



- NOTES:
1. INTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
  2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  3. UPS IS CONFIGURED AS SINGLE INPUT FEED (STANDARD). CONSULT FACTORY FOR DUAL FEED CONFIGURATION.
  4. AVAILABLE AS 4-WIRE CONFIGURATION (STANDARD).
  5. CONNECT RECTIFIER AND BYPASS INPUT CABLES IN CLOCKWISE PHASE ROTATION.
  6. AC CABLING SHALL BE 600V RATED, 4W + G (PE).
  7. OPTIONAL FEATURE/COMPONENT.

Part must comply with company doc. 94-10-000001. Interpret drawing in accordance with ASME Y14.5-2009.		Document Kind <b>Electrical Diagram</b>	Title <b>System Online Document</b> <b>DPA 20-120kVA 208V</b>	Units <b>Inch</b>	Sheet Size <b>D</b>
Tolerance X.XX = ± 0.30 X.XXX = ± 0.15 Hole = ± 0.005 Angle = ± 1/2°	Prepared <b>PH</b> Approved <b>CAB</b> Division/Dept. <b>EPPC/Power Protection</b>	Reference <b>N/A</b>	Item No. <b>94-7300-00000131</b> Document ID <b>SUB-000000001</b>	Scale <b>N:N</b>	Date Drawn 3/27/2018
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Table 1 : Electrical and Thermal Site Planning Data

UPS Rating (kW)	Input/Output voltages	Rectifier AC Input Current (A)				Battery				Bypass/Output AC Current		Efficiency		Max Heat Dissipation 100% (BTU/Hr)
		Nominal	Maximum	External CB Amp (100% Rated)	Cable Size	Nominal VDC	Max. EOD	External CB AMPs (100% Rated)	Cable Size	Nom.	External CB Amp (100% Rated)	AC-AC 100%	DC-DC 100%	
20	208	60	61	75A	6	360	70	90	6	59	75	93.50%	92.00%	4743
40	208	120	121	150A	1	360	139	175	1	118	150			9485
60	208	180	182	225A	3/0	360	209	275	3/0	177	225			14229
80	208	240	242	300A	250	360	278	350	250	236	300			18970
100	208	300	303	375A	350	360	348	435	350	295	375			23715
120	208	360	363	450A	500	360	417	520	500	354	450			28458
See Notes:		1, 2, 16, 17				7, 15, 16, 17				3,4,6		10		

NOTES:

1.

ALL WIRING IS TO BE IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
2.

NOMINAL RECTIFIER AC INPUT CURRENT (CONSIDERED CONTINUOUS) IS BASED ON FULL RATED OUTPUT LOAD. MAXIMUM CURRENT INCLUDES NOMINAL INPUT CURRENT AND MAXIMUM BATTERY RECHARGE CURRENT (CONSIDERED NON-CONTINUOUS) CONTINUOUS AND NON-CONTINUOUS CURRENT LIMITS ARE DEFINED IN NEC 100.
3.

NOMINAL AC OUTPUT CURRENT (CONSIDERED CONTINUOUS) IS BASED ON FULL RATED OUTPUT LOAD.
4.

BYPASS AC INPUT CURRENT (CONSIDERED CONTINUOUS) IS BASED ON FULL RATED OUTPUT LOAD.
5.

ABB RECOMMENDS THAT FEEDER PROTECTION (PROVIDED BY OTHERS) FOR THE RECTIFIER AC INPUT AND THE BYPASS AC INPUT BE PROVIDED BY SEPARATE OVER CURRENT PROTECTION DEVICES.
6.

UPS OUTPUT LOAD CABLES MUST BE RUN IN SEPARATE CONDUITS THAN THE INPUT CABLES.
7.

POWER CABLES FROM THE MODULES DC BUS TO THE BATTERY SHOULD BE SIZED FOR A TOTAL MAXIMUM 2.0V LINE DROP (POWER CABLE DROP PLUS RETURN CABLE DROP AS MEASURED AT THE MODULE) AT MAXIMUM DISCHARGE CURRENT.
8.

GROUNDING CONDUCTORS ARE TO BE SIZED PER NEC 250-95. NEUTRAL CONDUCTORS ARE TO BE SIZED FOR FULL CAPACITY - PER NEC 310-16, NOTE 10 - FOR SYSTEMS WITH 4-WIRE LOADS AND 20% MINIMUM CAPACITY FOR 3-WIRE LOADS.
9.

RECTIFIER AC INPUT: 3-PHASE, 4-WIRE PLUS GROUND  
AC OUTPUT TO LOAD: 3-PHASE, 4-WIRE PLUS GROUND  
BYPASS AC INPUT: 3-PHASE, 4-WIRE PLUS GROUND  
MODULE DC INPUT FROM BATTERY: 2-WIRE (POSITIVE AND NEGATIVE) PLUS GROUND.
10.

MINIMUM CLEARANCE BEHIND THE UPS IS 1 FT. (0.3M)
11.

MINIMUM CLEARANCE ABOVE THE UPS IS 1.31 FT. (0.4M)
12.

BOTTOM CABLE ENTRY /EXIT AVAILABLE THROUGH REMOVABLE ACCESS PLATES. CUT THE PLATE TO SUIT CONDUIT SIZE. IF TOP CABLE ENTRY /EXIT REQUIRED PLEASE CONTACT APPLICATIONS ENGINEERING FOR ASSISTANCE.
13.

CONTROL WIRING AND POWER CABLES MUST BE RUN IN SEPARATE CONDUITS. CONTROL WIRING MUST BE STRANDED TINNED CONDUCTORS.
14.

EMPTY FRAME WEIGHTS: 672LBS. (305KG)
15.

BATTERY IS SHOWN AS 360V (30 JARS). CAN BE CONFIGURED FROM 300-420V (25-35 JARS). OCPD NEEDS TO BE ADJUSTED TO ACCOMMODATE THE STRING VOLTAGE.
16.

RECOMMENDED CABLES ARE AWG/KCMIL MINIMUM REQUIREMENT FOR THREE (3) CURRENT CARRYING CONDUCTORS IN A RACEWAY, SIZED FOR 30°C ENVIRONMENT AND 75°C TERMINATIONS. ALL CABLING MUST COMPLY WITH INSTALLATION SITE CONDITIONS AND ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL CODES.
17.

RECOMMENDED CABLE RATINGS AND OVER CURRENT DEVICES SUPPLIED FOR INFORMATION PURPOSES ONLY. USER SHALL CONSULT WITH THEIR ENGINEERING SERVICE PROVIDER FOR SPECIFIC APPLICATION REQUIREMENTS.