UPS Datasheet

DALE POWER SOLUTIONS

HE700U-E

3:3 30-200kVA

FEATURES

- TOWER UPS
- ENGINEER INSTALLATION
- USB CONNECTIVITY
- 95.5% HIGH EFFICIENCY

HIGHLIGHTS

- Three level inverter topology, the efficiency can be up to 96%.
- Wide input voltage range 138-485Vac
- Unity output power factor meaning the UPS can supply power to 100% unbalanced load.
- Flexible battery configuration supporting 30-50 blocks per string
- Up to 6 units can operate in parallel with support for common battery arrangement.
- Power Walk In function, reducing the startup current impact to the system,and it can reduce the capacity of generator.
- LBS function can connect 2 independent groups of UPS systems to work in synchronisation, enhances the reliability of the system.

The HE700U-E series is ideal for protecting data centres and telecommunications systems, IT networks and critical systems in general, where the risks connected with poor energy supply can compromise the continuity of activities and services. The HE700U-E series is available in 50-60-80-100-120-160-200 kVA models with three-phase input and output and on-line double conversion technology in accordance with VFI-SS-111 classification (as set out in standard IEC EN 62040-3).

The HE700U-E is designed and built using state-of-the-art technology and components. It has a fully controlled IGBT rectifier to minimize the impact on the grid. It is controlled by a DSP (Digital Signal Processor) microprocessor, to provide maximum protection to the powered loads with no impact on downstream systems, and optimised energy savings.

HIGH EFFICIENCY

State-of-the-art three-level inverters are used across the power range (50-200kVA) to achieve an operating efficiency of 96%. This technology approximately halves (50%) the energy dissipated in a year by traditional UPS, with an efficiency level of 92%. Its exceptional performance makes it possible to recover the capital investment cost in less than three years of operation.

ZERO IMPACT SOURCE

The HE700U-E solves installation problems in systems where the power supply has limited power available, where the UPS is supported by a generator or where there are compatibility problems with loads that generate harmonic currents; the HE700U-E has a zero impact on its power source, whether this is the mains power supply or a generator:

- input current distortion < 3%
- input power factor ≥0.99
- power walk-in function that ensures progressive rectifier start up.

In addition, the HE700U-E plays a filtering and power factor correction role in the power network upstream of the UPS, as it eliminates harmonic components and reactive power generated by the power utilities.

MAXIMUM RELIABILITY AND AVAILABILITY

Distributed parallel configuration of up to 6 units per redundant (N+1) or power parallel system. The UPS system will continue to operate in parallel even if one of the connection cables is interrupted (Closed Loop).

FLEXIBILITY

With its flexible configuration, performance, accessories and options, The HE700U-E series is suitable for use in a wide range of applications:

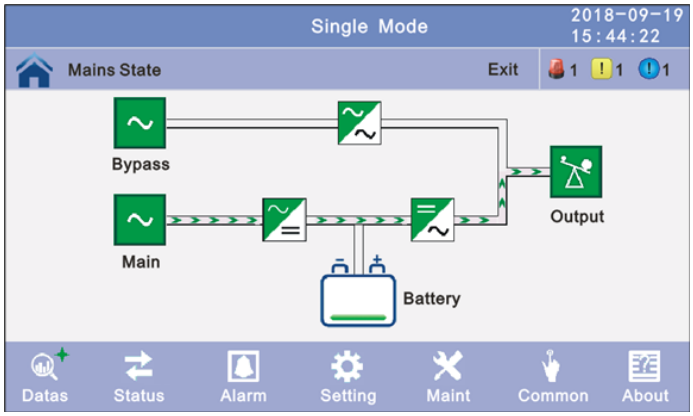
- Suitable for powering capacitive loads, such as blade servers, without any reduction in active power from 0.9 lead to 0.9 lag
- On-line, Eco, Smart Active and Stand By Off operating modes - compatible with centralised power systems (CSS) applications.
- Frequency converter mode
- Cold Start to switch on the UPS even when there is no mains power present
- High power battery chargers to optimise charge time in the event of long runtimes
- Optional Dual input mains power supply

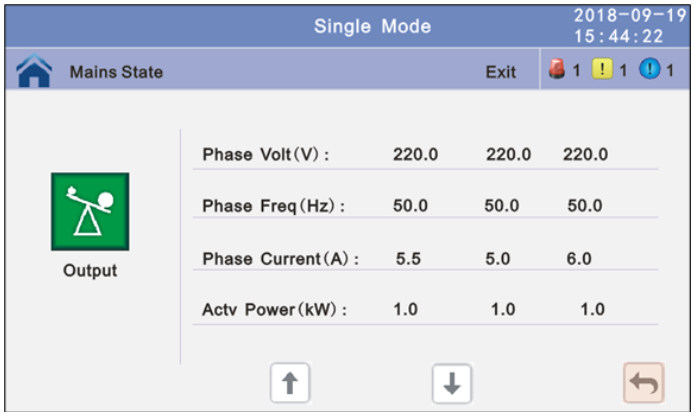
ADVANCED COMMUNICATIONS

The HE700U-E is equipped with a 7" Touchscreen display providing UPS information, measurements, operating states and alarms in different languages.

The default screen displays UPS status, graphically indicating the status of the various assemblies (rectifier, batteries, inverter, bypass).

- RS232, RS485 and USB ports
- 2 slots for the installation of optional communications accessories such as SNMP and Volt-Free Relay Cards
- REPO Remote Emergency Power Off for switching off the UPS via a remote emergency button
- Input for the connection of the auxiliary contact of an external manual bypass
- Input for synchronisation from an external source





MODEL	HE73330U-E	HE73340U-E
OVERVIEW		
Active power (kVA)	30kVA	40kVA
Active power (kW)	30kW	40kW
INPUT		
Nominal Voltage	380 / 400 / 415Vac (3Ph + N + PE)	
Operating voltage range	208-478VAC	323-478VAC
Operating frequency range	45Hz - 55Hz @ 50Hz / 54Hz - 66Hz @ 60Hz (Auto Sensing)	
Power Factor	≥0.99	
Harmonic Distortion (THD)	≤3% (100% non-linear load)	
Bypass Voltage Range	121 - 276Vac	
Generator Input	Supported	
OUTPUT		
Output voltage	380 / 400 / 415Vac (3Ph + N + PE)	
Voltage regulation	±1%	
Power Factor	1.0 (Unity)	
Output Frequency	Synchronised with Input in normal operation, 50Hz / 60Hz selectable on battery mode	
Crest Factor	3:1	
Harmonic Distortion (THD)	≤2% with Linear load, ≤5% with Non-Linear load	
Efficiency	>94.5%	
BATTERY		
DC Voltage	±192V / ±204V / ±216V / ±228V / ±240V	
Battery Quantity	32 / 34 / 36 / 38 / 40 Selectable	
Charge Current	Max. Current 20A	
SYSTEM FEATURES		
Transfer time	UPS to Battery - 0ms ; UPS to Bypass - 0ms	
Overload	Inverter Mode: Load≤110% - 60 Minutes, Load≤125% - 10 Minutes, Load≤150% - 1 Minute Bypass Mode: 135% overload Indefinite >1000% overload 100 ms	
Alarm	Overload, Mains Abnormal, UPS Fault, Battery Low etc.	
Backfeed	Supported	
Protections	Short Circuit, Overload, Overtemperature, Battery Low, Fan Fault	
Communications	USB, RS232, RS485, Parallel Port, REPO Port, LBS Port, Backfeed Port, Intelligent Slot, SNMP card (Optional) Relay card (Optional)	
ENVIRONMENT		
Operating temperature	0˚C - 40˚C	
Relative Humidity	0-95% (Non Condensing)	
Altitude	<1500m	
Storage Temperature	-25˚C - 55˚C (No battery)	
Noise Level	<55dB	<58dB
PHYSICAL		
Dimensions DxWxH (mm)	828x250x868	
Net weight (kg)	66kg	73kg
STANDARDS		
Safety	IEC/EN62040-1, IEC/EN60950-1	
EMC	IEC/EN62040-3, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8	

MODEL	HE73350U-E	HE73360U-E	HE73380U-E	HE733100U-E
OVERVIEW				
Active power (kVA)	50kVA	60kVA	80kVA	100kVA
Active power (kW)	50kW	60kW	80kW	100kW
INPUT				
Nominal Voltage	380 / 400 / 415Vac (3Ph + N + PE)			
Operating voltage range	138- 485Vac for 40% load; 305 - 485Vac for full-load			
Operating frequency range	40Hz - 70Hz			
Power Factor	≥0.99			
Harmonic Distortion (THD)	≤3% (100% non-linear load)			
Bypass Voltage Range	121 - 276Vac			
Generator Input	Supported			
OUTPUT				
Output voltage	380 / 400 / 415Vac (3Ph + N + PE)			
Voltage regulation	±1%			
Power Factor	1.0 (Unity)			
Output Frequency	Synchronised with Input in normal operation, 50Hz / 60Hz selectable on battery mode			
Crest Factor	3:1			
Harmonic Distortion (THD)	≤2% with Linear load, ≤4% with Non-Linear load			
Efficiency	96%			
BATTERY				
DC Voltage	±180V / ±192V / ±204V / ±216V / ±228V / ±240V / ±252V / ±264V / ±276V / ±288V / ±300V			
Battery Quantity	30 / 32 / 34 / 36 / 38 / 40 / 42 / 44 / 46 / 48 / 50 Selectable if using 30 blocks, output p.f derated to 0.8, If using 32-34 blocks, output p.f derated to 0.9			
Charge Current	Max. Current 20A		Max. Current 40A	
SYSTEM FEATURES				
Transfer time	UPS to Battery - 0ms ; UPS to Bypass - 0ms			
Overload	Inverter Mode: Load≤110% - 60 Minutes, Load≤125% - 10 Minutes, Load≤150% - 1 Minute Bypass Mode: 135% overload Indefinite >1000% overload 100 ms			
Alarm	Overload, Mains Abnormal, UPS Fault, Battery Low etc.			
Backfeed	Supported			
Protections	Short Circuit, Overload, Overtemperature, Battery Low, Fan Fault			
Communications	USB, RS232, RS485, Parallel Port, REPO Port, LBS Port, Backfeed Port, Intelligent Slot, SNMP card (Optional) Relay card (Optional)			
ENVIRONMENT				
Operating temperature	0˚C - 40˚C			
Relative Humidity	0-95% (Non Condensing)			
Altitude	<1500m			
Storage Temperature	-25˚C - 55˚C (No battery)			
Noise Level	≤55dB	≤58dB	≤60dB	≤62dB
PHYSICAL				
Dimensions DxWxH (mm)	828x250x868		850x442x1200	
Net weight (kg)	80	83	144	147
STANDARDS				
Safety	IEC/EN62040-1, IEC/EN60950-1			
EMC	IEC/EN62040-3, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8			

MODEL	HE733120U-E	HE733160U-E	HE733200U-E
OVERVIEW			
Active power (kVA)	120kVA	160kVA	200kVA
Active power (kW)	120kW	160kW	200kW
INPUT			
Nominal Voltage	380 / 400 / 415Vac (3Ph + N + PE)		
Operating voltage range	138- 485Vac for 40% load; 305 - 485Vac for full-load		
Operating frequency range	40Hz - 70Hz		
Power Factor	≥0.99		
Harmonic Distortion (THD)	≤3% (100% non-linear load)		
Bypass Voltage Range	121 - 276Vac		
Generator Input	Supported		
OUTPUT			
Output voltage	380 / 400 / 415Vac (3Ph + N + PE)		
Voltage regulation	±1%		
Power Factor	1.0 (Unity)		
Output Frequency	Synchronised with Input in normal operation, 50Hz / 60Hz selectable on battery mode		
Crest Factor	3:1		
Harmonic Distortion (THD)	≤2% with Linear load, ≤4% with Non-Linear load		
Efficiency	96%		
BATTERY			
DC Voltage	±180V / ±192V / ±204V / ±216V / ±228V / ±240V / ±252V / ±264V / ±276V / ±288V / ±300V		
Battery Quantity	30 / 32 / 34 / 36 / 38 / 40 / 42 / 44 / 46 / 48 / 50 Selectable if using 30 blocks, output p.f derated to 0.8, If using 32-34 blocks, output p.f derated to 0.9		
Charge Current	Max. Current 40A	Max. Current 60A	Max. Current 80A
SYSTEM FEATURES			
Transfer time	UPS to Battery - 0ms ; UPS to Bypass - 0ms		
Overload	Inverter Mode: Load≤110% - 60 Minutes, Load≤125% - 10 Minutes, Load≤150% - 1 Minute Bypass Mode: 135% overload Indefinite >1000% overload 100 ms		
Alarm	Overload, Mains Abnormal, UPS Fault, Battery Low etc.		
Backfeed	Supported		
Protections	Short Circuit, Overload, Overtemperature, Battery Low, Fan Fault		
Communications	USB, RS232, RS485, Parallel Port, REPO Port, LBS Port, Backfeed Port, Intelligent Slot, SNMP card (Optional) Relay card (Optional)		
ENVIRONMENT			
Operating temperature	0˚C - 40˚C		
Relative Humidity	0-95% (Non Condensing)		
Altitude	<1500m		
Storage Temperature	-25˚C - 55˚C (No battery)		
Noise Level	≤62dB	≤63dB	≤66dB
PHYSICAL			
Dimensions DxWxH (mm)	850x442x1200		850x600x1600
Net weight (kg)	152	200	280
STANDARDS			
Safety	IEC/EN62040-1, IEC/EN60950-1		
EMC	IEC/EN62040-3, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8		

DALE
POWER SOLUTIONS

Looking for something more bespoke?

With our own purpose-built, manufacturing facility, we're a one-stop shop for our customers providing design consultancy, manufacture and ongoing maintenance for our products.

What we do

- An end-to-end service - design, manufacture, install, commissioning and servicing
- Experts in customised UPS solutions
- In-house mechanical and electrical design capability
- Solutions for any environment, application and location
- Industry-specific solutions including WIMES specified and PADS Approved UPS
- In-house project management team to manage the development and delivery of your product for exactly when you need it.

Get in touch with our team today to discuss your requirements.

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Your power in safe hands