

60 MMSCF CRYO STANDARD UNIT w/ REFRIG																	
CUSTOMER Standard																	
Issue/Rev 1/13/2017																	
Today 1/14/2017																	
480 V, 3 PHASE, 3 WIRE, GROUNDED WYE																	
MOTOR LIST/LOAD SURVEY																	
JOB NO. J447/J448 DATE 1/5/2018 3:44 PM																	
		TAG/UNIT	NOTE	SERVICE	LOAD H.P.	VOLTS	F.L.A.	EFF	P.F.	KVA	LOAD K.W	DUTY %	bus	Running kVA	Running K.W	A bus KVA	A bus KW
		C-141	Soft Start	Regen Gas Compressor	75	460	83.5	0.94	0.90	66.4	59.5	93%	A	61.8	55.3	61.8	55.3
		A-141		Regen Compressor L.O. Cooler	0.75	460	1.2	0.80	0.75	0.9	0.7	93%	A	0.9	0.7	0.9	0.7
		P-141		Regen Compressor L.O. Pump	2	460	2.4	0.87	0.89	1.9	1.7	93%	A	1.8	1.6	1.8	1.6
		A-341A		Regen Gas Cooler	15	460	17.6	0.92	0.87	14.0	12.2	93%	A	13.0	11.3	13.0	11.3
		A-341B	VFD	Regen Gas Cooler	15	460	17.6	0.92	0.87	14.0	12.2	93%	A	13.0	11.3	13.0	11.3
		P-654		Expander L.O. Makeup Pump	1	460	1.4	0.87	0.78	1.1	0.9	93%	A	1.0	0.8	1.0	0.8
		P-651		Expander L.O. Pump	5	460	6.0	0.90	0.87	4.8	4.2	93%	A	4.5	3.9	4.5	3.9
		P-652		Expander L.O. Pump	5	460	6.0	0.90	0.87	4.8	4.2	93%	A	4.5	3.9	4.5	3.9
		A-101		Expander L.O. Cooler	5	460	6.0	0.90	0.87	4.8	4.2	93%	A	4.5	3.9	4.5	3.9
		Htr-101	Contactora	Expander L.O. Heater	3 KW	480	4.3		0.85	3.5	3.0	93%	A	3.3	2.8	3.3	2.8
		H-101	Pwr Ctrl	Expander Seal Gas Heater	10 KW	480	14.2		0.85	11.8	10.0	50%	A	5.9	5.0	5.9	5.0
		P-601		Product Charge Pump	10	460	11.7	0.92	0.87	9.3	8.1	93%	A	8.7	7.6	8.7	7.6
		P-602		Product Charge Pump	10	460	11.7	0.92	0.87	9.3	8.1	93%	A	8.7	7.6	8.7	7.6
		P-609		Methanol Injection Pump	0.5	460	0.8	0.80	0.75	0.6	0.5	93%	A	0.6	0.4	0.6	0.4
J448		A-161		Refrigeration Compressor Coolers	15	460	17.6	0.92	0.87	14.0	12.2	93%	A	13.0	11.3	13.0	11.3
J448		A-162		Refrigeration Compressor Coolers	15	460	17.6	0.92	0.87	14.0	12.2	93%	A	13.0	11.3	13.0	11.3
J448		P-161		Refrigeration Compressor Lube Oil Pumps	15	460	17.6	0.92	0.87	14.0	12.2	93%	A	13.0	11.3	13.0	11.3
J448		P-162		Refrigeration Compressor Lube Oil Pumps	15	460	17.6	0.92	0.87	14.0	12.2	93%	A	13.0	11.3	13.0	11.3
J448		A-361A	VFD	Refrigration Condenser	40	460	45.8	0.94	0.88	36.4	31.9	93%	A	33.9	29.6	33.9	29.6
J448		A-361B		Refrigration Condenser	40	460	45.8	0.94	0.88	36.4	31.9	93%	A	33.9	29.6	33.9	29.6
J448		A-361C		Refrigration Condenser	40	460	45.8	0.94	0.88	36.4	31.9	93%	A	33.9	29.6	33.9	29.6
		A-301A		Expander/Compr Aftercooler Fan A	30	460	34.3	0.92	0.89	27.3	24.2	93%	A	25.4	22.5	25.4	22.5
		A-301B		Expander/Compr Aftercooler Fan B	30	460	34.3	0.92	0.89	27.3	24.2	93%	A	25.4	22.5	25.4	22.5
		BL-741		H-741 Regen. Gas Heater Blower Motor	30	460	34.3	0.92	0.89	27.3	24.2	93%	A	25.4	22.5	25.4	22.5
		BL-781		H-781 HMO Heater Blower	25	460	29.8	0.92	0.85	23.7	20.2	93%	A	22.1	18.8	22.1	18.8
		P-781A		H-781 HMO Heater Pump	20	460	22.9	0.92	0.89	18.2	16.1	93%	A	16.9	15.0	16.9	15.0
		P-781B		H-781 HMO Heater Pump	20	460	22.9	0.92	0.89	18.2	16.1	93%	A	16.9	15.0	16.9	15.0
		LP-1	Bkr	MCC BLDG LP-1 Lighting Transformer 1 Phase	37.5KVA	480	46.7		0.87	37.5	33.8	70%	A	26.3	23.6	26.3	23.6
		FLP-1	CNTR	Field Lighting Panel (480 Volt)	30 KVA	480	37.4		0.87	30.0	27.0	60%	A	18.0	16.2	18.0	16.2
		UPS-LP1	Bkr	UPS Panel 240/120V	15KVA	480	20.8		0.87	16.0	15.0	60%	A	9.6	9.0	9.6	9.0
		H/TP-1	Bkr	Heat Trace (1 phase)	37.5 KVA	480	46.7		0.87	37.5	33.8	60%	A	22.5	20.3	22.5	20.3



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<b>5 KV LOADS</b>																		
			TAG	SERVICE	LOAD H.P.	VOLTS	F.L.A.	Eff.	P.F.	KVA	LOAD K.W	DUTY %	bus	Running kVA	Running K.W	A bus KVA	A bus KW	
	J448		C-161	Refrigeration Compressor (Soft Start)	1000	4000	123.6	0.96	0.91	856	780.3	95%	A	812.8	741	813	741	
	J448		C-162	Refrigeration Compressor (Soft Start)	1000	4000	123.6	0.96	0.91	856	780.3	95%	A	812.8	741	813	741	
				480 v loads from table above, includes 20 % spare		4160			0.88	593	523	100%	A	593.1	523.0	593	523	
										1711	1561			1626	1483	1626	1483	
				Subtotal						2304	2084			2219	2006	2219	2006	
				Spare capacity on Compression		0.1				171	156			163	148	163	148	
TOTAL CONN. 4160 V H.P.=										2000	2475	2240	TOTAL KVA		2381		2381	
TOTAL CONTINUOUS 4160 V K.W.=															2154		2154	
CALCULATED 4160 V PF													90%		@4160 V		@4160 V	
TOTAL CONTINUOUS 4160 V AMPERES=															331		331	
TOTAL CONNECTED K.W.=										2239.7								
TOTAL CONNECTED AMPERES=										344.1	@ 4160							
<p>F.L.A = HP*746/V*EFF.*P.F.*1.73                  K.W.= (F.L.A*V*1.73/1000)*P.F.</p>																		