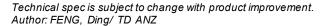
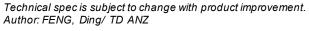
Model	60-1200kW	
Catalog	93PR-1200	
Outlook		
	(default: GLACIER WHITE, optional: black)	
UPM Rating (all operating modes)	62.5kVA/62.5kW at 230VAC, 30°C 60kVA/60kW at 230VAC, 35°C 55kVA/55kW at 230VAC, 40°C	
UPS Rating (all operating modes)	1250kVA/1200kW at 230VAC, 30°C 1200kVA/1200kW at 230VAC, 35°C 1100kVA/1100kW at 220/230VAC, 40°C	
Configurable Upgradability	60kW*N (1≤N≤20), 62.5kW*N (1≤N≤19)	
Parallel Capability	4 x parallel, maximum 4.8MW	
UPS Topology	Double Conversion, IGBT Module Converters, three level Static UPS	
Performance classification	VFI-SS-111, IEC62040-3	
UPM Dimensions: W x D x H (mm)	439 x 700 x 173.4 (4U height) 590 x 980 x 325 (Packaged)	
UPM Weight	39kg Net, 44kg Gross, Modules shipped separately	
UPS Dimensions: W x D x H (mm)	2400 x 1100 x 2069 (4x19" frame unpackaged) Shipped in 2 parts	
Frame Weight (kg)	1528 kg	
Degree of protection	IP20, with front door was hable dust filter	
Cabinet color theme	Default: Eaton White, Optional: Black, RAL 9005	
Switchgear (Internal)	None Internal Backfeed protection	
Cable entry	Top entry and top/front access	
Ventilation	Rear exhaust standard, top exhaust optional	
Accessories	Top Exhaust Kits Load Sync Box	
ENVIRONMENT		
Ambient storage temperature	Range of -25 to +55°C in the protective package	
Ambient service temperature	1250kVA/1200kW at 230VAC, 30°C 1200kVA/1200kW at 230VAC, 35°C 1100kVA/1100kW at 220/230VAC, 40°C	





Model	60-1200kW	
Maximum service altitude	1000m above sea level. Maximum 2000m with 1% de-rating per each additional 100m above	
Relative humidity	+5% to 95%, no condensation allowed	
Acoustic noise at 1m	75~80dBA	
Electromagnetic Compatibility	Immunity and emission to IEC/EN 62040-2 C3	
USER INTERFACE & COMMUI	-	
Display	7" Touchscreen Color display and 4 separate summary LEDs for system status  Door mounted LED bars for long range view of system status	
Standard Communication Ports	3x Mini-Slot, 1x EPO input (NC or NO), 1x Relay output (NO/NC), 5x Building Alarm inputs, 1x USB Host, 1xUSB Slave, 1x RS232 Service Port	
Optional Connectivity Options	Web/SNMP Relay/RS232 Industrial Relay PXGMS Industrial Gateway Card, PXGMS, SNMP/Modbus/BACnet	
ELECTRICAL INPUT CHARACT	ERISTICS	
Earthing system compatibility	TN, TN-S, TN-C, TN-C-S, TT (Three-phase, four-wire + PE)	
Rated input voltage and voltage tolerance	Rectifier: 230/400Vac nominal (220/380, 240/415 Selectable) Tolerance: (-10%, +10%) at 100% load (-40%, +20%) at 50% load without battery discharge Bypass: 230/400Vac nominal (220/380, 240/415 Selectable) Tolerance: 196/340 – 253/438V	
Operating frequency / tolerance	50 or 60Hz; Tolerance 40-72Hz	
Input current distortion	<3% THD (Linear load condition at rated input current)	
Input power factor	>0.99pf @ 20-100% load, >0.95 @ 10-20% load	
Inrush current	<50A	
Rectifier ramp-up, rectifier start and load step (UPM)	<100% of rated current. Rectifier ramp-up 10A/s (default), configurable min.1A/s	
Number of input phases	3 phases + Neutral (3-Wire configuration is available as optional)	
Rated rectifier input current @ 400V	1504A @1000kW 1654A @1100kW 1805A @1200kW	
Max. rectifier input current @ 400V	1900A	
Bypass input current (rms @ 400V) Recommended/Maximum	1444A (1000kVA Rated) 1594A (1100kVA Rated) 1740A (1200kVA Rated) 1833A (1250kVA Rated) 2100A (Maximum)	

**ELECTRICAL OUTPUT CHARACTERISTICS - NORMAL MODE** 



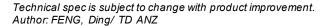


Model	60-1	200kW
Rated output voltage	230/400Vac, three phases	
Output voltage variation	<1% static load, 4% with 50ms recovery from 100% load step	
Crest factor	3:1	
Rated output frequency	50Hz (default) or 60Hz	
Output frequency variation	+/-0.1Hz with slew rate 1Hz/s	
Total output voltage distortion	<1% linear load, <3% non-linear load	
Short circuit capability	2 x I <sub>n</sub> per 60kVA rated module 2.5 x I <sub>n</sub> per 50kVA rated module	
Fault clearing capability (without bypass)	180A*N gL/gG fuse (N stands for installed UPM number)	
Overload capacity without bypass	30min > 102–110% load 10min > 111–125% load 30sec > 126-150% load 300ms > 150% load	
Overload capacity with bypass	Continuous > 100–115% load, 10ms 1000% load  *Selected external Bypass fuses or breaker may limit the overload capability	
Load power factor range	0.8 lagging to 0.8 leading without de	-rating
Range of frequency sync with bypass	±4Hz as default. User settable 0.5 to 5 Hz	
ELECTRICAL OUTPUT CHARA	ACTERISTICS - STORED ENERGY M	IODE
Transfer to/from stored energy	No break	
Rated output voltage	220/380, 230/400, 240/415Vac, three phases	
Output voltage variation	<2% static load, 4% with 50ms recovery from 100% load step	
Crest factor	3:1	
Rated peak output voltage	325V, +/-20V	
Rated output frequency	50Hz (default) or 60Hz	
Output frequency variation	±0.005Hz (single module), ±0.07Hz (Parallel system)	
Total output voltage distortion	5%	
Short circuit capability	250Amp per UPM, 400ms	
Fault clearing capability	1400*2 gL/gG fuse	
Overload capability	10 min 102–110% load 60secs 110%~125% load 10s 126%~150% 300ms >150%	
Load power factor range	0.8 lagging to 0.8 leading without de-rating	
Number of output phases	3 Phase + Neutral	
EFFICIENCY (Input/Output)		
	55kW X 20	60kW X 20 / 62.5kW X 19
Linear Load 100% load: Efficiency, Double 75% load: Conversion Mode 50% load:	96% 96.5% 97%	96% 96.5% 97%

Technical spec is subject to change with product improvement. Author: FENG, Ding/ TD ANZ



@ 400V/50Hz         25% load:         95.8%         96%           Heat Dissipation,         100% load:         40kW         48kW           Double         75% load:         26.25kW         31.5kW           Conversion Mode         50% load:         10kW         12kW           Linear Load         100% load:         99.2%         99.2%           Efficiency, ESS         75% load:         99.2%         99.2%           Mode @         50% load:         99.0%         99.0%           Mode @         50% load:         99.0%         99.0%           400V/50Hz         25% load:         98.4%         98.6%           Air Flow         (m³/h):         9693         10051           L/s:         2694         2792           BYPASS CHARACTERISTICS         Automatic bypass nominal rating         Maximum 1200kW (6 x 600kW)           Automatic bypass fuse         1400A *2         4900000 A²s           Bypass fuse         1400A *2         4900000 A²s           Bypass fuse         1400A *2         1400A *2           Back-feed protection         Internal back-feed contactor as a standard           Separate bypass switch         External LV cabinet equipped           ESS (Energy Saver System)         MOE	Model		60-1200kW	
Heat Dissipation, 100% load:	@ 400V/50Hz	25% load:	95.8%	96%
Double		100% load:	40kW	48kW
Conversion Mode @ 400V/50Hz         50% load: 16,5kW         19,8kW           @ 400V/50Hz         25% load: 99,2%         99,2%           Efficiency, ESS 75% load: 99,2%         99,2%           Mode @ 50% load: 99,0%         99,0%           400V/50Hz 25% load: 98,4%         98,6%           Air Flow L/s: 2694         2792           BYPASS CHARACTERISTICS           Automatic bypass nominal rating         Maximum 1200kW (6 x 600kW)           Automatic bypass nominal rating         Maximum 1200kW (6 x 600kW)           Automatic bypass thyristor i²t value         4900000 A²s           Bypass fuse         1400A *2           Bypass switch         External LV cabinet equipped           ESS (Energy Saver System) MODE CHARACTERISTICS           Performance classification         VFD, transferring to VFI (Double Conversion mode) if limits are exceeded           Transfer time to double conversion         Mains available: No break (0ms), Mains failure: 2ms typical           Acceptable output voltage variation         ±3Hz           UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable), after which the unit will automatically return to operate in ESS mode           BATTERY           Battery nominal voltage         432V (36 x 12V, 216 Cells) 50kW UPM 480V (40 x 1	•			
@ 400V/50Hz         25% load:         10kW         12kW           Linear Load         100% load:         99.2%         99.2%           Efficiency, ESS         75% load:         99.2%         99.0%           Mode @         50% load:         99.0%         99.0%           400V/50Hz         25% load:         98.4%         98.6%           Air Flow         (m³/h):         9693         10051           Air Flow         L/s:         2694         2792           BYPASS CHARACTERISTICS           Automatic bypass nominal rating         Maximum 1200kW (6 x 600kW)           Automatic bypass nominal rating         Maximum 1200kW (6 x 600kW)           Automatic bypass sture         4900000 A²s           Bypass fuse         1400A *2           Back-feed protection         Internal back-feed contactor as a standard           Separate bypass input feed         Standard (single feed cable links fitted on site)           Manual bypass switch         External LV cabinet equipped           ESS (Energy Saver System) MODE CHARACTERISTICS           Performance classification         VFD, transferring to VFI (Double Conversion mode) if limits are exceeded           Transfer time to double conversion         400.0000000000000000000000000000000000				
Linear Load   100% load:   99.2%   99.2%   99.2%   616   6				
Efficiency, ESS 75% load: 99.2% 99.2% 99.0				
Mode @ 50% load: 99.0% 98.4% 98.6%   98.6%				
Automatic bypass   2 x Static bypass switch, continuously rated, no break transfer   Automatic bypass   2 x Static bypass switch, continuously rated, no break transfer   Automatic bypass nominal rating   Maximum 1200kW (6 x 600kW)   Automatic bypass thyristor i²t value   490000 A²s   Bypass fuse   1400A *2   Back-feed protection   Internal back-feed contactor as a standard   Separate bypass input feed   Standard (single feed cable links fitted on site)   Manual bypass switch   External LV cabinet equipped   ESS (Energy Saver System) MODE CHARACTERISTICS   Performance classification   VFD, transferring to VFI (Double Conversion mode) if limits are exceeded   Transfer time to double conversion   4:10% of nominal voltage   Acceptable output freq. variation   ±3Hz   UPS Audible Noise   <70dBA @ 1m in 25°C ambient temperature   UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable), after which the unit will automatically return to operate in ESS mode    BATTERY   432V (36 x 12V, 216 Cells) 50kW UPM   456V (38 x 12V, 228 Cells) 55kW UPM   480V (40 x 12V, 240 Cells) 60kW UPM   240 x 2.30V = 552Vdc 60kW				
Air Flow (m³/h): L/s: 2694 10051 2792  BYPASS CHARACTERISTICS  Automatic bypass 2 2 x Static bypass switch, continuously rated, no break transfer  Automatic bypass nominal rating Maximum 1200kW (6 x 600kW)  Automatic bypass thyristor i²t value 4900000 A²s  Bypass fuse 1400A *2  Back-feed protection Internal back-feed contactor as a standard  Separate bypass input feed Standard (single feed cable links fitted on site)  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  Transfer time to double conversion Mains available: No break (0ms), Mains failure: 2ms typical  Acceptable output voltage variation ±10% of nominal voltage  variation ±3Hz  UPS Audible Noise 770dBA @ 1m in 25°C ambient temperature  UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable) after which the unit will automatically return to operate in ESS mode  BATTERY  Battery nominal voltage 432V (36 x 12V, 216 Cells) 50kW UPM 456V (38 x 12V, 228 Cells) 56kW UPM 456V (38 x 12V, 228 Cells) 56kW UPM 450V (38 x 12V, 228 Cells) 56kW UPM 450V (38 x 12V, 240 Cells) 60kW UPM Chter configurations as optional 216 x 2.30V = 497Vdc 50kW UPM 240 x 2.30V = 552Vdc 60kW UPM  End of Discharge Voltage 216 x 1.67V = 360Vdc 50kW UPM	_	25% load:		
BYPASS CHARACTERISTICS  Automatic bypass nominal rating Maximum 1200kW (6 x 600kW)  Automatic bypass nominal rating Maximum 1200kW (6 x 600kW)  Automatic bypass thyristor i²t value 4900000 A²s  Bypass fuse 1400A *2  Back-feed protection Internal back-feed contactor as a standard  Separate bypass input feed Standard (single feed cable links fitted on site)  Manual bypass switch External LV cabinet equipped  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  Transfer time to double conversion Mains available: No break (0ms), Mains failure: 2ms typical  Acceptable output voltage variation ±3Hz  UPS Audible Noise 470dBA @ 1m in 25°C ambient temperature  UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable), after which the unit will automatically return to operate in ESS mode  BATTERY  Battery nominal voltage 432V (36 x 12V, 216 Cells) 50kW UPM 456V (38 x 12V, 228 Cells) 55kW UPM 456V (38 x 12V, 228 Cells) 55kW UPM 456V (38 x 12V, 240 Cells) 60kW UPM  Other configurations as optional 216 x 2,30V = 552Vdc 50kW UPM 228 x 2.30V = 552Vdc 50kW UPM 240 x 230V = 552Vdc 50kW UPM 240 x 2.30V = 552Vdc 50kW UPM  End of Discharge Voltage 216 x 1.67V = 360Vdc 50kW UPM	-			10051
Automatic bypass			2694	2792
Automatic bypass nominal rating Automatic bypass thyristor i²t value  Bypass fuse  1400A *2  Back-feed protection  Separate bypass input feed  Manual bypass switch  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification  Transfer time to double conversion  Acceptable output voltage variation  Acceptable output freq. variation  UPS Audible Noise  Typ Audible Noise  West of Detection  High Alert mode  Battery nominal voltage  432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 228 Cells) 55kW UPM  4240 x 2.30V = 552Vdc 50kW UPM  216 x 1.67V = 360Vdc 50kW UPM  End of Discharce Voltage  216 x 1.67V = 360Vdc 50kW UPM  2216 x 1.67V = 360Vdc 50kW UPM  216 x 1.67V = 360Vdc 50kW UPM	BYPASS CHARA	ACTERISTICS		
Automatic bypass thyristor i²t value  Bypass fuse  1400A *2  Back-feed protection  Internal back-feed contactor as a standard  Separate bypass input feed  Standard (single feed cable links fitted on site)  Manual bypass switch  External LV cabinet equipped  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification  Transfer time to double conversion  Acceptable output voltage variation  Acceptable output voltage variation  Acceptable output freq. variation  UPS Audible Noise  13Hz  UPS Audible Noise  12How of nominal voltage disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable), after which the unit will automatically return to operate in ESS mode  BATTERY  Battery nominal voltage  1216 x 2.30V = 524Vdc 55kW UPM 240 x 2.30V = 552Vdc 50kW UPM 216 x 1.67V = 360Vdc 50kW UPM 216 x 1.67V = 360Vdc 50kW UPM			••	sly rated, no break transfer
Bypass fuse  1400A *2  Back-feed protection  Internal back-feed contactor as a standard  Separate bypass input feed  Standard (single feed cable links fitted on site)  Manual bypass switch  External LV cabinet equipped  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification  Transfer time to double conversion  Acceptable output voltage variation  Acceptable output voltage variation  Acceptable output freq. variation  UPS Audible Noise  4:3Hz  UPS Audible Noise  UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable), after which the unit will automatically return to operate in ESS mode  BATTERY  432V (36 x 12V, 216 Cells) 50kW UPM 456V (38 x 12V, 228 Cells) 55kW UPM 456V (38 x 12V, 228 Cells) 50kW UPM Other configurations as optional 216 x 2.30V = 524Vdc 50kW UPM 240 x 2.30V = 524Vdc 50kW UPM 240 x 2.30V = 552Vdc 60kW UPM 240 x 2.30V = 552Vdc 60kW UPM  Find of Discharce Voltage  216 x 1.67V = 360Vdc 50kW UPM			Maximum 1200kW (6 x 600kW)	
Separate bypass input feed Separate bypass input feed Standard (single feed cable links fitted on site)  Manual bypass switch External LV cabinet equipped  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  Transfer time to double conversion Acceptable output voltage variation Acceptable output freq. variation  ### 10% of nominal voltage VPS Audible Noise  UPS Audible Noise  UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable), after which the unit will automatically return to operate in ESS mode  #### 432V (36 x 12V, 216 Cells) 50kW UPM 456V (38 x 12V, 228 Cells) 55kW UPM 480V (40 x 12V, 240 Cells) 60kW UPM Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM 240 x 2.30V = 552Vdc 60kW UPM 240 x 2.30V = 552Vdc 50kW UPM 240 x 2.30V = 552Vdc 50kW UPM 240 x 2.30V = 552Vdc 50kW UPM 240 x 2.30V = 552Vdc 60kW UPM 240 x 2.30V = 552Vdc 50kW UPM 240 x 2.30V = 552Vdc 50kW UPM			4900000 A <sup>2</sup> s	
Separate bypass input feed  Manual bypass switch  External LV cabinet equipped  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification  Transfer time to double conversion  Acceptable output voltage variation  UPS Audible Noise  Storm Detection  High Alert mode  BATTERY  Battery nominal voltage  Value Acceptable output voltage  432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 226 Cells) 60kW UPM  Float charge voltage  1216 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM	Bypass fuse		1400A *2	
Manual bypass switch  ESS (Energy Saver System) MODE CHARACTERISTICS  Performance classification  Transfer time to double conversion  Acceptable output voltage variation  Acceptable output freq. variation  LIPS Audible Noise  Storm Detection  High Alert mode  BATTERY  Battery nominal voltage  432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 226 Cells) 55kW UPM  430V (40 x 12V, 240 Cells) 60kW UPM  Cother configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM  2216 x 1.67V = 360Vdc 50kW UPM  216 x 1.67V = 360Vdc 50kW UPM	Back-feed protection	on	Internal back-feed contactor as a standard	
Performance classification  Performance classification  Transfer time to double conversion  Acceptable output voltage variation  Acceptable output freq. variation  Lips Audible Noise  Storm Detection  High Alert mode  BATTERY  Battery nominal voltage  Battery nominal voltage  Float charge voltage  Float charge voltage  Float of Discharge Voltage  VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  VFD, transferring to VFI (Double Conversion failure: 2ms typical  ±10% of nominal voltage  13Hz  VPS Audible:  VPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable)  UPS will stay on double-conversion for one hour (user adjustable), after which the unit will automatically return to operate in ESS mode  BATTERY  432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 228 Cells) 55kW UPM  456V (38 x 12V, 240 Cells) 60kW UPM  Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  240 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  End of Discharge Voltage  Find of Discharge Voltage	Separate bypass input feed		Standard (single feed cable links fitted on site)	
Performance classification  VFD, transferring to VFI (Double Conversion mode) if limits are exceeded  Transfer time to double conversion  Acceptable output voltage #10% of nominal voltage  variation  Acceptable output freq. variation #3Hz  UPS Audible Noise   <70dBA @ 1m in 25°C ambient temperature  UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable), after which the unit will automatically return to operate in ESS mode  BATTERY  Battery nominal voltage   432V (36 x 12V, 216 Cells) 50kW UPM	Manual bypass sw	Aanual bypass switch External LV cabinet equipped		
Transfer time to double conversion  Acceptable output voltage variation  Acceptable output freq. variation  Acceptable Noise  Transfer time to double conversion  Acceptable output voltage  variation  Acceptable output freq. variation  Acceptable Noise  Transfer time to double voltage  ±10% of nominal voltage  ±10% of nominal voltage  ±3Hz  UPS Audible Noise  Transfer time to double voltage  ±10% of nominal voltage  ±3Hz  UPS Audible Noise  Transfer time to double voltage  UPS Audible Noise  Transfer time to double voltage  UPS Audible Noise  Transfer time to double voltage variation  UPS Iocks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable)  UPS will stay on double-conversion for one hour (user adjustable), after which the unit will automatically return to operate in ESS mode  BATTERY   432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 228 Cells) 55kW UPM  480V (40 x 12V, 240 Cells) 60kW UPM  Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  228 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  End of Discharge Voltage  Transfer time to double-conversion failure: 2ms typical  ±10% of nominal voltage	ESS (Energy Sa	ver System) M	ODE CHARACTERISTICS	
Acceptable output voltage variation  Acceptable output freq. variation  Acceptable output freq. variation  Acceptable output freq. variation  Example 2	Performance classification		,	
Acceptable output freq. variation  Acceptable output freq. variation  LPS Audible Noise  VPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable)  High Alert mode  BATTERY  Battery nominal voltage  V32V (36 x 12V, 216 Cells) 50kW UPM  432V (36 x 12V, 228 Cells) 55kW UPM  456V (38 x 12V, 228 Cells) 60kW UPM  Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  228 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  End of Discharge Voltage  216 x 1.67V = 360Vdc 50kW UPM			Mains available: No break (0ms), Mains failure: 2ms typical	
UPS Audible Noise  Very Storm Detection UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable) UPS will stay on double-conversion for one hour (user adjustable), after which the unit will automatically return to operate in ESS mode BATTERY Battery nominal voltage 432V (36 x 12V, 216 Cells) 50kW UPM 456V (38 x 12V, 228 Cells) 55kW UPM 480V (40 x 12V, 240 Cells) 60kW UPM Other configurations as optional 216 x 2.30V = 497Vdc 50kW UPM 228 x 2.30V = 524Vdc 55kW UPM 240 x 2.30V = 552Vdc 60kW UPM 216 x 1.67V = 360Vdc 50kW UPM 216 x 1.67V = 360Vdc 50kW UPM 216 x 1.67V = 360Vdc 50kW UPM			±10% of nominal voltage	
UPS locks into double-conversion mode when three power line disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable)  High Alert mode  BATTERY  Battery nominal voltage  432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 228 Cells) 55kW UPM  480V (40 x 12V, 240 Cells) 60kW UPM  Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  228 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM	Acceptable output	freq. variation	±3Hz	
disturbances have forced the unit to double-conversion three times (user adjustable) within a one-hour period (user adjustable)  High Alert mode  BATTERY  Battery nominal voltage  432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 228 Cells) 55kW UPM  480V (40 x 12V, 240 Cells) 60kW UPM  Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  228 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM  216 x 1.67V = 360Vdc 50kW UPM	UPS Audible Noise	e	<70dBA @ 1m in 25°C ambient temperature	
BATTERY  Battery nominal voltage  432V (36 x 12V, 216 Cells) 50kW UPM  456V (38 x 12V, 228 Cells) 55kW UPM  480V (40 x 12V, 240 Cells) 60kW UPM  Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  228 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM	Storm Detection		disturbances have forced the unit to double-conversion three times	
Battery nominal voltage  432V (36 x 12V, 216 Cells) 50kW UPM 456V (38 x 12V, 228 Cells) 55kW UPM 480V (40 x 12V, 240 Cells) 60kW UPM Other configurations as optional 216 x 2.30V = 497Vdc 50kW UPM 228 x 2.30V = 524Vdc 55kW UPM 240 x 2.30V = 552Vdc 60kW UPM  End of Discharge Voltage  432V (36 x 12V, 216 Cells) 50kW UPM 456V (38 x 12V, 228 Cells) 50kW UPM 240 x 12V, 240 Cells) 50kW UPM 216 x 12V, 240 Cells) 50kW UPM 216 x 12V, 240 Cells) 50kW UPM 216 x 12V, 240 Cells) 50kW UPM	High Alert mode		UPS will stay on double-conversion for one hour (user adjustable),	
Battery nominal voltage  456V (38 x 12V, 228 Cells) 55kW UPM 480V (40 x 12V, 240 Cells) 60kW UPM Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM 228 x 2.30V = 524Vdc 55kW UPM 240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM	BATTERY			
Battery nominal voltage  456V (38 x 12V, 228 Cells) 55kW UPM 480V (40 x 12V, 240 Cells) 60kW UPM Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM 228 x 2.30V = 524Vdc 55kW UPM 240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM			432V (36 x 12V, 216 Cells) 50kW U	PM
Other configurations as optional  216 x 2.30V = 497Vdc 50kW UPM  228 x 2.30V = 524Vdc 55kW UPM  240 x 2.30V = 552Vdc 60kW UPM  216 x 1.67V = 360Vdc 50kW UPM	Battery nominal vo	oltage	456V (38 x 12V, 228 Cells) 55kW UPM	
216 x 2.30V = 497Vdc 50kW UPM 228 x 2.30V = 524Vdc 55kW UPM 240 x 2.30V = 552Vdc 60kW UPM 240 x 2.30V = 360Vdc 50kW UPM	Dattery nominal voltage		·	
Float charge voltage 228 x 2.30V = 524Vdc 55kW UPM 240 x 2.30V = 552Vdc 60kW UPM  End of Discharge Voltage 216 x 1.67V = 360Vdc 50kW UPM			·	
240 x 2.30V = 552Vdc 60kW UPM  End of Discharge Voltage  216 x 1.67V = 360Vdc 50kW UPM	Float charge voltage	ne l		
End of Discharge Voltage 216 x 1.67V = 360Vdc 50kW UPM	i loat charge voltage			
End of Discharge Voltage				
	End of Discharge \	√oltage		





Model	Model 60-1200kW	
	240 x 1.67V = 400Vdc 60kW UPM	
Maximum charge voltage	VRLA: 294 x 2.35V = 690Vdc (ABM enabled) Lithium: 700Vdc	
Battery technology	2-wire, no centre tapping required Valve Regulated Lead Acid Ni-Cad Certified Lithium-ion battery	
Stored energy time	No limitation within allowable ambient temperature.	
Charging current (Default/Maximum)	25A default, Maximum 40A Per UPM, future extend to 60A by firmware upgrade	
Restored energy time to 90%	Typically, 10 x Discharge time	
Battery recharge profile	Advanced Battery Management (ABM®) = 90% resting,10% floating/charging	
VRLA Battery cut off voltage	The total Battery voltage is limited by EOD 1.67 to 1.75 VPC, Configurable or automatic (load adaptive)	
Battery cold start	Support	
Common battery	Common for internal parallel UPM	
Battery Trip	+48V Shunt trip by default	
Battery Auxiliary	Auxiliary Standard Equipped	

---END---

