POWER SPECIFICATIONS

JEDI 80kw SYSTEMS CABINET

REV. DATE: 21.JUN.14

VOLTAGE

PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS.
RANGE OF LINE VOLTAGES :
NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, WITHOUT NEUTRAL, 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE DISTRIBUTION

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/ CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)		MINIMUM OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
380	342–418	190	7	95–A
400	360–440	181	6.6	90–A
415	373–456	172	6.3	85–A
440	396–484	164	6	82–A
460	414–506	157	5.8	78–A
480	432–528	151	5.5	75–A

ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE

NOTE

LOW LINE CONDITIONS MAY INHIBIT SOME HIGH kVp TECHNIQUES. THE GENERATOR AUTOMATICALLY ESTABLISHES THESE INHIBITS BASED ON ACTUAL LINE CONDITIONS AND SYSTEM REGULATION.

PHASE–BALANCE.

PHASE–TO–PHASE VOLTAGES MUST BE WITHIN +2 PERCENT OF THE LOWEST PHASE–TO–PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ARE 2.5 PERCENT OF RATED LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND FREQUENCY OF 10 TIMES PER HOUR.

POWER DEMAND

CONTINUOUS POWER DEMAND =4.6 KVA. (MAX DEMAND = 125 KVA)

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	PRECISION 80 KW
kVa *	125
POWER FACTOR AT	0.73
mA	630
kVp	80

* DEMAND INCLUDES POWER FOR ENTIRE SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRI–BUTION TRANS–FORMER

FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 150 KVA. SYNTHESIZED POWER FEED IS NOT ACCEPTABLE

FEEDER TABLE

JEDI 80kw SYSTEMS CABINET

REV. DATE: 04/24/07

- CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
- NEUTRAL MUST BE TERMINATED INSIDE THE MAIN DISCONNECT PANEL AND NOT AT ANY GE CABINET.
- THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER WITH A 1/0 MINIMUM. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
- * MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.
- FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE											
	342–418 380		360–440 400		373–456 420		396–484 440		414–506 460		**432–528 480**	
	SIZE OF FEEDERS AND GROUND WIRES (AWG)											
	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND
50	* 2	(1/0)	* 2	(1/0)	* 2	(1/0)	* 2	(1/0)	* 2	(1/0)	*** 2**	**(1/0)**
100	* 2	(1/0)	* 2	(1/0)	* 2	(1/0)	* 2	(1/0)	* 2	(1/0)	*** 2**	**(1/0)**
150	1/0	(1/0)	1	(1/0)	1	(1/0)	* 2	(1/0)	* 2	(1/0)	*** 2**	**(1/0)**
200	2/0	(2/0)	2/0	(2/0)	1/0	(1/0)	1/0	(1/0)	1	(1/0)	**1**	**(1/0)**
250	3/0	(3/0)	3/0	(3/0)	2/0	(2/0)	2/0	(2/0)	1/0	(1/0)	**1/0**	**(1/0)**
300	4/0	(4/0)	4/0	(4/0)	3/0	(3/0)	3/0	(3/0)	2/0	(2/0)	**2/0**	**(2/0)**
350	300M	(300M)	250M	(250M)	4/0	(4/0)	4/0	(4/0)	3/0	(3/0)	**3/0**	**(3/0)**
400	350M	(350M)	300M	(300M)	250M	(250M)	4/0	(4/0)	4/0	(4/0)	**3/0**	**(3/0)**
450	400M	(400M)	350M	(350M)	300M	(300M)	250M	(250M)	250M	(250M)	**4/0**	**(4/0)**