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1. PROVIDE ULLOW WATER CUTOFF WITH MANUAL RESET, HIGH TEMP. SHUTOFF WITH MANUAL RESET, IRI CERTIFIED, AND CPD-1 BURNER AS MANUFACTURED BY GORDON-PIATT FULLY MODULATING LOW NOX. PROVIDE PANEL MOUNTED DISCONNECT, MOTOR STARTER WITH OVERLOADS, STOP-DOWN CONTROL, TRANSFORMER. PROVIDE FIRE-EYE E-100 FLAME SAFETY GUARD. PROVIDE 6-LIGHT ALARM SYSTEM PACKAGE WITH ALARM BELL AND SILENCING SWITCH. PROVIDE REMOTE LOCAL SWITCH FOR EACH BURNER PANEL. PROVIDE 80 LBS PRESSURE RATING. PROVIDE 6" CONCRETE PAD

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1. UNIT TO HAVE 2" PLEATED PREFILTERS AND 65% EFFICIENT BAG FINAL FILTERS. PROVIDE DOUBLE-SLOPPED DRAIN PAN.
2. UNIT TO HAVE ULTRAVIOLET FILTRATION. PROVIDE HIGH EFFICIENCY LIGHTING IN FAN SECTION, FILTER SECTION, AND COIL SECTION. ALL LIGHTING TO BE WIRED TO EXTERNAL POWER SWITCH.
3. AIR HANDLING UNIT VFD'S TO BE PROVIDED BY ELECTRICIAN.

AIR COOLED CONDENSING UNIT SCHEDULE																	
TAG	SERVICE	NOM. TONS	COOLING CAP. (MBH)	SEER	FAN			COMPRESSOR			ELECTRICAL			MODEL *	MFR.	WEIGHT (LBS)	NOTES
					CFM	QTY.	H.P.	REF. TYPE	QTY/TON	CIRCUITS	VOLT.	MCA	MOCF				
CU-1	AHU-1	90	-	-	55000	4	2	R-407C	6/15	2	460/3/60	166	175	YCU0090	YORK	5600	1
CU-2	AHU-2	90	-	-	55000	4	2	R-407C	6/13	2	460/3/60	166	175	YCU0090	YORK	5300	1
CU-3	AHU-3	100	-	-	55000	4	2	R-407C	6/13	2	460/3/60	211	225	YCU0100	YORK	5300	1
CU-4	AHU-4	100	-	-	55000	4	2	R-407C	6/13	2	460/3/60	211	225	YCU0100	YORK	5300	1

ALL UNITS TO BE OUTDOOR MOUNTED, AIR-COOLED, 9F11T-9Y81EM AIR CONDITIONERS. UNIT CABINET WILL BE CONSTRUCTED OF GALVANIZED STEEL AND COATED WITH A POWDER COAT PAINT. DIRECT-FIRE PROFFELLER TYPE FAN WITH TOTALLY ENCLOSED MOTOR WITH PERMANENTLY LUBRICATED BEARINGS, CORROSION RESISTANT SHAFT, STATICALLY AND DYNAMICALLY BALANCED FAN BLADES, AND PVC-COATED STEEL WIRE SAFETY GUARDS. COMPRESSOR TO BE HERMETICALLY SEALED AND MOUNTED ON RUBBER VIBRATION ISOLATORS. UNIT TO INCLUDE LOW-PRESSURE SWITCH, HIGH PRESSURE SWITCH, CYCLE PROTECTOR - 5 MINUTE COMPRESSOR DELAY, COMPRESSOR START A6818T, AND A CRANKCASE HEATER. PROVIDE 12" EQUIPMENT RAILS AND SET UNIT ON 2" SPRING VIBRATION ISOLATORS.

TAG	SERVICE	NOM. TONS	FAN			COOLING			HEATING		HUMIDIFIER		ELECTRICAL			WEIGHT (LBS)	MODEL #	MFGR	NOTES
			CFM	E.S.P.	H.P.	SENS. (MBH)	TOTAL (MBH)	COOL STAGES	ELEC. HEAT (KW)	HEAT STAGES	LBS./HR	KW	VOLT.	MCA	MOCP				
AC-1	181C IT CLOSET	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1
AC-2	160F MEDIA CLOST	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1
AC-3	160H MEDIA CLOSET	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1
AC-4	150 IT CLOSET	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1
AC-5	245 IT CLOSET	2	3,150	1.0	1.0	70.6	33.1	3	15.0	3	-	-	460/3	21	30	665	MMD36EAHEL3	LIEBERT	2
AC-6	A350 IT CLOSET	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1
AC-7	A305 IT CLOSET	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1
AC-8	A446 IT CLOSET	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1
AC-9	A405 IT CLOSET	1	600	0.3	0.2	112	13.0	1	-	-	-	-	2T1/1	1.0	15	220	MMD1E-X0000	LIEBERT	1

1. CEILING MOUNTED AIR-COOLED COMPUTER ROOM UNIT. UNIT TO INCLUDE EVAPORATOR COIL, FILTER DRIER, HIGH HEAD PRESSURE SWITCH, TWO-SPEED BLOWER MOTOR, MICROPROCESSOR CONTROL, STAINLESS STEEL DRAIN PAN, AND FACTORY INSTALLED DISCONNECT SWITCH. UNIT TO HAVE INTEGRAL SUPPLY AND RETURN GRILLES WITH REMOVABLE FRONT PANELS. PROVIDE RETURN AIR FILTER SECTION AND FILTERS.
2. FLOOR MOUNTED AIR COOLED COMPUTER ROOM UNIT. UNIT TO INCLUDE EVAPORATOR COIL, FILTER DRIER, HIGH HEAD PRESSURE SWITCH, TWO SPEED BLOWER MOTOR, MICROPROCESSOR CONTROL, STAINLESS STEEL DRAIN PAN, AND FACTORY INSTALLED DISCONNECT SWITCH. PROVIDE THREE WAY TOP DISCHARGE AIR PLENUM AND UNIT MOUNTED RETURN AIR GRILLE WITH 2" PANEL FILTERS. PROVIDE CYLINDER UNLOADING. PROVIDE SMOKE DETECTOR MOUNTED IN RETURN AIR PLENUM.
3. PROVIDE AN INTERFACE TO BACKUP FOR UNIT ALARMS TO REPORT.

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1. BASE MOUNTED END SUCTION PUMP WITH VIBRATION ISOLATION BASE. PROVIDE VARIABLE FREQUENCY DRIVES ON EACH PUMP. PROVIDE SEQUENCING PANEL TO ROTATE BETWEEN LEAD/LAG PUMPS.
2. INLINE CIRCULATING PUMP.
3. PROVIDE 4" CONCRETE PAD

TAG	SERVICE	COOLING OUT (MBH)	FAN		ELECTRICAL				MODEL *	MFGR	NOTES
			CFM	H.P.	VOLT.	MCA	MOCF	WEIGHT			
ACU-1	AC-1	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 3
ACU-2	AC-2	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 3
ACU-3	AC-3	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 3
ACU-4	AC-4	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 3
ACU-5	AC-5	9.31	6,400	3/4	460/3	19.3	25	565	FFC36AALO	LIEBERT	2, 4
ACU-6	AC-6	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 4
ACU-7	AC-7	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 4
ACU-8	AC-8	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 4
ACU-9	AC-9	12.3	2,200	0.2	208/1	10.6	15	200	FFC014A	LIEBERT	1, 4

1. REMOTE CONDENSING UNIT WITH COMPRESSOR, CONDENSER COIL, PROPELLER FAN, HIGH PRESSURE SWITCH, AND LEE-TEMP HEAD PRESSURE CONTROL, AND BUILT-IN RECEIVER FOR OPERATION DOWN TO -30F AMBIENT. PROVIDE INTEGRAL DISCONNECT SWITCH.
2. MULTIPLE DIRECT DRIVE PROPELLER FAN TYPE AIR COOLED CONDENSER WITH TWO SEPARATE REFRIGERATION CIRCUITS. PROVIDE LEE-TEMP PRESSURE HEAD PRESSURE CONTROL WITH HEATED RECEIVERS FOR AMBIENT OPERATION TO -30F.
3. PROVIDE 4" CONCRETE PAD
4. SET UNIT ON 12" HIGH EQUIPMENT RAILS.

EXHAUST FAN SCHEDULE											
TAG	SERVICE	CFM	E.S.P.	H.P.	DRIVE	RPM.	VOLT.	MODEL #	MFRGR	WEIGHT(LBS)	NOTES
EF-1	FIRST FLOOR EXHAUST	19000	10	1.5	BELT	400	460/3/60	490HLC-B	COOK	625	1
EF-2	SECOND FLOOR EXHAUST	20000	10	1.5	BELT	400	460/3/60	490HLC-B	COOK	625	1
EF-3	THIRD FLOOR EXHAUST	21300	10	1.5	BELT	400	460/3/60	490HLC-B	COOK	625	1
EF-4	FOURTH FLOOR EXHAUST	24000	0.75	1.5	BELT	400	460/3/60	490HLC-B	COOK	625	1
EF-5	SCIENCE EXHAUST HOODS	8,760	2.0	(2) 5.0	DIRECT	1710	460/3	(2) B5005	STROBIC AIR	500	3
EF-6	TOILET ROOM EXHAUST	5,875	15	5	BELT	1725	460/3	32CVR	COOK	450	2
EF-7	TOILET ROOM EXHAUST	575	15	1/2	BELT	1725	460/3	16CVR	COOK	166	2
EF-8	KITCHEN EXHAUST HOOD	1200	15	3/4	BELT	1725	460/3	14UCV	COOK	148	5
EF-9	JC 383	75	0.75	1/6	BELT	1725	120/1	60C7B	COOK	47	2

1. FAN SHALL BE A HOODED, LOW PROFILE, ROOF MOUNTED, BELT DRIVEN, DOWNBLAST CENTRIFUGAL EXHAUST VENTILATOR. PROVIDE 14" HIGH ROOF CURB, MOTORIZED DAMPER, AND LOCAL DISCONNECT MOUNTED BELOW UNIT COVER.
2. ROOF MOUNTED BELT DRIVE DOWNBLAST EXHAUST FAN WITH 14" HIGH INSULATED ROOF CURB AND LOCAL DISCONNECT.
3. LAB HOOD EXHAUST FAN DESIGNED FOR 260 CFM BYPASS FLOW, 10,892 CFM ENTRAINED FLOW, AND TOTAL SYSTEM FLOW OF 18,350 CFM. PROVIDE WITH SOUND ATTENUATOR. MINIMUM EFFECTIVE STACK HEIGHT AT 10MPH WIND: 51 FT. UNIT TO MOUNT ON 12" HIGH INSULATED ROOF CURB.
4. DUCT BOOSTER FAN FOR DRYER EXHAUST WITH PLASTIC HOUSING. PROVIDE DR-10 POSITIVE PRESSURE DRYER SWITCH. PROVIDE SPEED CONTROL SWITCH MOUNTED AT FAN.
5. ROOF MOUNTED BELT DRIVE UPBLAST EXHAUST FAN WITH 14" HIGH INSULATED ROOF CURB AND LOCAL DISCONNECT.