ELECTRICAL REQUIREMENTS

Used CON-E-CO LoPro 427CM

CON-E-CO LOPRO 427CMS & Aux Equip Printed 3/9/2023

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It is very important to keep your electric utility company coordinated with your power requirements. The equipment listed below should be combined with other site loads such as area lighting, charging equipment, office HVAC, mixers, etc. If you are using an on site generator, we would be happy to coordinate a more detailed analysis of voltage stabilization and locked rotor amps with the company you select to supply the generator. Transformer sizes listed below assume a 96% eff., an impedence of .035 to calculate voltage drop, the largest motor is Code G, and show standard available size 3 phase transformers.

Setup for 460 Volt operation.

CONCRETE BATCH PLANT & MATERIAL FEED	HP	FLA	CB	Str	Heater	Wire Size Min	Normal
1.5 KVA Transformer		3.26					
Cement 1 Feed A	40.00	50.00	90	#3	CC87.7	6	6
Cement 1 Feed B	15.00	19.00	45	#2	B32	10	4
Cement Batcher	30.00	38.00	80	#3	CC64.3	8	8
Agg Incline Conv 1A	25.00	32.00	70	#2	B62	8	8
Agg Incline Conv 1B	25.00	32.00	70	#2	B62	8	8
Agg Batcher Belt	25.00	32.00	70	#2	B62	8	8
Low Press Blower	4.50	5.50	15	#0	B8.20	14	10
Airslide Blower	7.00	8.00	20	#1	B12.8	14	8
Air Compressor	30.00	38.00	80	#3	CC64.3	8	8
Water Pump	15.00	19.00	45	#2	B32	10	4
Baghouse Blower	15.00	19.00	45	#2	B32	10	4
If not all motors run concurrently, *Amps not included in total.							
Total Connected	231.50	295.76					
+25% of Largest Mot	40.00	12.50				Actual	
Running Design Load		**404.26**	Running Design			322.08	KVA
+5 x Largest Motor		250.00					
Starting Design Load		654.26	Starting Design			521.26	KVA
500 KVA Transf. Volt Drop	3.80%	Starting, and			2.35%	when running.	
600 KVA Transf. Volt Drop	3.17%	Starting, and			1.96%	when running.	

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AUX Plant Mtrl Conveyor 3

		HP	FLA	CB	Str	Heater	Wire Size Min	Wire Size Normal
0.5	KVA Transformer		1.1					
	Conveyor 30X90 #1	25.00	32.0	70	#2	B62	8	8
	Conveyor 30X90 #2	25.00	32.0	70	#2	B62	8	8
	Conveyor 30X90 #3	25.00	32.0	70	#2	B62	8	8
	Total Connected	75.00	97.09					
	+25% of Largest Mot	25.00	8.00				Actual	
	Running Design Load		**105.09**	Running Design			83.72	KVA
	+5 x Largest Motor		160.00					
	Starting Design Load		265.09	Starting Design			211.20	KVA
113	KVA Transf. Volt Drop	6.85%	Starting, and			2.71%	when running.	
150	KVA Transf. Volt Drop	5.14%	Starting, and			2.04%	when running.	

AUX. Unloading CONVEYORS

		HP	FLA	CB	Str	Heater	Wire Size Min	Wire Size Normal
1.5	KVA Transformer		3.3					
	Unloader Conveyor	25.00	32.0	70	#2	B62	8	8
	Radial 36X60	25.00	32.0	70	#2	B62	8	8
	Traversing Drive	0.75	1.5	15	#00	B2.40	14	12
	Total Connected	50.75	68.76					
	+25% of Largest Mot	25.00	8.00				Actual	
	Running Design Load		**76.76**	Running Design			61.16	KVA
	+5 x Largest Motor		160.00					
	Starting Design Load		236.76	Starting Design			188.63	KVA
75	KVA Transf. Volt Drop	9.18%	Starting, and			2.97%	when running.	
113	KVA Transf. Volt Drop	6.12%	Starting, and			1.98%	when running.	

AUX. MIXING EQUIPMENT

		HP	FLA	CB	Str	Heater	Wire Size Min	Wire Size Normal
1.5	KVA Transformer		3.3					
	Mixer Drive 1A	75.00	88.0	125	#4	CC156	1	1
	Mixer Drive 1B	75.00	88.0	125	#4	CC156	1	1
	Hydraulic Pump	50.00	62.0	100	#3	CC112	4	4
	Oil Recirc Pump	0.50	1.0	15	#00	B1.45	14	12
	Total Connected	200.50	242.3					
	+25% of Largest Mot	75.00	22.0				Actual	
	Running Design Load		**264.3**	Running Design			210.54	KVA
	+5 x Largest Motor		440.0					
	Starting Design Load		704.3	Starting Design			561.10	KVA
225	KVA Transf. Volt Drop	9.10%	Starting, and			3.41%	when running.	
300	KVA Transf. Volt Drop	6.82%	Starting, and			2.56%	when running.	

GRAND TOTAL

		HP	FLA					
	Total Connected	557.75	703.87					
	+25% of Largest Mot	75.00	22.00				Actual	
	Running Design Load		**795.67**	Running Design			633.93	KVA
	+5 x Largest Motor		440.00					
	Starting Design Load		1235.67	Starting Design			984.48	KVA
600	KVA Transf. Volt Drop	5.99%	Starting, and			3.85%	when running.	
Note:	This will create a	5.65%	continuous overload w/listed items.					
750	KVA Transf. Volt Drop	4.79%	Starting, and			3.08%	when running.	
1000	KVA Transf. Volt Drop	3.59%	Starting, and			2.31%	when running.	