

EG133

**THREE PHASE 10-80KVA
THREE-SINGLE PHASE 10-20KVA**

EF133

THREE PHASE 60KVA : 120KVA

UNINTERRUPTIBLE POWER SUPPLIES - UPS TECHNICAL SPECIFICATION



Technical data and images may be subject to a change without notice

EG133 – UPS THREE PHASE ON LINE DOUBLE CONVERSION – SINE WAVE OUTPUT



The EG133 series is available from 10 KVA to 80 KVA power with dual-conversion digital control on-line technology; This series, for its versatility, is suitable for powering any electrical and electronic system even in critical situations, as well as being able to be use it as a 50/60Hz frequency converter or using power generators.

FEATURES

• DOUBLE CONVERSION UPS

A real DOUBLE CONVERSION UPS that will provide a perfect current, for complete high-quality protection for your sensitive devices, such as Network, Small Calculation Centres, Servers, Telecommunications, Healthcare/Hospital Appliances and industrial application in general

• OUTPUT POWER FACTOR ϕ 0.8

Comparing this UPS ON-LINE line with current marketing competition, we can say that GALAXY UPSs have the best output power factor 0,8 They offer high performance and efficiency for critical applications.

• DOUBLE INPUT

Galaxy1 33 has double input separated for line and By-Pass, for a higher flexibility in system configuration.

• ECO FUNCTION FOR THE ENERGY SAVING

Galaxy1 33 has ECO mode that improve the efficiency up to 98% to reduce the power consumption and the cost. In this mode the charges are powered directly from net. If network isn't available, the UPS provides constantly the power to the device connected without interruption.

• MANUAL BY-PASS FOR THE MAINTENANCE ON UPS

Manual By-Pass, ensures the lack of voltage inside of the UPS for maintenance, ensuring power to the connected equipment.

• REDUNDANT PARALLEL OPERATION

The EG133, can work in parallel redundant up to 3 units, which increases power capability, uninterrupted service safety.

• Power Factor Correction ON ALL PHASES

The PFC improves the quality of the absorbed current and increases the energy yield, with the consequent economics saving.

• 50/60 Hz FREQUENCY CONVERTER FUNCTION

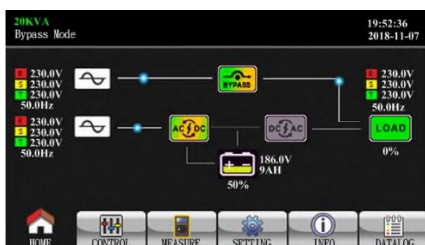
Blocks the output frequency at 50Hz or 60Hz regardless of the input frequency and delates the By-Pass

• Emergency Power Off (EPO) FUNCTION

This function serves to the shutdown of the UPS from the staff in case of fire and other situation of emergency.

• CHARGER POWER ADJUSTABLE

This function allows to use the correct power of the charger in base of the equipe batteries. Adjustable up to 12A for models from 10K to 40K and up to 24A for models from 60K to 80K



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EG133 – UPS THREE PHASE ON LINE DOUBLE CONVERSION – SINE WAVE OUTPUT

• BATTERY CHARGER STUDIED FOR OPTIMIZE THE PERFORMANCE OF BATTERIES

UPS EG133 are equipped with a 3 steps ice battery extensible battery charger to optimize battery performance. This feature extends the autonomy and optimizes the battery recharging time, and the battery charge extension is also essential for recharging the batteries with the highest power used to gain long autonomy.

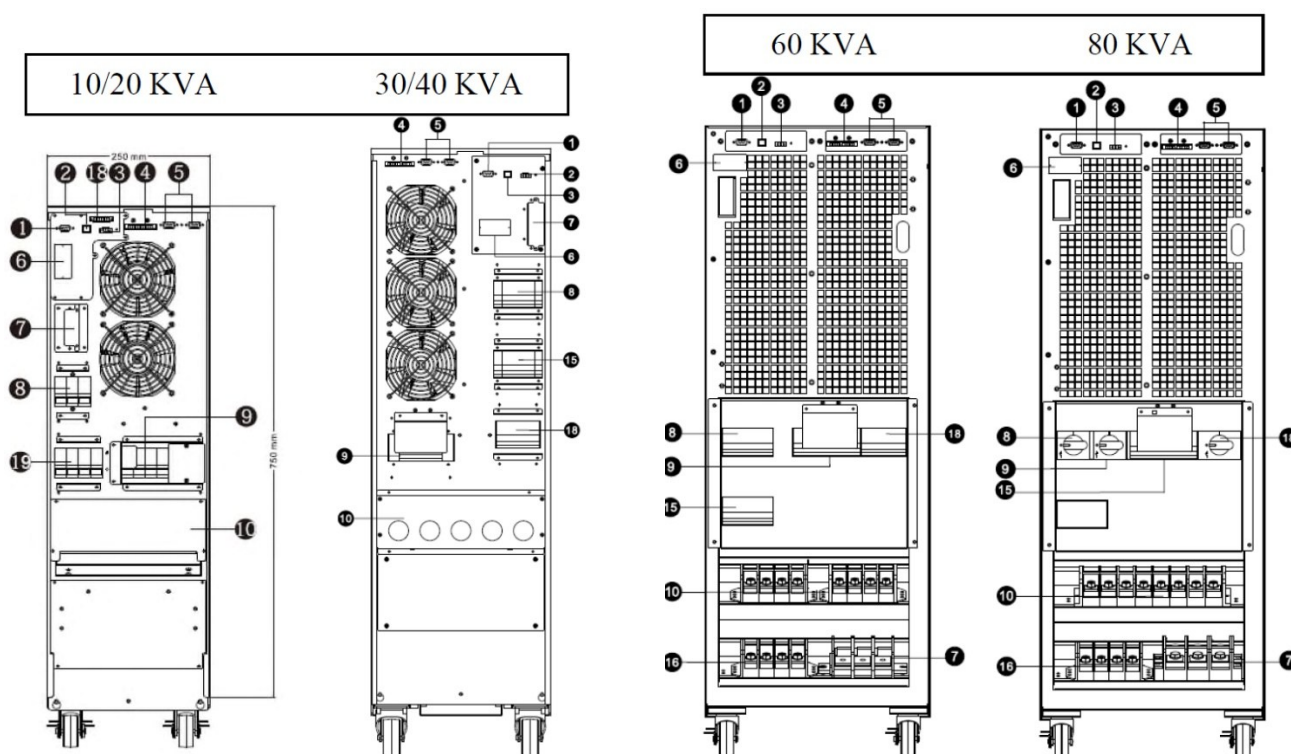
• BATTERY VOLTAGE ADJUSTABLE

UPS EG133 have the possibility to adjust the number of batteries to connect from 32 to 40, to have the best flexibility of use and compatibility. (not available on 10 KVA)

COMMUNICATION

Software for all operating system and network environments, Supervision and shutdown platform

24 MONTHS WARRANTY



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EG133 – UPS THREE PHASE ON LINE DOUBLE CONVERSION – SINE WAVE OUTPUT

EG133 10K/40K three phase / three phase ONLINE UPS DOUBLE CONVERSION				
MODEL	EG13310K (S)	EG13320K (S)	EG13330K (S)	EG13340K (S)
PHASE	Three phase input / three phase – single phase output		Three phase input / three phase output	
POWER	10 KVA / 10 KW	20 KVA / 20 KW	30 KVA / 30 KW	40 KVA / 40 KW
INPUT				
Nominal voltage	3 x 400Vac (Three phase with neutral on earth)			
Volt Range	305 - 478 VAC (F/F) @ 100% load 190 - 520 VAC (F/F) @ 50% load			
Range Frequency	46~54 Hz @ 50Hz / 56~64 Hz @ 60Hz			
Phases	Three phase with neutral + earth			
Power factor P.F.	≥ 0.99 @ 100% of load			
OUTPUT				
Output voltage	3 x 360* - 380 - 400 - 415V Three phase with neutral 1 x 208 – 220 – 230 – 240V single phase		3 x 360* - 380 - 400 - 415V Three phase with neutral	
Tolerance Volt (Batt. Mode)	± 1%			
Frequency (Range of synchronization)	46~54 Hz @ 50 Hz / 56~64 Hz @ 60 Hz			
Frequency (Range Batt. Mode)	50 Hz ± 0.1 Hz o 60 Hz ± 0.1 Hz			
Crest current Ratio	3:1			
Harmonic distortion	≤ 2 % THD (linear load) ≤ 5 % THD (non-linear load)			
Intervention time	Line to battery	Zero		
	Inverter to bypass	Zero		
Wave form (Batt. Mode)	PURE SINE WAVE			
Overload	Line mode	100%~110%: 60min; 110%~125%: 10min; 125%~150%:1min;>150% immediate cut-off		
	Battery mode	100%~110%: 60min; 110%~125%: 10min; 125%~150%:1min;>150% immediate cut-off		
EFFICIENCY				
With present line	95.5%			
With power from eco mode	98%			
With power from batteries	94.5%			
BATTERY				
Model Standard	Battery type	12 V / 9 AH		12 V / 7 AH
	Battery number	10+10	16+16	2 // 16+16
	Typical recharging time	9 ore 90% capacity		
	Charge current (max.)	1.0 A ~ 12.0 A adjustable		
	Charging Voltage	+/- 136.5 VDC +/- 10%	+/- 218 VDC +/- 10%	
Model (S) long run	Battery type	It depends on the capacity of the external batteries according to the required autonomy		
	numbers	20	32 ~ 40 adjustable	
	Charge current (max.)	1.0 A ~ 12.0 A adjustable		
	Charging Voltage	+/- 136.5 VDC +/- 10%	+/- 13.65 VDC +/- 10% x N (N = 16 ~ 20 batt)	
INDICATORS				
display	4.3" colour touch screen, state of UPS, charge level, battery level, Voltage input/output, Autonomy, battery, Fault condition			
DIMENSIONS AND WEIGHTS				
Standard Model	Dimensions, D x W x H (mm)	627 X 250 X 827		815 X 300 X 1000
	weight (kg)	126	141	230
(S) long run Model	Dimensions, D x W x H (mm)	627 X 250 X 827		815 X 300 X 1000
	weight (kg)	60	70	90
ENVIRONMENTAL DATA				
Operating humidity	0-90 % RH @ 0- 40°C (without condense)			
Noise	< 60dBA @ 1 m	< 65 ~ 70 dB @ 1 m		
INTERFACE				
USB	Windows family, Linux, Unix and MAC			
Optional SNMP	Power management per SNMP manager e web browser			

* When output voltage is adjusted to 3 x 360 VAC, output power will be reduced to 90%

(S) Identify long run models

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EG133 60K/80K three phase / three phase ONLINE UPS DOUBLE CONVERSION

MODEL		EG13360K (S)		EG13380K (S)	
PHASE		Three phase input / three phase output			
POWER		60 KVA / 60 KW		80 KVA / 80 KW	
INPUT					
Nominal Voltage		3 x 400Vac (Three phase with neutral on earth)			
Voltage Range		305 - 478 VAC (F/F) @ 100% load 190 - 520 VAC (F/F) @ 50% load			
Frequency Range		46~54 Hz @ 50Hz / 56~64 Hz @ 60Hz			
Phase		Three-phase with neutral + earth			
Power factor P.F.		≥ 0.99 @ 100% of charge			
OUTPUT					
Output voltage		3 x 360* - 380 - 400 - 415V Three phase with neutral			
Tolerance Volt (Batt. Mode)		± 1%			
Frequency (Range of synchro)		46~54 Hz @ 50 Hz / 56~64 Hz @ 60 Hz			
Frequency (Range Batt. Mode)		50 Hz ± 0.1 Hz o 60 Hz ± 0.1 Hz			
Crest current Ratio		3:1			
Harmonic distortion		≤ 2 % THD (linear load) ≤ 5 % THD (non-linear load)			
Intervention time	Line to battery	Zero			
	Inverter to bypass	Zero			
Wave form (Batt. Mode)					
Overcharge	Line mode	100%~110%: 60min; 110%~125%: 10min; 125%~150%:1min;>150% immediate cut-off			
	Battery mode	100%~110%: 60min; 110%~125%: 10min; 125%~150%:1min;>150% immediate cut-off			
EFFICIENCY					
With present line		95.5%			
With power from eco mode		98%			
With power from batteries		94.5%			
BATTERY					
(S) long run Model	Battery type	It depends on the capacity of the external batteries according to the required autonomy			
	numbers	32 ~ 40 adjustable			
	Charge current (max.)	2 A ~ 24 A adjustable			
	Charging Voltage	+/- 13.65 VDC +/- 10% x N (N = 16 ~ 20 batt)			
INDICATORS					
display		4.3" colour touch screen, state of UPS, charge level, battery level, Voltage input/output, Autonomy, battery, Fault condition			
DIMENSIONS AND WEIGHTS					
Dimensions, D x W x H (mm)		790 X 360 X 1010			
weight (kg)		112		117	
ENVIRONMENTAL DATA					
Operating humidity		0-90 % RH @ 0- 40°C (without condensation)			
Noise		< 70dBA @ 1 m		< 75 dB @ 1 m	
INTERFACE					
USB		Windows family, Linux, Unix and MAC			
Optional SNMP		Power management per SNMP manager e web browser			

* When output voltage is adjusted to 3 x 360 VAC, output power will be reduced to 90%

(S) Identify long run models

THREE-PHASE UNINTERRUPTIBLE POWER SUPPLIES EF133 SERIES DOUBLE CONVERSION – pure sine wave form



The EF133 series, available in powers from 60KVA to 120KVA, uses the On-Line double conversion technology with digital control; due to its versatility, this product is suitable for powering any electrical and electronic system even in critical situations, as well as the possibility of using it as a 50/60Hz frequency converter or in combination with the use of motor-driven power generators.

FEATURES

• UPS DOUBLE CONVERSION

A true DOUBLE CONVERSION UPS that will provide a perfect power supply, for complete high-quality protection for your sensitive devices, such as PC networks (Networks), small data centers, servers, telecommunications, healthcare/hospital equipment and industrial applications in general

• POWER OUTPUT FACTOR ϕ 1.0

Comparing this line of ON-LINE UPS with the competition on the current market, we can say that EF133 UPS have the best output Power Factor: 1.0. Offer high performance and efficiency for critical applications

• DUAL INPUT

EF133 has separate dual inputs for line and bypass, giving you more flexibility in system configuration

• ECO FUNCTION FOR ENERGY SAVING

The EF133 has ECO mode which improves efficiency by up to 98% to reduce energy consumption and costs. In this mode, loads are fed directly from the grid. In the event of a mains failure, the UPS constantly supplies power to the connected device without any interruption

• MANUAL BY-PASS FOR MAINTENANCE ON UPS

The manual By-Pass eliminates voltages inside the UPS for maintenance interventions, while ensuring continuity of power to the connected equipment.

• REDUNDANT PARALLEL OPERATION

The EF133s can work in redundant parallel up to 3 units, this increases power capacity and work safety without service interruption

• Power Factor Correction ON ALL PHASES

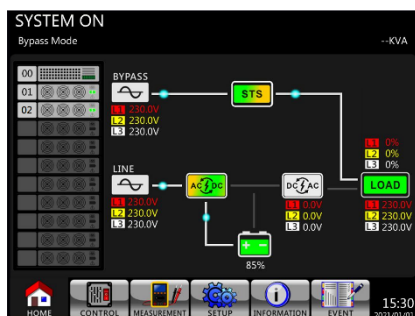
PFC improves the quality of the absorbed current and increases energy efficiency, resulting in cost savings

• 50/60 HZ FREQUENCY CONVERTER FUNCTION

Locks the output frequency to 50Hz or 60Hz regardless of the input frequency and eliminates the By-Pass

• FUNCTION (EPO) Emergency Power Off

This function is used to turn off the UPS by the personnel in charge in the event of a fire and other emergency situation.



THREE-PHASE UNINTERRUPTIBLE POWER SUPPLIES EF133 SERIES DOUBLE CONVERSION – pure sine wave form

- **ADJUSTABLE BATTERY CHARGING POWER**

This function allows you to use the correct power of the battery charger depending on the batteries fitted

- **BATTERY CHARGER DESIGNED TO OPTIMIZE BATTERY PERFORMANCE**

The EF133 UPS are equipped with an extendable 3-step battery charger, to optimize battery performance. This feature extends the autonomy and optimizes the battery charging time; In addition, the extension of the battery charger is essential for recharging batteries with higher power used to obtain long autonomy

- **ADJUSTABLE BATTERY VOLTAGE**

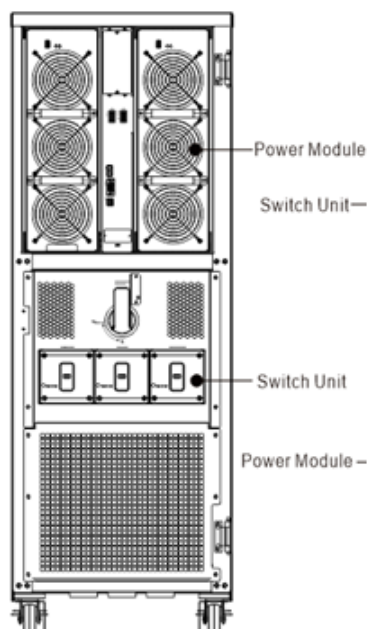
The EF133 UPS has the ability to adjust the number of batteries to be connected from 32 to 40, for the greatest possible flexibility of use and compatibility

COMMUNICATION

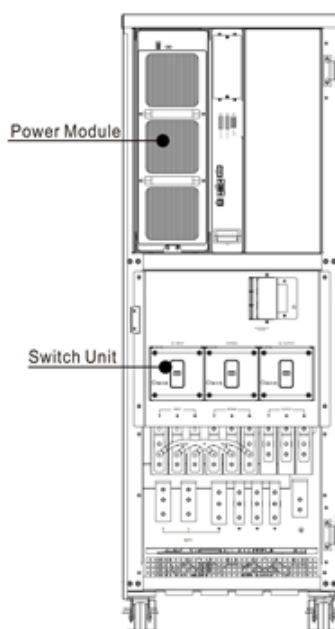
Software for all operating systems and operating environments

Network, Supervision and shutdown platform

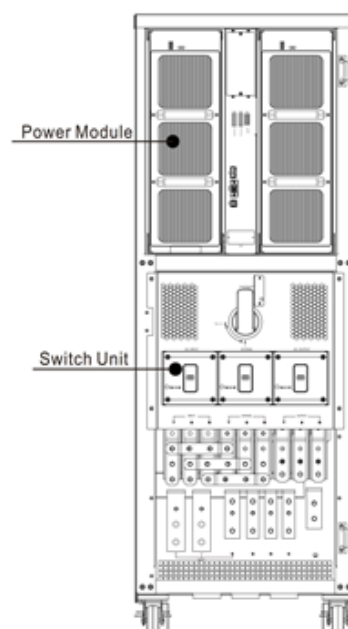
24-MONTH WARRANTY



80-120kVA



60/80kVA



100/120kVA

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EF133 60K/120K Three Phase / Three Phase ONLINE UPS DOUBLE CONVERSION									
MODEL		EF133060K (S)		EF133080K (S)		EF133100K (S)		EF133120K (S)	
PHASES		Three-phase input / three-phase output							
POWER		60 KVA / 60 KW		80 KVA / 80 KW		100 KVA / 100 KW		120 KVA / 120 KW	
PARALLELEABLE UNITS		Max. 4 UPS							
INPUT									
Nominal voltage		3 x 400Vac (Three-phase with neutral and ground)							
Volt Range		305 - 478 VAC (F/F) @ 100% of load 190 - 520 VAC (F/F) @ 50% of load							
Frequency Range		46~54 Hz @ 50Hz / 56~64 Hz @ 60Hz							
Phases		Three-phase with neutral and earth							
Power factor P.F.		< 0.99 @ 100% load							
Harmonic distortion (THDi).		≤ 4 % @ full linear load							
OUTPUT									
Output voltage		3 x 380 - 400 - 415V Three-phase with neutral							
Voltage regulation (Steady state)		≤ 1% Typical (Load Balanced) ≤ 2% Typical (non-balanced load)							
Frequency (Synchronization Range)		46~54 Hz @ 50 Hz / 56~64 Hz @ 60 Hz							
Frequency (Range Batt. Mode)		50 Hz ± 0.1 Hz o 60 Hz ± 0.1 Hz							
Crest Current Factor		3:1							
Harmonic distortion		≤ 2 % THD (linear load) ≤ 5 % THD (nonlinear load)							
Intervention time	Line to Battery	Zero							
	Da Inverter a Bypass	Zero							
Waveform (Batt. Mode)		PURE SINE							
Overload	Line Mode	100%~110%: 60min; 110%~125%: 10min; 125%~150%:1min; >150% immediate							
	Battery Mode	100%~110%: 60min; 110%~125%: 10min; 125%~150%:1min; >150% immediate							
EFFICIENCY									
With network present		95,5%							
With EComode operation		98,5%							
Battery operated		94,5%							
BYPASS									
Nominal voltage		3 x 380 - 400 - 415V Three-phase with neutral							
Voltage Range		-30% - +20%							
Frequency Range		46Hz - 54Hz or 56Hz - 64Hz							
Overload		100%~110%: 60min; 110%~125%: 10min; 125%~150%:1min; >150% immediate							
BATTERY									
Model(s) long range	Battery type	Depends on the capacity of the external batteries according to the required autonomy							
	Battery quantity	32~40 adjustable							
	Charging current (max.)	1.0A~24.0A adjustable				1.0A ~ 2360A adjustable			
	Charging voltage	+/- 13.65 VDC +/- 10% x N (N = 16 ~ 20 batt)							
REPORTS									
LCD Panel		7" Colour Touch, UPS Status, Load Level, Battery Level, Input/Output Voltage, Battery discharge time, Fault condition							
DIMENSIONS AND WEIGHTS									
Standard Model	Dimensions, D x W x H (mm)	1000 x 430 x 1200							
	Net weight (kg)	169		169		170		170	
ENVIRONMENTAL DATA									
Operating Humidity		0-90 % RH @ 0- 40°C (non-condensing)							
Altitude **		< 1000 Meters Normal Power							
Noise		< 65 ~ 75 dB @ 1 Metro							
INTERFACES									
Standard		USB / RS232 / EPO							
Optional		SNMP / RS485 Mod Bus / Dry Contacts							
ISTANDARD									
Safety		IEC/EN 62040-1							
EMC		IEC/EN 62040-2 Category C3							

Product specifications may be subject to change without notice

**If the UPS is installed or operated in a location at an altitude of more than 1000 m, the output power must be reduced by 1% every 100 m

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