Working** in **Power

SR Plus series

on-line UPS

20, 30, 40, 60 kVA three/three-phase

- LOCAL AREA NETWORKS (LAN)
- SERVERS
- DATA CENTERS
- CASH REGISTERS
- TELECOMUNICATION DEVICES
- E-BUSINESS (SERVERS FARMS, ISP/ASP/POP)
- INDUSTRIAL PLCS
- ELECTRO-MEDICAL DEVICES
- EMERGENCY DEVICES (LIGHTS/ALARMS)

SR PLUS series

SR Plus UPS series is an ideal powerful solution for protecting your critical equipment; such as computers; blade servers; industrial automation systems; telecommunication networks and many other applications; that ensures business continuation and cannot run the risk of being disrupted from poor quality electricity supply or momentary power problems.

The SR Plus is a three phase UPS available in 20-30-40-60 kVA, with double conversion on-line technology according to the VFI-SS-111 classification, as defined by the IEC EN62040-3 standard.

SR Plus UPS is designed and manufactured with State of the Art Technology to protect the critical equipment, and maintaining cleaned source; maximum output power at 0.9 power factor; and high efficiency close to 96%.

ZERO UTILITY IMPACT

SR Plus provides excellent performance at its input stage; which includes:

- Input power factor 0.99
- Input total current distortion THDi <3%
- Wide input voltage range fro 304V to 478V ine to line at full load
- Wide input frequency range 40Hz to 70Hz

Thus SR Plus can be compatible and installed where areas when electricity is insufficient, also HS1060 is compatible with diesel generator during emergency condition.

Advanced digital signal processor (DSP) and digital control technology ensure high performance stability and system reliability.

Main Features:

- Reliable, filtered, stabilised and regulated sine wave output (double on-line conversion technology VFI according to EN50091-3 standard) with filters for atmospheric disturbance suppression
- High reliability: IGBT Technology in rectifier and inverter, high frequency PWM, transformerless, fully digital control with microprocessor, no break static and manual transferring
- Wide input voltage and frequency range compatible with different utility power source
- Cleaned source: power factor correction close to unify power factor (pf 0.99) and low THDi (3%)
- 3 steps PWM IGBT Inverter ensures the best performance and efficiency up to 95% in normal mode
- Low noise levels: the high frequency PWM for rectifier and inverter allows very low audible noise
- High battery charging power up to 20% of UPS capacity
- Optional Temperature voltage compensation
- Battery cold start allows UPS to switch on without utility power
- Maximum reliability: SR Plus can work in parallel up to 4 units. The UPS continues to operate in parallel even if one of the communication cables is disconnected
- Battery care system: SR Plus is suitable for use with sealed VRLA, AGM, GEL or open-vented load acid batteries, Ni-Cd batteries
- Deep discharging controlled by microprocessor with load and main levels (sharing power mode suitable within -40% Vin)
- High power availability: the output factor at 0.9 provides up to 12.5% more active power than a traditional UPS and more load expansion
- Low management cost: the transformer less technology allows the lowest footprint in this category. The SR Plus design allows front, top, and sides access
- Fully DSP control ensure highest reliability

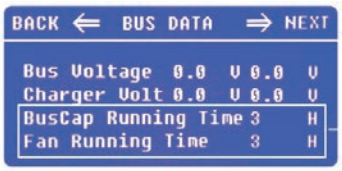
SR PLUS series

Intelligent Battery Care

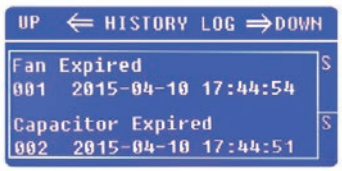
With flexible battery configuration, battery quantity can be adjusted from 36/ 38/ 40/ 42/ 44 of 12V block to suit different design.
Intelligent battery health check can be set to auto or manual mode to ensure battery availability and performance.
Optional temperature compensation battery charging for stringent environment

Comprehensive UPS Mimic Panel

SR Plus series 20kVA to 40kVA UPS designed with large LCD screen displays precise UPS status; alarms & measurements.
Also provide early warning when component reaching its service life cycle.

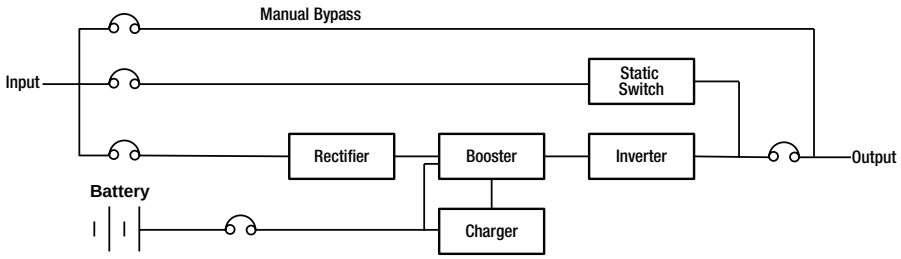


Component operating hours



Component aging

SR20 Plus to SR40 Plus Configuration



SR Plus series 20kVA to 40kVA UPS Front Panel

Menu

User friendly large LCD screen displays precise UPS status, alarms and measurements.

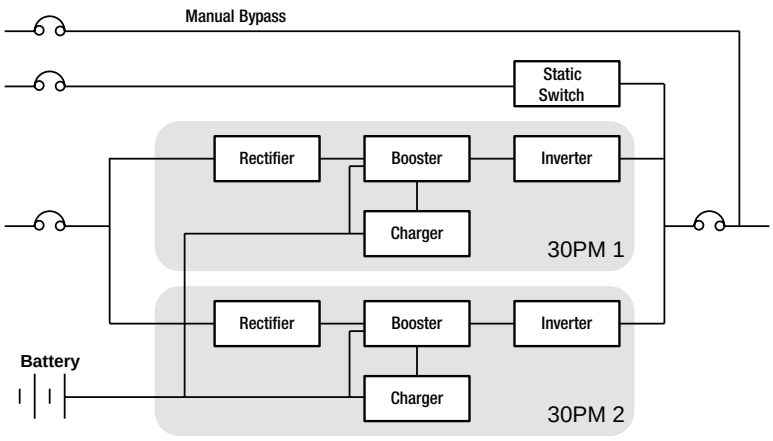
- REC - Rectifier ON/OFF Status
- BAT - Battery Charge/Discharge/ Failure/Abnormal Status
- INV - Inverter ON/OFF Status
- BYP - Bypass On Load Status
- OUT - Load On-Line/Abnormal Status
- STATUS - UPS General Status
- EPO - Emergency Power OFF Button
- ENTER - Confirm Button
- HOME - Back to Home Page
- ➤ - Scroll to Next Menu
- ◀ - Scroll to Previous Menu

SR PLUS series

Modular Conception Solution

SR60 Plus UPS has infrastructure of middle range UPS and adopting modular UPS concept,
it consists of Power modules; Static Bypass; Monitoring LCD and Manual Bypass.
Each power module is rated 30kVA. As such, rapid service and maintenance of UPS can be achieved.

SR60 Plus Configuration



SR60 Plus Front Panel UPS Front Panel

- REC - Rectifier ON/OFF Status
- BAT - Battery Charge/Discharge/ Failure/Abnormal Status
- INV - Inverter ON/OFF Status
- BYP - Bypass On Load Status
- OUT - Load On-Line/Abnormal Status
- STATUS - UPS General Status
- 🔊 - Buzz
- EPO - Emergency Power OFF Button
- TAP - Switching Between Menu Buttton
- ENTER - Confirm Button
- ESC - Exit Button

SR20/30/40 Plus provide the following communication:

- RS232, RS485 and USB port for engineer servicing; communication network
- Optional SNMP and dry contact card for Remote Web based Management by SNMP Protocol and optional dry contact card for remote alarm reporting

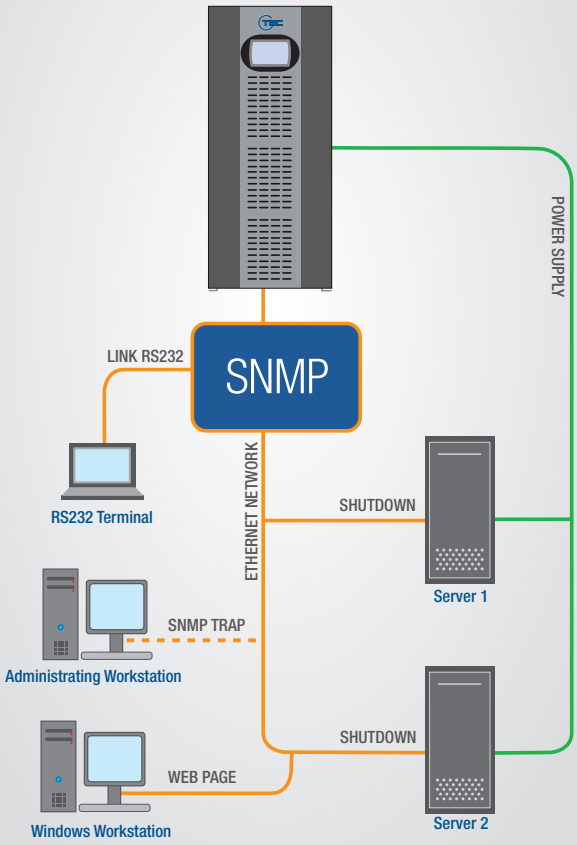
SR60 Plus design with standard communications as follows:

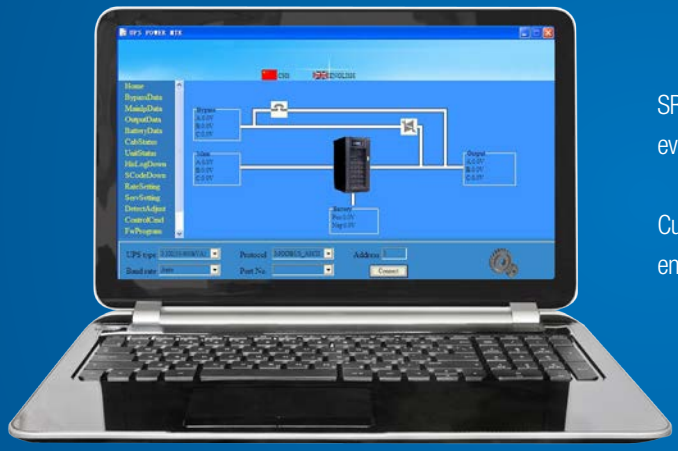
- Standard RS232 & RS485 with ModBus Interface Protocol
- External input signal to interface with UPS for battery & environment temperature
- REPO (Remote Emergency Power Off) for power down UPS from external signal
- Interface with generator for operating status, as well as driving signal for holding coil for battery circuit breaker
- Interface with Battery Circuit Breaker (BCB) for ON/OFF status
- Standard three alarm contacts for alarm reporting. There are: Battery Low, General Alarm and Mains Failure

Other optional remote monitoring and control feature:

- SNMP card allows UPS management across a LAN using any network communication protocol such as TCP/IP, HTTP, SMTP, DHCP, Telnet, BOOTP, DNS, DDNS, PPPoE, Wap, PDA Browser, SNMP RFC 1628 MIB, PPC MIB and Ethernet Up
- External Load Bus Synchronizer (LBS) port to interact with external Static Transfer Switch (STS) for highest system reliability

Direct Connection with Ethernet Network





SR Plus series UPS allows quick glance of UPS status and event records from the dedicated software.

Customization of UPS can be configured by factory trained engineer to suit different application

TECHNICAL **ASSISTANCE** SERVICE

UPService, our technical assistance facility uses highly trained engineers to provide a reliable and competent technical support and after-sales service.

UPService can provide customers with:

- A dedicated CALL CENTRE for connection to the UPService organisation. UPService personnel are always available and ready to provide advice and assistance regarding UPS installation, maintenance, fault finding and repair.

- FAST & READY A fast repair on site is guaranteed through the use of state-of-the-art UPS technology and the professionalism of the UPService personnel and Authorised Assistance Centres. UPService guarantees that failed parts are replaced with original ones, tested and updated in order to maintain the safety, reliability and operating characteristics of the UPS.

- COMMISSIONING AND START-UP UPService can provide assistance during commissioning and startup of the UPS equipment on-site with additional training during handover to site personnel. UPService engineers can also verify site suitability, analyse and advise on potential problems, and disconnect and relocate equipment. UPService recommend that all hardwired installations are commissioned by UPService engineers.

- MAINTENANCE CONTRACTS can be provided by UPService to minimise response times and repair costs. Contracts range from periodic inspections to comprehensive cover including labour and materials.

- UPService organises regular TECHNICAL TRAINING COURSES for UPS operators and installers.

TECHNICAL
ASSISTANCE SERVICE

SR PLUS series

	Technical Specification			
Models with Long Back-Up Time	SR20 Plus	SR30 Plus	SR40 Plus	SR60 Plus
Models with Built-In Battery	SR20T Plus	SR30T Plus	N.A	
INPUT				
Rated Input Voltage	380V / 400V/ 415V, 3 phase + N			
Input Voltage Windows	304V – 478V (line to line); output power derated if input voltage is 228V – 304V			
Rated Input Frequency	50Hz / 60Hz			
Frequency Windows	40Hz – 70Hz			
Input THDi / pf	<3% (linear load) / >0.99			
BY PASS				
Rated Bypass Voltage	380V / 400V/ 415V, 3 phase + N			
Bypass Voltage Windows	Default: -20%~+15%; Upper threshold: +10%, +15%, +20%, +25% / Lower threshold: -10%, -15%, -20%, -30%, -40%			
Rated Bypass Frequency	50Hz / 60Hz			
Bypass Frequency Windows	Selectable: ±1Hz; ±3Hz; ±5Hz			
Bypass Overload Capability	Up to 125% continuous / 125%-130% for 10mins / 130%-150% for 1min / 150% <200ms			
BATTERY				
Design to Compatible with	VRLA AGM/ GEL; NiCad; Wet type battery			
Charger DC Stability	±1% Vdc			
OUTPUT				
Rated Power (kVA/ kW)	20 / 18	30 / 27	40 / 36	60 / 54
Rated voltage	380V / 400V/ 415V, 3 phase + N			
Output Power Factor	0.9			
Voltage Stability	±1% at linear load			
Voltage Distortion (THDv)	<1% from 0% to 100% linear load; <6% full non-linear load according to IEC/EN62040-3			
Rated Frequency & Range	50Hz / 60Hz; default ±3Hz; selectable from ±0.5Hz to ±5Hz			
Frequency Stability at Battery Mode	50Hz / 60Hz ±0.1%			
Crest Factor	3 : 1			
Overload Capability	110% for 60mins / 125% for 10mins / 150% for 1min / >150% for 200ms			
SYSTEM				
System Efficiency	95% online mode			
Display Interface	Push button; LCD & LED			Push button; LCD; LED & Touch Screen
External Interface	Standard in-built: RS232; RS485 Option: SNMP; Dry contact; dual input kit; parallel kit; battery cold start			
Operating & Storage Temperature	0°C to 40°C / -40°C to 70°C			
Relative Humidity	Up to 95% non-condensing			
Sound Pressure @ 1m	< 60dBA			
Applicable Standards	EN50091-1-1/IEC62040-1-1/AS 62040-1-1 for General safety requirement in operator access area EN50091-2/IEC62040-2/AS 62040-2 (C3) for Electromagnetic compatibility (EMC) requirements for UPS EN50091-3/IEC62040-3/AS 62040-3 (VFI SS 111) for Method of specifying the performance & test requirement of UPS			
PHYSICAL DATA				
Size (L x D x H), mm	250 x 680 x 770		250 x 833 x 750	600 x 980 x 950
Size (L x D x H), mm for 20T & 30T	350 x 738 x 1335		N.A	
Weight, kg	50 (standard) / 88 (optional in-built battery)		61	176
Mechanical Protection	IP20			
Colour	Front RAL 7012 / Side panels RAL7021			

NOTE:
UPS specification and data may be subjected to change for improvement without prior notice
Optional battery compartment for 20kVA & 30kVA suitable for 40 x12V12Ah. Backup time for 12Ah is about 8mins at 70% load of 20kVA

G-Tec Europe Srl in Vicenza – Italy

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GTec Group is also present worldwide with Business Partners in several countries.

Working** in **Power

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