

Liebert® APM Specifications



Technical Characteristics		
Power (kVA)	30 - 150	120 - 300
Power (kW)	30 - 150	120 - 300
System Efficiency		
AC - AC on-line double conversion efficiency (%)	Between 95% and 96% for load >30%	
AC - AC Eco mode efficiency (%)	>98%	
Input Parameters		
Rated input voltage	380/400/415 VAC, three-phase four-wire	
Rated operating frequency (Hz)	50/60 Hz	
Input voltage range (Hz)	477 V - 305V at full load, 477 V - 228V at 70% load	
Input frequency range	40 Hz - 70 Hz	
Input power factor	>0.99 at full load, >0.98 at half load	
Input THDI (%)	<5%	
DC Parameters		
Battery number	30, 32, 34, 36, 38, 40	
Battery Compensation	Yes	
Maximum runtime with internal battery	30 kVA: 30' 60 kVA: 10' 90 kVA: 5'	N/A N/A N/A
DC ripple current	$\leq 0.05C_{10}$	
Output Parameter		
Inverter output voltage	380/400/415 VAC, three-phase four-wire	
Inverter output frequency (Hz)	50/60 Hz	
Output frequency stability (Hz)	50Hz/60 Hz $\pm 0.02\%$	
Voltage stability in steady state	$\pm 1\%$	
Voltage stability in transient state	Complies with IEC/EN 62040-3, class 1	
Inverter overload capacity	1 hour for 105%, 10 mins for 125%, 1 min for 150%, 200 ms for >150%	1 hour for 110%, 10 mins for 125%, 1 min for 150%, 200 ms for >150%
THDv		
100% linear load	<1	
100% non-linear load	<4	
Bypass Parameter		
Bypass input voltage	380/400/415 VAC, three-phase four-wire	
Bypass voltage range settable through software	Default: -20% to + 15%, other values, such as -40%, -30%, -10% to + 10%, +15%	
Bypass overload capacity	135% long term, 170% for 1 hour, 1000% for 100 ms	
Environmental Conditions		
Operating temperature range (°C)	0 - 40 °C*	
Storage temperature (°C)	-25 to 70 °C	
Maximum Operating altitude	$\leq 1\ 000$ m, when operating at 1000 - 2000 m, derated by 1% for every 100 m increase of altitude	
Relative Humidity	$\leq 95\%$	
Noise (1m)	52 - 62 dBA, adjusted according to load rate and number of modules	60 - 65 dBA, adjusted according to load rate and number of modules
Protection Level	IP20	
Standards		
Low Voltage Directive	2006/95/EC with the Amendment Directive 93/68/EEC Directive for electromagnetic compatibility 2004/108/EC	
General and safety requirements for UPS used in operator access areas	IEC/EN 62040-1:2008	
Electromagnetic compatibility (EMC) requirements for UPS	IEC/EN 62040-2: Immunity category C2, Emission category C2	
Dimensions and Weight		
Dimension, w x h x d (mm)	600 x 1996 x 1100 mm	1200 x 2000 x 1100 mm
Weight (kg)	30 kVA: 280 kg 60 kVA: 315 kg 90 kVA: 350 kg 120 kVA: 385 kg 150 kVA: 420 kg	120 kVA: 465 kg 150 kVA: 500 kg 180 kVA: 535 kg 210 kVA: 570 kg 240 kVA: 600 kg 270 kVA: 635 kg 300 kVA: 670 kg

*conditions apply