



VDL ENERGY SYSTEMS



e – PU10 Specifications

SYSTEM CONFIGURATION			
Configuration	e-PU10 200/400	e-PU10 300/600	e-PU10 360/800
SYSTEM PERFORMANCE			
Rated power	360 kVA (200 kW)	360 kVA (300 kW)	360 kVA (360 kW)
Rated total energy capacity	400 kWh	600 kWh	800 kWh
Rated netto AC energy output	360 kWh*(1)	530 kWh*(1)	720 kWh*(1)
Rated current	520 A		
Voltage	400/230* +/- 10%		
Frequency	50 Hz +/- 5%		
Charge/discharge efficiency *(4)	>92%		
Cooling/heating	Heat pump / Liquid cooled		
AC Power max output;	360 kVA + 553 kVA Feedthrough = 913 kVA Output (1200A) *(2)		
AC Power input minimum	32 A		
CONNECTIONS			
AC-in	2 Sets Powerlock 400 A (PE, L1,L2,L3,N)		
AC-in rated current	700 A		
AC-out	2 Sets Powerlock (PE, L1,L2,L3,N*), CEE 32 A/63 A *(2)		
AC-out rated current	1200 A *(2)		
Stand-by supply	CEE 32 A		
Grid supported	TN-S, TN-C, IT		
BATTERY MODULES			
Chemistry	LiFePO4		
Thermal Mangement	Liquid cooled		
Expected life time (65% SOH)	>10 years		
SYSTEM DATA			
Dimensions	2991 x 2438 x 2591 mm 10ft ISO		
Weight	7000 ± 250 kg	8250 ± 250 kg	9500 ± 250 kg
Operational temperature	-20 / +40 °C (>30 °C de-rating)		
System consumption	De-energized 150W / Energized 2.8 kW		
Noise level	Appr.68 dBA @ 1m		
IP rating container	IP55		
Altitude	3000 m, derating above 1000m		
SYSTEM MODES			
Mode: Grid forming	400 V or 230 V AC network		
Mode: Grid following	Parallel to main grid		
Mode: Peakshaving over input	Automatic mains failure with back synchronization, minimum 32 A with up to 700% stepload *(3)		
Mode: Peakshaving (external measurement)	With external measurement point up to 100 m from e-PU10 *(3)		
Mode: Back-up (AMF)	Seamless shifting from grid following to microgrid, by controlling AC-in *(3)		
Mode: Smart generator link	Advanced generator control (Fixed power, Droop, Isochronous) over AC-In *(3)		
Mode: Parallel operation	Coupling of multiple systems in microgrid through drooping		
Mode: Load sharing mode	Peakshaving over input with start/stop for external genset, Automatic mains failure with back synchronization, minimum 32 A with up to 700% stepload *(3)		
Load balancing	Peakshaving external measurement point up to 100 m, with start/stop for external genset *(3)		
COMMUNICATION & LOGISTIC			
Interface	Touch HMI, Online portal		
Protocols (option)	Modbus TCP/IP, Profinet (for external controller)		
Remote monitoring/control	IOT Platform VDL PowerNet *(2)		
External communication	4G, RJ45 Ethernet		
Data logging	Realtime 100 ms, Historical 1 / 15 Min		
Transportation	Forklift pockets, Twistlocks corner blocks at bottom		
PROTECTION & SAFETY			
Electrical system	Short circuit, Overcurrent protection, Residual current monitoring, Insulation monitoring (only in IT), Surge protection		
Fire detection	Smoke detection, CO detection		
System monitoring	Advanced system monitoring, Battery cell, Inverter stack, Cooling system, Enclosure, Connection panel		
CERTIFICATIONS & STANDARDS			
System	PGS37-1, IEC62933-5-2		
Battery modules	UN38.3 , EC62619, NEN4288, UL9540A		
EU directives	CE, Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU, EU Battery Regulation 2023/1542		

1) Ambient temperature 23°C, Power output 300 kW
2) Optionally available
3) Operation mode only available in combination with e-PU10 option packages
4) Auxiliary power consumption not included

