

POWER SPECIFICATIONS

DEFINIUM 5000 65kw GENERATOR REV. DATE: 21.JUN.14

VOLTAGE

PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS.
 RANGE OF LINE VOLTAGES :
 NOMINAL LINE VOLTAGE OF 400 OR 480, 3 PHASE, WITHOUT NEUTRAL,
 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE OR DELTA 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 STANDARD OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
400	360-440	117	6.1	60-A
480	432-528	98	5.1	50-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 =4.2 KVA. (MAX DEMAND = 81.25 KVA)

TABLE B
 MAXIMUM
 MOMENTARY
 POWER
 DEMAND.

DEMAND	DEFINIUM
kVa *	81.25
POWER FACTOR AT	0.73
mA	650
kVp	150

* 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 112.5 KVA. SYNTHESIZED POWER FEED IS NOT ACCEPTABLE



FEEDER TABLE

DEFINIUM 5000 65kw SYSTEMS CABINET REV. DATE: 01/12/09

- 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 4 AWG. MINIMUM. AUTO-RESTART REQUIRES A 3 AWG. MINIMUM FEEDER AND GROUND. THIS GROUND WILL RUN FROM THE MDP 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							
	80 AMP BREAKER				90 AMP AUTO-RESTART BREAKER			
	360-440 400		432-528 480		360-440 400		432-528 480	
SIZE OF FEEDERS AND GROUND WIRES (AWG)								
	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND
50	* 4	(4)	* 4	(4)	* 3	(3)	* 3	(3)
100	* 4	(4)	* 4	(4)	* 3	(3)	* 3	(3)
150	2	(2)	* 4	(4)	2	(2)	* 3	(3)
200	1	(1)	2	(2)	1	(1)	2	(2)
250	2/0	(2/0)	1	(1)	2/0	(2/0)	1	(1)
300	2/0	(2/0)	1/0	(1/0)	2/0	(2/0)	1/0	(1/0)
350	3/0	(3/0)	2/0	(2/0)	3/0	(3/0)	2/0	(2/0)
400	4/0	(4/0)	3/0	(3/0)	4/0	(4/0)	3/0	(3/0)
450	250M	(250M)	3/0	(3/0)	250M	(250M)	3/0	(3/0)