

UPS - SCHEDULE OF REQUIREMENTS

SYSTEM VOLTAGE AND FREQUENCY	400 Volts, 50 Hz
SITE LOCATION	Durban, South Africa - Newtown Community Health Centre, Inanda
CLIMATIC CONDITIONS	Altitude Sea Level Ambient Temperature 5°C to 40°C Relative Humidity 95%
DESIGNATION	UPS Power

GENERATOR		1	2	3	4
1	Designation & Labelling	UPS 1			
2	Description	On line, double conversion UPS with external battery cabinet. UPS running in parallel with 1 other identical unit in n+1 configuration.			
3	Application	No break power supply to selected equipment.			
4	Load	Typical office equipment, server equipment, general electronics, fluorescent lighting etc. Varying load, load power factor 0.7 lagging to 0.9 leading.			
5	Input Characteristics	Voltage	400/230V ±15%, 3 phase, 4 wire		
6		Frequency	50 Hz ± 8 Hz		
7		ITHD	< 5%		
8	Performance Characteristics	UPS Output Power Rating	30 kVA		
9		Power Factor	0,9		
10		Efficiency	> 90%		
11		Voltage	400/230V +10%, 3 phase, 4 wire with operative earth conductor.		
12		Frequency	50 Hz ± 0.5 Hz		
13		Voltage Regulation	± 10% deviation from steady state nominal voltage and will recover to within 5% of the nominal voltage within 50 milliseconds and to within 1% in less than 500milliseconds		
14		Frequency Stability	Normally automatically synchronised to mains frequency if the latter is within 50 Hz ± 2% (adjustable window). Runs free at 50 Hz ± 0.5 Hz at any load when mains is out of limits.		
15		UTHD (linear load)	< 2%		
16		Amplitude Modulation	< 2%		
17		Voltage Distortion Across Phases	Not to exceed 1% of the open circuit voltage		
18	Voltage Regulation	± 10% deviation from steady state nominal voltage and will recover to within 5% of the nominal voltage within 50 ms and to within 1% in less than 500ms			
19	Overload	Static Overload	100% of full load continuously		
20			125% of full load for 5 minutes		
21			150% of full load for 2 minutes		
22			165% of full load for 1 second, with inductive decay after initial equipment switch on surge current		
23		Dynamic Overload	300% of full load for 5 milliseconds		
24	1000% of full load for 1 milliseconds				
25	Batteries	Type	Maintenance Free, Valve Regulated Lead Acid		
26		Charging	Float		
20		Backup Time (rated load)	10 minutes		
21		Life expectancy	Minimum 7 years or 250 complete discharge cycles		
22	Additional Equipment	Bypass	Internal static bypass and external maintenance bypass. Interlock to ensure external can only be operated when unit is on internal bypass.		
23		Communications	SNMP Network Card		
24			8 No dry contact configurable outputs for BMS monitoring.		
25	O&M Manual	Three complete sets hardcopy. One complete set electronically			
26	Testing	Factory	Control functionality, protection devices and alarms, including verification of sensing devices and transducers as requested by the Engineer		
27		Factory	Operational discharge, recharge and battery duration tests.		
28		Factory	Full load and Maximum load tests for sufficient duration to verify set capacity. Suitable load banks to be provided as required		
29		Site	Full functional test of UPS system as installed in conjunction with associated loads and systems.		
29	Site	Operational discharge, recharge and battery duration tests.			
29	Site	Integrated building testing			
30	General	Colour	Factory standard		
31		Dimensions	Refer to layout drawing		
32		UPS Plantroom Conditions	Air conditioned room, typically 20 deg C. Any additional ventilation required is to be provided by UPS supplier as part of the tender price, and based on plantrooms as per drawings		
33		Arrangement	Floor standing		
34		Signage	Statutory & rating and diagram plate	Statutory & rating and diagram plate	Statutory & rating and diagram plate

Notes
1. UPS to be Schneider, EATON, Legrand or equal and approved

ENGINEER:	DRAWN:	DATE:	SCALE:	P. SIZE:	CHKD:	TITLE:
MK	CG	SEP 23	NTS	A3		Newtown conversion to Large Clinic
PROJ No.:	DWG No	REV				
	23023-602	0				
0 Original Issue	CG	5/9/23	MK			
REV	DESCRIPTION	BY	DATE	CHKD	FILE NAME: 21032_605	SHEET: 1 of 1



BLOCK D
ESSEX PARK
48 ESSEX TERRACE
WESTVILLE
P.O. BOX 1592
WANDSBECK 3631
 TEL: +27 (031) 2987831
 FAX: +27 (031) 21667831
 E-mail: buya@buya.co.za