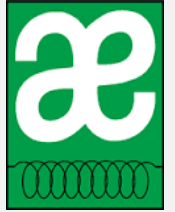




Armature Electric

Est. 1929

Predictive Maintenance



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Insulation

Power
Circuit

Power
Quality

Stator

Rotor

Air Gap

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Fault Zone	Test Type	Date	Condition Code	
Power Circuit	Voltage Imbalance (%)	0.42	11/22/16 1:32 PM	Normal
	Resistive Imbalance (%)	0.44	11/14/16 1:19 PM	
	Current Imbalance (%)	1.89	11/22/16 1:32 PM	
Power Quality	Voltage THD Ph-Ph (%)	0.92	11/22/16 1:32 PM	Normal
	Current THD (%)	1.05	11/22/16 1:32 PM	
	HVF (%)	0.00	11/22/16 1:32 PM	
Insulation	Stator			Caution
	RTG (Meg)	1900.00	11/14/16 1:19 PM	
	PI	3.62	11/14/16 1:19 PM	
	CTG (pF)	65000.00	11/14/16 1:19 PM	
Field	RTG (Meg)	8200.00	11/14/16 1:57 PM	Caution
	PI	8.29	11/14/16 1:57 PM	
	CTG (pF)	69000.00	11/14/16 1:57 PM	
Stator	Imp. Imbalance (%)	2.81	11/22/16 1:32 PM	Normal
	Inductive Imbalance (%)	6.25	11/14/16 1:19 PM	
Field	Inductance Ph-Ph (mH)	191.73	11/14/16 1:57 PM	Normal
	Resistance Ph-Ph (Ohm)	0.89	11/14/16 1:57 PM	
Air Gap	Eccentricity			Insufficient Data
	Peak One (Delta dB)	N/A	11/22/16 1:32 PM	
	Peak Two (Delta dB)	N/A	11/22/16 1:32 PM	
	Peak Three (Delta dB)	N/A	11/22/16 1:32 PM	
	Peak Four (Delta dB)	N/A	11/22/16 1:32 PM	
RIC (Eccentricity)	Not Tested			

VOLTAGE			
Fund RMS	Tot RMS	C.F.	THD
4077.75	4076.75	1.03	1.00
4108.37	4108.24	1.43	0.92
4098.77	4099.37	1.43	0.95
4094.90	4095.45		
0.42	0.42	HVF	0.03
100.00	% NEMA Overlap		100.00
Voltage 1			
2586.93	2586.73	1.43	1.06
Voltage 2			
2581.93	2582.27	1.42	0.90
Voltage 3			
2578.10	2578.61	1.42	0.99
Average			
0.62	0.62		
% Imbalance			
0.62	0.62		

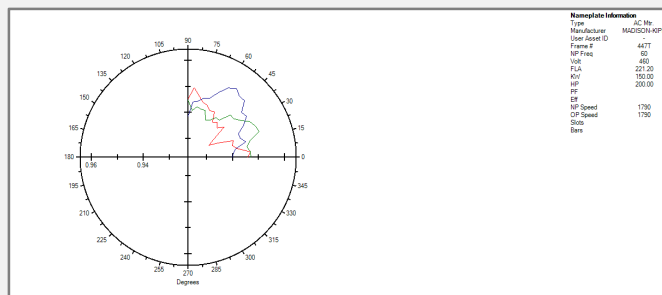
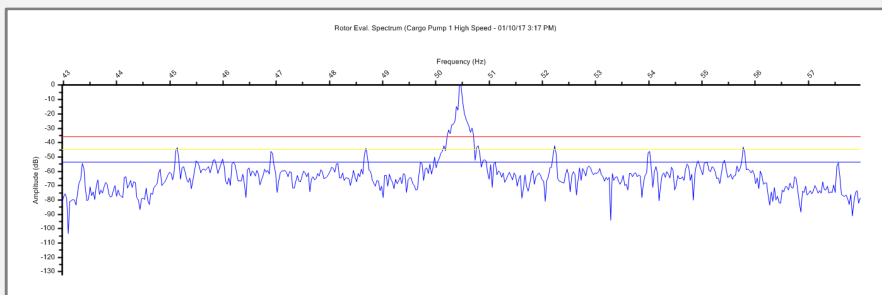
CURRENT			
Fund RMS	Tot RMS	C.F.	THD
434.28	434.57	1.45	1.06
430.30	430.59	1.46	0.95
429.46	429.55	1.45	0.96
427.88	427.77		
Average			
1.88	1.89		
% Imbalance			
97.54	97.55		

IMPEDANCE		
Phase	Magnitude	Angle
Phase 1	3.94	2.77
Phase 2	4.09	4.23
Phase 3	4.14	4.95
% Imbalance		
	2.81	

POWER				
	kW	kVAR	kVA	PF
Phase 1	592.80	854.85	1022.11	0.58
Phase 2	544.08	872.73	1034.44	0.53
Phase 3	547.80	876.18	1031.57	0.53
Total	1684.76	2603.76	3163.86	0.54
Power Sequence				

Efficiency	
I (Hertz)	58.99
HP Output	3714.42
kW Output	2769.37
Torque Output (ft-lb)	186560.23

SEQUENCE			
	Positive	Negative	Zero
Voltage Ph-R	4094.92	12.18	0.00
Voltage Ph-N	2584.13	10.80	0.00
Current	487.64	5.42	29.83
Self			
	Angle	Mutual	Angle
Zero	4.85	328.94	4.85
Positive	0.12	103.49	0.66
Negative	0.00	135.18	0.00
Phase Compensation			
Phase Rotation			
	Phase to Phase		
	Closest		



Data Includes:

- Phase-to-Phase Resistance
- Phase-to-Phase Inductance
- Balance of Resistance
- Balance of Inductance
- Ground Capacitance
- Polarization Index
- Dielectric Absorption Ratio
- Measured Ground Resistance
- Corrected Ground Resistance
- Rotor Influence check
- DC Field Inductance
- DC Field Resistance
- DC Field Capacitance
- DC Field Ground Resistance
- DC Armature Tests
- Synchronous Motor Tests
- Wound Rotor Motor Tests
- Current Spectral Analysis
- High Frequency Eccentricity Analysis
- Three Phase In-Rush/Start-Up
- Phase-to-Phase and Line-to-Neutral Voltage
- Voltage Imbalance
- Crest Factor
- Total Harmonic Distortion (THD)
- % Full Load Amps
- Phase Current RMS
- Phase Impedance
- Impedance Imbalance
- Power (KW, KVA, KVAR)
- Power Factor
- Efficiency
- Energy Cost Analysis
- Output Power
- Torque

Ground Resistance Test Voltages:

- 250-5000 V in 50 V steps
- *250-1000 V in 50 V steps
- Range (Accuracy):
- 20 KΩ to 100 MΩ @250-500v (±2%)
- 100 MΩ to 1 GΩ @250-5000v (±2.5%)
- 1 GΩ to 220 GΩ @500-5000v (±5%)
- 220 GΩ to 1000 GΩ @1kV-5kV (±5%)
- 1 TΩ to 3 TΩ @1kV-5kV (±20%)
- Short circuit/charge current:
- 2 mA

Capacitance Measurement:

- Range (Accuracy):
- 1000 to 220,000 pF @1200 Hz (±5%)
- 220,000 to 1,000,000 pF @300 Hz (±5%)
- Resolution:
- 250 pF

Inductance Measurement:

- Range (Accuracy@1200 Hz):
- .05mH to 250mH (±1%)
- Range (Resolution):
- .05mH to <50mH (.01mH)
- 50mH to <100mH (.05mH)
- 100mH to 250mH (.1mH)
- Range (Accuracy @300 HZ):
- 220mH to <700mH (±1%)
- 700mH to 2000mH (±2%)
- >2000mH to 5000mH (±5%)
- Resolution:
- .1mH to 25mH

Resistance Measurement:

- Range (Accuracy):
- 100 μΩ to 2000 Ω (±1%)
- Range (Resolution):
- .00010Ω to .02000Ω (.0001Ω)
- .0200Ω to 2.000Ω (.0001Ω)
- 2.00Ω to 50.0Ω (.001Ω)
- 50.00Ω to 1000.00Ω (.01Ω)
- 1000.0Ω to 2000.0Ω (.1Ω)



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