



## Emparro premium power

### The perfect power supply system line-up

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# EMPARRO PREMIUM POWER

*The perfect power supply system line-up from Murrelektronik*

Murrelektronik's Emparro product range offers a high-quality solution for supplying power to machines and plants efficiently and reliably. The universal power supply system consisting of high-performance switch-mode power supplies, reliable buffer modules and efficient

filters is perfectly aligned. Members of the Emparro family work well together not only in the control cabinet, but also directly on the machine. Switch-mode power supplies in protection class IP67 allow on-machine power solutions.

## FILTERS

## SUPPLIES

## BRIDGING



Emparro MEF



Emparro 3- AS-Interface



Emparro 1- 10 A



Emparro 3- 40 A



Emparro Cap



Emparro ACCUcontrol

## Filters for Maximum Interference Immunity

The single-stage Emparro MEF filters protect power supply systems from electro-magnetic interferences and optimise electro-magnetic compatibility in machines and plants.

The Emparro MEF filters are bidirectional, running from an external grid to the power supply system and back.

## The impulse generator for machines and plants

The Emparro switch-mode power supplies for single and three-phases are incredibly reliable. Thanks to a broad portfolio with different power outputs, Murrelektronik has solutions for almost all applications.

During the production process for Emparro products, only the highest quality components are used. The MTBF value can reach up to 1,000,000 hours. The switch-mode power supply efficiently converts energy and has a 95% efficiency level guaranteeing a long life.

**Built-in power reserve:** for a smooth transition between large loads, the Emparro has Power Boost functions. The Power Boost function provides up to 150 percent power for up to five seconds, the Hyper Boost function up to as much as 400 percent for 20 ms.

**Limited space requirements:** designed to be compact, the switch-mode power supplies do not take up a lot of space in the control cabinet. Integrated protection devices not only save more space, but also

minimise planning and installation time and effort.

*Switch-mode power supplies for AS-Interface Integrated decoupling configuration*

The Emparro module for AS-Interface applications is used for traditional operating voltage up to 30.5 V. Using this device requires no separate decoupling module because it automatically separates the data and power currents from one another.

**40-A Emparro 3-phase modules Predictive maintenance**

The switch-mode power supply unit features predictive maintenance diagnostics. It notifies the user the best time to perform maintenance on the power supply unit. This ensures a long life without having to deal with expensive downtime.

## Keeping machines alive

The Emparro ACCUcontrol UPS module is an uninterrupted power supply that provides a back-up power supply for power outages. Failures and downtimes in production are avoided because the module supplies back-up power, keeping the power flowing for several hours thanks to its externally connected lead battery.

The Emparro Cap buffer module is perfect for structuring a shutdown of machines and control systems. It works based on ultra-condensers, is maintenance-free for its entire life and provides the necessary voltage to purposefully stabilise processes.





*stay connected*

For more information:

Website: <https://www.murrelektronik.uk/>

Phone: +44 161 72831-33

Fax: +44 161 72831-30

E-mail: [info@murrelektronik.co.uk](mailto:info@murrelektronik.co.uk)

#### SUPPLYING POWER IN A ROUGH ENVIRONMENT



Emparro HD

#### SUPPLYING POWER IN THE FIELD



Emparro67 4 A



Emparro67 Hybrid

#### Emparro67 Hybrid

Supplying power, protection and communication on the machine!

Two integrated channels for 24-VDC load circuit monitoring ensure high operational reliability. An IO-Link interface supports communication, for example, during device parameter changes or when reading diagnostic data for predictive maintenance.

### Perfect for outdoor control cabinets

Emparro HD is a switch-mode power supply module designed for applications where the control cabinets are exposed to outside influences, for example, on movable parts on spreaders, construction cranes or materials handling machinery.

- High vibration and shock resistance
- Maximum overvoltage resistance protects against voltage peaks or lightning strikes nearby
- High level of efficiency even at extreme temperatures ranging from  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

### On-machine power supply

Emparro67 is used in the field on the machine. The robust and fully moulded switch-mode power supplies with a protection class of IP67 can resist even the most extreme environmental conditions. The voltage is converted from 230 VAC to 24 VDC directly on the machine. This keeps power losses to a minimum and reduces energy costs. Since hardly any energy is converted to heat, the devices can be touched even when operating at full capacity. They function reliably up to ambient temperatures of  $85^{\circ}\text{C}$ . Relocating the power supply to the machine creates space in the control cabinet. The Emparro67 is also resistant to dirt, moisture as well as coolants and lubricants.

