LIEBERT® ITA™ 3-PHASE UPS: 10KVA, 50/60HZ, 380/400/415VAC - SITE PLANNING DATA

The Liebert ITA is a true on-line, double conversion, three-phase UPS system that delivers complete, centralized power protection for mission-critical systems.

General Specifications

INPUT	
Voltage	380/400/415VAC, 50/60Hz, 3-phase & 4-wire system or single phase &3-wire system
Voltage Range w/o derating	176-288Vac, at full load, 120-176Vac, linear derating;120Vac, at half load
Frequency Range	±5Hz
Current Distortion	≤5%（11 system）
Current Limit	125% of full load input current
Power Factor	≥0.95 (Rated voltage full load）for 31 system ≥0.99 (Rated voltage full load）for 11 system
Surge Protection	Sustains input surges without damage, per criteria listed in IEC 61000-4-5
OUTPUT	
Voltage	220/230/240VAC, 50/60Hz, single phase &3-wire system
Voltage Adjustment Range	±10%
Voltage Regulation	1% for 220v/50Hz 3% for others
Dynamic Regulation	±5% deviation for 100% load step;
Transient Response Time	Transient recovery time is no more than 60ms
Voltage Distortion	3%（0-100%linear load)；5%（0-100%non-linear load 50Hz）(note：6% for 60Hz)
Phasing Balance	None
Frequency Regulation	±0.2Hz
Load Power Factor Range	0.9 all the time under 25~40℃
Overload	105%-125% rated output current for 5 min; 125%~150% rated current for : 1 min(Input Voltage > 202±5Vac) 500ms(Input Voltage ≤202±5Vac) >150% for 500 ms ,then the UPS will switch to bypass output
ENVIRONMENTAL	
Operating Temperature	**UPS:** 32° to 104°F (0-40°C); **Battery:** 68° to 86°F (20-30°C)
Non-Operating Temperature	-40°C ~ +70°C (battery excluded); -20°C ~ +55°C (battery included)
Relative Humidity	5-95% non-condensing
Operating Altitude	< 1500m, derating in accordance with GB/T3859.2 when higher than 1500m
Acoustical Noise (full load) < 55dB	
STANDARDS	
General and safety requirements for UPS used in operator access areas	EN62040-1/IEC62040-1
EMC requirements for UPS	EN62040-2/IEC62040-2
Method of specifying the performance and test requirements of UPS	EN62040-3/IEC62040-3
Note:	

EMERSON Network Power

Site Planning Data - Single Input, 30/40kVA, 50/60HZ, 380/400/415VAC

UPS Rating		Voltage		AC Input			Battery			AC Output		Mechanical Data			
kVA	kW	Input Nom.	Output Nom.	Current (A)		Rec. OCPD	Nom. VDC	Max. Discharge	Battery Disconnect Rating	Current (A)		Dimensions W x D x H in. (mm)	Weight lb. (kg)	Heat Dissipation	Cooling Airflow
				Nom.	Max.					Nom.	OCPD			BTU/hr (kWH)	CFM (m3/hr)
10	9	230	230	51	55	120	192	64	/	44	144	435×660×85	21.5	0.68	94CFM
10	9	400	230	18	19	120	192	64	/	44	144		21.5	0.68	94CFM
See Notes for Table (below):															

Notes for Table

1. Nominal (Nom) current is based on full rated output load at nominal input voltage.
2. Maximum (Max) current is short duration for battery recharge conditions.
3. UPS input cables must be run in separate conduit from output cables.
4. Nominal battery voltage is shown at 2.0 volts/cell per NEC 480-2.
5. OCPD = Overcurrent Protection Device. Recommended AC input and AC output overcurrent protection represents 125% of nominal full load current (continuous) plus 100% of recharge current (non-continuous) per NEC 215.
6. Minimum-sized grounding conductors to be per NEC 250-122. Parity-sized ground conductors are recommended.
7. Wiring requirements: AC Input: 3-phase, 4-wire, plus ground

   AC Output: 3-phase, 4-wire, plus ground
8. All wiring is to be in accordance with national and local electric codes.
9. Minimum access clearance is 3 ft. (0.9m) front and 8 in. (203mm) above the UPS.
10. Top or bottom cable entry through removable access plates. Punch plate to suit conduit size, then replace.
11. Control wiring and power wiring must be run in separate conduit.
12. Dimensions and weights in table do not include external battery cabinet.
13. 30-200kVA UPS dimensions include UPS wiring section for installation without Liebert NX BDC. Deduct 15.5" from UPS width when a Liebert NX BDC will be used.

Additional Notes

- Input and output wiring and breakers for a Liebert NX with Softscale technology should be sized for the maximum scalable capacity. For example, a 40kVA Liebert NX that is scalable to 80kVA should be installed with wiring and breakers rated for an 80kVA configuration.
- If site configuration includes a backup emergency generator, it is recom- mended that the engine generator set be properly sized and equipped for a UPS application. Generator options would typically include an isochronous governor (generator frequency regulation) and a UPS-compatible regulator (generator voltage regulation). Consult generator manufacturer for required generator options and sizing.
- It is recommended that the transfer switch be equipped with auxiliary con- tacts for UPS "on generator" current limit. Consult transfer switch manufac- turer for required transfer switch options and sizing.
- If site configuration requires an external isolated maintenance bypass circuit, it should be noted that utility AC input might not be in phase with the UPS AC output. Consult an Emerson Network Power sales representative or applica- tions engineer.
- The UPS must be fed from a solidly grounded wye or delta AC source. Not for use with impedance-grounded systems, corner-grounded or high leg delta sys- tems. For these applications, an isolation transformer must be installed between the AC feed and the UPS.

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