

OL3DC™ UPS Series

E24™

P221E



Compact, Modular and Fully Featured Three Phase UPS from 10 to 80KVA per Module

The OL3DC™ UPS Series is the latest generation of UPS systems from E24 focused on delivering a features-rich, versatile three phase UPS to be compatible with almost every possible application in the range 10 to 80 KVA.

The OL3DC™ Series includes almost any possible feature conceivable: From parallel redundancy, digital screen, high output power factor, to DC start... The OL3DC Series is the right choice for almost any application requiring uninterrupted three phase power from 10KVA to 320KVA.

Advanced Features

Offering maximum power protection, the OL3DC™ UPS Series helps you use less energy and takes up less space, resulting in significant cost savings.

The OL3DC™ UPS Series exceptional design meets all modern requirements of building and operating energy efficient and environmentally friendly data-centers. The Maxi™ UPS Series employs transformerless double conversion UPS topology and is available from 10 to 40 kVA Modules that can be set in parallel to reach up to 160KVA.

The E24 Maxi™ UPS Series is designed with the flexibility to accommodate an increase in power requirements and to provide N+X parallel redundancy. Easy installation and maintenance from the basis of the core design for this standalone UPS system with front access to electrical connections and fully serviceable components.



OL3DC-UPS

Further Highlights

- Up to 94.5% efficiency in double conversion mode minimizes running costs
- Maximized output active power (1kVA = 0.9kW)
- Excellent input performance minimizes installation costs
- Power density up to 174 kW/ m² minimizes space requirements
- Full front access maximizes system serviceability
- Fully scalable up to 144KW
- Compact Size
- Small Foot Print
- Up to 94.5% AC-AC efficiency
- Parallel Redundancy up to 4 units
- Wide input voltage and frequency
- Unity Input Power factor
- Low Input Distortion
- Output Power Factor at 0.9
- ECO Mode for saving Energy
- Common Battery
- Programmable Battery Voltage
- Matching Battery Cabinet
- 3-level Intelligent Battery Charger with charge current adjustment
- Powerful charger up to 10A
- Versatile communication interface
- Superior Overload Capacity
- Programmable Control and Monitoring Software via RS232
- Emergency Power Off
- DC Start

Applications

The OL3D UPS series delivers true modular 3 phases power protection for small and medium sized loads from 10 to 160KVA. The OL3DC series are cost effective feature rich modules in 10, 15, 20, 30, 40, 60 and 80KVA versions that can be connected in parallel redundant configuration (up to 4 parallel units) to build power protection solutions that can grow gradually with your load requirements.

Compact and light, the units can be connected to separate or common battery banks where charging can be programmed at will.

The OL3D Series is based on E24 unique and proven decentralized Parallel Architecture where each UPS module contains all the hardware and software required for full system operation. They share no common components, and as a result system uptime is maximized.

With a footprint per unit of only 0.20 m², the OL3D takes up less floor space than alternative UPS solutions. The UPS provides all the benefits of a modular UPS solution with a maximum power density of 174 kW / m².

Cost effective and Fully Featured at the same time

The OL3D™ UPS Series is designed to offer all the possible features while also offering value. Its 3-level intelligent charger maximized battery life time lowering cost of ownership. The OL3D Series is the ideal choice for applications requiring reliability, flexibility and value.

Features

Besides power performance, the next criteria of choice is UPS Features. The OL3DC™ Series offers all the features you need: DSP Technology, Wide Input Voltage and Frequency Range, Intelligent Battery Management, N+X parallel redundancy, Strong Overload capability, Power Walk In, Generator Mode, Full Self protection circuitry, EPO and Comprehensive communication options.

N+X parallel redundancy

Up to 4 units of OL3DC™ UPS can be positioned in parallel in N+X parallel redundancy mode to reach up to 160KVA.

DSP Technology

The OL3DC™ UPS is built on advance Digital Signal Processing technology in order to provide high performance steady and accurate operation over its lifetime.

Wide Input Voltage and Frequency range

The OL3DC™ UPS is capable to operate steadily under a wide input voltage range. The UPS can handle 380/400/415Vac with variations of -45% and + 20%) minimizing the use of battery in a manner to extend their life.

Frequency range is 45 to 65Hz making it compatible with both 50Hz and 60Hz grids.

Intelligent Battery Management

The OL3DC™ UPS includes an intelligent battery charger that includes a float/boost charger and a dynamic cut-off level that reduces battery maintenance and improves battery life.

Optional Output Isolation Transformer

The OL3DC™ UPS may be fit with an optional output Isolation Transformer for further protection and compliance to required specifications.

Battery Discharge Time Prediction

The OL3DC™ UPS is capable of predicting the remaining time on battery under a current load level allowing you to make accurate decision making.

Flexible Battery Configuration

The OL3DC™ UPS is programmable to operate on a variable number of batteries (refer to specifications for details).

Strong Overload Capability

The OL3DC™ UPS is capable of handling overloads of 110% / 125% / 150% for 60min / 10min / 1 min respectively.

Power Walk In

Power Walk In function allows the rectifier of each unit to be turned on progressively and in sequences in order to avoid the sudden load on generators.

Generator Mode

The OL3DC™ Series can be programmed to supply the load with power from both the battery and generator simultaneously.

Emergency Power Off (EPO)

The OL3DC™ Series is equipped with a concave red EPO button with transparent cover built into the control panel for emergency power off.

Comprehensive Communication Options

Communications options include: RS232, RS485, Modbus (option), SNMP adaptor (Option), Dry Contacts.

Technical Specifications

MODEL	OL3DC-10KI	OL3DC-15KI	OL3DC-20KI	OL3DC-30KI	OL3DC-40KI	OL3DC-60KI	OL3DC-80KI
Capacity (VA/Watts)	10K / 9K	15K / 13.5K	20K / 18K	30K / 27K	40K / 36K	60K / 36K	80K / 36K
INPUT							
Nominal Voltage	380/400/415Vac,(3Ph+N+PE)						
Operating Voltage Range	208~478Vac						
Operating Frequency Range	45-55Hz at 50Hz/54-66Hz (auto sensing)						
Power Factor	≥0.99						
Harmonic Distortion (THDi)	≤2% (100% non-linear load)						
Bypass Voltage Range	220Vac Max. Voltage: +25% (optional +10%, +15%, +20%) 230Vac Max. Voltage: +20% (optional +10%, +15%) 240Vac Max. Voltage: +15% (optional +10%) Min. Voltage: -45% (optional -20%, -30%) Frequency Synchronize Tracing Range: ±10%						
Generator Input	Support						
OUTPUT							
Output Voltage	380/400/415Vac (3Ph+N+PE)						
Voltage Regulation	±1%						
Power Factor	0.9						
Output Frequency	Line Mode: Synchronize with Input; when Input Frequency>±10%(±1%/ ±2%/ ±4%/ ±5% Optional), Output (50/60 ±0.1)Hz Battery Mode: (50/60 ±0.1)Hz						
Crest Factor	3:1						
Harmonic Distortion (THD)	≤2% with Linear Load ≤5% with Non Linear Load						
Efficiency	≥93.5%				≥94.5%		
SYSTEM FEATURES							
Transfer Time	Utility to Battery: 0ms; Utility to bypass: 0ms						
Overload	Line Mode	Load≤110%: Last 60min, ≤125%:Last 10min, ≤150% Last 1min, ≥150% to bypass					
	Bat. Mode	Load≤110%: Last 10min, ≤125%: Last 1min, ≤150%: Last10s, ≥150% shutdown UPS immediately					
	Bypass Mode	Breaker 20A	Breaker 32A	Breaker 40A	Breaker 63A	Breaker 80A	
Alarm	Overload, Utility Abnormal, UPS Fault, Battery Low, etc.						
Protection	Short Circuit, Overload, Over Temperature, Battery Low, Fan Fault Alarm						
Communication	USB, RS485, Parallel Port, Coupler Dry Contact, Intelligent Slot, SNMP Card (optional), Relay Card (optional)						
ENVIRONMENTAL							
Operating Temperature	0°C~40°C						
Storage Temperature	-25°C~55°C (no battery)						
Humidity Range	0~95% (non condensing)						
Altitude	<1500m. De-rating when >1500m						
Noise Level	<55dB				<58dB		
STANDARDS							
Safety	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						

MODEL (*)	WEIGHT(Kg)	DIMENSION(MM)	DC Voltage (V)	Built-in Charger(A)	Internal Batteries
OL3DC-10KI	42	250*868*828	+/- 96 , +/- 108, +/- 120	10	Up to 20x12V/9AH
OL3DC-OI-10KI	112				
OL3DC-15KI	45				
OL3DC-OI-15KI	125				
OL3DC-20KI	45				
OL3DC-OI-20KI	135				
OL3DC-30KI	66				
OL3DC-OI-30KI	155				
OL3DC-40KI	73				
OL3DC-OI-40KI	175				
OL3DC-60KI	118	360 x 868 x 828	+/- 192 , +/- 204, +/- 216 , +/-228, +/-240	20	NA
OL3DC-80KI	122				NA

(*) OL3DC and OL3DC-OI have the same specifications but OL3DC-OI includes an output isolation transformer

MATCHING BATTERY PACK			
MODEL	WEIGHT	DIMENSION(MM)	BUILT-IN
OL3DC-BCAB 1/2/3	243Kgs	250*868*828	up to 80 x 12V/9AH



SH-UPS™



OL3C-UPS™



OL3MC-UPS™



E24 offers a wide range of UPS Systems, batteries and related accessories from 600VA up to 10MVA.

E24 Offers a Comprehensive and Modular Range Of Products For Building Easy, Flexible & Evolutive Solutions in Energy Generation, Conversion and Storage

E24 products dynamically evolve with the lifestyle and workstyle of its customers while easing the installation process.

E24 products are conceived in modules allowing for an easy upgrade to adjust with the needs of the customers.

Being modular and easy to connect E24 products allow installers to easily configure the required modules for an optimal solution while offering easy upgrade options.

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Ordering Information

Ref Number	Description
OL3DC-X10KI	On-Line UPS, DSP Compact Type, 10KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50/60 Hz, 10A Charging (without batteries)
OL3DC-OI-10KI	On-Line UPS with Output Isolation Transformer, DSP Compact Type, 10KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-OI-10KD	On-Line UPS,colored Display, DSP, Compact Type, 10KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-X15KI	On-Line UPS, DSP Compact Type, 15KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50/60 Hz, 10A Charging (without batteries)
OL3DC-OI-15KI	On-Line UPS with Output Isolation Transformer, DSP Compact Type, 15KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-OI-15KD	On-Line UPS,colored Display, DSP, Compact Type, 15KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-X20KI	On-Line UPS, DSP Compact Type, 20KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50/60 Hz, 10A Charging (without batteries)
OL3DC-OI-20KI	On-Line UPS with Output Isolation Transformer, DSP Compact Type, 20KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-OI-20KD	On-Line UPS,colored Display, DSP, Compact Type, 20KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-X30KI	On-Line UPS, DSP Compact Type, 30KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50/60 Hz, 10A Charging (without batteries)
OL3DC-OI-30KI	On-Line UPS with Output Isolation Transformer, DSP Compact Type, 30KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-OI-30KD	On-Line UPS,colored Display, DSP, Compact Type, 30KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-X40KI	On-Line UPS, DSP Compact Type, 40KVA, +/-16/18/20B, 3ph. Input, 3 ph. Output, 380 V, 50/60 Hz, 10A Charging (without batteries)
OL3DC-OI-40KI	On-Line UPS with Output Isolation Transformer, DSP Compact Type, 40KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-OI-40KD	On-Line UPS,colored Display, DSP, Compact Type, 40KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-BAT-C	Battery cabinet for YDC series for 20/40/60/80 pcs each 7 or 9 Ah
OL3DC-OI-50KD	On-Line UPS,colored Display, DSP, Compact Type, 50KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-OI-60KD	On-Line UPS,colored Display, DSP, Compact Type, 60KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-OI-80KD	On-Line UPS,colored Display, DSP, Compact Type, 80KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-OI-100KD	On-Line UPS,colored Display, DSP, Compact Type,100KVA, +/-10B, 3ph. Input, 3 ph. Output, 208 V, 60 Hz, (without batteries)
OL3DC-X60KI	On-Line UPS, DSP Compact Type, 60KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-X80KI	On-Line UPS, DSP Compact Type, 80KVA, +/-8/9/10B, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-E-50KI	On-Line UPS, DSP Compact Type, 50KVA, +/- 180V TO 300 Vdc 30 to 50 batt, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-E-60KI	On-Line UPS, DSP Compact Type, 60KVA, +/- 180V TO 300 Vdc 30 to 50 batt, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-E-80KI	On-Line UPS, DSP Compact Type, 80KVA, +/- 180V TO 300 Vdc 30 to 50 batt, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-E-100KI	On-Line UPS, DSP Compact Type, 100KVA, +/- 180V TO 300 Vdc 30 to 50 batt, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-E-120KI	On-Line UPS, DSP Compact Type, 120KVA, +/- 180V TO 300 Vdc 30 to 50 batt, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-E-150KI	On-Line UPS, DSP Compact Type, 150KVA, +/- 180V TO 300 Vdc 30 to 50 batt, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-E-200KI	On-Line UPS, DSP Compact Type, 200KVA, +/- 180V TO 300 Vdc 30 to 50 batt, 3ph. Input, 3 ph. Output, 380 V, 50 Hz (without batteries)
OL3DC-BCAB10	Empty Battery Cabinet for OL3DC-10K Series for up to 80 x 12V / 9Ah batteries
OL3DC-BCAB20	Empty Battery Cabinet for OL3DC 10/20/30 , 63A Breaker, (up to 80 x 12V / 9Ah)
OL3DC-BCAB30	Empty Battery Cabinet for OL3DC 10/20/30 , 125A Breaker, (up to 80 x 12V / 9Ah)
OL3DC-BCAB40	Empty Battery Cabinet for OL3DC 40 , 125A Breaker, (up to 80 x 12V / 9Ah)
OL3DC-SNMP	Internal SNMP Adaptor for On-Line UPS, DSP Compact Type
OL3DC-DRY	Dry Contact board for On-Line UPS, DSP Compact Type

E24®

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ISO 9001:2015



QUALITY STANDARD

