

POWER SPECIFICATIONS

Discovery VCT

REV. DATE: 12.Apr.11

VOLTAGE

PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS.
 RANGE OF LINE VOLTAGES: NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, 50 OR 60 Hz.

RECOMMENDED POWER SUPPLY: WYE-CONNECTED

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

TABLE A
 ALLOWABLE
 INPUT
 VOLTAGES/
 CURRENT
 DEMAND

NOMINAL VOLTAGE	ABSOLUTE RANGE	CURRENT (AMPS)		MINIMUM STANDARD OVERCURRENT PROTECTION
		MOMENTARY	CONTINUOUS	
380	342-418	228	38	150-A
400	360-440	217	36	150-A
420	378-462	206	34	150-A
440	396-484	197	33	125-A
460	414-506	188	31	125-A
480	432-528	180	30	125-A

(ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE)

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 1 CYCLE AND FREQUENCY OF 10 TIMES PER HOUR.

VOLTAGE TRANSIENT OR IMPULSE ON THE INCOMING POWER MUST BE HELD TO A MINIMUM. TRANSIENTS CAUSED BY LIGHTNING, SURGES, LOAD SWITCHING, STATIC ELECTRICITY ETC. CAN CAUSE SCAN ABORTS OR, IN EXTREME INSTANCES, COMPONENT FAILURE IN THE COMPUTER SUBSYSTEM.

POWER DEMAND

CONTINUOUS POWER DEMAND = 25 KVA (MAX DEMAND = 150 KVA)

TABLE B
 MAXIMUM
 MOMENTARY
 POWER
 DEMAND.

DEMAND	DVCT System
kVa *	150
POWER FACTOR AT	0.85

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

DISTRIBUTION TRANSFORMER

FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 225 KVA. GE DOES NOT RECOMMEND USING A REGULATION DEVICE.

NOTE: THE SYSTEM MUST NOT BE POWERED IN A MULTIPLE INSTALLATION WHERE FILM CHANGERS ARE USED. FILM CHANGERS UTILIZE A LARGE NUMBER OF HIGH POWERED CLOSELY SPACED EXPOSURES WHICH MAY COINCIDE WITH THE SCAN.



FEEDER TABLE

FEEDER TABLE – DISCOVERY VCT

- o CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- o RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANS. TO POWER DISTRIBUTION UNIT.
- o THE GROUNDING CONDUCTOR () WILL BE A 1/0 MINIMUM. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
- o * MINIMUM SIZE FOR CIRCUIT BREAKER, NEC ARTICLE 517-73.
- o NEUTRAL MUST BE TERMINATED PRIOR TO OR INSIDE THE MAIN DISCONNECT PANEL AND NOT BROUGHT INTO THE POWER DISTRIBUTION UNIT.
- o 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		378-462 420		396-484 440		414-506 460		432-528 480	
	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND
50	1/0	(1/0)	1/0	(1/0)	1/0	(1/0)	1	(1/0)	1	(1/0)	1	(1/0)
100	1/0	(1/0)	1/0	(1/0)	1/0	(1/0)	1	(1/0)	1	(1/0)	1	(1/0)
150	1/0	(1/0)	1/0	(1/0)	1/0	(1/0)	1	(1/0)	1	(1/0)	1	(1/0)
200	2/0	(1/0)	2/0	(1/0)	1/0	(1/0)	1/0	(1/0)	1/0	(1/0)	1/0	(1/0)
250	3/0	(1/0)	3/0	(1/0)	2/0	(1/0)	2/0	(1/0)	1/0	(1/0)	1/0	(1/0)
300	4/0	(1/0)	3/0	(1/0)	3/0	(1/0)	2/0	(1/0)	2/0	(1/0)	1/0	(1/0)
350	250M	(1/0)	4/0	(1/0)	3/0	(1/0)	3/0	(1/0)	3/0	(1/0)	2/0	(1/0)
400	500M	(1/0)	400M	(1/0)	350M	(1/0)	300M	(1/0)	250M	(1/0)	4/0	(1/0)

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