

Panel: Panel A	Fed From: Main Switchboard
Location: Elec Closet #1	Main Type: Breaker Main Amps: 200
Feeder OCP: Inverse time breaker	Panel AIC (Amps): 40000
System: 208/120v 3 Phase 4 Wire	Occupancy: Warehouse (storage)
Panel Brand: Sq-D	Model: Qo220 Breaker: Qo
Panel Poles: 42	Panel Bus Amps: 200

LOAD DETAIL (VA Without Demand Factoring)

Cct	Description	Load Type	Phase A	Phase B	Phase C
1	Cooling	Cooling	12000	12000	12000
3					
5					
7	Gen Light	General Lighting	5000		
9	Gen Light	General Lighting		8000	
11	OS Lights	Gen. Lighting C			3000
13	OS Lights	Gen. Lighting C	3000		
15	Blower Fan	Motor Load		1400	
17	Sump Pump	Motor Load			1200
19	Parking Lot Lights	Cont. Lighting	1500		
21	Parking Lot Lights	Cont. Lighting		1500	
2	Heating	Electric Heat	9000	9000	9000
4					
6					
8	Gen Light	General Lighting	4000		
10	Gen Light	General Lighting		3250	
12	Gen Recpt	Gen. Receptacle			1800
14	Gen Recpt	Gen. Receptacle	1800		
16	Air Handler	Motor Load		1600	
18	Ejector Pump	Motor Load			1600
20	Conveyer 1	Motor Load	1000		
22	Conveyer 2	Motor Load		1200	
Total VA per phase without demand factoring :			37300	37950	28600
Total amperes per phase without demand factoring :			179	183	138

PANEL LOAD CALCULATION: Panel A

GENERAL LIGHTING LOAD: (NEC 220.42)

Total Continuous Connected Load:	6,000.0		
25% of Continuous Connected Load:	1,500.0		
Total Non-Continuous Connected Load:	<u>20,250.0</u>		
Total Connected Load:	27,750.0		
First 12,500 or less @ 100%:		12,500.0	
Remainder over 12,500 @ 50%:		7,625.0	
General Lighting Demand Load:			20,125.0

GENERAL RECEPTACLE LOAD: (NEC 220.44)

Total Connected Load:	3,600.0		
First 10,000 or less @ 100%:		3,600.0	
Remainder over 10,000 @ 50%:		0.0	
General Receptacle Demand Load:			3,600.0

CONTINUOUS LIGHTING LOAD: (NEC 215.2)

Total Connected Load:	3,000.0		
25% of Continuous Connected Load:	<u>750.0</u>		
Total VA @ 125%:	3,750.0		
Continuous Lighting Demand Load:			3,750.0

HEATING AND COOLING LOAD: (NEC 220.60)

Heating Load:	9,000.0		
Cooling Load:	12,000.0		
Larger of Heating or Cooling Load:			12,000.0

DRYER LOAD: (NEC 220.54)

Total Connected Load:	0.0		
Quantity of Dryers:	0		
Demand Factor Percent Multiplier: (0%)	0.00		
Dryer Demand Load:			0.0

KITCHEN EQUIPMENT LOAD: (NEC 220.56)

Total Connected Load:	0.0		
Quantity of Equipment Units:	0		
Demand Factor Percent Multiplier: (100%)	1.0		
Kitchen Equipment Demand Load:			0.0

OTHER LOADS @ 100% DEMAND: (NEC 220.14)		
Total Connected Load:	0.0	
Other Loads @ 100% Demand Load:		0.0
OTHER LOADS @ 125% DEMAND: (NEC 215.2)		
Total Connected Load:	0.0	
Plus 25% of Total Connected Load:	0.0	
Other Loads @ 125% Demand Load:		0.0
MOTOR LOAD: (NEC 220.14)		
Total Connected Load:	8,000.0	
Motor Demand Load:		8,000.0
25% OF LARGEST MOTOR LOAD: (NEC 430.24)		
Largest Motor: Ejector Pump	1,600.0	
Demand Factor Percent Multiplier (25%)	0.25	
25% of Largest Motor Demand Factor		400.0

TOTAL DEMAND LOAD VA:	47,875.0
TOTAL DEMAND LOAD AMP:	132.9

NEUTRAL LOAD: (NEC 220.61)	
General Lighting:	0.0
General Receptacle:	0.0
Continuous Lighting:	0.0
Heating/Cooling:	0.0
Dryer:	0.0
Cooking Equipment:	0.0
Other Loads @ 100% Demand:	0.0
Other Loads @ 125% Demand:	0.0
Dwelling Unit Appliances:	0.0
Motor Load:	0.0
25% of Largest Motor:	0.0

CONNECTED LOAD PER PHASE:	
(Before Demand Factoring):	
Phase A:	37,300.0 VA
Phase B:	37,950.0 VA
Phase C:	28,600.0 VA

Total Connected Load Va:	103,850.0 VA
Total Connected Load Amp:	288.3 VA

Neutral Demand Load VA:	0.0
Neutral Demand Load Amp:	0.0

Panel A
 Fed From: Main Switchboard
 Rating: 208/120v 3 Phase 4 Wire Amps: 200
 Panel Short Circuit Amps Rating: 40000

1					2
3	Cooling	40	30	Heating	4
5					6
7	Gen Light	20	20	Gen Light	8
9	Gen Light	20	20	Gen Light	10
11	OS Lights	20	20	Gen Recpt	12
13	OS Lights	20	20	Gen Recpt	14
15	Blower Fan	20	20	Air Handler	16
17	Sump Pump	20	20	Ejector Pump	18
19	Parking Lot Lights	20	20	Conveyer 1	20
21	Parking Lot Lights	20	20	Conveyer 2	22
23					24
25					26
27					28
29					30
31					32
33					34
35					36
37					38
39					40
41					42

TriPhase Electric Inc
 123 Main Street
 Washington NJ 07812
 Phone: 973-123-4567

Genovese Residence
 405 Olde Country Lane
 Far Hills NJ
 555-555-1212

**STANDARD SERVICE/FEEDER LOAD CALCULATION - One Family Dwelling
 NEC Article 310**

General Lighting : 3200 Sq. Feet x 3 VA = 9600 VA
 Small Appliance ..: 2 Circuits x 1500 VA = 3000 VA
 Laundry: 1 Circuits x 1500 VA = 1500 VA

Total General Light & Small Appliance: 14100 VA
 The First 3000 VA @ 100% = 3000 VA
 Remaining 11100 VA @ 35% = 3885 VA

GENERAL LIGHTING, SMALL APPLIANCE & LAUNDRY DEMAND LOAD (NEC 220.42) : 6885 VA

Heating Demand : 30000 VA @ 100% = 30000 VA
 Cooling Demand : 6000 VA @ 100% = 6000 VA
 LARGER OF HEATING OR COOLING DEMAND LOADS (Heating) (NEC 220.60) ... : 30000 VA

Range : 12000 VA
 COOKING EQUIPMENT DEMAND LOAD (NEC 220.55) : 8000 VA

Dryer: 6000 VA
 DRYER DEMAND LOAD (NEC 220.54) : 6000 VA

Water Heater: 6000 VA
 Attic Fan : 1600 VA
 Compactor : 900 VA
 Dishwasher : 1500 VA
 Disposal : 800 VA
 Other App. #1 : 400 VA [Vent Fan]

Fixed Appliance Total: 11200 VA
 11200 VA @ 75% Demand: 8400 VA
 FIXED APPLIANCE DEMAND LOAD (NEC 220.53) : 8400 VA

Largest Motor: Attic Fan @ 1600 VA
 25% OF LARGEST MOTOR LOAD (220.14) : 400 VA

Other Lighting Load 600 VA [Outdoor Lighting]
 Continuous Load: 125% Demand
 OTHER LIGHTING DEMAND LOAD (NEC 220.14) : 750 VA

NET COMPUTED LOAD : 60435 VA

120/240 VOLT SERVICE/FEEDER LOAD : 252 AMP

NEUTRAL LOAD (NEC 220.61):

General Lighting : 6885 VA
 Appliances : 4350 VA
 Cooking : 5600 VA
 Dryer : 4200 VA
 Largest Motor : 400 VA
 Heating/Cooling : 0 VA

Total Neutral Demand Load : 21435 VA
 89 AMP