ener safe
A brand of legrand

UPS MODULAR SAFE

MÓDULOS DE PODER

10-15-20-25-30 y 50KVA



Diseño full Modular

- El concepto de modularidad aplicado a todos los componentes del sistema; módulos de poder, módulo de monitoreo, módulo de bypass, módulo de distribución de energía y módulos de baterías Más aún, los módulos de baterías se dividen en cartridge de 10 unidades.
- Los módulos de poder, bypass, monitoreo y baterías son Hotswapp.

TELECOM | DATA CENTER | EQUIPOS MÉDICOS | SERVIDORES | MINERÍA | SEGURIDAD

Alta disponibilidad

- Amplio rango de voltaje de operación 138-485V
- Bus de comunicaciones y control reduntante, para no afectar el funcionamiento del equipo ante posibles fallas de algún bus.
- La falla o extracción de un módulo de potencia, de control o de monitoreo no afectará el correcto funcionamiento de la UPS.

Administración Inteligente

- Pantalla touch de 7 pulgadas.
- Grabación y exportación de historial de logs de fallas y registros.
- Soporta RS485, SNMP, tarjeta de contacto seco , interface RJ45 y CAN.

TRIFÁSICAS DE 10 A 300KVA

Eficiencia

- Factor de potencia de entrada 0.99
- Factor de potencia de Salida 1.0
- Topología de 3 niveles, con una eficiencia de hasta 96%
- Dostorsión harmónica THDi<3% (cargas lineales), THDi<5% (50% cargas no lineales)
- Modo de Inactividad programable: cuando el nivel de carga es muy bajo, algunos módulos de poder pasan a modo de inactividad, alternando la carga entre los módulos para balancear los tiempos de operación entre ellos, de esta forma se maximiza la vida util del sistema.

Capacidad de Paralelismo

- Capacidad de paralelizar hasta 6 unidades
- Las unidades en paralelo pueden compartir bancos de batería

Flexibilidad en Baterías

- Gran flexibilidad de operación en baterías: String entre 30 y 50 baterías de 12V.
- Cargador de gran potencia permite soportar largos tiempos de autonomía.
- 3 métodos de carga inteligente.

ESPECIFICACIONES **TÉCNICAS** (Módulos de 10 a 30 KVA)

Model	MODSAFE-60	MODSAFE-150	MODSAFE-300
UPS cabinet	30k~60k / 30k~60k	30k~150k / 30k~150k	30k~300k / 30k~300k
Max. Number	2+1 / 2+2(optional)	5 / 4	10 / 9
Module	HPM3300E-RM-30 (30k / 30k)		
Model	**MODSAFE-50**	**MODSAFE-125**	**MODSAFE-250**
UPS cabinet	25k~50k / 25k~50k	25k~125k / 25k~125k	25k~250k / 25k~250k
Max. Number	2+1 / 2+2(optional)	5 / 4	10 / 9
Module	HPM3300E-RM-25 (25k / 25k)		
Model	**MODSAFE-60**	**MODSAFE-100**	**MODSAFE-200**
UPS cabinet	20k~60k / 20k~60k	20k~100k / 20k~100k	10k~200k / 10k~200k
Max. Number	3 / 3+1(optional)	5 / 4	10 / 9
Module	HPM3300E-RM-20 (20k / 20k)		
Model	**MODSAFE-45**	**MODSAFE-75**	**MODSAFE-150**
UPS cabinet	15k~45k / 15k~45k	15k~75k / 15k~75k	10k~150k / 10k~150k
Max. Number	3 / 3+1(optional)	5 / 4	10 / 9
Module	HPM3300E-RM-15 (15k / 15k)		
Model	**MODSAFE-30**	**MODSAFE-50**	**MODSAFE-100**
UPS cabinet	10k~30k / 10k~30k	10k~50k / 10k~50k	10k~100k / 10k~100k
Max. Number	3 / 3+1(optional)	5 / 4	10 / 9
Module	HPM3300E-RM-10 (10k / 10k)		

INPUT

Nominal voltage		380/400/415Vac, (3Ph+N+PE)
Operating voltage range		138~305Vac for 40% Load; 305~485Vac for 100% Load;
Operating frequency range		40Hz~70Hz
Power factor		≥0.99
Harmonic distortion (THDi)		3% (100% linear load)
Bypass voltage range		Max. voltage: 220V: +25%(optional +10%,+15%,+20%);230V: +20%(optional +10%,+15%);240V: +15%(optional +10%) Min. voltage: -45% (optional-10%, -20%,-30%)
Bypass Frequency range		Frequency protection range: ± 10%
Generator input		Support
Power work in		Support
Backfeed protection		Support

OUTPUT

Rated voltage		380/400/415Vac, (3Ph+N+PE)
Power factor		1.0
Voltage regulation		± 1%
Output frequency	Line Mode	± 1%/ ± 2%/ ± 4%/ ± 5%/ ± 10% of the rated frequency(optional)
	Bat. Mode	(50/60 ± 0.1%)Hz
Crest factor		3:1
Harmonic distortion (THD)		≤2% with linear load; ≤4% with nonlinear load
Efficiency		UP to 96%

BATTERY

Battery voltage	Optional Voltage: ± 180/192/204/216/228/240/252/264/276/288/300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs optional)360Vdc~600Vdc (30~50 pcs), 36 pcs default, 36 and 50 pcs fully output; 32~34 pcs output power factor 0.9; 30 pcs output power factor 0.8)		
Power module Charge Current	18A (Max.)		
UPS cabinet Max. Charge Current	54A/72A	90A/72A	180A/162A

SYSTEM FEATURES

Transfer time		Utility to Battery : 0ms; Utility to bypass: 0ms
Overload	Line Mode	110% overload for 60 min; 125% overload for 10 min; 150% overload for 1 min
	Bypass Mode	135% overload for long term; >1000% overload for 100 ms
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately
Low battery voltage		Alarm and Switch off
Self-diagnostics		Upon Power On and Software Control
EPO		Support
Battery		Advanced Battery Management
Noise suppression		Complies with EN62040-3
Audible & Visual alarms		Line Failure, Battery Low, Overload, System Fault
Status LED & LCD display		Line Mode, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault
Reading on the LCD display		Input, Output, Battery, Command, Setting, Maintenance
Communication interface		CAN,RS485,Parallel, Dry contact port, Relay card(optional), SNMP card(optional),Battery temperature sensor(optional)

ENVIRONMENTAL

Operating temperature		0℃ ~ 40℃
Storage temperature		-25℃ ~ 55℃
Humidity range		0 ~ 95% (non condensing)
Altitude		< 1500m
Noise level(from 1M distance)	<58dB	<61dB	<68dB

PHYSICAL

Dimension W × HxD (mm)	UPS cabinet	600x2000x 1000		600x2000x 1000
	Power module	440x86 (2U)x620		
Net weight (kg)	UPS cabinet	142	153	295
	Power module	10kVA: 19 Kg ; 15~30kVA: 21Kg		

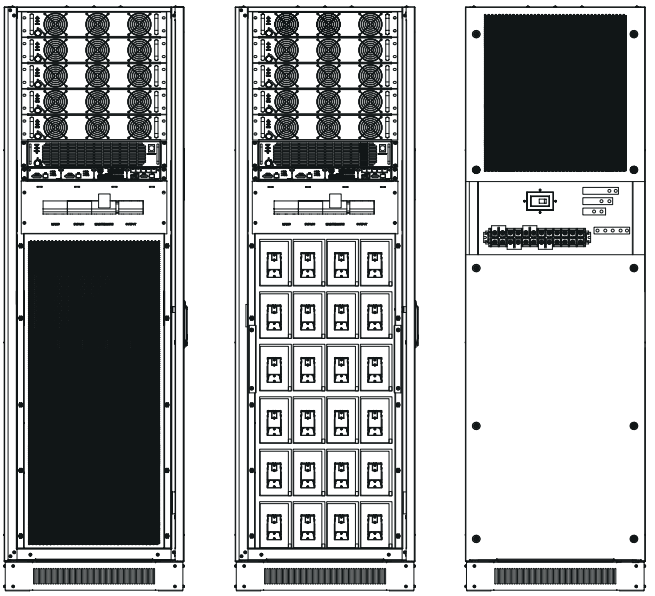
STANDARDS

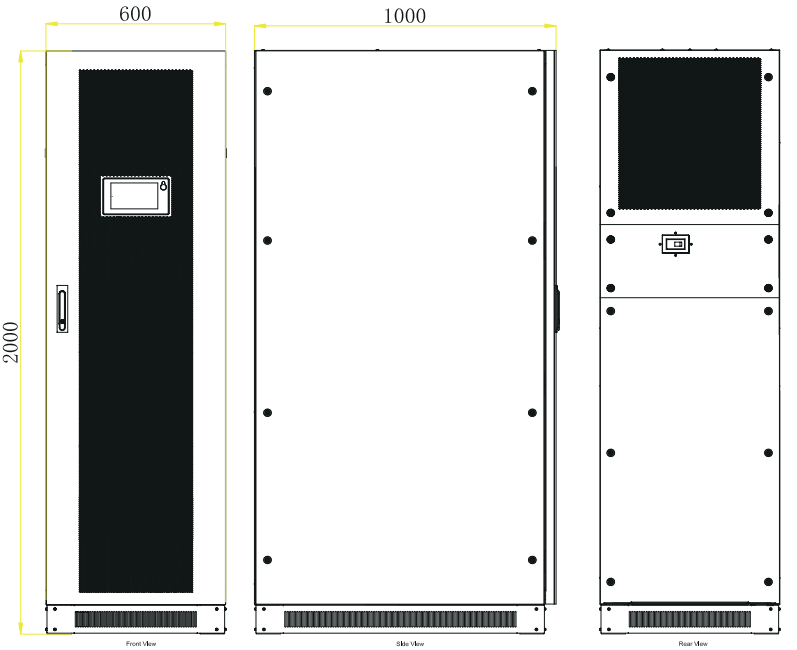
Audible & Visual alarms	IEC/EN62040-1,IEC/EN60950-1
EMC	IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4- 5,IEC61000-4-6,IEC61000-4-8, EN6240-3

ESPECIFICACIONES **TÉCNICAS** (Módulos de 50 KVA)

MODEL		MODSAFE150	MODSAFE200	MODSAFE250	MODSAFE300	MODSAFE400	MODSAFE500	MODSAFE600	MODSAFE800	MODSAFE1000
Capacidad (VA/Watts)	Gabinete UPS	150k / 150k	200k / 200k	250k / 250k	300k /300k	400k / 400k	500k / 500k	600k / 600k	800k / 800k	1000k / 1000k
	Mód.Potencia	50k/50k								
	Modulo Max.	3	4	5	6	8	10	12	16	20
INPUT										
Nominal voltage		380/400/415Vac, (3Ph+N+PE)								
Operating voltage range		138~305Vac for 40% Load; 305~485Vac for 100% Load;								
Operating frequency range		40Hz-70Hz								
Power factor		≥0.99								
Harmonic distortion (THDi)		≤ 3% (100% linear load)								
Bypass voltage range		Max. voltage:220V: +25%(optional +10%,+15%,+20%) ; 230V: +20% (optional +10%,+15%) ;240V: +15%(optional +10%) Min. voltage: -45% (optional-10%, -20%,-30%)								
Bypass Frequency range		Frequency protection range: ±10%								
Generator input		Support								
OUTPUT										
Rated voltage		380/400/415Vac, (3Ph+N+PE)								
Power factor		1								
Voltage regulation		±1%								
Output frequency	Line Mode	±1%/±2%/±4%/±5%/±10% of the rated frequency(optional)								
	Bat. Mode	(50/60±0.1%)Hz								
Crest factor		3:1								
Harmonic distortion (THDv)		≤2% with linear load ≤4% with non linear load								
Efficiency		96%								
BATTERY										
Battery voltage		Optional Voltage: ±180V/±192V/±204V/±216V/±228V/±240/±252/±264/ ±276/±288/±300Vdc(30/32/34/36/38/40/42/44/46/48/50pcs optional); 360Vdc~600Vdc (30~50 pcs, 30 pcs default, 36~50 pcs output power factor 1.0; 32~34 pcs output power factor 0.9; 30 pcs output power factor 0.8;)								
Battery type		VRLA, lithium battery								
Charging Current(A)	UPS cabinet	60A (Max.)	80A (Max.)	100A (Max.)	120A (Max.)	160A (Max.)	200A (Max.)	240A (Max.)	320A (Max.)	400A (Max.)
	Power module	20A (Max.)								
SYSTEM FEATURES										
Transfer time		Utility to Battery : 0ms; Utility to bypass: 0ms								
Overload	Line Mode	≤110% overload 60 min; ≤125% overload 10 min; ≤150% overload 1 min to Bypass								
	Bypass Mode	135% overload for long term; >1000% overload for 100 ms								
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immedia tely								
Low battery voltage		Alarm and Switch off								
Self-diagnostics		Upon Power On and Software Control								
Backfeed protection		Support								
EPO		Shut down UPS immediately								
Battery		Advanced Battery Management								
Noise suppression		Complies with EN62040-3								
Audible & Visual alarms		Line Failure, Battery Low, Overload, System Fault								
Reading on the LCD display		Input,Output, Battery,Command,Setting,Maintenance								
Life cycle		15 years								
Heat emission full load	Watt/h	6750	9000	11250	13500	18000	22500	27000	36000	45000
	BTU/h	23038	30717	38396	46075	61433	76792	92150	122867	153584
Communication interface		BMS, RS485, LBS,Parallel, Dry contact port, Relay card(optional), SNMP card(optional),Battery temperature sensor(optional)								
ENVIRONMENTAL										
Operating temperature		0°C～40°C								
Storage temperature		-25°C～55°C								
Humidity range		0～95% (non condensing)								
Altitude		< 1500m.When>1500m,derating								
Noise level(from 1M distance)		<62dB	<63dB	<65dB	<68dB	<70dB		<73dB		

LAYOUT DE UPS Y MEDIDAS





CARTDRIDGE DE BATERÍAS



PANTALLA TOUCH DE 7"

