

**Civil Aviation Regulatory commission (CARC) wants to purchase Single-Phase Uninterruptable Power Supply (UPS) with the following Technical Specifications:**

**1. General requirements:**

- Supplier shall **supply only** the following single-phase UPS systems to Amman Civil Airport:

Location	QTY	Capacity	3ph/1ph
Amman Civil Airport	4	6KVA	Single phase
Amman Civil Airport	4	2KVA	Single phase
Amman Civil Airport	6	3KVA	Single phase

- UPS systems shall operate as an active power control system, working in conjunction with the building electrical system to provide power conditioning and on-line power protection for the critical loads.
- UPS shall be online double conversion type.
- UPS shall contain a maintenance bypass switch and a display.
- UPS units shall have a battery self-test feature.
- All UPS systems shall comply with international standards IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3, EN 62040-4.
- Supplier should hold a high-quality maintenance and operation technical training course internally, and externally (optional) (Factory Training/ Certified Training center). The training shall cover but not restricted to: UPS theory, location of subassemblies, safety, battery considerations, maintenance troubleshooting, UPS operation and repair of the UPS system.
- Supplier shall provide syllabus for internal training, detailing training courses.
- After successful completion of the training course, the manufacturer shall issue official training certificates to the participants.
- Two separate offers (technical and financial includes sales tax) should be submitted.
- Supplier shall provide optional financial offer includes external training.
- Battery calculation shall be attached within the technical offer.

## 2. Specification compliance sheet of UPS (6KVA):

General			Comply (Yes / No)	Comments
1	UPS Capacity	6 KVA		
2	Input / Output connection	1ph/1ph		
3	Type Topologies	True online double conversion technology		
4	Efficiency in double conversion mode	≥ Up to 93% in Online mode, 97% in ECO mode		
5	Inverter / rectifier topology	Transformer – free, IGBT with PWM		
6	Brand	Well-known brand, West Europe		
7	Control Switch (MCB/Fuse/Isolator)	<ul style="list-style-type: none"> <li>• Input ON/OFF</li> <li>• Output ON/OFF</li> <li>• Battery</li> <li>• Maintenance Bypass Switch</li> </ul>		
8	Protections	UPS shall trip on following faults: <ul style="list-style-type: none"> <li>- Input AC Under/Over voltage</li> <li>- Output overload / Short circuit</li> <li>- DC Under/Over voltage</li> <li>- High temperature</li> </ul>		
<b>Input</b>				
9	Rated voltage	220-240 VAC		
10	Frequency	50 HZ		
11	Input Frequency Range	45Hz-66Hz,		
12	Power factor	> 0.99 at full load		
<b>Output</b>				
13	Nominal voltage	220VAC with additional selectable range not exceed 240VAC		
14	Voltage Regulation	±2%		
15	Frequency	50 HZ		
16	Power factor	≥ 0.9		
17	(THDU%)	<3%		

18	Overload capability / Inverter	125% 1 minute; 150% 10 seconds		
19	Low harmonic distortion of the output With nonlinear loads	< 3%		
20	Low harmonic distortion of the output with linear loads.	<1%		
<b>Battery</b>				
21	Type	Maintenance-free VRLA batteries (AGM)		
22	Soft start capability	Yes		
23	Backup time	8-10 min. @ full load		
24	Date of production	≤ 6 Months		
25	Lifetime	≥ 5 years		
26	Battery Technology	Smart Advanced Battery Management Technology		
27	Battery test	Automatic battery test		
<b>Connectivity and function extensions</b>				
28	Front panel	Graphical LCD		
29	SNMP Card	For Remote Monitoring		
<b>Indications &amp; Alarms</b>				
30	Alarms (Audible for Trouble/fault)	<ul style="list-style-type: none"> <li>- Mains fail</li> <li>- Charger fail</li> <li>- DC Under/Over voltage</li> <li>- Battery low/ discharging</li> <li>- Output overload</li> <li>- High temperature.</li> </ul>		
<b>Metering</b>				
31	LCD Display	<ul style="list-style-type: none"> <li>- Input/Mains voltage</li> <li>- Ups output voltage</li> <li>- UPS output current</li> <li>- Battery voltage</li> <li>- Charging/ discharging current.</li> </ul>		
<b>Environmental</b>				
32	Operating temperature range	0 °C to 40 °C		
33	Audible noise at (1) meter	≤ 55 (dBA) at normal mode		

<b>Standards and certifications</b>				
<b>34</b>	<b>Safety</b>	IEC/EN 62040-1 / EN50091-1-1		
<b>35</b>	<b>Electromagnetic compatibility (EMC)</b>	IEC/EN 62040-2 / EN50091-2		
<b>36</b>	<b>Approvals</b>	CE, CB report (TUV)		
<b>37</b>	<b>Performances and testing rules</b>	IEC/EN 62040-3 / EN50091-3		
<b>38</b>	<b>Environmental aspects</b>	EN 62040-4		
<b>39</b>	<b>WARRANTY</b>	Two years		
<b>40</b>	<b>The supplier should be a certified service center (provide the certificates)</b>			
<b>41</b>	<b>The supplier should have a trained engineer on the same UPS (provide the certificates)</b>			
<b>42</b>	<b>The supplier should be distributor for the UPS Brand in Jordan (provide the certificates)</b>			
<b>43</b>	<b>The supplier should Provide a List of References in Jordan (related to UPS installation)</b>			

### 3. Specification compliance sheet of 2KVA UPS:

General			Comply (Yes / No)	Comments
1	UPS Capacity	2 KVA		
2	Input / Output connection	1ph/1ph		
3	Type Topologies	True online double conversion technology		
4	Efficiency in double conversion mode	≥ Up to 93% in Online mode, 97% in ECO mode		
5	Inverter / rectifier topology	Transformer – free, IGBT with PWM		
6	Brand	Well-known brand, West Europe		
7	Control Switch (MCB/Fuse/Isolator)	<ul style="list-style-type: none"> <li>• Input ON/OFF</li> <li>• Output ON/OFF</li> <li>• Battery</li> <li>• Maintenance Bypass Switch</li> </ul>		
8	Protections	UPS shall trip on following faults: <ul style="list-style-type: none"> <li>- Input AC Under/Over voltage</li> <li>- Output overload / Short circuit</li> <li>- DC Under/Over voltage</li> <li>- High temperature</li> </ul>		
<b>Input</b>				
9	Rated voltage	220-240 VAC		
10	Frequency	50 HZ		
11	Input Frequency Range	45Hz-66Hz,		
12	Power factor	> 0.99 at full load		
<b>Output</b>				
13	Nominal voltage	220VAC with additional selectable range not exceed 240VAC		
14	Voltage Regulation	±2%		
15	Frequency	50 HZ		
16	Power factor	≥ 0.9		
17	(THDU%)	<3%		

18	Overload capability / Inverter	125% 1 minute; 150% 10 seconds		
19	Low harmonic distortion of the output With nonlinear loads	< 3%		
20	Low harmonic distortion of the output with linear loads.	<1%		
<b>Battery</b>				
21	Type	Maintenance-free VRLA batteries (AGM)		
22	Soft start capability	Yes		
23	Backup time	8-10 min. @ full load		
24	Date of production	≤ 6 Months		
25	Lifetime	≥ 5 years		
26	Battery Technology	Smart Advanced Battery Management Technology		
27	Battery test	Automatic battery test		
<b>Connectivity and function extensions</b>				
28	Front panel	Graphical LCD		
29	SNMP Card	For Remote Monitoring		
<b>Indications &amp; Alarms</b>				
30	Alarms (Audible for Trouble/fault)	<ul style="list-style-type: none"> <li>- Mains fail</li> <li>- Charger fail</li> <li>- DC Under/Over voltage</li> <li>- Battery low/ discharging</li> <li>- Output overload</li> <li>- High temperature.</li> </ul>		
<b>Metering</b>				
31	LCD Display	<ul style="list-style-type: none"> <li>- Input/Mains voltage</li> <li>- Ups output voltage</li> <li>- UPS output current</li> <li>- Battery voltage</li> <li>- Charging/ discharging current.</li> </ul>		
<b>Environmental</b>				
32	Operating temperature range	0 °C to 40 °C		
33	Audible noise at (1) meter	≤ 55 (dBA) at normal mode		

<b>Standards and certifications</b>				
<b>34</b>	<b>Safety</b>	IEC/EN 62040-1 / EN50091-1-1		
<b>35</b>	<b>Electromagnetic compatibility (EMC)</b>	IEC/EN 62040-2 / EN50091-2		
<b>36</b>	<b>Approvals</b>	CE, CB report (TUV)		
<b>37</b>	<b>Performances and testing rules</b>	IEC/EN 62040-3 / EN50091-3		
<b>38</b>	<b>Environmental aspects</b>	EN 62040-4		
<b>39</b>	<b>WARRANTY</b>	Two years		
<b>40</b>	<b>The supplier should be a certified service center (provide the certificates)</b>			
<b>41</b>	<b>The supplier should have a trained engineer on the same UPS (provide the certificates)</b>			
<b>42</b>	<b>The supplier should be distributor for the UPS Brand in Jordan (provide the certificates)</b>			
<b>43</b>	<b>The supplier should Provide a List of References in Jordan (related to UPS installation)</b>			

#### 4. Specification compliance sheet of (3KVA) UPS:

General			Comply (Yes / No)	Comments
1	UPS Capacity	3 KVA		
2	Input / Output connection	1ph/1ph		
3	Type Topologies	True online double conversion technology		
4	Efficiency in double conversion mode	≥ Up to 93% in Online mode, 97% in ECO mode		
5	Inverter / rectifier topology	Transformer – free, IGBT with PWM		
6	Brand	Well-known brand, West Europe		
7	Control Switch (MCB/Fuse/Isolator)	<ul style="list-style-type: none"> <li>• Input ON/OFF</li> <li>• Output ON/OFF</li> <li>• Battery</li> <li>• Maintenance Bypass Switch</li> </ul>		
8	Protections	UPS shall trip on following faults: <ul style="list-style-type: none"> <li>- Input AC Under/Over voltage</li> <li>- Output overload / Short circuit</li> <li>- DC Under/Over voltage</li> <li>- High temperature</li> </ul>		
<b>Input</b>				
9	Rated voltage	220-240 VAC		
10	Frequency	50 HZ		
11	Input Frequency Range	45Hz-66Hz,		
12	Power factor	> 0.99 at full load		
<b>Output</b>				
13	Nominal voltage	220VAC with additional selectable range not exceed 240VAC		
14	Voltage Regulation	±2%		
15	Frequency	50 HZ		
16	Power factor	≥ 0.9		
17	(THDU%)	<3%		

18	Overload capability / Inverter	125% 1 minute; 150% 10 seconds		
19	Low harmonic distortion of the output With nonlinear loads	< 3%		
20	Low harmonic distortion of the output with linear loads.	<1%		
<b>Battery</b>				
21	Type	Maintenance-free VRLA batteries (AGM)		
22	Soft start capability	Yes		
23	Backup time	8-10 min. @ full load		
24	Date of production	≤ 6 Months		
25	Lifetime	≥ 5 years		
26	Battery Technology	Smart Advanced Battery Management Technology		
27	Battery test	Automatic battery test		
<b>Connectivity and function extensions</b>				
28	Front panel	Graphical LCD		
29	SNMP Card	For Remote Monitoring		
<b>Indications &amp; Alarms</b>				
30	Alarms (Audible for Trouble/fault)	<ul style="list-style-type: none"> <li>- Mains fail</li> <li>- Charger fail</li> <li>- DC Under/Over voltage</li> <li>- Battery low/ discharging</li> <li>- Output overload</li> <li>- High temperature.</li> </ul>		
<b>Metering</b>				
31	LCD Display	<ul style="list-style-type: none"> <li>- Input/Mains voltage</li> <li>- Ups output voltage</li> <li>- UPS output current</li> <li>- Battery voltage</li> <li>- Charging/ discharging current.</li> </ul>		
<b>Environmental</b>				
32	Operating temperature range	0 °C to 40 °C		
33	Audible noise at (1) meter	≤ 55 (dBA) at normal mode		

<b>Standards and certifications</b>				
<b>34</b>	<b>Safety</b>	IEC/EN 62040-1 / EN50091-1-1		
<b>35</b>	<b>Electromagnetic compatibility (EMC)</b>	IEC/EN 62040-2 / EN50091-2		
<b>36</b>	<b>Approvals</b>	CE, CB report (TUV)		
<b>37</b>	<b>Performances and testing rules</b>	IEC/EN 62040-3 / EN50091-3		
<b>38</b>	<b>Environmental aspects</b>	EN 62040-4		
<b>39</b>	<b>WARRANTY</b>	Two years		
<b>40</b>	<b>The supplier should be a certified service center (provide the certificates)</b>			
<b>41</b>	<b>The supplier should have a trained engineer on the same UPS (provide the certificates)</b>			
<b>42</b>	<b>The supplier should be distributor for the UPS Brand in Jordan (provide the certificates)</b>			
<b>43</b>	<b>The supplier should Provide a List of References in Jordan (related to UPS installation)</b>			

## **Civil Aviation Regulatory commission (CARC) wants to purchase Three-Phase Uninterruptable Power Supply (UPS) with the following Technical Specifications:**

### **1. General requirements:**

- Supplier shall **deliver, install, operate, and commission** three-phase-UPS systems in different locations specified by CARC.

Location	QTY	Capacity	3ph/1ph	Existing Battery
Queen Alia International Airport	1	30 KVA	Three phase UPS	12V-26Ah QTY= 60 (one string)
Amman Civil Airport	1	40KVA	Three phase UPS	-
Queen Alia International Airport	1	10 KVA	Three phase UPS	-

- Supplier shall remove the existing UPS systems with batteries and transfer them to CARC warehouse.
- UPS systems shall operate as an active power control system, working in conjunction with the building electrical system to provide power conditioning and on-line power protection for the critical loads.
- Site survey is required for 40KVA UPS, the supplier shall visit the location to identify and evaluate the work prior to submitting his offer. Work will be according to the operations affording hours, which shall be into consideration by the contractor.
- All related documents should be submitted to CARC such as material data sheets, priced spare parts list, maintenance manuals, operations manuals, and project's Action plan.
- The offer includes all electrical and safety work.
- UPS shall be online double conversion type.
- UPS shall contain a maintenance bypass switch and a display.
- All UPS units shall have a battery self-test feature.
- **(30KVA and 40KVA)** UPS shall offer minimum internal **N+1 redundancy** by providing minimum an extra power module to ensure redundancy.
- UPS shall support installation with 4-wire (L1, L2, L3, N, PE) WYE.
- UPS shall be using a **modular design (for 30KVA and 40 KVA)** in which power functions, static bypass, and system control are embedded in modules for optimal MTTR.
- 40 KVA UPS shall be supplied with external cooling system;
  1. The system shall be designed to control temperature and **humidity** conditions in rooms containing electronic equipment, with good insulation and vapour barrier. The manufacturer shall design and furnish all equipment to be fully compatible with heat dissipation requirements of the room.
  2. The humidification capacity shall be no less than **4** kg/h.
  3. Humidifier shall be self-contained, steam-generating type, factory piped and wired.
- All UPS systems shall comply with international standards IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3, EN 62040-4.
- Supplier should hold a high-quality maintenance and operation technical training course internally, and externally (optional) (Factory Training/ Certified Training center). The training shall cover but **not restricted to**: UPS theory, location of subassemblies, safety, battery considerations, maintenance troubleshooting, UPS operation and repair of the UPS system.

- Supplier shall provide syllabus for internal training, detailing training courses.
- After successful completion of the training course, the manufacturer shall issue official training certificates to the participants.
- Two separate offers (technical and financial includes sales tax) should be submitted.
- Supplier shall provide optional financial offer includes external training.
- Battery calculation shall be attached within the technical offer (10KVA & 40KVA UPS).

#### 4. Specification compliance sheet of (30KVA) UPS without battery:

General			Comply (Yes / No)	Comments
1	UPS Capacity	30 KVA		
2	Input / Output connection	3ph/3ph		
3	Type Topologies	True online double conversion technology		
4	System architecture	Modular design		
5	Efficiency in double conversion mode	≥ Up to 93% in Online mode, 97% in ECO mode		
6	Inverter / rectifier topology	Transformer – free, IGBT with PWM		
7	Brand	Well-known brand, West Europe		
8	Origin	West Europe preferred		
9	Related Electrical works	Distribution Board, CBs, Cables..		
10	Control Switch (MCB/Fuse/Isolator)	<ul style="list-style-type: none"> <li>• Input ON/OFF</li> <li>• Output ON/OFF</li> <li>• Battery</li> <li>• Maintenance Bypass Switch</li> </ul>		
11	Protections	UPS shall trip on following faults: <ul style="list-style-type: none"> <li>- Input AC Under/Over voltage</li> <li>- Output overload / Short circuit</li> <li>- DC Under/Over voltage</li> <li>- High temperature</li> </ul>		
Input				
12	Rated voltage	400V 3-phase (adjustable for 380V or 415V 3-phase)		
13	Frequency	50 HZ		
14	Input Frequency Range	45Hz-66Hz,		
15	Power factor	> 0.99 at full load		
Output				
16	Nominal voltage	400V 3-phase (adjustable for 380V or 415V 3-phase)		
17	Voltage Regulation	±2%		
18	Frequency	50 HZ		
19	Power factor	≥ 0.9		
20	(THDU%)	<3%		

21	Overload capability / Inverter	110%: ≥05 Minutes 125%: ≥01 Minutes 150%: ≥10 Seconds >150% : 100ms		
<b>Connectivity and function extensions</b>				
22	Front panel	Graphical LCD		
23	SNMP Card	For Remote Monitoring		
<b>Indications &amp; Alarms</b>				
24	Alarms (Audible for Trouble/fault)	<ul style="list-style-type: none"> <li>- Mains fail</li> <li>- Charger fail</li> <li>- DC Under/Over voltage</li> <li>- Battery low/ discharging</li> <li>- Output overload</li> <li>- High temperature.</li> </ul>		
<b>Metering</b>				
25	LCD Display	<ul style="list-style-type: none"> <li>- Input/Mains voltage</li> <li>- Ups output voltage</li> <li>- UPS output current</li> <li>- Battery voltage</li> <li>- Charging/ discharging current.</li> </ul>		
<b>Environmental</b>				
26	Operating temperature range	0 °C to 40 °C		
27	Audible noise at (1) meter	≤ 55 (dBA) at normal mode		
<b>Standards and certifications</b>				
28	Safety	IEC/EN 62040-1 / EN50091-1-1		
29	Electromagnetic compatibility (EMC)	IEC/EN 62040-2 / EN50091-2		
30	Approvals	CE, CB report (TUV)		
31	Performances and testing rules	IEC/EN 62040-3 / EN50091-3		
32	Environmental aspects	EN 62040-4		
33	WARRANTY	Two years		
34	The supplier should be a certified service center (provide the certificates)			
35	The supplier should have a trained engineer on the same UPS (provide the certificates)			
36	The supplier should be distributor for the UPS Brand in Jordan (provide the certificates)			
37	The supplier should Provide a List of References in Jordan (related to UPS installation)			

### 5. Specification compliance sheet of (40KVA) UPS with battery:

General			Comply (Yes / No)	Comments
1	UPS Capacity	40KVA		
2	Input / Output connection	3ph/3ph		
3	Type Topologies	True online double conversion technology		
4	System architecture	Modular design		
5	Efficiency in double conversion mode	≥ Up to 93% in Online mode, 97% in ECO mode		
6	Inverter / rectifier topology	Transformer – free, IGBT with PWM		
7	Brand	Well-known brand, West Europe		
8	Origin	West Europe preferred		
9	Related Electrical works	Distribution Board, CBs, Cables..		
10	Control Switch (MCB/Fuse/Isolator)	<ul style="list-style-type: none"> <li>• Input ON/OFF</li> <li>• Output ON/OFF</li> <li>• Battery</li> <li>• Maintenance Bypass Switch</li> </ul>		
11	Protections	UPS shall trip on following faults: <ul style="list-style-type: none"> <li>- Input AC Under/Over voltage</li> <li>- Output overload / Short circuit</li> <li>- DC Under/Over voltage</li> <li>- High temperature</li> </ul>		
Input				
12	Rated voltage	400V 3-phase (adjustable for 380V or 415V 3-phase)		
13	Frequency	50 HZ		
14	Input Frequency Range	45Hz-66Hz,		
15	Power factor	> 0.99 at full load		
Output				
16	Nominal voltage	400V 3-phase (adjustable for 380V or 415V 3-phase)		
17	Voltage Regulation	±2%		
18	Frequency	50 HZ		
19	Power factor	≥ 0.9		
20	(THDU%)	<3%		

21	Overload capability / Inverter	110%: ≥05 Minutes 125%: ≥01 Minutes 150%: ≥10 Seconds >150% : 100ms		
<b>Connectivity and function extensions</b>				
22	Front panel	Graphical LCD		
23	SNMP Card	For Remote Monitoring		
<b>Indications &amp; Alarms</b>				
24	Alarms (Audible for Trouble/fault)	<ul style="list-style-type: none"> <li>- Mains fail</li> <li>- Charger fail</li> <li>- DC Under/Over voltage</li> <li>- Battery low/ discharging</li> <li>- Output overload</li> <li>- High temperature.</li> </ul>		
<b>Metering</b>				
25	LCD Display	<ul style="list-style-type: none"> <li>- Input/Mains voltage</li> <li>- Ups output voltage</li> <li>- UPS output current</li> <li>- Battery voltage</li> <li>- Charging/ discharging current.</li> </ul>		
<b>Battery</b>				
26	Type	Maintenance-free VRLA batteries (AGM)		
27	Soft start capability	Yes		
28	Backup time	≥ 120 min @8KVA Load		
29	Date of production	≤ 6 Months		
30	Lifetime	≥ 5 years		
31	Battery Technology	Smart Advanced Battery Management Technology		
32	Battery test	Automatic battery test		
<b>Environmental</b>				
33	Operating temperature range	0 °C to 40 °C		
34	Audible noise at (1) meter	≤ 55 (dBA) at normal mode		
<b>Cooling system</b>				
35	Mount type	Room Cooling CRAC		
36	Cooling type	Air cooled		
37	Cooling capacity	≥ 10.5 KW (≥ 36000 BTU)		
38	LCD Display	Display panel to easily view and control the unit.		
39	Quantity	2 (operating in rotation with a timer)		
<b>Standards and certifications</b>				

40	<b>Safety</b>	IEC/EN 62040-1 / EN50091-1-1		
41	<b>Electromagnetic compatibility (EMC)</b>	IEC/EN 62040-2 / EN50091-2		
42	<b>Approvals</b>	CE, CB report (TUV)		
43	<b>Performances and testing rules</b>	IEC/EN 62040-3 / EN50091-3		
44	<b>Environmental aspects</b>	EN 62040-4		
45	<b>WARRANTY</b>	Two years		
46	<b>The supplier should be a certified service center (provide the certificates)</b>			
47	<b>The supplier should have a trained engineer on the same UPS (provide the certificates)</b>			
48	<b>The supplier should be distributor for the UPS Brand in Jordan (provide the certificates)</b>			
49	<b>The supplier should Provide a List of References in Jordan (related to UPS installation)</b>			

## 6. Specification compliance sheet of (10KVA) UPS with battery:

General			Comply (Yes / No)	Comments
1	UPS Capacity	10 KVA		
2	Input / Output connection	3ph/3ph		
3	Type Topologies	True online double conversion technology		
4	Efficiency in double conversion mode	≥ Up to 93% in Online mode, 97% in ECO mode		
5	Inverter / rectifier topology	Transformer – free, IGBT with PWM		
6	Brand	Well-known brand, West Europe		
7	Origin	West Europe preferred		
8	Related Electrical works	Distribution Board, CBs, Cables..		
9	Control Switch (MCB/Fuse/Isolator)	<ul style="list-style-type: none"> <li>• Input ON/OFF</li> <li>• Output ON/OFF</li> <li>• Battery</li> <li>• Maintenance Bypass Switch</li> </ul>		
10	Protections	UPS shall trip on following faults: <ul style="list-style-type: none"> <li>- Input AC Under/Over voltage</li> <li>- Output overload / Short circuit</li> <li>- DC Under/Over voltage</li> <li>- High temperature</li> </ul>		
Input				
11	Rated voltage	400V 3-phase (adjustable for 380V or 415V 3-phase)		
12	Frequency	50 HZ		
13	Input Frequency Range	45Hz-66Hz,		
14	Power factor	> 0.99 at full load		
Output				
15	Nominal voltage	400V 3-phase (adjustable for 380V or 415V 3-phase)		
16	Voltage Regulation	±2%		
17	Frequency	50 HZ		
18	Power factor	≥ 0.9		
19	(THDU%)	<3%		

20	Overload capability / Inverter	110%: ≥05 Minutes 125%: ≥01 Minutes 150%: ≥10 Seconds >150% : 100ms		
<b>Connectivity and function extensions</b>				
21	Front panel	Graphical LCD		
22	SNMP Card	For Remote Monitoring		
<b>Indications &amp; Alarms</b>				
23	Alarms (Audible for Trouble/fault)	<ul style="list-style-type: none"> <li>- Mains fail</li> <li>- Charger fail</li> <li>- DC Under/Over voltage</li> <li>- Battery low/ discharging</li> <li>- Output overload</li> <li>- High temperature.</li> </ul>		
<b>Metering</b>				
24	LCD Display	<ul style="list-style-type: none"> <li>- Input/Mains voltage</li> <li>- Ups output voltage</li> <li>- UPS output current</li> <li>- Battery voltage</li> <li>- Charging/ discharging current.</li> </ul>		
<b>Battery</b>				
25	Type	Maintenance-free VRLA batteries (AGM)		
26	Soft start capability	Yes		
27	Backup time	10 min. @ full load		
28	Date of production	≤ 6 Months		
29	Lifetime	≥ 5 years		
30	Battery Technology	Smart Advanced Battery Management Technology		
31	Battery test	Automatic battery test		
<b>Environmental</b>				
32	Operating temperature range	0 °C to 40 °C		
33	Audible noise at (1) meter	≤ 55 (dBA) at normal mode		
<b>Standards and certifications</b>				
34	Safety	IEC/EN 62040-1 / EN50091-1-1		
35	Electromagnetic compatibility (EMC)	IEC/EN 62040-2 / EN50091-2		
36	Approvals	CE, CB report (TUV)		
37	Performances and testing rules	IEC/EN 62040-3 / EN50091-3		
38	Environmental aspects	EN 62040-4		

39	<b>WARRANTY</b>	Two years		
40	<b>The supplier should be a certified service center (provide the certificates)</b>			
41	<b>The supplier should have a trained engineer on the same UPS (provide the certificates)</b>			
42	<b>The supplier should be distributor for the UPS Brand in Jordan (provide the certificates)</b>			
43	<b>The supplier should Provide a List of References in Jordan (related to UPS installation)</b>			