

PURE RELIABILITY



VELA UPS is POWERTRONIX solution delivering premium VFI online double conversion, providing 0.8 output power factor, granting power quality and backup for IT and electrical infrastructures in corporate, medical, banking and industrial applications.

100% designed and made in Italy, **VELA UPS** results in the highest levels of reliability and efficiency (0.99 input power factor - THDi <5% with harmonic suppression filter on 12pulse configuration - up to 94% efficiency thanks to transformerless inverter) .

Multilanguage LCD display, RS232 port, voltage dry contacts, intelligent slot for SNMP adapter, all for complete interfacing with BMS systems, while standard features like dual input mains, internal manual bypass, possibility to implement parallel capability, low noise level, flexible battery solutions (additional UPS built-in battery charger available) make **VELA UPS** perfect power solution for any 3phase mission critical load, combining proven performance with technical innovation to deliver pure quality.



MAIN TECHNICAL DATA	VELA 50	VELA 60
UPS Topology	VFI On-Line Double Conversion	
Converter	3phase Thyristor Conversion (6pulse version)	
Inverter	High frequency IGBT inverter transformerless	
Static switch	Electronic static switch plus contactor	
Cooling	Forced air	
Input nominal voltage	3Ph+N 380/400/415V	
Input nominal frequency	50 or 60 Hz	
Input frequency tolerance	40 ÷ 70 Hz	
Power factor	0.99	
Soft start	0 ÷ 100% in 30 sec	
Backfeed protection	available	
Input current distortion	THDi ≤8% (12pulse vers.)	
Maximum input current 3Ph+N@400V	92 A	
Bypass nominal voltage	3Ph 380/400/415 V	
Bypass voltage tolerance	±20%	
Bypass factory setting	±10%	
Bypass nominal frequency	50 or 60 Hz	
Bypass accepted overload	10In per 100ms	
Manual bypass	with mechanical lock	
Nominal output voltage	3Ph 380/400/415V	
Output active power	40 kW	48 kW
Nominal output current 3ph 3Ph+N@400V	52 A	65 A
Output power factor	0.8	
Output voltage static variation	± 1%	
Output voltage dynamic variation	± 5%	
Crest factor	3:1	
Output voltage distortion linear load	≤ 3%	
Output voltage distortion non linear load	≤ 7%	
Output frequency	50Hz or 60Hz	
Output frequency stability	0.01%	
UPS system efficiency	94.5% & 96% ecomode	
Overload	125% for 10 minutes - 150% for 60 seconds	

MAIN TECHNICAL DATA	VELA 50	VELA 60
Battery type	VRLA AGM (Ni-Cd on request)	
Number of elements	192	
Battery nominal voltage	394 Vdc	
Battery voltage range	320 ÷ 432 Vdc	
Battery maximum charging current	25 A	
Battery charging profile	DIN 41733 Charging voltage: 810Vdc Temperature compensated battery charging profile	
Battery low threshold (factory setting)	340 Vdc	
Battery management & test	Supervised battery management & settable regular test	
Remote signals	Dry contact board - remote EPO	
Standard interfaces and protocol	RS232 port + slot for communication options	
Monitoring software	UPSMAN & UPSMON	
Communication options	web adapter SNMP (Generex CS121 / Megatec NetAgent)	
Parallel capability (optional)	up to 8 units (closed loop via optical fiber)	
MECHANICAL DATA		
Case protection rating	metal case - RAL 7016 - IP20	
Dimensions (WxDxH mm)	530 x 910 x 1230 mm	
Weight kg (UPS no battery)	210 kg	230 kg
Noise level at 1m	54 dB	54 dB
Storing temperature	-20°C ÷ +70°C (UPS) +20°C ÷ +30°C (Battery)	
Operating temperature	+20°C ÷ +40°C	
Relative humidity	95% non condensing	
Altitude	1000m above MSL without derating (1% derating any 100m up to 2.000m)	
Ventilation	multilevel fan	
UPS moving	castors	
UPS packaging	overseas shipment suitable cartoon box on fumigated wooden pallet	
UPS packaging dimensions (WxDxH mm)	750x1080x1450 mm * 12kg	
STANDARDS	European Directives: L V 2006/95/CE low voltage Directive EMC 2004/108/CE electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2 C2 Classification in accordance with IEC 62040-3 VFI - SS - 111	

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Main electrical features

- * Dual input mains: separated or common
- * Genset compatibility without any additional equipment
- * Integrated maintenance bypass
- * Detection circuit for backfeed protection (additional backfeed device UPS built in or in external panel)
- * Distributed or shared battery for optimized energy storage and uninterrupted power during strings maintenance
- * UPS *eco-mode* functional profile for 96% efficiency
- * Frequency converter profile with or without backup time 60Hz to 50Hz or viceversa

Main electrical optional features

- * Parallel capability for redundant or add capacity system configuration (up to 8 units)
- * Extended runtime in external cabinet matching UPS design
- * Extended runtime in external cabinet IP20 or open rack, complete of DC breaker
- * UPS external cabinet galvanic isolation transformer (full system isolation)
- * UPS I/O phase voltage and frequency configuration settable via LCD
- * UPS upgrade to double independent outputs
- * Battery bank disconnection in case of UPS shutdown or according to BMS design
- * BACS battery advanced care system for constant monitoring and harmonization of individual charging voltages
- * Battery temperature sensor and supervised battery management dual charging method profile

UPS connectivity available features for immediate system status info

Real time information, real time solution!

- * User friendly Multilanguage LCD (Russian and Chinese available)
- * Event log access via LCD for on-site checking & event log download via open software
- * Dry contact interface complete of 4 change-over contact outputs
- * Serial connection interface via RS232 for BMS full compatibility
- * At-a-glance user view for simultaneous monitoring of all UPS systems connected in the same network
- * Intelligent free slot for additional SNMP interface and ambient sensors (temperature, humidity, smoke etc...)
- * UPS MAN & MON software for UPS managing and monitoring
- * Remote LED panel for UPS status
- * Remote EPO
- * Remote UPS monitoring service 24/7 - 365
- * Server, PC and/or virtual machine configured shutdown
- * e.mail/SMS/pop up UPS status information