



PHASAK's **Smart Pro Serie** guarantees continuous 24/7 protection for connected equipment. With Real Single-Phase Double Conversion online technology, it is specially designed for the protection and power supply of critical loads, protecting the connected equipment against all kinds of disturbances and fluctuations in the electrical network.

## Data Sheet

Reference	PH 9210	PH 9220	PH 9230
Power	1000 VA / 900 W	2000 VA / 1800 W	3000 VA / 2700 W
<b>Input</b>			
Low Line Transfer	160Vac / 140Vac / 120Vac / 110 Vac $\pm$ 5 % [100%-80% / 80%-70% / 70%-60% / 60%-0% Load]		
Low Line Comeback	175VAC/155VAC/135VAC/125VAC $\pm$ 5 %		
High Line Transfer	145 VAC $\pm$ 5 % o 300 VAC $\pm$ 5 %		
High Line Comeback	140 VAC $\pm$ 5 % o 290 VAC $\pm$ 5 %		
Frequency Range	40Hz ~ 70 Hz		
Phase	Single phase with earth connection		
Power Factor	$\geq$ 0.99 at rated voltage (input voltage)		
<b>Output</b>			
Rated Voltage	220 - 240 Vac		
AC voltage regulation (Batt.)	50 Hz / 60 Hz $\pm$ 1%		
Frequency range	Sinosoidal simulada		
Frequency range (Bat.)	4 ms		
Overload	Online Mode: 105%~110% Alert, bypass mode in 10m 110%~130% Alert, Bypass mode in 1m <130% Alert, Bypass mode in 3s Battery Mode: 105%~110% Alert, shutdown in 10m 110%~130% Alert, shutdown in 1m <130% Alert, shutdown in 3s Bypass Mode: 110%~120% Alert, shutdown in 30m 120%~130% Alert, shutdown in 10m <130% Alert, shutdown in 1m		
Current Crest Ratio	3:1 (Max)		
Harmonic distortion	$\leq$ 3 % THD (linear load); $\leq$ 6 % THD (nonlinear charge)		
Transfer time (AC / BYPASS)	Zero / 4 ms (Typical)		
Waveform (Bat.)	Pure Sine		
Efficiency AC / Battery Mode	88 % / 83 %	89 % / 87 %	90 % / 88 %
<b>Battery</b>			
Quantity / Type / No.	2x 12V / 9 Ah	4x 12V / 9Ah	6x 12V / 9Ah
Charging time (90%)	4 h	4 h	4h
Charging Current / Voltage	1A / 27.4 VDC $\pm$ 1%	1A / 54,7 VDC $\pm$ 1%	1A / 82.1 VDC $\pm$ 1%
<b>Indicators</b>			
Display / Alarms	LCD / Battery mode, low battery, overload, internal fault		
<b>Characteristics</b>			
Dimensions (WxHxD)	140 x 190 x 324	390 x 151 x 225	412 x 196 x 342
Weight (Kg)	10.7	15.3	23.8
Operating humidity	20 - 95 % sin condensación		
Noise level	0 - 40°C		

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