

- THE CONTRACTOR SHALL DETERMINE THE MOTOR FULL LOAD CURRENT FROM THE PUMP MANUFACTURER'S DATA.
- THE CONTRACTOR SHALL PROVIDE THE CORRECT THERMAL OVERLOAD RELAYS BASED ON MOTOR FULL LOAD CURRENT.
- THE CONTRACTOR SHALL VERIFY THE VOLTAGE AND PHASE OF THE ELECTRICAL POWER PROVIDED AND NOTIFY THE ENGINEER IF DIFFERENT FROM SPECIFIED.
- TSS SHALL BE SIEMENS TSS3115D OR APPROVED EQUAL.

1. ENGINE - NAT. GAS OR EQUAL
2. VOLTAGE REGULATORS
3. VOLTAGE STARTERS
4. WEATHER ENCLOSURE
5. QUIET-RUN EXHAUST SYSTEM
6. ALTERNATOR PROTECTION
7. BATTERY PACK & CABLES
8. INTEGRATED VIBRATION ISOLATION
9. OIL DRAIN EXTENSION
10. -
11. -
12. -
13. BATTERY AND BATTERY CHARGER
14. AIR CLEANER, HEAVY DUTY
15. VOLTAGE REGULATOR 1% PHASE
16. VOLTAGE REGULATOR SENSING, 3-PHASE
17. COMMON MAINTENANCE KIT (FILTER SET)
18. GENERAL FAILURE RELAY KIT
19. COMMON MAINTENANCE KIT (FILTER SET)
20. ALTERNATOR SYSTEM SENSING AND RELATED ITEMS FOR A COMPLETE OPERATING SYSTEM IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND CODES (KOHLER OR APPROVED EQUAL)
21. PRIOR TO CITY OF ROCKWELL ACCEPTANCE OF THE GENERATOR, A LOAD BANK TEST SHALL BE CONDUCTED TO VERIFY THAT THE GENERATOR SHALL BE NOT LESS THAN PROJECTED PUMP MOTOR LOADINGS.
22. -

1 ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

QuickSize Generator Set Sizing

Project	DAIRockwall		
Customer	Gensets 1		
Generator Set	Gensets 1		
Model No.	18RZ		
Engine	LKG-425 (Nat. Gas)		
Alternator	417E		
Performance Summary			
L/N/L1 Voltage	277/480	Altitude	500 Feet
Frequency	60	Ambient Temp.	105 F
Phase(s)	3		
Genset Rating @ 130C Rise	16,000 kW		
Genset Derated Rating	15,82 kW		
Total Running Power	5,600 kW		
Percent of Available kW Used	35.41 %		
Alternator Starting kVA	33.14 kVA @ 20% dip		
Peak Starting kVA	29.13 kVA		
Maximum Voltage Dip	19.03 %		
Maximum Frequency Dip	8.61 % (est.) (20% allowed)		
Voltage THD	0.00 %	Frequency THD	0.00 % (15% allowed)

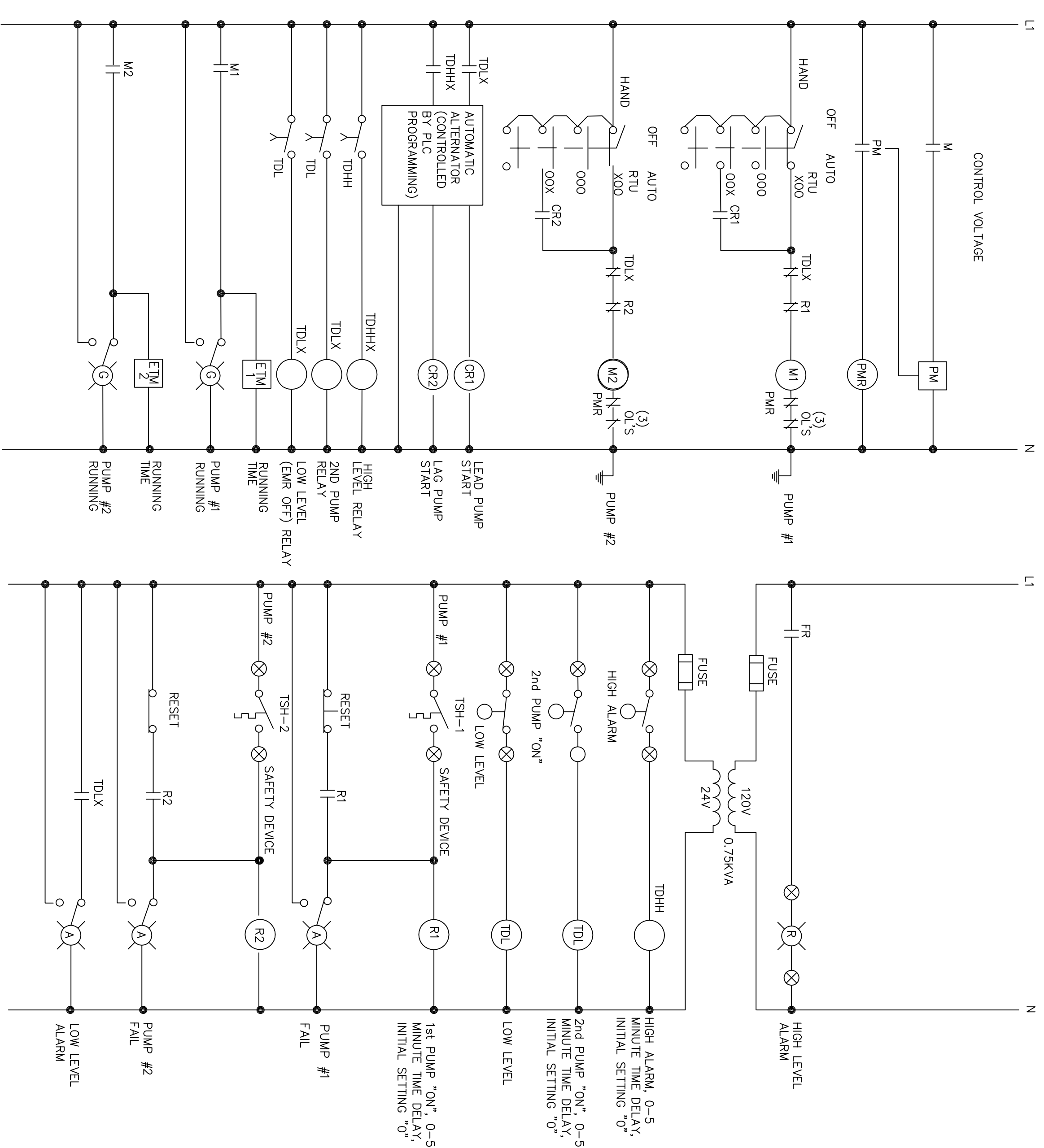
NO AIR BUBBLE
NO OVER PRESSURE
NO OVER HEAT
TRANSDUCER WITH
FLOAT BACK-UP OPTION

Informational

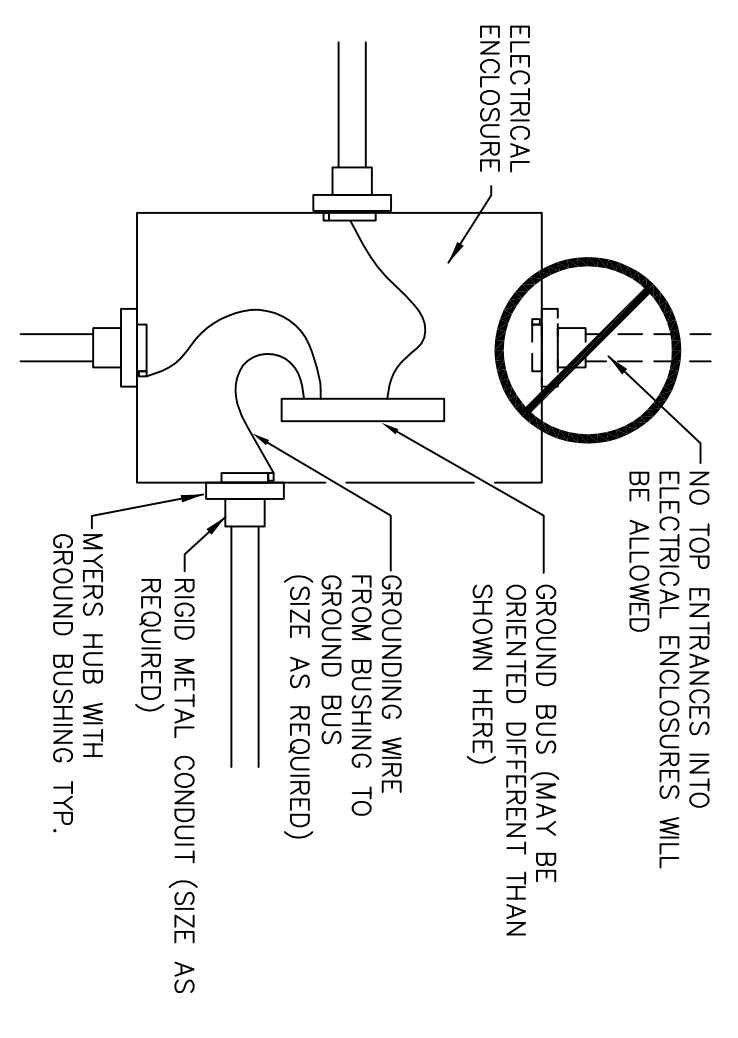
Generator Set

Model No.	18RZ							
Engine	LKG-425 (Nat. Gas)							
Alternator	417E							
Generator Set	Gensets 1							
Load Profile								
Step #1	Run kW	Run kVA	Run PF	Start kW	Start kVA	Volt Dip	Freq Dip	Volt (L-N) THD
Genset-1 (3000 HP, 3 phase code K, loaded motor, w/ A.T.L. starting)	2,800	3,700	0.76	15,300	25,500	18.85	8.61	0.0%/0.0%/0.0%/0.0%
Rated motor torque (ft. lbs.)	2,800	3,700	0.76	15,300	25,500			
Step #2	Run kW	Run kVA	Run PF	Start kW	Start kVA	Volt Dip	Freq Dip	Volt (L-N) THD
Genset-2 (5000 HP, 3 phase code K, loaded motor, w/ A.T.L. starting)	2,800	3,700	0.76	15,300	25,500	19.05	8.61	0.0%/0.0%/0.0%/0.0%
Rated motor torque (ft. lbs.)	2,800	3,700	0.76	15,300	25,500			
Grand Totals	5,600	7,400	0.76					0.0%/0.0%/0.0%/0.0%

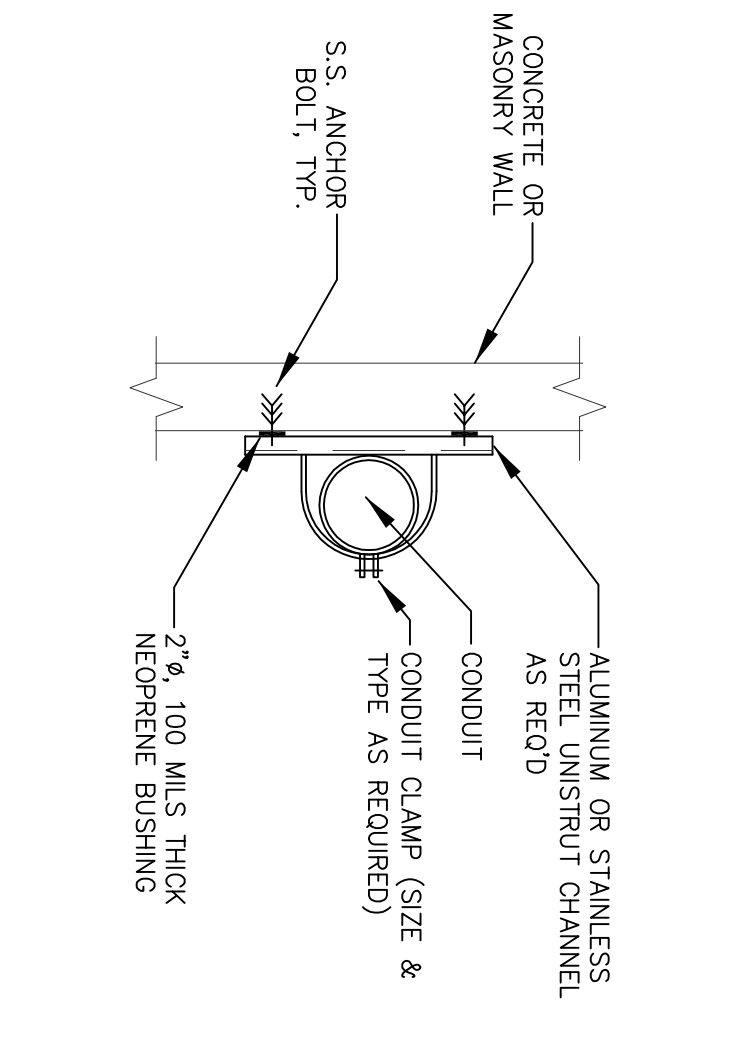
Informational



2 PUMP CONTROL SCHEMATIC
NO SCALE



3 ENCLOSURE/CONDUIT DETAIL
NO SCALE



4 CONDUIT SUPPORT AT WALL DETAIL
NO SCALE

CITY REQUIRE INSTRUCTIONS TO CONTRACTOR
SCADA CONNECTION TO OWNERS SYSTEM. ALL LOADS MUST BE IDENTIFIED AND OWNERS REQUIREMENTS MET. CITY SPECIFICATIONS FOR EQUIPMENT PURCHASED THROUGH KIMARK AND INSTALLED IN CONTROL CABINET.