# Keor Compact

## THREE-PHASE UPS





# SUSTAINABILITY

#### Corporate Social Responsibility

Green management and sustainable supply chain: these concepts are part of Legrand's Corporate Social Responsibility, which is the company's commitment to drawing up a strategy and implementing it with practical actions aimed at socially responsible behaviour towards everything around it, such as people, things and environment.

CSR involves the management of human resources, the organization and division of labour and the management of natural resources. CSR aims to assess the impact that the company's actions and decisions have internally, but also externally, on the stakeholders and the environment.

#### **BUSINESS ECOSYSTEM**

or how Legrand interacts ethically with the whole ecosystem of its activities.

#### **PEOPLE**

or how Legrand engages with all of its employees and stakeholders.

#### **ENVIRONMENT**

or how Legrand intends to limit the Group's environmental impact.



#### Circular economy

We are committed to creating a system that involves all stakeholders to share values, objectives and actions in order to control and reduce the environmental impact of all our economic and production processes, reduce waste and environmental impact and transform what would once have been defined as «waste» into new resources. Controlling these aspects has an impact on the entire life cycle of the product, starting from the design of new concepts and new specifications for the materials the UPS is made of; this is possible through responsible design and procurement processes (so-called «green procurement»), with a strong focus on research and the use of innovative materials from the circular economy and alternative raw materials. When a product ends its life, all these materials can become high value-added resources that can be used in other production cycles.



### Digitalization

New information technologies allow us to reduce the use of several paper documents in favor of the digital format: in this way the information is always and everywhere accessible from a PC or smartphone and at the same time we can avoid the felling of many trees.

Digitization also becomes an important driver of the circular economy, since it allows the use of tools for performance data analysis and preventive diagnostics, both useful for optimizing the life cycle and durability of the product.

#### **Efficiency**

Our R&D team is constantly working on the development of increasingly efficient UPSs that allow high and incremental performance with minimum energy dissipation; with regard to CO<sub>2</sub> emissions, we are implementing processes and products that represent an improvement in the percentage of carbon footprint compared to the past.

But efficiency is not only synonymous with high performance.

For us, efficiency also means ecodesign: this implies that the UPS is designed to be easily repaired, maintained and it's easy to separate its components.

This means increasing the durability of our UPSs and the possibility of reusing and recycling them at the end of their life.







#### L'EPD/PEP

For each product family we draw up an EPD (Environmental Product Declaration) or PEP (Profil Environnemental Produit) in line with ISO 14025: it is a declaration that is a sort of environmental photograph of the product.

The EPD is drawn up according to the concept of Life Cycle Assessment: it examines the environmental impact of a product throughout its life cycle, from the development of product specifications to the choice of materials to be used and the end-of-life destination of the product itself.

UPS

# Keor Compact

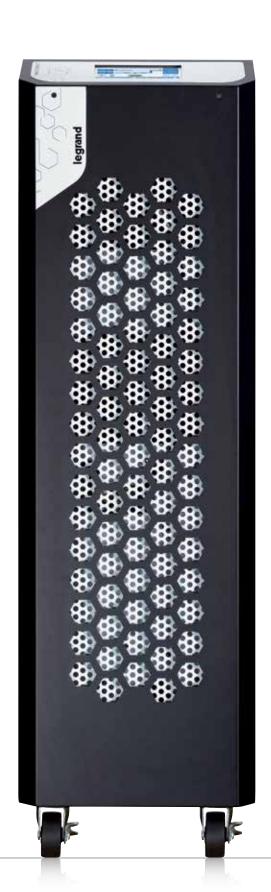
### THREE-PHASE UPS

**Keor** Compact is a three phase online double conversion and transformerless UPS. Ideal for all typical low-power three-phase applications such as offices, commercial and tertiary, **Keor** Compact is characterized by small size and ease of use.

The range is available in 3 different power ratings: 10-15-20 kVA.







#### **Easy Installation**

With only 0.22 m² footprint for both UPS and its battery cabinet, wheels, small dimensions, easy connection and start up, **Keor Compact** is perfect for comfortable installation even in small technical room.

Reduces the floor space and simplifies the installation.

Equipped with wheels that make it easy to move.

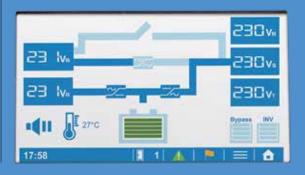
0.22 m<sup>2</sup> (Keor Compact 10 - 15 - 20 kVA)





### User friendly

This UPS can be easily controlled and managed thanks to its Colour Touch Screen with intuitive graphics and navigation windows.



# **Keor** Compact

#### Redundancy & high availability

Parallel connection for redundant configurations makes the **Keor Compact** able to guarantee high levels of availability for critical applications.

#### Easy autonomy selection

**Keor** Compact gives typical standard autonomy with internal batteries.

Just connecting external battery cabinets, longer autonomy can be easily obtained.

#### Embedded backfeed

**Keor** Compact is equipped, as standard, with internal Backfeed protection, so no need to implement external protection in upstream panel.





#### Communication features

- Standard RS232
- ModBus
- Programmable dry contacts
- EPO & GenSet and Remote Monitoring Panel
- USB Converter (optional)
- Internal SNMP solutions (optional)



#### **Keor** Compact 10-15-20 kVA

#### Conventional UPS - Online three-phase double conversion VFI



#### Characteristics

- Power factor correction PFC (input PF>0.99)
- User friendly touch screen display 4.3"
- · Wide input voltage range and frequency
- Dual input
- Cold start
- Embedded backfeed protection
- Smart communication ports and SNMP management capability
- Parallel operation up to 6 units
- Built-in battery for standard autonomy
  Extended back up time with battery cabinet
- Overload & short circuit protection
- · Powerful built-in charger
- · RS232, GenSet, dry contacts,
- Compact size, light weight & low noise
  Smallest footprint: 0.22m²
- Wheels for easy movement

Item	UPS Keor	Compact		
	Nominal power (kVA)	Active power (kW)	Dimensions H x W x D (mm)	Net weight (kg)
3 111 00	10	9	260 x 850 x 890	74
3 111 01	10	9	260 x 850 x 890	149
3 111 02	15	13.5	260 x 850 x 890	76
3 111 03	15	13.5	260 x 850 x 890	166
3 111 04	20	18	260 x 850 x 890	76
3 111 05	20	18	260 x 850 x 890	176

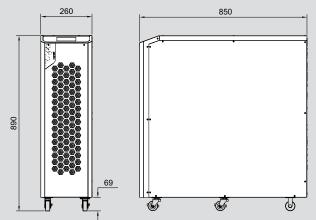
Accessories	
Description	Dimensions W x D x H (mm)
3 110 94 Keor Compact battery cabinet empty 2	260 x 850 x 890
3 110 95 Keor Compact battery cabinet 10 kVA 2	260 x 850 x 890
3 110 96 Keor Compact battery cabinet 15 kVA 2	260 x 850 x 890
3 110 97 Keor Compact battery cabinet 20 kVA 2	260 x 850 x 890
3 110 98 Parallel kit	
3 110 99 RS-485 MODBUS card	
3 111 06 Dry contact card	
3 110 86 Battery temperature probe	

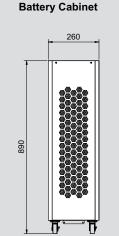
#### **Autonomy Table**

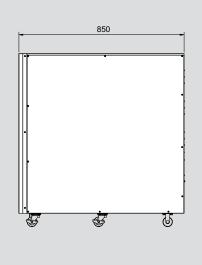
		, <b>,</b>		
		Power (kVA)	Autonomy (min)	No. Battery Cabinets*
	311101	10	11	0
	311101 + 1 x 311095	10	50	1
	311101 + 2 x 311095	10	87	2
	311101 + 3 x 311095	10	126	3
	311103	15	7	0
	311103 + 1 x 311096	15	40	1
	311103 + 2 x 311096	15	67	2
	311103 + 3 x 311096	15	99	3
	311105	20	6	0
	311105 + 1 x 311097	20	28	1
	311105 + 2 x 311097	20	57	2
	311105 + 3 x 311097	20	81	3

<sup>\* 0 =</sup> No Battery Cabinets

## Dimensions (mm) Keor Compact 10 - 15 - 20 kVA 260 850







eneral specifications	Keor Compact 10	Keor Compact 15	Keor Compact 20
Nominal Power (kVA)	10	15	20
Active Power (kW)	9	13.5	18
Technology	On-line double conversion VFI-SS-111		-111
Waveform	Sinusoidal		
UPS architecture	Stand Alone or Distributed Parallel up to 6 units		
Efficiency	up to 95%		
Efficiency in ECO mode		up to 98.5%	
nput			
Input Voltage		400V (3Ph+N+PE)	
Input Voltage Range (Ph-Ph)	±20°	% @100% load, -40/+20% @509	% load
Input Frequency		40-70 Hz	
THD of input current		< 3% at full load	
Dual Input		Yes	
Compatibility with Diesel Generators		Yes	
Input power factor		> 0.99	
Output			
Output Voltage		380, 400, 415V (3Ph+N+PE)	
Output voltage tolerance		± 1% (Static load)	
Output frequency (nominal)	50 /60 Hz (Adjustable from front panel)		
Output frequency tolerance	$\pm$ 1 Hz / $\pm$ 3 Hz adjustable synch Mains for Bypass; $\pm$ 0.01% Free Run		
Crest Factor	3:1		
THD of output voltage	< 2% v	vith linear load, < 5% with distor	rted load
Output power factor	0.9		
Overload Capability	60 min	at 110%, 10 min at 125%; 1 min	at 150%
By-pass	Builti	n Automatic and Mainteinance E	Bypass
Batteries			
Cold Start		Yes	
Battery type		VRLA	
Internal batteries		Yes	
Communication and management			
Control Panel Display		Colour Touch Screen 4.3"	
Communication ports	RS232, Genset, 4 progra	mmable relay contacts, RS485 (	(optional), net interface slot
BackFeed protection	Embedded		
Audible alarm	Acoustic alarms and warnings		
Emergency Power Off (EPO)	Yes		
Remote Management	Availble		
Physical characteristics			
Ventilation	F	forced with FANs from front to re	ear
Max Heat Disipation (100% load W, battery in recharge)	600	900	1300
Color	RAL 9017 (F	Black-cabinet) RAI 9003 (White-	control panel)

Physical characteristics			
Ventilation	Forced with FANs from front to rear		
Max Heat Disipation (100% load W, battery in recharge)	600	900	1300
Color	RAL 9017 (Black-cabinet) RAL9003 (White-control panel)		
Dimensions W x D x H (mm)	260 x 850 x 890		
Weight without Batteries (kg)	74	76	76
Weight with Batteries (kg)	149	166	176
Environmental conditions			
Operating temperature (°C)	0 - 40°C (Recommended temperature for longer Battery Life: 20-25°C)		
Relative humidity range (%)	20-95% (Non-Condensing)		
Protection degree	IP20		
Acoustic Noise at 1m (dBA)	< 52		
Conformity and sustainability			
Reference product standards	IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3		
Estimated content of circular economy derived materials	≃ 39%		
Recyclability rate calculated using the method described in technical report IEC/TR 62635*		≃ <b>71%</b>	

<sup>\*</sup>This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.



# **CUSTOMER SERVICES**



#### Reliable

Directly present in more than 70 countries and servicing its products in more than 150 countries worldwide, a team of qualified engineers is available to support your UPS system to ensure power quality and availability to the most critical loads.

#### **Excellent**

Legrand's competitive edge lies in its ability to provide high value-added UPS systems and services for both end users and business partners.

For Legrand, creating value means coming up with solutions for lower energy consumption, but also integrating product design into the overall development process. With around 200 000 catalogue items, the Group also provides all products required for electrical and digital building installations, particularly as integrated systems, finding solutions to fit everyone's needs.

#### Tailor-made

Legrand offers a complete range of specific solutions and services to meet customer requirements:

- Technical pre-sales support at the project design stage
- Factory acceptance test
- Supervision of installation, testing and commissioning, site acceptance test
- Operator training
- Site audit
- Warranty extension
- Annual maintenance contract
- Fast intervention on emergency call

**UPS** 



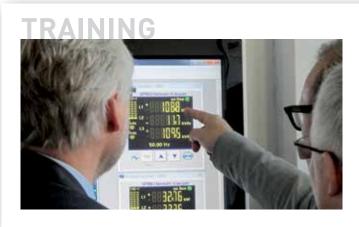
#### SITE INSPECTION, INSTALLATION SUPERVISION.

We perform a comprehensive check of the UPS environment to ensure safety and fault-free operation.

Our technical experts give manufacturer's recommendations to the site engineer or electrical contractors, and supervise the UPS installation before load power-up.

#### SITE TEST, COMMISSIONING.

Our Service Engineers conduct rigorous site tests and full setting-up of the UPS system before going live. They also perform site acceptance tests according to your requirements. Commissioning operations for all UPS are carried out by qualified engineers to guarantee seamless start-up. After the final handing over of the UPS system, a Test and Commissioning report is delivered to you.



We offer on-site training to ensure your equipment's safe and efficient operation.

Troubleshooting courses are also available in our plants for intensive hands-on practice on UPS training equipment.



#### **PREVENTIVE MAINTENANCE**

Electronic equipment and power systems, such as UPS, contain life-limited components and parts that must be replaced according to the manufacturer's specifications.

To ensure optimal performance and to protect your critical

To ensure optimal performance and to protect your critical application from potential downtime, it is crucial to perform

preventive maintenance operations on a regular basis and replace parts when needed. Our Service Contracts include cleaning, IR thermography, measurements, functional tests, event log and power quality analysis, battery health check, hardware and software upgrades, and technical reports. A Preventive Maintenance Plan is one of the most cost-effective actions that can preserve your initial investment and ensure your business continuity.

#### CORRECTIVE MAINTENANCE, EMERGENCY CALL

In the event of an Emergency Call, our worldwide service network, with engineers and spare-parts stocks strategically located as close as possible to your site, guarantees a fast intervention time with 24/7/365 assistance.

After connecting his laptop to your UPS, very powerful diagnostic software helps our engineer to identify the fault, thus ensuring short MTTR (Mean Time To Repair).

Corrective actions are performed such as part replacement, adjustments and upgrades to return the UPS system back to normal operation.







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