

SmartOnline SV Series 60kVA Small-Frame Modular Scalable 3-Phase On-Line Double-Conversion 208/120V 50/60 Hz UPS System, 3 Battery Modules

NÚMERO DE MODELO: **SV60KS3P3B**



3-phase 60kVA UPS system offers network-grade power protection in a highly configurable, modular and scalable small-chassis rack-width frame. Included battery modules can support a half load up to 8 minutes.

General

The SV60KS3P3B SmartOnline® SV Series 60kVA Small-Frame 3-Phase On-Line Double-Conversion UPS System delivers true scalability and offers the highest level of secure, uninterrupted power protection. Featuring a modular, scalable design with high-efficiency voltage and frequency independent (VFI) operation, this on-line UPS system with a high 0.9 power factor is ideal for protecting a variety of critical IT systems.

The SV60KS3P3B includes pre-installed input, bypass and output breakers, as well as a static transfer switch (STS), three 20kVA SV20PM power modules and three SVBM battery modules. It comes fully configured for 60kVA total capacity or 40kVA with enhanced N+1 protection.

The Java-free HTML5-based WEBCARDLX interface enables full remote access for site power and UPS status monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH. It supports 10/100 Mbps auto-sensing for optimum communication with an Ethernet network.

With up to 92% efficiency in standard mode and up to 98% efficiency in optional economy mode, this 60kVA UPS system helps you reduce operating and cooling costs. Automatic and manual bypass options keep connected equipment operational during routine maintenance or critical power module failure. Front-panel display offers full UPS condition and status reporting.

Características

60kVA 54kW 3-Phase Small-Chassis UPS System Supports 208/120V or 220/127V AC 50/60Hz Wye 4-wire plus Earth hardwire input and output wiring
Dual hardwire input design enables operation from up to 2 power sources
Network-grade sine-wave AC output with 1% output voltage regulation and less than 2% output total harmonic distortion
Tested to UL 1778 (U.S.), CSA (Canada) and NOM (Mexico) standards
High 0.9 power factor offers higher kW output than lower-rated competing legacy designs

Destacado

- Fully configured for 60kVA capacity or 40kVA with N+1 fault tolerance
- Economy mode option helps reduce operating and cooling costs
- Pre-installed WEBCARDLX network interface for 24/7 remote access
- DSP/IGBT technology and 1% output voltage regulation
- Includes 3 internal battery modules
- For extended runtimes beyond those provided by internal battery modules, please review the suffix "0B" SV models without internal battery modules, which offer different external battery pack options.

El Paquete Incluye

- SV60KS3P3B SmartOnline SV Series 60kVA Small-Frame 3-Phase On-Line Double-Conversion UPS System
- Pre-installed WEBCARDLX network interface
- (3) SV20PM 20kVA power modules (shipped separately)
- (3) SVBM battery modules (shipped separately)
- Owner's manual



Pre-Installed WEBCARDLX Network Interface Allows full remote access for power monitoring, configuration, control and email notifications via secure web browser, SNMP, telnet or SSH Supports 10/100 Mbps auto-sensing for communication with an Ethernet network Optional EnviroSense2 sensors (sold separately) enable site monitoring of temperature, humidity and contact-closure status No Java required

Modular, Scalable Design for Maximum Flexibility Modular configuration with hot-swappable power and battery modules enables easy, fast maintenance with zero downtime Comes fully configured for 60kVA total capacity or 40kVA with N+1 fault tolerance

Optional Economy Mode Up to 98% efficiency in optional economy mode to lower operating and cooling costs

Wide Input/Narrow Output Voltage Operating Range Enables full continuous online operation during brownouts as low as 121V and overvoltages up to 253V Regulates output voltage within 1% of the selected nominal output voltage in on-line double-conversion mode

Advanced IGBT Inverter with Digital Signal Processor (DSP) Technology Provides for less than 3% input total harmonic distortion (THDi) to support 1:1 generator sizing and prevent the need to oversize generator systems relative to UPS capacity

Automatic and Manual Bypass Options Keep connected equipment operational during routine maintenance or critical power module failure

Especificaciones

GENERALIDADES	
Código UPC	037332201621
Tipo de UPS	En Línea
ENTRADA	
Corriente especificada de entrada (Carga Máxima)	SV60KS3P3B Maximum 60kVA Configuration: 180A; 306.2A maximum inrush current
Voltaje(s) Nominal(es) de Entrada Soportado(s)	120V / 208V Trifásico Wye; 127V / 220V Trifásico Wye
Descripción del Voltaje Nominal de Entrada	Set of two hardwire input connections enables 3-Phase Wye, 4 wire (3P, N, E) inputs from two separate power sources
Tipo de conexión de entrada del UPS	Instalación Eléctrica Permanente
Breakers de entrada	MAIN and ALTERNATE AC inputs are each protected by 250A 3 pole magnetic breakers
Fase de Entrada	Trifásico
Frecuencia de Entrada	40 to 70Hz (online mode); 50/60Hz Auto-selectable
Factor de Potencia (Entrada)	Greater than 0.99 (full load)
THDi	Less than 3% (full linear load)
SALIDA	
Capacidad de Salida en Volts Amperes (VA)	60000



Capacidad de salida (kVA)	60
Capacidad de Salida (Watts)	54000
Capacidad de salida (kW)	54
Detalles de Capacidad de Salida	OVERLOAD CAPABILITY: Supports 105-110% load for 1 hour, 111-125% load for 10 minutes, 126-150% for 1 minute and Over 150% for 200ms before switching to Bypass; Online operation resumes when load is reduced to 100% or less
Factor de Potencia	0.9
Factor de Cresta	3:1
Detalles del Voltaje Nominal	Output THD full resistive load: <1.5%; Output THD non-linear load: <4%; Max DC offset: $\pm 50\text{mV}$; Max Phase angle deviation: 2°; Max Voltage unbalance deviation: 1%; Output short-circuit protection included
Compatibilidad de Frecuencia	50Hz / 60Hz; Soporta conversión de 50 Hz a 60 Hz y de 60 Hz a 50 Hz
Detalles de Compatibilidad de Frecuencia	Auto-selectable, user adjustable
Detalles del tomacorrientes	Output wiring (3P, N, E)
Breakers de salida	250A 3 pole magnetic breaker
Forma de Onda de CA de Salida (Modo de CA)	Pure Sine wave
Forma de onda de CA de salida (Modo en Batería)	Onda Sinusoidal Pura
Voltaje(s) Nominal(es) de Salida Soportado(s)	120V / 208V Trifásico Wye; 127V / 220V Trifásico Wye
Tomacorrientes	Instalación Eléctrica Permanente
Regulación de voltaje de salida	ONLINE, FREQUENCY CONVERSION, BATTERY MODE: 208/120, 220/127 $\pm 1\%$ typical (balanced load); $\pm 2\%$ typical (unbalanced load); ECONOMY MODE: 208/120, 220/127 $\pm 15\text{V}$; BYPASS MODE: +15% (default, adjustable to +10%, +15% or +20%), -20% (default, adjustable to -10%, -20%, -30%)
Regulación de Frecuencia de Salida	ONLINE MODE: Output frequency is $\pm 0.05\text{Hz}$ of input frequency when input is within $\pm 4\text{Hz}^*$ of the configured 50/60Hz output setting; Output frequency is $\pm 0.05\text{Hz}$ the configured 50/60Hz output setting when input is outside $\pm 4\text{Hz}^*$ of the configured 50/60Hz output setting; BATTERY MODE: Output frequency is $\pm 0.1\text{Hz}$ of the configured 50/60Hz output setting; FREQUENCY CONVERTER MODE: Output frequency is $\pm 0.1\text{Hz}$ of the configured 50/60Hz output setting; ECONOMY MODE: Output frequency equals input frequency up to $\pm 4\text{Hz}^*$ of the configured 50/60Hz output setting (UPS switches to Online mode if frequency goes outside of this range); BYPASS MODE: Output frequency equals input frequency up to $\pm 4\text{Hz}^*$ of the configured 50/60Hz output setting (switches to STANDBY mode if frequency goes outside of this range). *The TRACKING RANGE is factory set to $\pm 4\text{Hz}$ and is user adjustable to $\pm 1\text{Hz}$, $\pm 2\text{Hz}$ or $\pm 4\text{Hz}$; The selected TRACKING RANGE setting controls frequency output tolerances as described above in Online, Economy and Bypass modes
Capacidad de Salida en Amperes	Output Amp Capacity 166.5A (208/120V); 157.5A (220/127V)
Bancos de Carga Controlables Individualmente	No
Opciones de Actualización Modular	Includes 3 SV20PM 20kVA power modules
BATERÍA	
Autonomía a Plena Carga (min.)	3.9 minutes (60kVA)
Autonomía a Media Carga (min.)	8.0 minutes (30kVA)
Autonomía Ampliable	Sí
Descripción del tiempo de autonomía ampliable	For extended runtimes beyond those provided by internal battery modules, please review the suffix "0B" SV models without internal battery modules, which offer different external battery pack options.

Voltaje CD del sistema (VCD)	±120VDC
Tasa de Recarga de Baterías (Baterías Incluidas)	User selectable charging current of 1A to 24A (2A factory setting); Recharge rate for internal batteries is 4.6 hours to 90% capacity (7A charging current)
Descripción de reemplazo de batería	Hot-swappable, replaceable batteries
REGULACIÓN DE VOLTAJE	
Descripción de la regulación de voltaje	Online, double-conversion power conditioning
Corrección de Sobrevoltaje	Maintains continuous output in online mode, without using battery power, during overvoltages to 253V (Ph-Ph), reducing output to within 1% of selected 208/120V, 220/127V nominal output voltage
Corrección de Bajo Voltaje	Maintains continuous output in online mode, without using battery power, during brownout/undervoltage conditions to 156V (Ph-Ph) at full load and to 121V (Ph-Ph) at 70% output load or less, increasing output to within 1% of selected 208/120V or 220/127V nominal output voltage
INTERFAZ DE USUARIO, ALERTAS Y CONTROLES	
Pantalla LCD del Panel Frontal	145mm front panel LCD display with directional scroll and select buttons offers complete operating status display, plus setting and selection options for all UPS functions
Interruptores	Front panel buttons include ESC (menu escape), UP/LEFT (menu up / left), DOWN/RIGHT (menu down / right), ENTER (confirm selection), HOME (return to home screen) and POWER (on/off power control); Also includes Manual Bypass switch
Operación para Cancelar la Alarma	Audible alarms can be muted using on-screen prompts
Alarma Acústica	Unique audible alarms for POWER ON / POWER OFF (alarm sounds for 2 seconds), BATTERY MODE (alarm sounds every 2 seconds), LOW BATTERY (alarm sounds every 0.5 seconds), UPS ALARM (alarm sounds every 1 second), UPS FAULT (continuous alarm)
Indicadores LED	Front panel LED indicators represent INPUT (green), BYPASS (amber), INVERTER (green), BATTERY (red) and ALARM (red)
SUPRESIÓN DE SOBRECARGA / RUIDO	
Supresión de Ruido EMI / RFI en CA	Sí
Valor nominal en joules de supresión CA	2496
Detalles del Valor Nominal en Joules de Supresión CA	2496 joules (Ph-Ph), 2496 joules (Ph-N), 1872 joules (N-E)
Tiempo de respuesta de supresión de CA	Instantaneous
FÍSICAS	
Factor de Forma Primario	Torre
Método de Enfriamiento	Fans
Los Factores de Forma de Instalación Son Soportados con los Accesorios Opcionales	Torre
Profundidad del UPS Primario (mm)	1,100
Altura del UPS Primario (mm)	1,475
Ancho del UPS Primario (mm)	600

Dimensiones de Envío (Al x An x Pr / cm)	138.43 x 72.39 x 107.95
Dimensiones de Envío (Al x An x Pr / pulgadas)	54.50 x 28.50 x 42.50
Peso de Envío (kg)	479.90
Peso de Envío (lb)	1058.00
Material del Gabinete del UPS	Steel
Dimensiones del Módulo de Potencia del UPS (Al x An x Pr / cm)	147.50 x 59.99 x 109.98
Dimensiones del Módulo de potencia del UPS (Al x An x Pr / pulgadas)	58.07 x 23.62 x 43.3
Peso del Módulo de Potencia del UPS (kg)	686.29
Peso del Módulo de potencia del UPS (lb)	1513
AMBIENTALES	
Rango de Temperatura de Operación	0° to +40°C (+32° to +104°F); De-rates to 90% capacity at 35°C / 95°F and 80% capacity at 40°C / 104°F
Rango de Temperatura de Almacenamiento	-15° to +60°C (+5° to +140°F)
Humedad Relativa	0 to 95%, non-condensing
Modo de CA BTU / Hr. (Plena carga)	18223
Modo Económico de CA BTU / Hr. (Plena carga)	2068
Clasificación de eficiencia del modo económico de CA (100% de carga)	98%
Ruido Audible	Less than 73 DBA front-side, 1m
Elevación en Operación (m)	Up to 1000m (At elevations over 1000m, output de-rates by 1% per 100m)
COMUNICACIONES	
Tarjetas de Administración de Red	 WEBCARDLX ; MODBUSCARDSV ; RELAYCARDSV ;
Descripción del Puerto de Monitoreo de Red	Includes pre-installed Tripp Lite WEBCARDLX network interface
Software PowerAlert	For local monitoring via the UPS's built-in communication ports, download PowerAlert Local software at https://www.tripplite.com/poweralert
Cable de Comunicaciones	DB9 cabling included
Compatibilidad con SNMP	Includes pre-installed WEBCARDLX ; network interface card
Interfaz de Comunicaciones	Serial DB9; EPO (apagado de emergencia) [Emergency Power Off]; Tarjeta de red preinstalada; Ranura para interfaz SNMP / Web



TIEMPO DE TRANSFERENCIA LÍNEA / BATERÍA	
Tiempo de Transferencia	No transfer time (0 ms.) in online, double-conversion mode; Less than 20 ms. transfer time in economy mode
Transferencia de Bajo Voltaje a Energía de Batería (Calibración)	Maintains continuous operation without using battery power during brownout/undervoltage conditions to to 156V (Ph-Ph) Full load or 121V (Ph-Ph) 70% load or less; Below the low transfer voltage point, output is maintained utilizing reserve battery power
Transferencia de Alto Voltaje a Energía de Batería (Calibración)	Maintains continuous operation without using battery power during overvoltages to 253V (Ph-Ph), reducing output within 1% of nominal; Above this point, output is maintained utilizing reserve battery power
CARACTERISTICAS/ESPECIFICACIONES	
Arranque en Frío (Arranque en Modo de Batería Durante una Falla del Suministro Eléctrico)	Cold-start operation supported
Funciones del UPS de alta disponibilidad	Derivación automática del Inversor; Baterías Hot-Swap; Auto Probe Monitoring (included); Zero transfer time; On-Line/Double-Conversion
Características de Ahorro de Energía Ecológico	Operación de modo económico de alta eficiencia; Horas diarias programables para operación en modo económico
ESTÁNDARES Y COMPATIBILIDAD	
Certificaciones del UPS	RoHS (Restricción de Substancias Peligrosas); Probado para CSA (Canadá); Probado para NOM (México); Probado para UL1778 (EE UU)
Detalles de la Certificación	UL1778: 2014 5th Edition; CSA C22.2 No. 107.3.14; FCC Part 15 Class A
GARANTIA	
Periodo de garantía del producto (USA y Canadá)	Garantía limitada por 1 año
Periodo de Garantía del Producto (Internacional)	Garantía limitada por 2 años
Periodo de garantía del producto (México)	Garantía limitada por 2 años
Periodo de garantía del producto (Puerto Rico)	Garantía limitada por 2 años
Declaración de Garantía de Trifásico	<u>Tripp Lite 3-Phase UPS Factory Warranty</u>