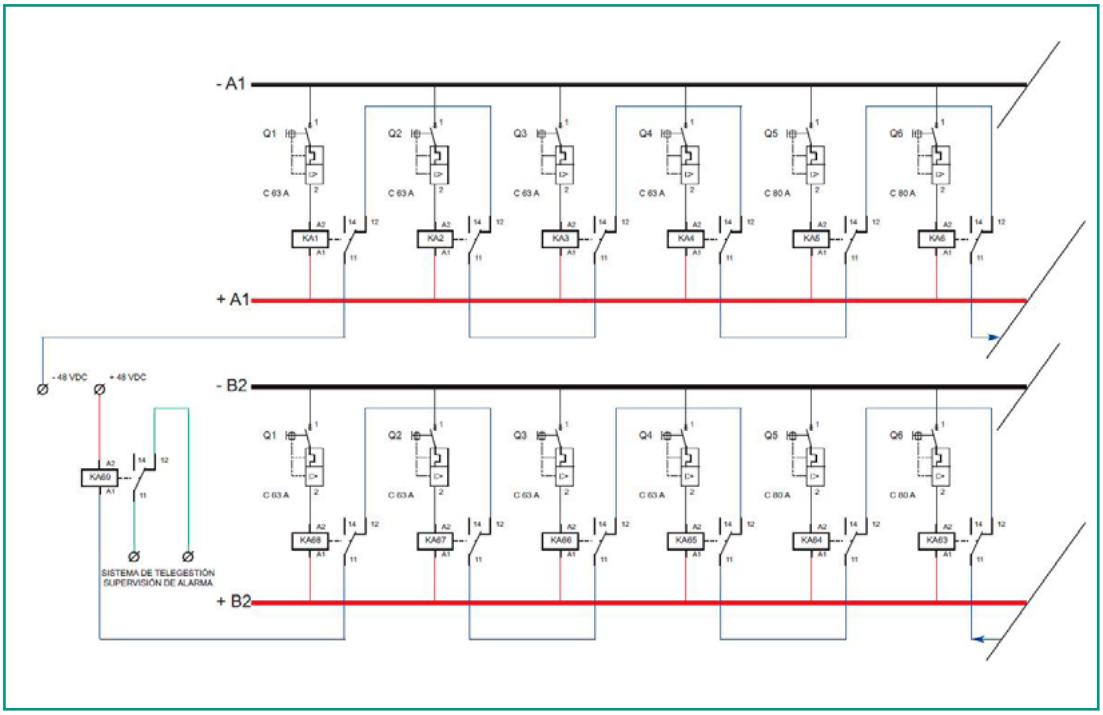
OUTDOOR

EXTERNAL INFLUENCES



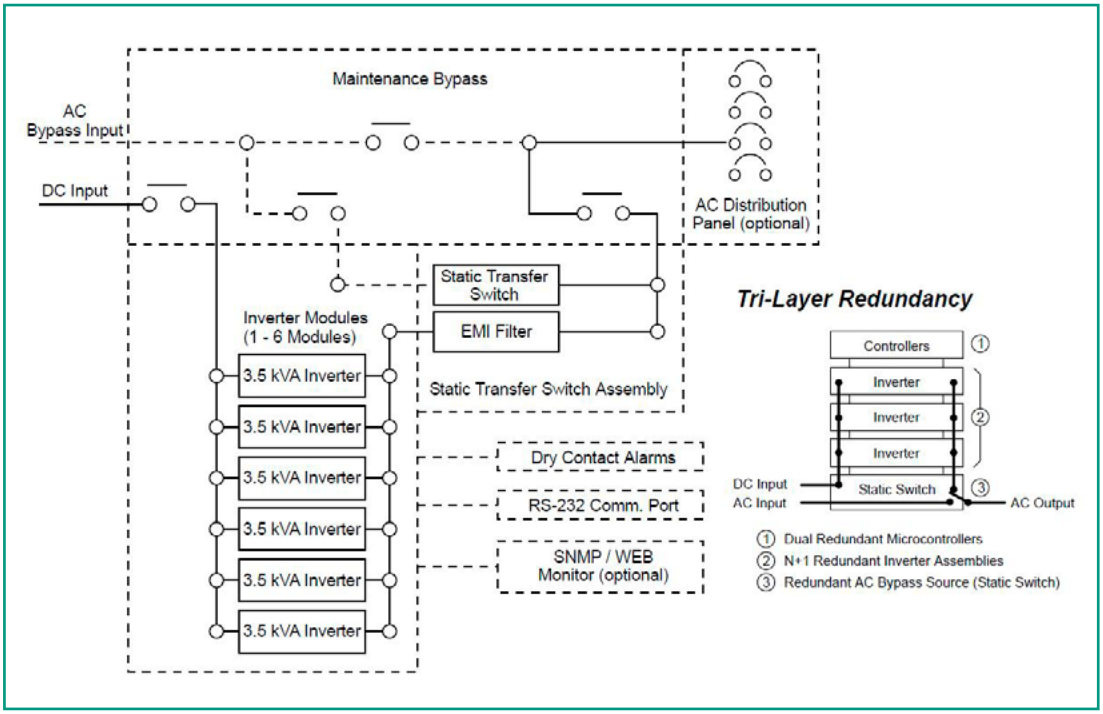
INTERNAL INFLUENCES

INDOOR



ELECTRICAL DIAGRAM OF THE STATUS MONITORING SYSTEM

INVERTERS



ARCHITECTURAL WIRING DIAGRAM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