



## 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<br>IN FEET | POWER SUPPLY VOLTAGE                   |        |                |        |                |        |                |        |                |        |                |        |
|-----------------------|--|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
|                       | 342-418<br>380                         |        | 360-440<br>400 |        | 373-456<br>420 |        | 396-484<br>440 |        | 414-506<br>460 |        | 432-528<br>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)  |

# POWER SPECIFICATIONS

## JEDI 80kw SYSTEMS CABINET

REV. DATE: 02/22/06

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<br>±10 PERCENT | CURRENT (AMPS)    |            | MINIMUM STANDARD<br>OVERCURRENT<br>PROTECTION |
|-----------------|-----------------------------|-------------------|------------|---|
|                 |                             | MAX.<br>MOMENTARY | CONTINUOUS |   |
| 380             | 342-418                     | 190               | 7          | 100-A   |
| 400             | 360-440                     | 181               | 6.6        | 90-A  |
| 415             | 373-456                     | 172               | 6.3        | 90-A  |
| 440             | 396-484                     | 164               | 6          | 90-A  |
| 460             | 414-506                     | 157               | 5.8        | 80-A  |
| 480             | 432-528                     | 151               | 5.5        | 80-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<br>80 KW |
|-----------------------------|--------------------|
| kVa *<br>POWER FACTOR<br>AT | 125<br>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.

DISTRIBU- FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE  
 TION TRANS- IS 150 KVA.  
 FORMER