DP Electronics (Deutsche Power)

ELEKTRA SERIES

I.T GRADE ONLINE DOUBLE CONVERSION UPS
1KVA ~ 10KVA (1/1)

Mission Critical &
I.T Grade UPS

ONLINE DOUBLE CONVERSION UPS (Elektra Series)

Elektra Series (1/1, H.F) (1KVA~10KVA)

Elektra Series H.F range of On Line Double Conversion UPS's uses microprocessor control technology intended in particular for users of critical systems that require reliability and high performance at the same time (telecommunications equipment, critical industrial applications, etc.).

Elektra uses technology which delivers a perfect sinusoidal output current and provides effective protection of critical devices.

Elektra Series UPS's provides an upgraded power factor reaching 0.9 and 1 for single phase systems, therefore offer higher performance and improved efficiency for vital applications.

UPS status can be monitored at a glance on an intuitive LCD screen. Elektra Series offer redundant and capacity parallel UPS, the right solution for all applications requiring a perfect and uninterrupted power supply.

- Filtered, stabilised, reliable output voltage: on-line double-conversion technology (VFI in accordance with IEC 62040-3) with built-in EMI filters.
- High overload capability up to 150%
- Programmable auto-restart when mains power returns.
- Programmable cold-start from battery
- Power factor correction (UPS input power factor close to 1).
- Possibility to extend autonomy for several hours
- Fully configurable using UPS Tools configuration software.
- High level of battery reliability (automatic and manually-activated battery tests).
- High level of UPS reliability (total micro processor control).
- Low impact on the mains (sinusoidal absorption)
- Input protection with fuse which can be reset.

This is a green product that comply with the products pollution control management measures, the product under normal use, will not harm the environment and personals using it.

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Active Input Power Factor Correction (Pfc)

With digital control of active power factor correction technology, enables high input power factor 0.99 above as to avoid contamination of electrical network environment, saving energy and reducing system costs.

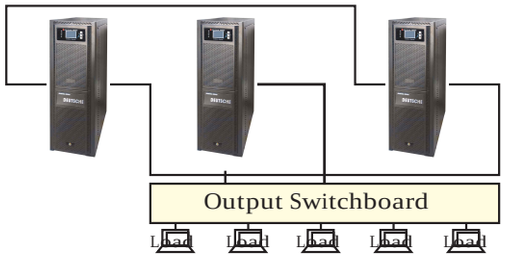
Compatible With Generators

Input voltage and frequency range is wide so can effectively works on generator sets and thus provide pure, safe and stable power.

Power Factor 0.9/1

Adapting the current most electrical devices type it enhances the ability for supporting load of the machine. 0.9 & 1 power factor.

Parallel Connectivity



Parallel Configuration

N+X is currently the most reliable power supply structure.

N represents the minimum required UPS number that the total load needs; X represents the redundant UPS number. The bigger the X is, the higher reliability of the power system is. For occasions where reliability is highly required, N+X is the optimal mode up to 3 of them can be connected in parallel to support output power sharing and power redundancy.

DSP Digital Control Technology

DSP advanced digital control technology UPS, increases performance, stability, quality and reliability.

Isolation Transformer (Optional)

New Concept and designing now allow for built in Isolation Transformer at Input or Output make the product reliable and ready for harsh environment.

High Quality Output Voltage

- Even with non-linear loads (IT loads with a crest factor of up to 3:1)
- High short circuit current on bypass
- High overload capacity: 150% by inverter (even with mains failure)
- Filtered, stabilised and reliable voltage (double conversion on-line technology (VFI compliant with EN62040-3), with filters for the suppression of atmospheric disturbances.
- Power factor correction: UPS input power factor close to 1 and sinusoidal current uptake.

Wide Input Voltage & Frequency Range

Very wide input voltage and frequency ranges, even in harsh electrical environments will work in stable mode,which reduces the number of battery discharge resulting in extended battery life.

Powerful Extensibility Features

Smart slot provides rich scalable features, USB can be selected, AS400 card, SNMP card, RS485 card and environmental monitoring card.

Standards

FOR 1/2/3 KVA UPS products comply with: EN50081-1 / EN55022 Class B - EN50082-1 / IEC801-2 LEVEL 4 IEC801-3 LEVEL 3 - IEC801-4 LEVEL 4 - IEC801-5 LEVEL 2 (1) 1000VA, 2000VA, and 3000VA (220/230V-version) products comply with: FCC Part 15 Class A - IEEE587 Class A(2) The products of 3000VA (220/230V-version) are Class A digital devices.

Safety : Comply with GB4943-2001, IEC62040-1 and CE requirements.
Industry Standard:
Comply with EN62040,YD/T 1095-2000 requirements.

FOR 6K/10K/15K UPS products comply with:EN62040-1-1 (Safety).Conducted Emission: EN50091-2: Limits for UPS which have a rated output current exceeding 25A (25~100A)

Radiated Emission: EN50091-2: Limits for UPS which have a rated output current exceeding 25A (25~100A)
EMSEN61000-4-2(ESD).....Level 4
EN61000-4-3(RS).....Level 3
EN61000-4-4(EFT).....Level 4
EN61000-4-5(Lightning Surge).....Level 4
EN61000-2-2 (Immunity to low frequency signal)

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TECHNICAL SPECIFICATION FOR SINGLE PHASE IN & SINGLE PHASE OUT

MODEL		ES101	ES102)	ES103	ES106	ES110
RANGE	KVA	1KVA	2KVA	3KVA	6KVA	10KVA
INPUT		Online double conversion pure sinewave				
Input system		Single Phase + Neutral + Ground				
Rated Voltage		200 / 208 / 220 / 230 / 240VAC				
Voltage Range		110VAC~300VAC			120VAC~285VAC	
Frequency		40~70Hz				
Power Factor		_ >0.99				
Voltage Range Bypass		175~290VAC ±15%				
OUTPUT						
Output system		Single Phase & Earth ground			Single Phase + Natural + Ground	
Rated Voltage		200 / 208 / 220 / 230 / 240VAC				
Power Factor		0.9/1.0				
Voltage Precision		±1%				
Frequency Normal		1. The output frequency synchronizes with the input frequency when the input frequency is in the range of 47~53Hz or 57~63 Hz				
Frequency Battery		50 / 60 ± 0.1%				
Overload Capacity		105%~110%:UPS transfer to bypass after 10 minutes when the utility is normal 110%~130%:UPS transfer to bypass after 5 minutes when the utility is normal 130%~150%:UPS transfer to bypass after 1 minutes when the utility is normal >150%:UPS transfer to bypass immediately when the utility is normal				
Transfer Time		0ms (Normal mode<------->Battery mode), <4ms (Normal mode <------> Bypass mode)				
Crest Factor		3:1				
BATTERY		SLA and LIFE Po4 Compatible				
Voltage		2x7/9Ah(S) / 24/36VDC(L)	4x7/9Ah(S) / 48/72VDC(L)	6x7/9Ah(S) /72/ 96VDC(L)	16x7/9Ah (S)/192/240VDC(L)	20x7Ah (S)/192/240VDC(L)
Typical Recharge Time		3~6 hours recover to 90% capacity				
Charging Amperes		1A /2A (S) ~ 12A Auto Sensing (L)				
GENERAL						
Short Circuit/Battery Low		System Freezes / Alarm and Switched Off				
Over Heat		Line Mode: Switch to bypass. Backup Mode: Shut down UPS immediately				
EPO		Shut Down Immediately				
Ambient Temp.		0°C~40°C				
Humidity		20%~90% (No condensation)				
Altitude		Lower than 1000m: no detracting: Over 1000m 1% detracting for every 100m rise				
Storage Temp.		-15°C~45°C				
Noise Level		<40dBA				
Communication Interface		Rs232, USB, (SNMP, Parallel card, Relay card and RJ45 are optional) MODBUS (optional)				
Protection		Over voltage / Low voltage, input circuit braker Short Circuit				
Audible & Visual Alarm		Line Failure, Battery low, Over Load, System Fault				
STANDRADS						
Safety		IEC/EN62040-1,IEC/EN60950-1				
EMC		IEC/EN62040-2,IEC6100-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8				
Efficiency		88~93% (AC Mode)----85 ~ 90% (Battery Mode) 94~96% (Eco-mode)				
EMI Filter		Filter Included				
Surge Capacity		600 Joules				
Harmonic DistortionTHDi		_ <3% (100% Linear load)				
Harmonic DistortionTHDv		_ <2% THD(Linear load) ~ <4% THD (NON Linear load)				
DIMENSION UPS						
Size WxDxH		144x400x215	191x468x337	220x481x438 without battery bank	220x481x876 with battery bank	
Weight		10.5	11	16	15.5	18
Input Output socket		IEC / Universal		Hardwire		

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Note: *For Long Backup Model Add "S", Rack Mount UPS "RT", Rack Version "R", Built-in Transformer "T". Example: ES101 (R) (RT) (S) (T).

**Parallel Units Are With Output PF=0.9

ONLINE DOUBLE CONVERSION UPS (Elektra Series)

TECHNICAL SPECIFICATION FOR SINGLE PHASE IN & SINGLE PHASE OUT

	ES101	ES101S	ES102	ES102S	ES103	ES103S	ES106	ES106S	ES110	ES110S
RANGE										
	1KVA		2KVA		3KVA		6KVA		10KVA	
DIMENSION RACK TYPE 1										
Size WxH xD	440x410x90									
DIMENSION RACK TYPE 2										
Size	440x86.5x410 (3U)		440x86.5x620 (3U)				443x131x580 (3U)		24U	
Weight Kg	12Kg		22Kg		26.6Kg		23Kg		25Kg	
Input Connection	IEC320-C14-10A		IEC320-C20-16A		IEC320-C20-16A		Hardwire			
Output Connection	IEC320 C13-10A X 6		IEC CL3-10A X 8		IEC320C13-10AX8&C19-16AX1		Hardwire & IEC320-c13-10A x 2			
External Battery Connection	Anderson like PowerPole Modular Connectors									
BATTERY BANK										
Model	RT-BR06007		RT-BR12007		RT-BR12009		RT-BR20007		RT-BR20009	
Battery Type	7Ah/9Ah		7Ah/9Ah		9Ah		7Ah		9Ah	
Batt. DC Voltage	36Vdc		72Vdc		72Vdc		192/216/240VDC			
Max.Quantity	6Pcs		12Pcs		12Pcs		16Pcs/18Pcs/20Pcs			
Max.Charge Current	2Amp.									
Parallel	6 Units can be parallel									
STANDRADS										
Seafty	IEC/EN62040-1,IEC/EN60950-1									
EMC	IEC/EN62040-2,IEC6100-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8									

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Note: For Rack Mount UPS only add "RTS" in the standard model name, Eg. (ES101RT) for 1Kva RT UPS.

Output Power Factor 1 is also available on request.

all technical specification as same as table 1

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