

Compact power supply units – three phase

Three phase
Primary switch mode

Touch-protected IP20

Can be wired in parallel
Short-circuit and overload
protected

PIP-*Power* ⁺



MPS 10 - 3 x 400 / 24

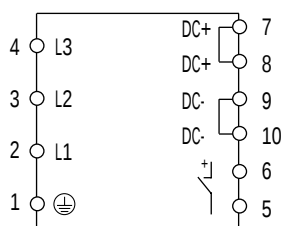
Input voltage 3 x 400 V AC

MPS 20 - 3 x 400 / 24

Input voltage 3 x 400 V AC



Circuit diagram



Ordering data

	Output rating
24 V DC/10 A	240 W
24 V DC/20 A	480 W

Art.-No.

85065

Art.-No.

85067

Technical data

Input

Input voltage	3 x 340...460 V AC	
Input current	3 x 0,41 A, no inrush current	3 x 0,84 A, no inrush current
Frequency	50/60 Hz	
Input fuse	max. 10 A (group fuse)	

Technical data

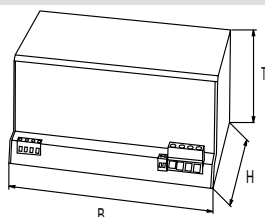
Output

Output voltage	22...28 V DC adjustable to an accuracy of $\pm 1\%$	
Nominal output current	10 A, 12 A at 40 °C	20 A, 24 A at 40 °C
Efficiency	0,9	
Mains failure bridging	> 3 msec.	
Ripple	< 20 mV rms; 100 mV pp	
Protection	overload and short-circuit protected, switch off at phase failure, pre-warning and switch off when overload, signalling over alarm output	
Phase monitoring	switch off when one phase is lost	
Status indicator	LED green in operation, LED red shut down, LED yellow pre-warning of overload or high temp.	
Parallel usage	max. 3 units, minimum load 5% of I_{nominal}	
Alarm output ¹⁾	relay contact max. 60 V DC/0.2 A, collective alarm for all faults and pre-warnings, quit via the green reset button	
Test insulation voltage	4 kV AC	

General data

Guidelines	EN 60950, EN 50081-1, EN 50082-2, ENV 50142 2kV/4kV, EN 55011 B, EN 60555-2, EN 61000-3-2	
Temperature range / relative humidity	0...+60 °C / 30...90 %, no condensation	
Mounting method	DIN-rail mounting to EN 50022, additional plate for screw mounting Art.-No. 89500	
Test stop button	for test purposes, the secondary voltage can be switched off short term with the test stop button	
Weight	1,7 kg	2,4 kg
Dimensions H x B x T	132 x 200 x 101 mm	132 x 245 x 133 mm

Dimension drawing / fixing centres



Notes

¹⁾ If units are used in parallel decoupling of units via diode block. In order to guarantee heat dissipation by convection, the unit must be mounted horizontally on a vertical back panel. Accessories for UPS function see page 4.13.3

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Touch-protected IP20
Stabilized output voltage
Can be wired in parallel
Short-circuit and overload
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Wide input voltage

PIP-*Power* ⁺



MPS 10 - 3 x 400-500 / 24

Input voltage 3 x 360...550 V AC

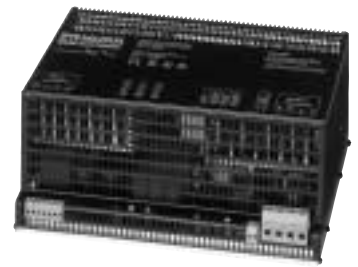


MPS 20 - 3 x 400-500 / 24

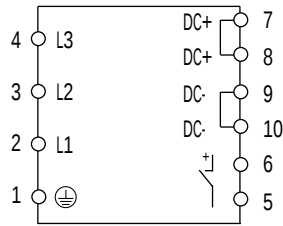
Input voltage 3 x 360...550 V AC

MPS 40 - 3 x 400-500 / 24

Input voltage 3 x 360...550 V AC

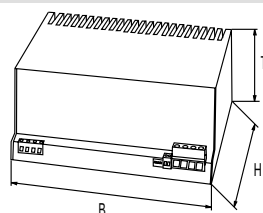


Circuit diagram



Ordering data		Art.-No.	Art.-No.	Art.-No.
	Output rating			
24 V DC/10 A	240 W	85066		
24 V DC/20 A	480 W		85068	
24 V DC/40 A	960 W			85069
Technical data		Input		
Input voltage		3 x 360...550 V AC	3 x 360...550 V AC	3 x 360...550 V AC
Input current		3 x 0,41 A, no inrush current	3 x 0,84 A, no inrush current	3 x 1,65 A, no inrush current
Frequency		50/60 Hz		
Input fuse		max. 10 A		
Technical data		Output		
Output voltage		22...28 V DC adjustable to an accuracy of ± 1%		
Nominal output current		10 A, 12 A at 40 °C	20 A, 24 A at 40 °C	40 A, 48 A at 40 °C
Efficiency		0,91		
Mains failure bridging		> 3 msec.		
Ripple		< 20 mV rms; 100 mV pp		
Protection		overload and short-circuit protected, switch off at phase failure, pre-warning and switch off when overload, signalling over alarm output		
Phase monitoring		switch off when phase is lost		
Status indicator		LED green in operation, LED red shut down, LED yellow pre-warning of overload or high temp.		
Parallel usage		max. 3 units, minimum load 5% of I _{nominal}		
Alarm output ⁽¹⁾		relay contact max. 60 V DC/0.2 A, collective alarm for all faults and pre-warnings, quit via the green reset button		
Test insulation voltage		5,2 kV AC		
General data				
Guidelines		EN 60950, EN 50081-1, EN 50082-2, ENV 50142 2kV/4kV, EN 55011 B, EN 60555-2, EN 61000-3-2		
Temperature range/relative humidity		0...60 °C/ 30...90%, no condensation		
Mounting method		DIN-rail mounting to EN 50022, additional plate for screw mounting Art.-No. 89500		mounting plate Art. No. 89504
		for test purposes, the secondary voltage can be switched off short term with the test stop button		
Weight		1,7 kg	2,4 kg	5,8 kg
Dimensions H x B x T		132 x 200 x 101 mm	132 x 245 x 133 mm	182 x 285 x 135 mm

Dimension drawing / fixing centres



Notes

¹⁾ If units are used in parallel decoupling of units via diode block. In order to guarantee heat dissipation by convection, the unit must be mounted horizontally on a vertical back panel. Accessories for UPS function see page 4.13.3

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PIP-*Power*+

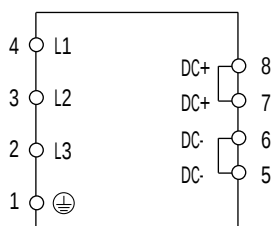


MCS

Input voltage 3 x 400 V AC



Circuit diagram



Ordering data

	Output rating	Art.-No.	Art.-No.
24 V DC/10 A	240 W	85095	
24 V DC/20 A	480 W		85097
24 V DC/40 A	960 W		

Technical data

Input

Input voltage	3 x 340...460 V AC	3 x 340...460 V AC
Input current	3 x 0,75 A	3 x 1,5 A
Inrush current	< 25 A	< 25 A
Input fuse	3 x 4 A	3 x 6 A
Frequency	50/60 Hz	

Technical data

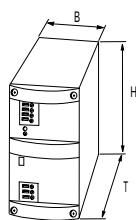
Output

Output voltage	24...28 V DC adjustable to an accuracy of $\pm 1\%$	
Nominal output current	10 A	20 A
Efficiency	90 %	
Mains failure bridging	> 10 msec. (400 V)	
Ripple	< 20 mV rms	
Spikes	100 mV pp	
Protection	overload and short-circuit protected	
Switch off mode choosable	front sided bridging link (self activating re-start or definite shutoff)	
Parallel usage	max. 5 units, minimum load 5% of I_{nominal}	

General data

Guidelines	EN 60950, EN 50081-1, EN 50082-2, EN 61000-6-2	
Temperature range	0...60° C	
Relative humidity	30...90%, no condensation	
Mounting method	DIN-rail mounting to EN 50022	
Weight	1,2 kg	2,1 kg
Dimensions	H x B x T	170 x 84 x 201 mm

Dimension drawing / fixing centres



Notes

In order to guarantee heat dissipation by convection, the unit must be mounted in the position shown, on the back panel.

Compact power supply units – three phase

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Wide input voltage

PIP-*Power*+



MCS

Input voltage 3 x 500 V AC

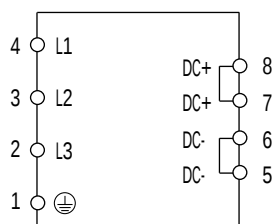


MCS

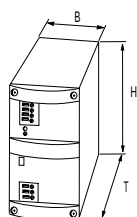
Input voltage 3 x 400...500 V AC



Circuit diagram



Ordering data		Art.-No.	Art.-No.	Art.-No.
	Output rating			
24 V DC/10 A	240 W	85090		
24 V DC/20 A	480 W		85091	
24 V DC/40 A	960 W			85099
Technical data Input				
Input voltage	3 x 395...530 V AC	3 x 395...530 V AC	3 x 360...550 V AC	
Input current	3 x 0,6 A	3 x 1,2 A	3 x 1,7 A	
Inrush current	< 15 A	< 20 A	no inrush current	
Input fuse	3 x 2 A	3 x 3 A	3 x 4 A	
Frequency	50/60 Hz			
Technical data Output				
Output voltage	24...28 V DC adjustable to an accuracy of $\pm 1\%$			
Nominal output current	10 A	20 A	40 A	
Efficiency	90 %	90 %	91 %	
Mains failure bridging	> 13 msec. (500 V)	> 14 msec. (500 V)	8 msec. typ (440 V)	
Ripple	< 20 mV rms			
Spikes	100 mV pp		150 mV pp	
Protection	overload and short-circuit protected			
Switch off mode choosable	front sided bridging link (self activating re-start or definite shutoff)			
Parallel usage	max. 5 units, minimum load 5% of I_{nominal}			
General data				
Guidelines	EN 60950, EN 50081-1, EN 50082-2, EN 61000-6-2			
Temperature range	0...60° C			
Relative humidity	30...90%, no condensation			
Mounting method	DIN-rail mounting to EN 50022			key-hole mounting
Weight	1,3 kg	2,1 kg	4,5 kg	
Dimensions	H x B x T	127 x 68 x 178 mm	170 x 84 x 201 mm	204 x 106 x 271 mm
Dimension drawing / fixing centres				



Notes

In order to guarantee heat dissipation by convection, the unit must be mounted in the position shown, on the back panel.