

COMPACT

3-PHASE POWER SUPPLIES OF THE LATEST GENERATION

EMPARRO® 3~ PREMIUM POWER

Murrelektronik's Emparro family has a new member. The newly developed Emparro 3-phase power supplies for 24 V applications are important components in quality power management systems. They are extremely reliable, extraordinarily efficient and they don't require much space in the cabinet.

EMPARRO® 3~ MEANS...

- **Maximum reliability**
 - MTBF of 1,000,000 hours
 - Integrated gas discharge valve protects from interference pulses
 - Up to 95 % efficiency rating
- **Optimum performance**
 - Permanently overload protected – up to 20 %
 - Power and hyper boost functions for starting high loads
- **Space saving**
(Width = 65 mm max.)



PRACTICAL FEATURES

- Continuous 2-phase operation
- Parallel operation
(Connect up to five units to each other)
- Alarm contact & LED
- Derating from 60 °C



PUSH-IN TERMINALS

The vibration resistant push-in terminals make installation tool free so connection maintenance becomes a thing of the past.

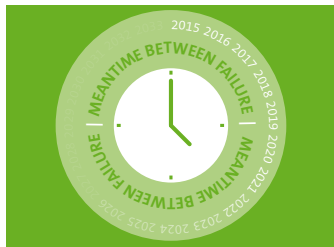
Emparro power supplies are UL listed and UR recognized.



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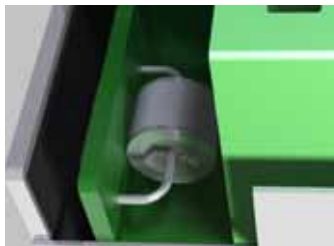
Power Supplies for Maximum RELIABILITY

Reliable power supplies are an essential component to ensure maximum availability of machines and systems. Therefore, reliability was a high priority during development of these new 3-phase units.



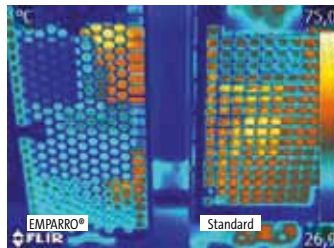
MTBF OF UP TO 1,000,000 HOURS

Achieving this MTBF is possible because of our high-quality components, the modern and slim circuit board design and the processor-controlled electronics.



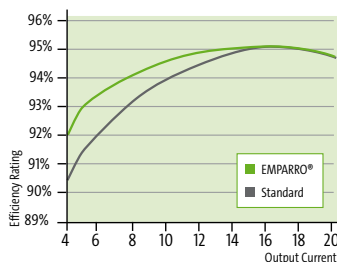
INTEGRATED GAS DISCHARGE VALVE PROTECTS FROM INTERFERENCE PULSES

An integrated gas discharge valve protects the power supply from interfering pulses up to 6 kV. Therefore, overvoltage coming from the mains, EMC interference (as caused by frequency converters) or contact bounces cannot cause any damage.



EFFICIENCY – HIGHLY EFFICIENT

The Emparro 3-phase efficiency rating is the same whether it is operating at full power or at any point along the load range including low capacity operation. This is an important benefit when comparing Emparro 3-phase to other power supplies.



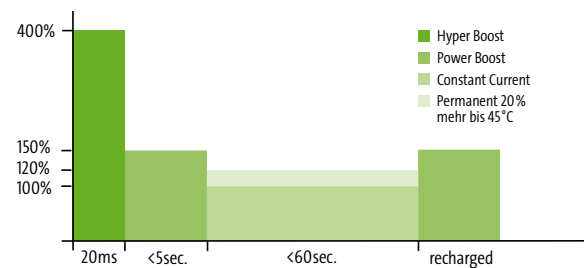
Emparro 3-phase has such a long life span because of its efficiency rating of up to 95%. The resulting power loss is very low which exposes the components to less thermal stress.



Power Supplies for OPTIMUM PERFORMANCE

Emparro 3-phase power supply units have a special feature:
integrated reserve power.

5 A	EMPARRO® 3~24 VDC/5A	6 A
10 A	EMPARRO® 3~24 VDC/10A	12 A
20 A	EMPARRO® 3~24 VDC/20A	24 A



20% MORE POWER MORE UP TO 45°C!

Emparro 3-phase power supply units can be operated at up to 20% overload in ambient temperatures of up to 45 °C. The 5 A models can continuously supply 6 A, 10 A models 12 A and 20 A units 24 A.

THIS IS A UNIQUE FEATURE ON THE MARKET.

POWER AND HYPER BOOST

Emparro 3-phase features 2 different boost functions: power boost and hyper boost. The Power Boost supplies 50% more power for up to 5 seconds while the Hyper Boost provides up to 400% more power for up to 20 ms.

The Slimmest Power Supply Units on the Market

Emparro 3-phase power supplies are very compact. The housing for the 20 A model is only 65 mm wide. As compared to similar power supplies, this saves a lot of space in the cabinet.

SPACE SAVINGS OF UP TO 56%.



EMPARRO® 3~

Two-/three-phase,
primary switched

- short circuit and overload protected
(Power limiter)

- Power Boost 150 %

- Parallel connection

Emparro
120 W



Emparro
240 W



Emparro
480 W



Ordering data	Current	Art. No.	Current	Art. No.	Current	Art. No.
24 V DC	5 A	85690	10 A	85691	20 A	85692
Input						
Input voltage	3x324 V AC...572 V AC / 450 V DC...745 V DC					
Inrush current after 1 ms	< 13 A					
Output						
Output voltage	adjustable 24...28V DC					
Power Boost	150 % for 5 seconds					
Efficiency	up to 95%					
Protection	short-circuit and overload protected (output), Power Limiter					
General data						
MTBF	> 1.000.000 h		> 1.000.000 h		> 950.000 h	
Mains failure bridging	> 25 ms at 400V AC				> 20 ms	
Status display	LED green/red					
Standards	EN 60950-1, EN 61204-3, EN 55011 B, EN 61000-3-2					
Temperature range	-25...+60 °C / 60...70 °C Derating (storage temperature -40 ... +85 °C)					
Mounting method	DIN-rail mounting TH35 (EN 60715)					
Other	Relay alarm contact for short-circuit, overload and over-temperature					
Approvals	UL listed, UL recognized and GL in preparation					
Dimensions (H x W x D)	50 x 143 x 143 mm		65 x 143 x 143 mm		65 x 143 x 167 mm	
Shock acc. to IEC 60068-2-27	50 g		50 g		30 g	

THE OPTIMUM POWER MANAGEMENT SYSTEM

REDUNDANCY MODULES

Description	Description	Art. No.
MB Redundancy Balance	2 x 20 A, 50 % / 50 % Balancing Function	85496
MB Redundancy Basic	2 x 20 A	85495

BUFFER MODULES

Description	Description	Art. No.
Emparro Cap 20/24 1.0 s	Buffer time 1.0 sec / 20 A	85458
MB Cap 20/24 200 ms	Buffer time 0.2 sec / 20 A	85394
MB Cap Ultra 10/24 38 s	Buffer time 38.0 sec / 10 A	85467
MB Cap Ultra 20/24 16 s	Buffer time 16.0 sec / 20 A	85468

INTELLIGENT POWER DISTRIBUTION

Description	Description	Art. No.
MICO+ 4.4, 4-channel	1 A, 2 A, 3 A, 4 A adjustable	9000-41084-0100400
MICO+ 4.6, 4-channel	1 A, 2 A, 4 A, 6 A adjustable	9000-41084-0100600
MICO+ 4.10, 4-channel	4 A, 6 A, 8 A, 10 A adjustable	9000-41084-0401000