



Unfair Advantage - Schedule Note

TOPIC	FEATURE	WHY	TARGET	SCHEDULE NOTE LANGUAGE
Minimum Baseline:				
Extended warranty	2nd-5th year compressor	Addison standard compressor warranty, parts only	Add option for Daikin, & Horizon; Std for AAON	Manufacturer shall include a five (5) year compressor(s) warranty, parts only
Electrical requirement	Phase Voltage Monitor	Addison standard	Add option AAON and Daikin	Factory installed and wired under voltage and phase loss monitor with automatic restart
Cabinet salt spray rating	ASTM B117 2500 hours salt spray rating	Addison standard	Daikin 1000 hours rating and Horizon 672 hours rating	Cabinet exterior shall carry a corrosion resistant 2500 hour ASTM B117 salt spray rating
Low ambient operation	Mechanical cooling at 0F ambient through VFD modulating fan speed to maintain head pressure	Addison std: vane axial fans with TEAO motors w/ VFD controls and maintains head pressure for 0F operation	Daikin and Horizon offer fan cycling (ON/OFF) as std for low ambient operation; forces Daikin & Horizon to provide vfd ADD option. AAON must use flooded condenser head pressure control to achieve.	Condensing fan speed control for head pressure shall be through VFD per refrigeration circuit. Fan on/off cycling is not accepted
Functional Test and Controls	Unit and Controls : test operating pressures and limits	Addison std to record proper operation of unit ; QC check	AAON 'bumps' unit only	A complete factory functional performance run test per the sequence of operation shall be performed and turned over to the end user and engineer. Tests to include compressor(s) and fan amp draw, refrigeration pressure and temperature operating points, cut out and cut in safety trips to insure proper operation, superheat and subcooling temperature for proper refrigerant charge
Micro Channel Installation	Microchannel condenser coil 'soft' mounted to frame	Addison std allows for condenser coil movement to prevent damage due to thermal expansion/ contraction and vibration.	AAON microchannel is hard ridge mounted	COOLING ONLY - Floating Microchannel Condenser Coil Mounting Design with rubber isolation and glide path for coil expansion and contraction. Rigid mounted microchannel condenser coils are not acceptable.
Compressor(s)	compressor enclosure	dedicated enclosure (same construction of cabinet) mitigates sound. Lockable latches prevents tamper and theft.	Daikin 30 - 52 Tons Applied Rebel compressors are mounted under condenser coil and exposed	Compressor(s) shall be installed in an insulated enclosure for sound mitigation. Exposed compressors must include sound blankets. Submit sound blanket attenuation to engineer for approval. A factory installed compressor guard, lockable, shall be included to prevent theft or damage. Guard may be field installed by the mechanical contractor.
Controls	Sensor: DX coil sensor, Enthalpy Wheel return and exhaust humidity sensors	Addison std with ALC controls	AAON does not offer	Factory ALC controls to include mounted and wired sensors: return air temperature/humidity sensor, Enthalpy Wheel (if provided) exhaust air temperature/humidity sensor, dx coil leaving air temperature sensor (dx SST sensor is not accepted as dx LAT sensor)
Water Cooled Condensing Section	3-70 Tons	Addison standard.	AAON add option (maximum unit capacity is 70 tons)	Units ≤ 70 Tons: Factory installed and piped coax heat exchanger, thermal dispersion flow switch for proof of flow before energizing cooling/heating, water regulating valve for head pressure control for operating at low entering condenser water temperatures, factory installed per circuit. Water side working pressure for heat exchanger, valve body, and water piping shall be rated for a minimum 400 psig. Mfg using a brazed plate heat exchanger shall include a 6" stainless steel 60 mesh basket strainer. Strainer shall have isolation valves to clean and service.
Water Cooled Condensing Section	80-140 Tons	Addison standard	AAON add option	Units ≥ 80 Tons: Factory installed and piped brazed plate heat exchanger with 6" stainless steel 60 mesh basket strainer and isolation valves to clean and service. Also included is a thermal dispersion flow switch for proof of flow before energizing cooling/heating, water regulating valve for head pressure control for operating at low entering condenser water temperatures, factory installed per circuit. Water side working pressure for heat exchanger, valve body, and water piping shall be rated for a minimum 400 psig.
DOAS efficiency / AHRI 920 / 90.1	std 340/360 and EER / IEER not applicable. Apply std 920 DOAS Moisture Removal Capacity and Moisture Removal Efficiency	For DOAS providing neutral air: AK and PR with Liquid Sub Cooling beats out the competition	Aaon, Daikin, Trane Horizon, Valent	Manufacturer shall meet the minimum scheduled MRE, MRC and ISMRE values for efficiency
FrostShield Air Source Heat Pump	Addison continuous heat pump operation in low ambient	Addison heat pump operation without defrost yields lowest electrical single point power service, MCA/MOCP	Aaon, Daikin, Trane Horizon, Valent	The unit shall produce XX MBH at an ambient of X ° F dry bulb and a minimum COP of XX. Units requiring defrost shall submit performance profile during defrost operation and specify the supplemental heat required to maintain LAT setpoint during defrost. Any increase to MCA/MOCP will be the responsibility of the installing mechanical contractor to upgrade the electrical service.
Add Option Considerations:				
DOAS reheat	Liquid sub-cooling + HGRC	ADD option for Addison: increases cooling capacity and offers highest MRE/ISMRE rating	AAON & Horizon do NOT offer. Daikin ADD option DPS from 31 Ton to 52 Ton product line.	Unit shall provide DX cooling coil LAT, capacity, and free reheat to 'neutral' at scheduled temperatures. Unit shall meet minimum scheduled MRE/ISMRE rating. Unit MCA and MOCP not to be exceeded; any higher electrical service feed costs shall be provided by the installing mechanical contractor
DOAS reheat	Dual Circuit HGRC	Increased reheat temperature rise if needed ie low dewpoint and indoor agriculture applications	ADD option for ALL but substantail add for AAON	Unit shall offer dual circuit HGRC dehumidification sequence of operation at the listed capacity
SCCR Rating	65000 A SCCR rating for unit	Addison Add option for 65KA design consideration for fault safety	AAON std 5KAIC with 10KAIC and 35KAIC listed Add options. Daikin 65KA SCCR ADD option	Unit shall carry 65 KA SCCR rating with factory mounted fused disconnect. Contactors and motor starter protector rated at a minimum of 65K. Over current protection devices for VFD's and ECM blowers are upgraded to fuses per manufacturers specifications to increase the rating to a minimum of 65k.
Corrosion Inhibitor	10000 hrs - cooling, heating and condensing coils	For sea coastal and corrosive environments	ALL competition offer only up to 6000 hours and/or stainless steel options	Unit shall carry an ASTM B117 10000 hour salt spray rating for cooling, heating and condensing coils. Unit exterior and interior liner shall carry 10000 hour rating. Mfg offering less than 10000 hrs corrosion inhibitor shall include a field application to meet the required salt spray rating for coil and cabinet exterior and interior liners OR include a minimum rating of 6000 hrs with stainless steel coil casing and stainless steel liner in all sections.
Enthalpy Wheel	Aluminum substrate and 3a molecular sieve desiccant	3A limits EATR, exhaust air transfer ratio, to minimize carry over of odor and contaminants	AAON uses Semco and appreciable add cost	Enthalpy wheel - 3 angstrom molecular sieve desiccant with an aluminum substrate wheel, VFD defrost

Vibration Isolation	internally mounted 1" spring vibration isolation	Offering for PR** series direct drive plenum fans with vfd	AAON cannot offer internal spring vibration isolation	Internally mounted 1" spring vibration isolation OR manufacturer must supply roof curb with integral spring vibration isolation rail
Design Consideration:				
Coil face velocity	Schedule coil face velocity / sq ft of coil (look for < 300-350 fpm and below)	Addison offering C - 18 sq ft and D 29 sq ft results in low fpm fv. NO intermediate coil sizes	Schedule unit minimum face velocity and minimum sq ft. coil so competing mfg with intermediate coil options, staggered coil, and deeper row options are not afforded a smaller cost effective cabinet size in meeting a dx coil dew point.	DX evaporator coil shall be minimum face area and face velocity as shown in the equipment schedule
Sound	Condensing Fan Sound Power	Addison std is a sickle shaped high efficiency fan for sound performance	AAON std is axial fan motor type. Schedule and specify a maximum sound power forces AAON to use a feathered owlet expensive EC fan/motor assembly	see specification and equipment schedule for maximum sound power levels accepted
Cooling Coil Rows	DX evaporator minimum 6 rows	High capacity for dehumidification applications and dew point control	Both Trane Horizon & Daikin Rebel offering 4 row w/ optional 6 row coil	DX evaporator coil shall be minimum 6 rows, with minimum face area and maximum face velocity as shown in the equipment schedule
Condensing Section	Condensing section (condensing coil and fans) for split systems	Compressor(s) installed with the indoor section have advantages in installation and operation.	AAON only offer condensing units (outdoor section: condenser coil, fans and compressors)	Compressor(s) installed with the indoor section have advantages of easier service/access, lower line losses, and lower installed cost because the HGRH line is not piped to the outdoor section.

preheat coil - or run around energy recovery coil

airflow