



ELEKTRA SERIES

LiFePO4 batteries compatible

**I.T GRADE ONLINE DOUBLE CONVERSION UPS
HIGH FREQUENCY
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.

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.

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

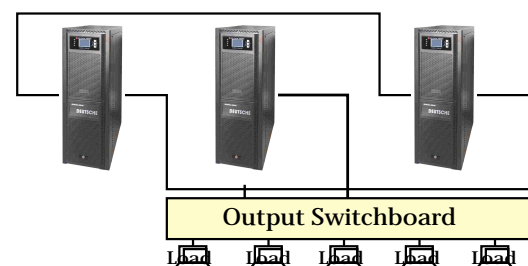
Adapting the current most electrical devices type it enhances the ability for supporting load of the machine. 0.9 & 1 power factor.



- 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.

- Parallel Configuration
- Powerful Extensibility Features
- DSP Digital Control Technology
- Isolation Transformer (Optional)
- High Quality Output Voltage
- Wide Input Voltage & Frequency Range

Parallel Connectivity



ONLINE DOUBLE CONVERSION UPS (Elektra Series)

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

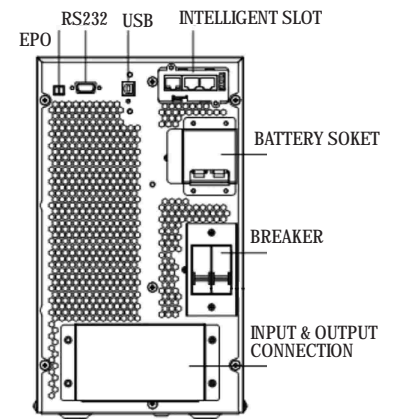
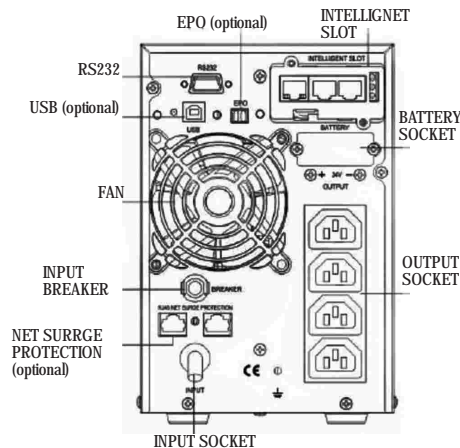
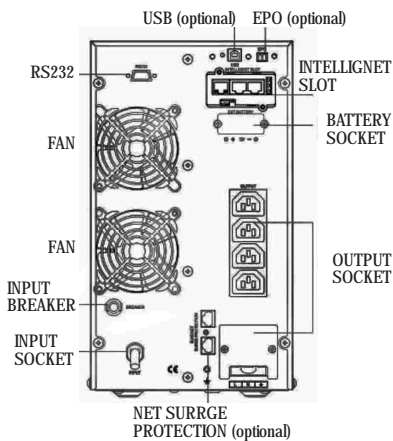
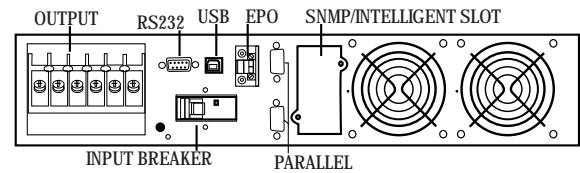
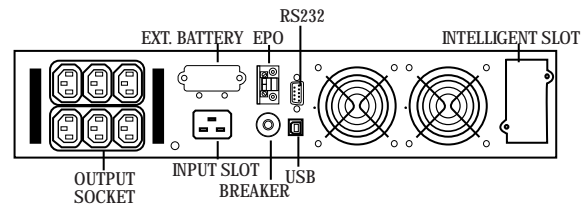
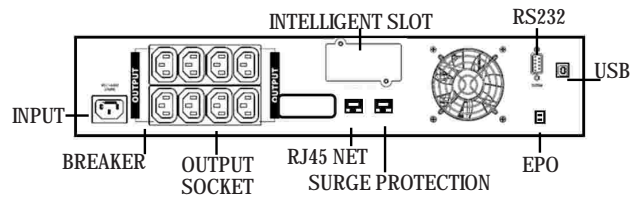
Smart slot provides rich scalable features, USB can be selected, AS400 card, SNMP card, RS485 card and environmental monitoring card.

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)



Benefits of Lithium-iron (LiFePo4)



Life Span

LiFePo4 battery life span is 10-15 years in nearly all conditions. Long life batteries reduce the burden and cost of down time and maintenance.



High Power Density

Lithium batteries have over 5 times the energy density and take up about 1/3 the space of a VRLA based solution that delivers the same power.



Charge and Recharge Efficiency

Lithium iron batteries can be charged/discharged over 1000 times versus 200-400 charges/discharges for standard VRLA batteries.



Smaller Footprint

A smaller footprint translates to reduced cooling requirements as well as about a two thirds reduction in weight. This offers the installation flexibility needed by many IT departments.



Heat Tolerant

Elektra Li-Series UPS units can withstand working temperatures up to 140 °F. Where VRLA battery life is reduced by half for every 10 °F over 71F, Li-Ion battery life is unaffected.



Cost Effective

LiFePo4 Batteries eliminate the cost of battery replacement, labor and maintenance due to its long life capability.

ONLINE DOUBLE CONVERSION UPS (Elektra Series)

TECHNICAL SPECIFICATION FOR SINGLE PHASE IN & SINGLE PHASE OUT

MODEL		ES101(S-H-RT)	ES102(S-H-RT)	ES103(S-H-RT)	ES106(S-H-RT)	ES110(S-H-RT)
RANGE	KVA	1KVA	2KVA	3KVA	6KVA	10KVA
INPUT		VFI-SS-111 in Accordance with IEC 62040-3, 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		0.9 / 1				
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		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 46~54Hz or 56~64Hz				
Frequency Battery		50 / 60 ± 0.1%				
Overload Capacity		105%~110%:UPS transfer to bypass after 10 minutes when the utility is normal (6~10Kva) 125~130%:UPS transfer to bypass after 1 minutes when the utility is normal >130%: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 & LIFEPO4 COMPITABLE				
Voltage		2x7/9Ah(S) / 24/36VDC	4x7/9Ah(S) / 48/72VDC	4X6x7/9Ah(S) 48/72/96VDC(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) ~6/12A 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 at 1 meter				
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				
STANDARDS						
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 / IEC 60664-1 1.2/50μS+8/20μS 6KV/3KV				
Harmonic DistortionTHDi		≤3% (100% Linear load)/IEC 62040-2				
Harmonic DistortionTHDv		≤2% THD(Linear load) ~ ≤4% THD (NON Linear load)				

*176@50%-100% load, 110@ 50%-0% load

**Derate to 75% of capacity when input voltage frequency out of range

DP Electronics (Deutsche Power Co. Limited) has a policy of continuous product development and improvement and therefore reserve the right to vary any information without prior notice.

**Parallel Units Are With Output PF=0.9

ONLINE DOUBLE CONVERSION UPS (Elektra Series)

BATTERY PACK & BATTERY CABINET DIMENSION & WEIGHT

UPS

Rating		1KVA	2KVA	3KVA	6KVA	10KVA
Tower	WxDxH	144x293x209	191x460x337 (H=720 for built-in bank 6/10 KVA)			
	Weight	9.1~12.2	10.9~20.4	10.9~24.4	10.9~65	
RT	WxDxH	440x440x86	440x440x86 (without battery) for BC* check chart			
	Weight	9.5~18.4	12~25			
RT LiFePo4 Built-in	WxDxH	440x325x86.5	440x500x86.5	440x640x86.5	N/A	
	Weight	10	16	23	N/A	

Lifepo4

Model	Voltage	Capacity AH	Dimensions	weight
SC24-50	2.56	50	442*450*86	18
SC24-100	25.6	100	442*450*86	24
SC248-50	51.2	50	442*450*130	32.5
SC48-100	51.2	100	442*450*130	41.5
SC72-50	76.8	50	442*600*130	53
SC72-100	76.8	100	442*630*130	71
SC96-50	102.4	50	442*750*130	82
SC96-100	102.4	100	442*780*130	104

Battery Pack

Model	RT-BR2007-XX	RT-BR2009-XX	RT-BR2012-XX
Product or Component Type	Replacement battery cartridge	Replacement battery cartridge	Replacement battery cartridge
Battery Type	Lead-Acid battery	Lead-Acid battery	Lead-Acid battery
Provided Equipment	Battery Pack	Battery Pack	Battery Pack
Battery Modules	1	1	1
Battery Type	12Vx07AH	12Vx09AH	12Vx12AH
Autonomy	Depends on Load	Depends on Load	Depends on Load
Device mounting	Rack & Floor	Rack & Floor	Rack & Floor
Battery Voltage	24/48/72/96/192/240VDC	24/48/72/96/192/240VDC	24/48/72/96/192/240VDC
Color	Black	Black	Black
Height	5.2"	5.2"	5.2"
Width	19"	19"	19"
Depth	22.2"	22.2"	22.2"
Net Weight	15KGS	12KGS	15KGS
Mounting Mode	Rack & Floor	Rack & Floor	Rack & Floor
Ambient Air Temperature for Operation	32...104 °F (0...40 °C)	32...104 °F (0...40 °C)	32...104 °F (0...40 °C)
Operating altitude	0...10000 ft.	0...10000 ft.	0...10000 ft.
Relative Humidity	0...95 % non-condensing	0...95 % non-condensing	0...95 % non-condensing
Ambient Air Temperature for Operation	5...113 °F (-15...45 °C)	5...113 °F (-15...45 °C)	5...113 °F (-15...45 °C)
Storage altitude	0...50000 ft. (0...15240 m)	0...50000 ft. (0...15240 m)	0...50000 ft. (0...15240 m)
Storage Relative Humidity	0...95 % non-condensing	0...95 % non-condensing	0...95 % non-condensing



Germany Head Office

DP electronics (Deutsche Power Co., Limited) Klon, Germany.
Phone: +49-221-26016266
Fax: +49-221-26016267
Email: enquiries@deutschepower.de

Hong Kong Office

RM 1701(057), 17/F, HeNan Building No90, Wan Chai, Hong Kong.
Phone: +86-755-82610239
Fax: +86-755-82610233
helenlong@deutschepower.de