



Engineering Specifications



NHP Heat Pumps

SS Series

Packaged Single Stage	NVA-038 thru NVA-60
Packaged Two Stage	NVT-032 thru NVA-072
Split Two Stage	NST-042 thru NST-072
Hydronic Single Stage	NWA-024 thru NWA-072
Hydronic Dual Compressor	NWD-080 thru NWD-144

eSeries

Packaged Two Stage	NVT-e38 thru NVA-e50
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VQ™ Series

Variable Capacity Hydronic	NWV-060 thru NWV-084
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Standard Features

All Northern Heat Pump™ heat pumps are Energy Star® rated, AHRI performance certified, and ETL safety certified. All heat pumps are 100% run tested at the factory to ensure performance in the field. High performance R410a refrigerant is used to achieve the highest possible capacities.

• SS Series

SS Series models feature a 304 Stainless Steel cabinet for superior corrosion protection and long life. Other features include:

Packaged and Split

- | | | |
|----------------------------------|--|-----------------------------|
| -Exclusive EZGEO Control | -ECM Blower Motor | -Copper Coax Heat Exchanger |
| -Scroll Compressor | -Compressor Blanket | -Desuperheater |
| -Dual compressor isolation | -Electronic controls with safety lockout | -Built-In Condensate Trap |
| -Filter and filter rack included | | |
- Two Stage models feature a two stage modulating scroll compressor.

Hydronic

- | | |
|---|----------------------------------|
| -Scroll Compressor(s) | -Compressor Blanket |
| -Dual compressor isolation | -Desuperheater |
| -Copper coax source & load heat exchanger (Single Stage) | -Electronic controls with safety |
| -Braze plate source & load heat exchanger (Dual Compressor) | |
- Dual compressor models feature dual circuit heat exchangers and separate compressor circuits. Refrigerant from one compressor is always separate from the other compressor. This ensures greater compressor reliability and, unlike tandem compressor systems, allows for one circuit only operation in the event of an emergency.

• eSeries

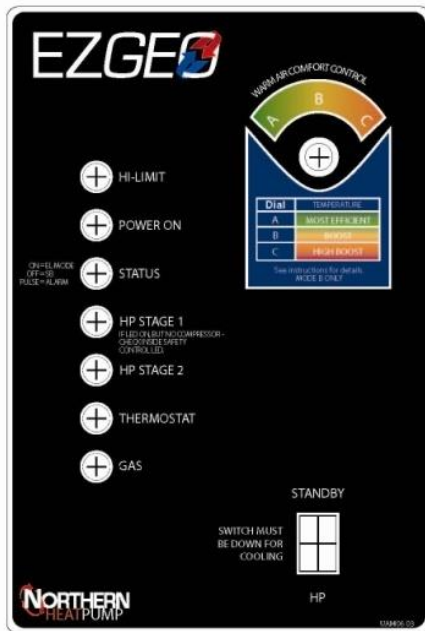
eSeries models come in a smaller package ideal for retrofits but are Energy Star® rated for today's requirements. eSeries models feature an economical powder coated galvanized cabinet and lockout controller. Other features include:

- | | |
|---|---------------------|
| -Two stage modulating scroll compressor | -ECM Blower Motor |
| -Dual compressor isolation | -Compressor Blanket |
| -Copper coax source heat exchanger | -Desuperheater |

• VQ™ Series

VQ™ models feature Constant Temp Discharge™ technology that modulates heat pump output to match real time heating or cooling conditions from virtually 0 BTUh to max capacity. In addition they offer all the features of the SS Series dual compressor models.

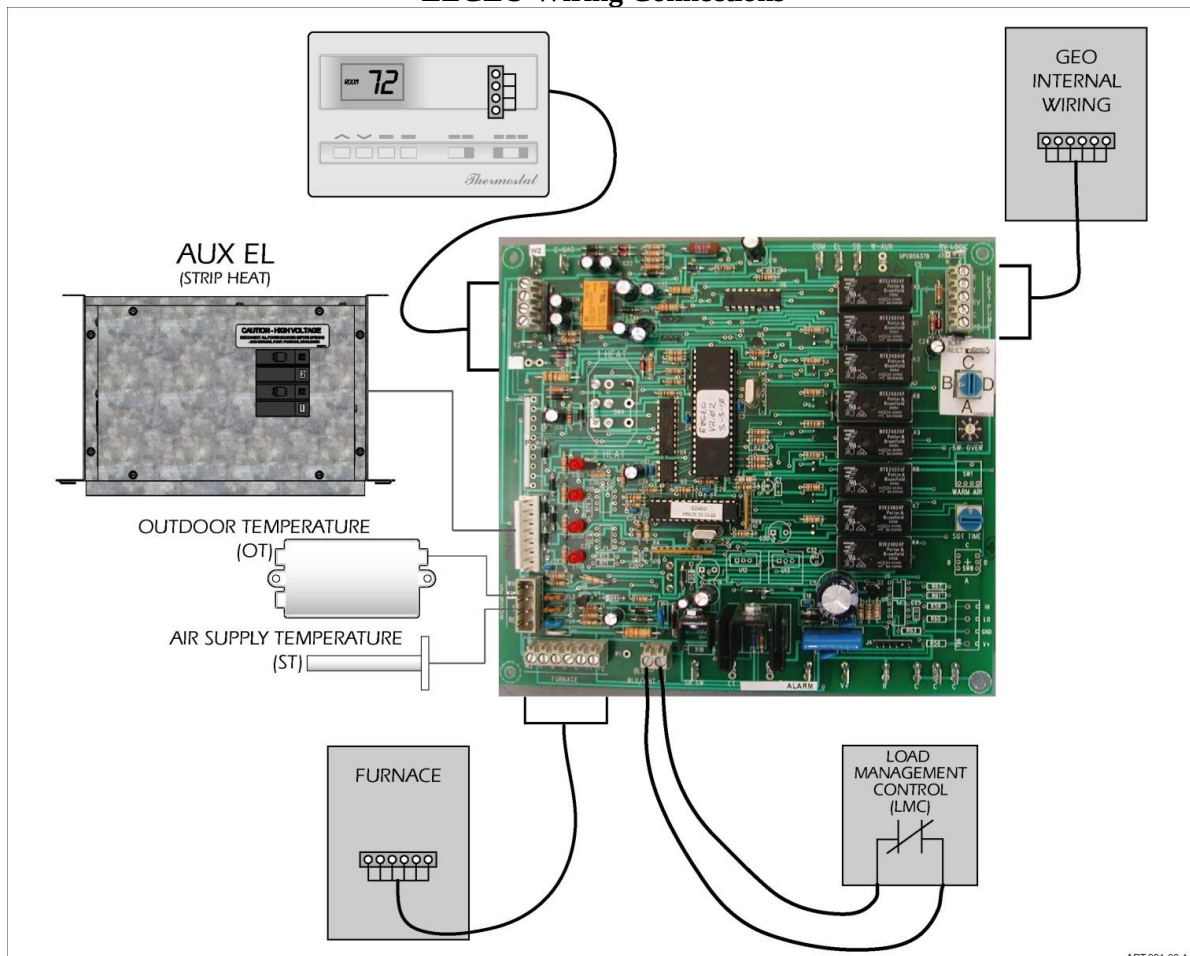
EZGEO Controller



The exclusive EZGEO control module provides the following features:

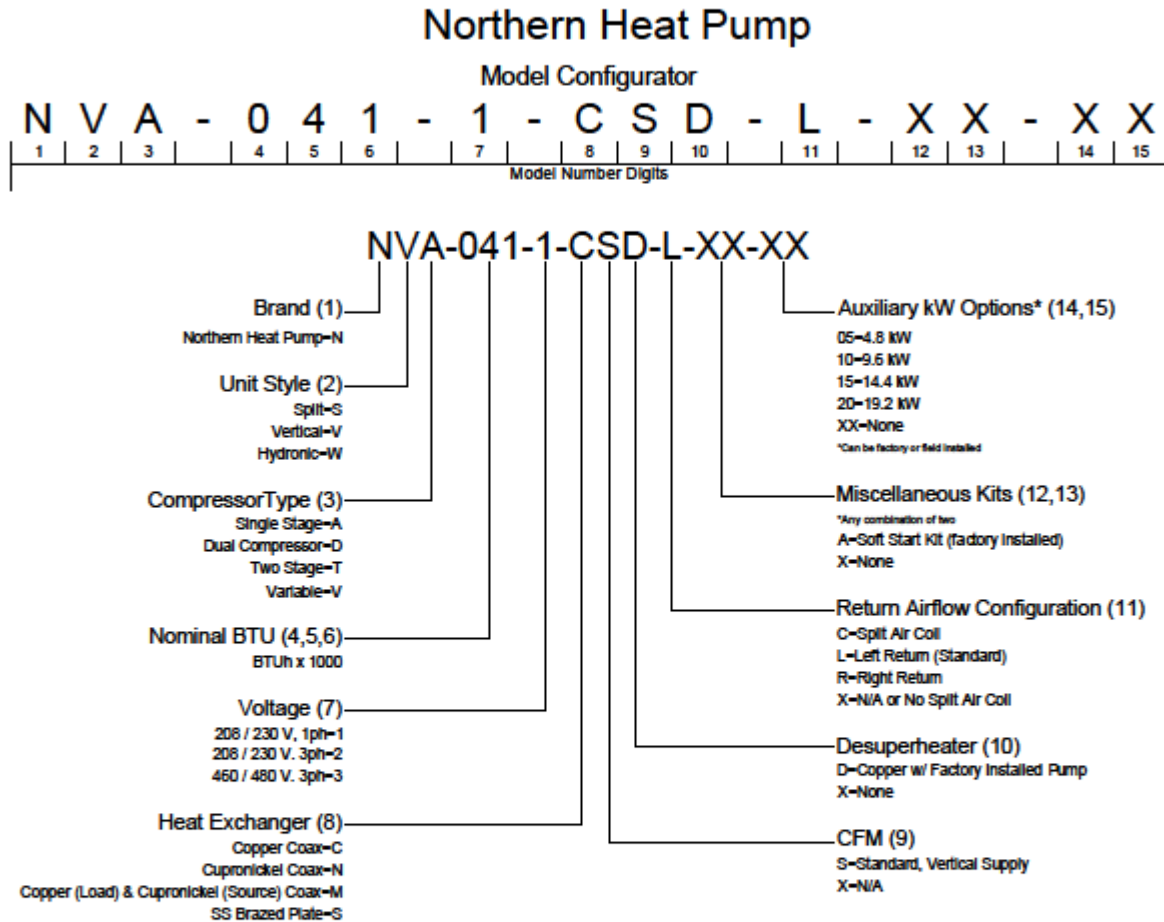
- Dual fuel control (Load control)
- Easy to use controls
- Front panel status lights to relay important information
- Ability to use conventional 4-wire thermostat
- Energy control selector switch (for systems with gas backup)

EZGEO Wiring Connections



ART-291-00 4.0

Key to Model Numbers



NCxx
Rev X
05 Jun 18

Performance Ratings, SS Series

Packaged Forced Air Single Stage Vertical Models

AHRI/ISO 13256-1 Ground Water			COOLING 59°F EWT		HEATING 50°F EWT	
MODELS	CFM	GPM	BTU/hr	EER	BTU/hr	COP
NVA-038	1250	10	42,000	22.9	42,600	4.28
NVA-050	1600	12	55,400	22.2	57,300	4.10
NVA-060	2000	16	65,000	21.4	63,500	4.10

AHRI/ISO 13256-1 Ground Loop			COOLING 77°F EWT		HEATING 32°F EWT	
MODELS	CFM	GPM	BTU/hr	EER	BTU/hr	COP
NVA-038	1250	10	38,100	17.5	32,700	3.66
NVA-050	1600	12	52,600	17.1	45,200	3.60
NVA-060	2000	16	61,800	17.1	50,700	3.60

Packaged Forced Air Two Stage Vertical Models

AHRI/ISO 13256-1 Ground Water			COOLING 59°F EWT			HEATING 50°F EWT			COOLING 59°F EWT			HEATING 50°F EWT		
Model		GPM	BTU/hr	CFM	EER	BTU/hr	CFM	COP	BTU/hr	CFM	EER	BTU/hr	CFM	COP
NVT-032	1st Stage	10	--	--	--	--	--	--	28,400	850	24.1	23,000	775	4.2
	2nd Stage	10	36,500	1000	20.8	30,300	950	4.0	--	--	--	--	--	--
NVT-042	1st Stage	11	--	--	--	--	--	--	35,100	1150	23.4	30,500	1100	4.1
	2nd Stage	11	47,000	1400	20.1	42,200	1310	4.0	--	--	--	--	--	--
NVT-048	1st Stage	12	--	--	--	--	--	--	36,400	1275	24.1	31,500	1200	4.3
	2nd Stage	12	49,300	1600	19.3	44,600	1500	4.0	--	--	--	--	--	--
NVT-060	1st Stage	15	--	--	--	--	--	--	47,700	1650	23.7	37,300	1580	4.1
	2nd Stage	15	64,200	2000	20.1	55,700	1875	4.0	--	--	--	--	--	--
NVT-072	1st Stage	18	--	--	--	--	--	--	56,900	2000	23.3	52,200	1875	4.2
	2nd Stage	18	73,700	2400	19.7	68,800	2250	4.0	--	--	--	--	--	--

AHRI/ISO 13256-1 Ground Loop			COOLING 77°F EWT			HEATING 32°F EWT			COOLING 68°F EWT			HEATING 41°F EWT		
Model		GPM	BTU/hr	CFM	EER	BTU/hr	CFM	COP	BTU/hr	CFM	EER	BTU/hr	CFM	COP
NVT-032	1st Stage	10	--	--	--	--	--	--	26,400	850	22.1	19,900	775	3.9
	2nd Stage	10	32,700	1000	16.1	24,100	950	3.6	--	--	--	--	--	--
NVT-042	1st Stage	11	--	--	--	--	--	--	34,500	1150	21.3	27,000	1100	4.0
	2nd Stage	11	43,200	1400	15.9	32,800	1310	3.8	--	--	--	--	--	--
NVT-048	1st Stage	12	--	--	--	--	--	--	35,900	1275	21.1	28,400	1200	4.0
	2nd Stage	12	47,600	1600	14.9	35,600	1500	3.5	--	--	--	--	--	--
NVT-060	1st Stage	15	--	--	--	--	--	--	46,100	1650	21.5	33,400	1580	3.7
	2nd Stage	15	58,300	2000	15.9	44,400	1875	3.6	--	--	--	--	--	--
NVT-072	1st Stage	18	--	--	--	--	--	--	55,700	2000	20.5	46,300	1875	3.8
	2nd Stage	18	70,200	2400	15.2	55,500	2250	3.5	--	--	--	--	--	--

Performance Ratings, SS Series

Split Forced Air Two Stage Models

AHRI/ISO 13256-1 Ground Water		COOLING 59°F EWT				HEATING 50°F EWT			COOLING 59°F EWT			HEATING 50°F EWT		
Model		GPM	BTU/hr	CFM	EER	BTU/hr	CFM	COP	BTU/hr	CFM	EER	BTU/hr	CFM	COP
NST-042	1st Stage	11	--	--	--	--	--	--	35,100	1150	23.4	30,500	1100	4.1
	2nd Stage	11	47,000	1400	20.1	42,200	1312	4.0	--	--	--	--	--	--
NST-060	1st Stage	15	--	--	--	--	--	--	47,700	1650	23.7	37,300	1580	4.1
	2nd Stage	15	64,200	2000	20.1	55,700	1875	4.0	--	--	--	--	--	--
NST-072	1st Stage	18	--	--	--	--	--	--	56,900	2000	23.3	52,200	1875	4.2
	2nd Stage	18	73,700	2400	19.7	68,800	2250	4.0	--	--	--	--	--	--

AHRI/ISO 13256-1 Ground Loop		COOLING 77°F EWT				HEATING 32°F EWT			COOLING 68°F EWT			HEATING 41°F EWT		
Model		GPM	BTU/hr	CFM	EER	BTU/hr	CFM	COP	BTU/hr	CFM	EER	BTU/hr	CFM	COP
NST-042	1st Stage	11	--	--	--	--	--	--	34,500	1150	21.3	27,000	1100	4.0
	2nd Stage	11	43,200	1400	15.9	32,800	1312	3.8	--	--	--	--	--	--
NST-060	1st Stage	15	--	--	--	--	--	--	46,100	1650	21.5	33,400	1580	3.7
	2nd Stage	15	58,300	2000	15.9	44,400	1875	3.6	--	--	--	--	--	--
NST-072	1st Stage	18	--	--	--	--	--	--	55,700	2000	20.5	46,300	1875	3.8
	2nd Stage	18	70,200	2400	15.2	55,500	2250	3.5	--	--	--	--	--	--

Performance Ratings, SS Series

Hydronic Single Stage Models

AHRI/ISO 13256-2 Ground Water		COOLING 59°F EWT		HEATING 50°F EWT	
MODELS	GPM	BTU/hr	EER	BTU/hr	COP
NWA-024	8	27,000	21.1	24,800	3.6
NWA-036	12	40,100	20.7	43,900	3.7
NWA-050	16	55,100	20.1	60,100	3.6
NWA-060	15	65,000	20.4	68,000	3.7
NWA-072	18	75,000	20.1	80,500	3.7

AHRI/ISO 13256-2 Ground Loop		COOLING 77°F EWT		HEATING 32°F EWT	
MODELS	GPM	BTU/hr	EER	BTU/hr	COP
NWA-024	8	23,000	16.2	21,500	3.1
NWA-036	12	36,600	16.1	32,300	3.1
NWA-050	16	54,200	16.1	45,200	3.1
NWA-060	15	58,200	16.1	52,000	3.1
NWA-072	18	71,900	16.1	62,900	3.1

Hydronic Dual Compressor Models

AHRI/ISO 13256-2 Ground Water			COOLING 59°F EWT		HEATING 50°F EWT		COOLING 59°F EWT		HEATING 50°F EWT	
Model		GPM	BTU/hr	EER	BTU/hr	COP	BTU/hr	EER	BTU/hr	COP
NWD-080	1st Stage	18	--	--	--	--	44,000	21.2	47,500	3.7
	2nd Stage	18	82,000	20.5	86,000	3.6	--	--	--	--
NWD-096	1st Stage	20	--	--	--	--	55,100	21.5	58,200	3.8
	2nd Stage	20	103,000	19.7	110,200	3.5	--	--	--	--
NWD-120	1st Stage	24	--	--	--	--	64,000	21.0	71,500	3.8
	2nd Stage	24	120,000	19.5	128,000	3.5	--	--	--	--
NWD-144	1st Stage	30	--	--	--	--	73,500	20.2	78,500	3.7
	2nd Stage	30	137,500	19.0	147,600	3.4	--	--	--	--

AHRI/ISO 13256-2 Ground Loop			COOLING 77°F EWT		HEATING 32°F EWT		COOLING 68°F EWT		HEATING 41°F EWT	
Model		GPM	BTU/hr	EER	BTU/hr	COP	BTU/hr	EER	BTU/hr	COP
NWD-080	1st Stage	18	--	--	--	--	41,700	17.5	42,400	3.3
	2nd Stage	18	74,500	15.8	70,000	2.9	--	--	--	--
NWD-096	1st Stage	20	--	--	--	--	53,100	18.3	52,200	3.5
	2nd Stage	20	95,700	15.7	86,900	2.9	--	--	--	--
NWD-120	1st Stage	24	--	--	--	--	57,000	18.1	55,500	3.5
	2nd Stage	24	103,200	15.6	99,900	2.8	--	--	--	--
NWD-144	1st Stage	30	--	--	--	--	70,000	18.0	68,500	3.3
	2nd Stage	30	126,000	14.4	121,000	2.7	--	--	--	--

Performance Ratings, eSeries

Packaged Forced Air Two Stage eSeries Vertical Models

AHRI/ISO 13256-1 Ground Water			COOLING 59°F EWT			HEATING 50°F EWT			COOLING 59°F EWT			HEATING 50°F EWT		
Model		GPM	BTU/hr	CFM	EER	BTU/hr	CFM	COP	BTU/hr	CFM	EER	BTU/hr	CFM	COP
NVT-e38	1st Stage	9	--	--	--	--	--	--	30,500	1050	23.7	27,200	1000	4.2
	2nd Stage	9	41,100	1250	18.5	38,200	1200	4.0	--	--	--	--	--	--
NVT-e50	1st Stage	12	--	--	--	--	--	--	40,500	1275	23.7	35,600	1200	4.2
	2nd Stage	12	53,900	1600	18.5	50,300	1500	4.0	--	--	--	--	--	--

AHRI/ISO 13256-1 Ground Loop			COOLING 77°F EWT			HEATING 32°F EWT			COOLING 68°F EWT			HEATING 41°F EWT		
Model		GPM	BTU/hr	CFM	EER	BTU/hr	CFM	COP	BTU/hr	CFM	EER	BTU/hr	CFM	COP
NVT-e38	1st Stage	9	--	--	--	--	--	--	30,100	1050	20.0	24,700	1000	3.7
	2nd Stage	9	38,200	1250	14.2	31,200	1200	3.6	--	--	--	--	--	--
NVT-e50	1st Stage	12	--	--	--	--	--	--	39,900	1275	21.5	31,700	1200	3.7
	2nd Stage	12	50,100	1600	15.0	41,000	1500	3.5	--	--	--	--	--	--

Performance Ratings, VQ™ Series

Hydronic VQ™ Variable Capacity Models

AHRI/ISO 13256-2 Ground Loop												
Model		GPM	GPM	Stage								
		Source	Load	8	7	6	5	4	3	2	1	0
NWV-060	Heating	3-12	0-12	48,400	42,400	39,400	33,400	29,400	20,400	19,000	12,900	pulse
	Cooling	3-15	0-15	61,500	54,500	53,800	46,800	37,400	29,700	24,100	17,100	pulse
NWV-084	Heating	3-18	0-18	67,000	60,900	49,000	48,000	42,800	29,800	19,000	12,900	pulse
	Cooling	3-21	0-21	85,500	78,500	66,000	61,400	59,000	41,900	24,100	17,100	pulse

Parameters for all stages:

- Cooling: 77°F EWT
- EER: avg, 23.5
- Heating: 32°F EWT
- COP: avg, 3.4

Contact NHP Tech Support for Ground Water applications.

Configuration Options, SS Series

Packaged Forced Air Single and Two Stage Vertical Models

Model Suffix	Description	NVA -038	NVA -050	NVA -060	NVT- 032	NVT- 042	NVT- 048	NVT- 060	NVT- 072
Electrical									
-1-	208V/230V Single Phase	▪	▪	▪	▪	▪	▪	▪	▪
-2-	200V/230V Three Phase	*	*	*	*	*	*	*	*
-3-	460V/480V Three Phase	*	*	*	*	*	*	*	*
Heat Exchanger									
-Cxx-	Copper (Source)	▪	▪	▪	▪	▪	▪	▪	▪
-Nxx-	Cupronickel (Source)	*	*	*	*	*	*	*	*
Return Airflow									
-xLx-	Left Return	▪	▪	▪	▪	▪	▪	▪	▪
-xRx-	Right Return	○	○	○	○	○	○	○	○
Desuperheater									
-xxD-	Desuperheater with integrated pump	▪	▪	▪	▪	▪	▪	▪	▪
-xxX-	None	○	○	○	○	○	○	○	○
Misc Kit									
-xX-	None	▪	▪	▪	▪	▪	▪	▪	▪
-xA-	Soft start kit	*	*	*	*	*	*	*	*
Internal Strip Heater									
-xx	Standard	▪	▪	▪	▪	▪	▪	▪	▪
-05	4.8 kW, 230V single phase	*	*	*	*	*	*	*	*
-10	9.6 kW, 230V single phase	*	*	*	*	*	*	*	*
-15	14.4 kW, 230V single phase		*	*		*	*	*	*
-20	19.2 kW, 230V single phase		*	*			*	*	*

▪ Standard ○ Optional *Special Order, lead time varies

Configuration Options, SS Series

Split Forced Air Two Stage

Model Suffix	Description	NST-042	NST-060	NST-072
Electrical				
-1-	208V/230V Single Phase	▪	▪	▪
-2-	200V/230V Three Phase	*	*	
-3-	460V/480V Three Phase	*	*	
Heat Exchanger				
-Cxx-	Copper (Source)	▪	▪	▪
-Nxx-	Cupronickel (Source)	*	*	*
Return Airflow				
-xCx-	Split Air Coil	▪	▪	▪
-xXx-	No split Coil	○	○	○
Desuperheater				
-xxD-	Desuperheater with integrated pump	▪	▪	▪
-xxX-	None	○	○	○
Misc Kit				
xX-	None	▪	▪	▪
-xA-	Soft start kit	*	*	*

▪ Standard ○ Optional *Special Order, lead time varies

Configuration Options, SS Series

Hydronic Single Stage Models

Model Suffix	Description	NWA-024	NWA-036	NWA-050	NWA-060	NWA-072
Electrical						
-1-	208V/230V Single Phase	▪	▪	▪	▪	▪
-2-	200V/230V Three Phase	*	*	*	*	*
-3-	460V/480V Three Phase	*	*	*	*	*
Heat Exchanger						
-Cxx-	Copper (Load & Source)	▪	▪	▪	▪	▪
-Nxx-	Cupronickel (Load & Source)				*	*
-Mxx-	Copper (Load) & Cupronickel (Source)				*	*
Desuperheater						
-xxD-	Desuperheater with integrated pump	▪	▪	▪	▪	▪
-xxX-	None	○	○	○	○	○
Misc Kit						
-xX-	None	▪	▪	▪	▪	▪
-xA-	Soft start kit	*	*	*	*	*

▪ Standard ○ Optional *Special Order, lead time varies

Hydronic Dual Compressor Models

Model Suffix	Description	NWD-080	NWD-096	NWD-120	NWD-144
Electrical					
-1-	208V/230V Single Phase	▪	▪	▪	▪
-2-	200V/230V Three Phase	*	*	*	*
-3-	460V/480V Three Phase	*	*	*	*
Heat Exchanger					
-Sxx-	Stainless	▪	▪	▪	▪
Desuperheater					
-xxX-	None	▪	▪	▪	▪
-xxD-	Desuperheater with integrated pump	○	○	○	○

▪ Standard ○ Optional *Special Order, lead time varies

Configuration Options, eSeries

Packaged Forced Air Two Stage eSeries Vertical Models

Model Suffix	Description	NVT-e38	NVT-e50
Electrical			
-1-	208V/230V Single Phase	▪	▪
-2-	200V/230V Three Phase		*
Heat Exchanger			
-Cxx-	Copper (Source)	▪	▪
-Nxx-	Cupronickel (Source)	*	*
Return Airflow			
-xLx-	Left Return	▪	▪
-xRx-	Right Return	○	○
Desuperheater			
-xxD-	Desuperheater with integrated pump	▪	▪
-xxX-	None	○	○
Misc Kit			
-xX-	None	▪	▪
-xA-	Soft start kit	*	*

▪ Standard ○ Optional *Special Order, lead time varies

Configuration Options, VQ™ Series

Hydronic VQ™ Variable Capacity Models

Model Suffix	Description	NWV-060	NWV-084
Electrical			
-1-	208V/230V Single Phase	▪	▪
-2-	200V/230V Three Phase	*	*
-3-	460V/480V Three Phase	*	*
Heat Exchanger			
-Sxx-	Stainless	▪	▪
Desuperheater			
-xxX-	None	▪	▪
-xxD-	Desuperheater with integrated pump	○	○

▪ Standard ○ Optional *Special Order, lead time varies

Operating Conditions

Forced Air Single Stage

Cooling

Model	Source Temp	Source temp Δ	GPM	Air temp Δ Dry bulb	Amps 240	Blower AMPS	Nominal CFM	Discharge pressure at 80 deg A-RT	Discharge temp	Sub-cool at TXV	Suction pressure at bulb	Suction temp at bulb	Super-heat at bulb
NVA-038	50	8.5-10.5	10	20-25	7.6-9.6	2.1	1210-1250	197-217	109-115	4.6-8.6	119-129	55-61	14.5-18.5
	59	8.9-10.9	10	21-26	8.6-10.6	2.3	1240-1280	230-250	120-126	5.5-9.5	124-134	57-63	13.8-17.8
	77	8.0-10.0	10	19-24	10.5-12.5	2.2	1240-1280	293-313	137-143	7.0-11.0	127-137	57-63	12.8-16.8
	86	6.8-8.8	10	20-25	11.7-13.7	2.2	1230-1270	324-344	149-155	8.3-12.3	123-133	55-61	12.1-16.1
NVA-050	50	11.6-13.6	12	22-27	7.2-9.2	3.3	1670-1710	223-243	110-116	6.3-10.3	130-140	57-63	12.0-16.0
	59	11.3-13.3	12	22-27	12.4-14.4	3.3	1680-1720	243-263	115-121	7.7-11.7	131-141	57-63	11.8-15.8
	77	10.6-12.6	12	20-25	15.3-17.3	3.3	1680-1720	309-329	134-140	7.6-11.6	133-143	58-64	11.4-15.4
	86	10.0-12.0	12	20-25	17.0-19.0	3.3	1680-1720	350-370	144-150	8.8-12.8	135-145	59-65	11.2-15.2
NVA-060	50	10.4-12.4	16	20-25	14.2-16.2	5.1	2010-2050	219-239	122-128	7.0-11.0	129-139	64-70	19.4-23.4
	59	10.6-12.6	16	19-24	15.5-17.5	5.2	2030-2070	243-263	127-133	7.0-11.0	133-143	65-71	18.7-22.7
	77	9.6-11.6	16	18-23	18.6-20.6	5.2	2040-2080	307-327	145-151	9.5-13.5	137-147	67-73	18.3-22.3
	86	8.8-10.8	16	17-22	20.4-22.4	5.2	2050-2090	342-362	156-162	7.2-11.2	138-148	68-74	18.8-22.8

Heating

Model	Source Temp	Source temp Δ	GPM	Air temp Δ	Amps 240	Blower AMPS	CFM	Discharge pressure at 68 deg A-RT	Discharge temp	Sub cool at TXV	Suction pressure at bulb	Suction temp at bulb	Super-heat at bulb
NVA-038	32	3.4-5.4	10	25-30	11.2-13.2	1.9	1170-1210	305-325	160-166	10.4-14.4	77-87	29-35	10-14
	50	5.7-7.7	10	32-37	12.4-14.4	2.0	1170-1210	351-371	160-166	11.9-15.9	111-121	46-52	9-13
	68	8.4-10.4	10	39-44	13.7-15.7	2.0	1200-1250	395-415	161-167	11.3-15.3	145-155	62-68	10-14
NVA-050	32	3.9-5.9	12	25-30	16.4-18.4	3.2	1590-1630	317-337	158-164	8.2-12.2	75-85	29-35	11-15
	50	6.4-8.4	12	32-37	18.0-20.0	3.3	1590-1630	358-378	155-161	11.6-15.6	106-116	44-50	9-13
	68	9.2-11.2	12	39-44	19.7-21.7	3.2	1530-1570	402-422	153-159	12.2-16.2	139-149	57-63	8-12
NVA-060	32	3.0-5.0	16	26-31	18.9-20.9	3.8	1750-1790	313-333	168-174	8.5-12.5	75-85	31-37	13-17
	50	7.5-9.8	16	32-37	20.7-22.7	3.9	1780-1820	351-371	166-172	11.5-14.5	102-112	45-51	12-16
	68	7.8-9.8	16	40-45	22.8-24.8	4.0	1790-1830	400-420	167-173	10.8-14.8	140-150	60-66	11-15

Operating Conditions

Forced Air Two Stage

Cooling

Model	Stage	Source Temp	Source temp Δ	GPM	Air temp Δ Dry bulb	Amps 240	Blower AMPS	CFM	Discharge pressure at 80 deg A-RT	Discharge temp	Sub-cool at TXV	Suction pressure at bulb	Suction temp at bulb	Super-heat at bulb
NVT-032	2	50	6.6-8.6	10	21.3-26.3	5.2-7.2	1.6	1230-1250	194-214	111-117	2.0-6.0	129-139	58.0-64.0	13.0-17.0
	2	59	6.2-8.2	10	21.0-26.0	5.5-7.5	1.6	1240-1280	218-238	116-122	2.0-6.0	133-143	58.6-64.6	12.5-16.5
	2	77	5.6-7.6	10	19.7-24.7	6.8-8.8	1.6	1240-1280	280-300	135-141	2.0-6.0	136-146	60.4-66.4	12.6-16.6
	2	86	5.0-7.0	10	18.9-23.9	7.6-9.6	1.6	1240-1280	318-338	144-150	2.2-6.2	138-148	60.8-66.8	11.8-15.6
	1	50	4.4-6.4	10	19.3-24.3	2.7-4.7	1.3	1030-1070	170-190	100-106	2.0-6.0	137-147	61.8-67.8	13.3-17.3
	1	59	4.3-6.3	10	19.4-24.4	3.3-5.3	1.3	1030-1070	205-225	106-112	2.0-6.0	139-149	60.8-66.8	11.5-15.5
	1	68	4.4-6.4	10	18.8-23.8	3.6-5.6	1.3	1040-1080	230-250	116-122	2.0-6.0	142-152	62.6-68.6	11.9-15.9
	1	86	3.4-5.4	10	17.6-23.6	5.0-7.0	1.3	1040-1080	305-325	138-144	2.0-6.0	145-155	63.7-69.7	11.7-15.7
NVT-042	2	50	10.9-12.9	11	21.5-26.5	8.6-10.6	2.0	1480-1520	212-232	124-130	5.3-9.3	121-131	62.0-68.0	20.4-24.4
	2	59	8.1-10.1	11	21.0-26.0	9.4-11.4	2.1	1410-1430	236-256	124-130	4.1-8.1	128-138	60.5-66.5	16.0-20.4
	2	77	8.1-10.1	11	20.4-25.4	11.2-13.2	2.1	1400-1440	300-320	138-144	3.8-7.8	133-143	61.3-67.3	14.5-18.5
	2	86	8.2-10.2	11	20.0-25.0	12.3-14.3	2.1	1380-1420	338-358	148-154	5.4-9.4	135-145	61.8-67.8	14.2-18.2
	1	50	7.3-9.3	11	20.0-25.0	4.6-6.6	1.5	1210-1250	185-205	108-114	3.5-7.5	128-138	62.6-68.6	18.4-22.4
	1	59	7.6-9.6	11	20.0-25.0	5.0-7.0	1.5	1150-1190	214-234	112-118	2.4-6.4	135-145	61.7-67.7	14.1-18.1
	1	68	7.6-9.6	11	19.0-24.0	5.8-7.8	1.5	1140-1180	250-270	120-126	2.1-6.1	141-151	63.1-69.1	12.6-16.6
	1	86	6.8-8.8	11	18.6-23.6	7.3-9.3	1.5	1130-1170	313-333	139-145	2.1-6.1	144-154	63.6-69.6	12.1-16.1
NVT-048	2	50	9.7-11.7	12	18.6-23.6	10.3-12.3	2.8	1540-1580	207-227	127-133	7.3-11.3	114-124	62.8-68.8	24.5-28.5
	2	59	10.4-12.4	12	19.0-24.0	10.9-12.9	2.5	1540-1580	235-255	128-134	5.5-9.5	122-132	58.7-64.7	16.9-20.9
	2	77	9.6-11.6	12	17.8-22.8	12.9-14.9	2.6	1550-1590	297-317	141-147	3.8-7.8	127-137	59.0-65.0	14.9-18.9
	2	86	9.2-11.2	12	17.6-22.6	14.2-16.2	2.6	1550-1590	334-354	151-157	3.7-7.7	132-142	60.8-66.8	14.7-18.7
	1	50	7.1-9.1	12	18.6-23.6	5.6-7.6	1.9	1240-1280	189-209	106-112	5.6-9.6	124-134	61.3-67.3	18.5-22.5
	1	59	7.4-9.4	12	18.0-23.0	6.1-8.1	1.8	1260-1300	216-236	112-118	3.9-7.9	132-142	60.3-66.3	14.1-18.1
	1	68	7.3-9.3	12	17.6-22.6	6.9-8.9	1.9	1260-1300	244-264	117-123	3.1-7.1	133-143	59.7-65.7	13.0-17.0
	1	86	6.4-8.4	12	20.0-25.0	8.8-10.8	1.8	1280-1320	313-333	138-144	2.9-8.9	136-146	60.6-66.6	12.5-16.5
NVT-060	2	50	12.6-14.6	15	22.0-27.0	13.2-15.2	3.2	1920-1960	228-248	117-123	6.1-10.1	133-143	60.1-66.1	13.3-17.3
	2	59	12.3-14.3	15	21.3-26.3	15.9-17.9	3.0	1960-2000	252-272	126-132	5.1-9.1	133-143	59.7-65.7	13.0-17.0
	2	77	10.6-12.6	15	20.0-25.0	16.2-18.2	3.1	1950-1990	310-330	141-147	5.3-9.3	136-146	61.0-67.0	13.1-17.1
	2	86	9.6-11.6	15	19.8-24.8	17.8-19.8	3.0	1950-1990	352-372	152-158	6.8-10.8	137-147	61.4-67.4	12.9-16.9
	1	50	8.9-10.9	15	21.3-26.3	7.0-9.0	1.9	1600-1640	200-220	104-110	3.5-7.5	142-152	63.2-69.2	12.8-16.8
	1	59	8.9-10.9	15	20.2-25.2	8.0-10.0	2.0	1610-1650	226-246	114-120	2.7-6.7	140-150	61.9-67.9	12.1-16.1
	1	68	8.4-10.4	15	19.6-24.6	8.8-10.8	2.0	1660-1700	252-272	122-128	2.5-6.5	142-152	62.5-68.5	12.0-16.0
	1	86	7.2-9.2	15	18.4-23.4	11.3-13.3	2.3	1590-1630	321-341	148-154	4.0-8.0	144-154	64.9-70.9	13.1-17.1
NVT-072	2	50	9.1-11.1	18	21.2-26.2	15.2-17.2	4.7	2360-2440	220-240	130-136	10.4-14.4	123-133	64.5-70.5	22.3-26.3
	2	59	11.0-13.0	18	21.0-26.0	17.2-19.2	4.9	2360-2440	251-271	136-142	10.3-14.3	129-139	64.6-70.6	19.6-23.6
	2	77	10.6-12.6	18	20.5-25.5	19.5-21.5	4.8	2360-2440	313-333	147-153	8.9-12.9	132-142	61.9-67.9	15.6-19.6
	2	86	10.0-12.0	18	18.9-23.9	21.1-23.1	4.7	2360-2440	351-371	157-163	10.9-14.9	136-146	64.6-70.6	16.5-20.5
	1	50	7.6-9.6	18	21.5-26.5	9.3-11.3	3.1	1910-1990	202-222	118-124	7.2-11.2	127-137	64.2-70.2	20.2-24.2
	1	59	7.9-9.9	18	19.0-24.0	10.3-12.3	3.1	1910-1990	229-249	125-131	8.7-12.7	132-142	65.7-71.7	19.4-23.4
	1	68	8.0-10.0	18	20.0-25.0	11.2-13.2	3.1	1910-1990	256-276	128-134	8.3-12.3	138-148	63.4-69.4	14.5-18.5
	1	86	7.1-9.1	18	20.0-25.0	14.2-16.2	3.1	1910-1990	323-343	149-155	7.6-11.6	138-148	64.4-70.4	15.3-19.3

Operating Conditions

Forced Air Two Stage

Heating

Model	Stage	Source Temp	Source temp Δ	GPM	Air temp Δ	Amps 240	Blower AMPS	CFM	Discharge pressure at 68 deg A-RT	Discharge temp	Sub cool at TXV	Suction pressure at bulb	Suction temp at bulb	Super-heat at bulb
NVT-036	2	32	1.9-3.9	10	26-31	7.2-9.2	1.0	1170-1210	324-344	165-171	10.0-14.0	83-93	34-40	10-14
	2	50	5.6-7.6	10	33-38	8.1-10.1	1.1	1180-1220	368-388	165-171	11.0-15.0	114-124	48-54	10-14
	2	68	5.8-7.8	10	42-47	9.4-11.4	1.2	1180-1220	423-443	169-175	11.0-15.0	152-162	65-71	10-14
	1	41	2.0-4.0	10	24-29	5.3-7.3	0.9	980-1020	308-328	152-158	6.5-10.5	102-112	43-49	10-14
	1	50	2.5-4.5	10	27-32	5.4-7.4	0.9	980-1020	326-346	153-159	6.5-10.5	120-130	51-57	10-14
	1	68	4.4-6.4	10	33-38	5.8-7.8	0.9	1000-1040	365-385	154-160	6.0-10.0	155-165	67-73	12-16
NVT-042	2	32	3.8-5.8	11	25-30	10.6-12.6	1.8	1300-1340	302-322	155-161	10.0-14.0	75-85	32-38	11-15
	2	50	5.9-7.9	11	32-37	11.9-13.9	1.9	1300-1340	340-360	155-161	11.0-15.0	106-116	47-53	11-15
	2	68	8.3-10.3	11	39-44	13.8-15.8	1.9	1310-1350	385-405	157-163	11.4-15.4	145-155	62-68	10-14
	1	41	3.5-5.5	11	24-29	7.5-9.5	1.3	1090-1130	295-315	147-153	7.0-11.0	98-108	41-47	10-14
	1	50	3.8-5.8	11	28-33	7.5-9.5	1.3	1080-1120	312-332	148-154	7.0-11.0	115-125	48-54	10-14
	1	68	6.2-8.2	11	33-38	7.9-9.9	1.3	1080-1120	346-366	145-161	6.6-10.6	152-162	66-72	11-15
NVT-048	2	32	3.7-5.7	12	24-29	12.4-14.4	2.4	1480-1520	303-323	158-164	10.0-14.0	76-86	32-38	12-16
	2	50	5.6-7.7	12	31-36	13.9-15.9	2.4	1480-1520	342-362	154-160	10.5-14.2	107-117	45-51	10-14
	2	68	8.2-10.2	12	37-42	15.9-17.9	2.4	1490-1530	382-402	158-164	9.3-13.3	143-153	61-67	10-14
	1	41	3.3-5.3	12	23-28	8.6-10.6	1.8	1160-1200	290-310	150-156	7.1-11.1	96-106	42-48	11-15
	1	50	3.8-5.8	12	26-31	8.9-10.9	1.8	1180-1220	310-330	144-150	6.5-10.5	114-124	49-55	10-14
	1	68	6.1-8.1	12	32-37	9.6-11.6	1.8	1180-1220	347-367	141-147	5.1-9.1	152-162	65-71	10-14
NVT-060	2	32	4.0-6.0	15	27-32	16.6-18.6	2.7	1830-1870	323-343	168-174	8.0-12.0	76-86	31-37	12-16
	2	50	5.9-7.9	15	34-39	18.6-20.6	2.8	1840-1880	365-385	166-172	10.6-14.6	105-115	44-50	10-14
	2	68	8.6-10.6	15	41-46	21.0-23.0	2.8	1840-1880	410-430	168-174	10.0-14.0	140-150	59-65	9-13
	1	41	3.5-5.5	15	25-30	11.8-13.8	1.8	1510-1550	310-330	163-169	4.2-10.2	98-108	43-49	11-15
	1	50	3.9-5.9	15	28-33	12.3-14.3	1.9	1520-1560	328-348	163-169	5.4-9.5	113-123	49-55	11-15
	1	68	6.4-8.4	15	35-40	12.9-14.9	2.0	1520-1560	368-388	153-159	6.4-10.4	152-162	64-70	10-14
NVT-072	2	32	3.6-5.6	18	27-32	19.0-21.0	4.1	1190-2270	318-338	163-169	10.0-14.0	75-85	30-36	10-14
	2	50	5.7-7.7	18	34-39	20.9-22.9	4.2	1190-2270	360-380	162-168	11.0-15.0	103-113	45-51	11-15
	2	68	8.5-10.5	18	42-47	23.2-25.2	4.2	1190-2270	410-430	167-173	16.0-20.0	139-149	60-66	11-15
	1	41	3.5-5.5	18	27-32	14.8-16.8	2.9	1810-1890	316-336	160-166	7.0-11.0	95-105	40-46	10-14
	1	50	4.0-6.0	18	31-36	15.3-17.3	2.9	1810-1890	338-358	157-163	9.0-13.0	113-123	47-53	10-14
	1	68	6.4-8.4	18	38-43	16.3-18.3	3.0	1810-1890	375-395	158-164	11.0-15.0	148-158	63-69	11-15

Operating Conditions

Split Forced Air Two Stage

Cooling

Model	Stage	Source Temp	Source temp Δ	GPM	Air temp Δ Dry bulb	Amps 240	Blower AMPS	CFM	Discharge pressure at 80 deg A-RT	Discharge temp	Sub-cool at TXV	Suction pressure at bulb	Suction temp at bulb	Super-heat at bulb
NST-042	2	59	11.2-13.2	11	22.5-27.5	10.1-12.1	2.5	1360-1440	252-272	122-128	18.1-22.1	134-144	62-68	14.6-18.6
	2	77	10.5-12.5	11	21.8-26.8	12.2-14.2	2.5	1360-1440	321-341	132-138	17.2-21.2	139-149	61-67	11.2-15.2
	2	86	9.6-11.6	11	21.1-26.1	13.2-15.2	2.6	1360-1440	363-383	142-148	18.8-22.8	137-147	59-65	10.8-14.8
	1	59	7.8-9.8	11	21.1-26.1	5.8-7.8	2.1	1110-1190	233-253	108-114	14.7-18.7	143-153	63-69	12.2-16.2
	1	68	7.6-9.6	11	19.2-24.2	6.6-8.6	2.2	1110-1190	267-287	115-121	13.7-17.7	145-155	61-67	9.6-13.6
	1	86	6.7-8.7	11	18.6-23.6	8.4-10.4	2.1	1110-1190	334-354	131-137	14.6-20.6	147-157	62-68	9.2-13.2
NST-060	2	59	11.9-15.9	15	21.2-29.2	13.9-19.9	3.8	1960-2040	244-284	125-135	18.1-26.1	124-144	57-63	10.5-18.5
	2	77	11.3-15.3	15	19.4-27.4	16.7-22.7	3.7	1960-2040	308-348	142-152	17.3-25.3	128-148	58-64	9.6-17.6
	1	59	8.2-12.2	15	20.7-28.7	6.7-12.7	2.0	1610-1690	219-259	111-121	12.9-20.9	131-151	60-66	9.7-17.7
	1	68	7.3-11.3	15	19.9-27.9	7.8-13.8	2.0	1610-1690	249-289	123-133	12.9-20.9	132-152	60-66	8.8-16.8
NST-072	2	59	11.7-13.7	18	22.6-27.6	17.5-19.5	5.2	2360-2440	257-277	124-130	19.8-23.8	120-130	53-59	11.9-15.9
	2	77	10.7-12.7	18	21.3-26.3	20.3-22.3	5.2	2360-2440	321-341	140-146	18.1-22.1	122-132	53-59	11.4-15.4
	2	86	9.9-11.9	18	21.2-26.2	22.1-24.1	5.1	2360-2440	358-378	151-157	18.4-22.4	122-132	53-59	12.5-16.5
	1	59	7.3-9.3	18	21.2-26.2	9.8-11.8	2.8	1910-1990	218-238	116-120	14.0-18.0	136-146	57-63	9.5-13.5
	1	68	8.2-10.2	18	21.9-26.9	11.9-13.9	3.0	1910-1990	261-261	123-129	13.7-17.7	130-140	55-61	9.4-13.4
	1	86	7.5-9.5	18	20.6-25.6	14.7-16.7	2.9	1910-1990	327-347	143-149	13.6-17.6	136-146	57-63	9.3-13.3

Heating

Model	Stage	Source Temp	Source temp Δ	GPM	Air temp Δ	Amps 240	Blower AMPS	CFM	Discharge pressure at 68 deg A-RT	Discharge temp	Sub cool at TXV	Suction Pressure	Suction temp at bulb	Super- heat at bulb
NST-042	2	32	4.0-6.0	11	24-29	11.4-12.4	2.4	1300-1340	305-325	133-139	15.4-19.4	79-88	31-37	10.9-14.9
	2	50	5.4-7.4	11	31-36	12.9-13.9	2.3	1300-1340	345-365	136-142	17.7-21.7	19-117	46-50	9.6-13.6
	2	68	8.0-10.0	11	41-46	14.4-15.4	2.2	1310-1350	404-424	143-149	15.5-19.5	148-156	62-69	9.7-13.7
	1	41	3.3-5.3	11	24-29	8.1-9.1	1.6	1090-1130	298-318	131-137	13.5-17.5	98-106	40-46	8.7-12.7
	1	50	3.7-5.7	11	27-32	8.4-9.4	1.6	1080-1120	315-335	128-134	13.0-17.0	114-122	45-51	6.9-10.9
	1	68	5.6-7.6	11	33-38	9.0-10.0	1.6	1080-1120	354-374	133-139	15.1-19.1	150-158	61-68	8.1-12.1
NST-060	2	32	3.4-7.4	15	26-34	17.0-23.0	3.0	1850-1890	313-353	165-175	14-22	71-91	28-34	7.4-15.4
	2	50	5.6-9.6	15	35-43	19.5-25.5	3.0	1850-1890	360-400	167-176	17.8-25.8	106-126	43-49	4.5-12.5
	1	41	3.0-7.0	15	26-34	11.4-17.4	2.1	1590-1630	304-344	153-163	8.4-16.4	92-112	39-45	6.1-14.1
	1	50	3.4-7.4	15	30-38	11.9-17.9	2.1	1600-1640	325-365	153-163	10.6-18.6	109-129	46-52	5.7-13.7
NST-072	2	32	3.9-5.9	18	26-31	20.4-21.4	4.7	1190-2270	317-337	161-167	15.3-19.3	73-82	30-36	12.9-16.9
	2	50	6.0-8.0	18	34-41	23.0-24.0	4.7	1190-2270	363-383	160-166	17.3-21.3	103-111	43-50	10.3-14.3
	2	68	8.0-10.0	18	40-45	25.2-26.2	4.7	1190-2270	408-428	165-171	18.2-22.2	132-140	56-62	10.7-14.7
	1	41	4.2-6.2	18	25-30	15.9-16.9	3.6	1810-1890	310-330	153-159	11.8-15.8	95-103	38-45	9.0-13.0
	1	50	4.3-6.3	18	28-33	16.3-17.3	3.6	1810-1890	325-345	152-158	12.5-16.5	110-118	45-52	9.1-13.1
	1	68	6.4-8.4	18	35-40	17.5-18.5	3.6	1810-1890	367-387	151-157	12.5-16.5	146-154	60-66	7.9-11.9

Operating Conditions

Hydronic, Single Stage and Dual Compressor

Cooling

Model	Stage	Source Temp	Source temp Δ	Source GPM	Load Temp Δ	Load GPM	Total Amps (240)	Discharge Pressure	Discharge temp	Sub cool at TXV	Suction pressure at bulb	Suction temp at bulb	Super-heat at bulb
NWA-024	N/A	50	7.1-9.1	8	6.1-8.1	8	4.0-5.0	183-203	97-103	5.1-9.1	115-125	48-54	9.4-13.4
	N/A	59	6.8-8.8	8	5.7-7.7	8	4.6-5.6	213-233	106-112	5.2-9.2	117-127	49-55	9.2-13.2
	N/A	77	6.2-8.2	8	5.1-7.1	8	5.8-6.8	275-295	127-133	5.3-9.3	119-129	50-56	9.2-13.2
	N/A	86	5.6-7.6	8	4.8-6.8	8	6.6-7.6	313-333	138-144	5.5-9.5	120-130	51-57	9.5-13.5
NWA-036	N/A	50	6.7-8.7	12	5.9-7.9	12	6.7-7.7	195-215	109-115	6.0-10.0	107-117	48-54	12.7-16.7
	N/A	59	6.6-8.6	12	5.7-7.7	12	7.5-8.5	222-242	116-122	10.6-14.6	109-119	49-55	12.3-16.3
	N/A	77	6.0-8.0	12	5.0-7.0	12	9.4-10.4	286-306	136-142	12.8-16.8	112-122	50-56	12.4-16.4
	N/A	86	5.6-7.6	12	4.8-6.8	12	10.3-11.3	320-340	147-153	14.9-20.9	114-124	50-56	12.2-16.2
NWA-050	N/A	50	6.7-8.7	16	5.9-7.9	16	6.7-7.7	195-215	108-114	6.0-10.0	107-117	48-54	12.7-16.7
	N/A	59	6.6-8.6	16	5.7-7.7	16	7.5-8.5	222-242	116-122	10.6-14.6	109-119	49-55	12.3-16.3
	N/A	77	6.0-8.0	16	5.0-7.0	16	9.4-10.4	286-306	136-142	12.8-16.8	112-122	50-56	12.4-16.4
	N/A	86	5.6-7.6	16	4.8-6.8	16	10.3-11.3	320-340	147-153	14.9-18.9	114-124	50-56	12.2-16.2
NWA-060	N/A	59	8.8-12.8	15	7.3-11.3	15	10.0-16.0	204-244	103-113	4.3-12.3	106-126	46-52	6.8-14.8
	N/A	77	8.1-12.1	15	6.2-10.2	15	13.1-19.1	267-307	121-131	6.7-14.7	107-127	47-53	7.0-15.0
NWA-072	N/A	50	7.7-11.7	18	7.3-11.3	18	13.4-19.4	174-214	103-113	8.1-16.1	94-114	42-48	8.5-16.5
	N/A	59	7.7-11.7	18	5.9-9.9	18	15.1-21.1	204-244	111-121	6.7-14.7	101-121	45-51	8.7-16.7
	N/A	77	7.7-11.7	18	5.6-9.6	18	18.7-24.7	267-307	124-134	7.7-15.7	107-127	47-53	7.1-15.1
NWD-080	2	59	9.4-13.4	18	7.3-11.3	18	15.4-21.4	201-241	105-115	2.0-10.0	104-124	44-50	5.4-13.4
	2	77	8.8-12.8	18	6.5-10.5	18	20.0-26.0	265-305	124-134	4.0-12.0	106-126	44-50	3.8-11.8
	1	59	4.4-8.4	18	3.0-7.0	18	6.8-12.8	192-232	104-114	1.0-9.0	111-131	49-55	7.6-15.6
	1	68	4.3-8.3	18	2.8-6.8	18	8.0-14.0	222-262	112-122	0-8.0	112-132	49-55	6.4-14.4
NWD-096	2	50	13.7-17.7	20	12.0-16.0	20	7.6-13.6	182-222	100-110	10.7-18.7	87-107	36-42	5.4-13.4
	2	59	13.9-17.9	20	12.3-16.3	20	8.8-14.8	214-254	112-122	13.0-21.0	89-109	38-44	6.3-14.3
	2	77	11.0-15.0	20	11.1-15.1	20	11.8-17.8	279-319	133-143	13.4-21.4	92-112	40-46	7.5-15.5
	1	50	6.3-10.3	20	5.1-9.1	20	7.2-13.2	172-212	99-109	7.2-15.2	96-116	43-49	8.2-16.2
	1	59	6.5-10.5	20	5.6-9.6	20	8.4-14.4	203-243	105-115	8.1-16.1	102-122	45-51	7.6-15.6
	1	68	6.6-10.6	20	5.3-9.3	20	9.6-15.6	233-273	115-125	8.5-16.5	104-124	46-52	7.7-15.7
NWD-120	2	59	12.2-16.2	24	10.1-14.1	24	10.6-16.6	217-257	116-126	10.7-18.7	90-110	41-47	8.7-16.7
	2	77	10.5-14.5	24	9.4-13.4	24	14.0-20.0	282-322	138-148	10.9-18.9	93-113	43-49	9.9-17.9
	1	59	5.4-9.4	24	3.8-7.8	24	9.7-15.7	202-242	112-122	6.8-14.8	99-119	47-53	10.7-18.7
	1	68	5.6-9.6	24	4.3-8.3	24	11.5-17.5	237-277	121-131	6.5-14.5	103-113	47-53	9.6-17.6
NWD-144	2	50	12.5-16.5	30	11.0-15.0	30	12.8-18.8	193-233	108-114	5.8-13.8	91-111	39-45	6.1-14.1
	2	59	13.3-17.3	30	10.1-14.1	30	14.5-20.5	221-261	111-121	5.8-13.8	99-119	43-49	7.2-15.2
	2	77	10.7-14.7	30	10.0-14.0	30	18.7-24.7	287-327	130-140	8.9-16.9	99-119	43-49	6.7-14.7
	1	50	5.4-9.4	30	4.8-8.8	30	11.6-17.6	171-211	98-108	3.1-11.1	95-115	43-49	9.1-17.1
	1	59	6.0-10.0	30	3.8-7.8	30	13.5-19.5	205-245	108-118	3.7-11.7	105-125	48-54	9.5-17.5

Operating Conditions

Hydronic, Single Stage and Dual Compressor

Heating

Model	Stage	Source Temp	Source temp Δ	Source GPM	Load Temp Δ	Load GPM	Total Amps 240	Discharge Pressure	Discharge temp	Sub cool at TXV	Suction pressure at bulb	Suction temp at bulb	Super- heat at bulb
NWA-024	N/A	32	2.3-4.3	8	4.4-6.4	8	10.4-11.4	397-417	185-191	20.6-24.6	83-9.3	36-42	12.6-16.6
	N/A	50	4.2-6.2	8	5.9-7.9	8	10.5-11.5	409-429	168-174	20.8-24.8	114-124	49-55	10.3-14.3
	N/A	68	6.7-8.7	8	7.4-9.4	8	10.4-11.4	418-438	158-164	21.1-24.1	149-159	62-68	8.8-12.8
NWA-036	N/A	32	2.5-4.5	12	4.9-6.9	12	14.1-15.1	416-436	198-204	15.9-19.9	83-93	33-39	10.5-14.5
	N/A	50	3.2-5.2	12	6.3-8.3	12	14.0-15.0	422-442	168-174	12.7-16.7	113-123	47-53	9.0-13.0
	N/A	68	6.7-7.7	12	8.3-10.3	12	14.2-15.2	431-451	170-176	12.3-16.3	145-155	61-67	9.1-13.1
NWA-050	N/A	32	2.8-4.8	16	5.5-7.5	16	19.5-20.5	415-435	196-202	14.8-18.8	80-90	34-40	12.8-16.8
	N/A	50	4.6-6.6	16	7.1-9.1	16	19.9-20.9	427-447	178-184	15.3-19.3	111-121	47-53	10.1-14.1
	N/A	68	7.1-9.1	16	9.3-11.3	16	19.7-20.7	436-456	169-175	14.7-18.7	145-155	61-67	9.4-13.4
NWA-060	N/A	32	2.4-6.4	15	5.6-9.6	15	19.9-25.9	382-422	175-185	16.1-24.1	72-92	31-37	9.6-17.6
	N/A	50	3.3-7.3	15	6.1-10.1	15	19.9-25.9	391-431	157-167	15.1-23.1	105-125	46-52	7.3-15.3
NWA-072	N/A	32	2.5-6.5	18	5.9-9.9	18	24.1-30.1	376-416	172-182	9.8-17.8	70-90	32-38	11.5-19.5
	N/A	50	4.4-8.4	18	8.0-12.0	18	25.2-31.5	390-430	159-169	9.3-17.3	101-121	46-52	9.0-17.0
NWD-080	2	32	3.2-7.2	18	6.0-10.0	18	31.7-37.7	388-428	201-211	14.8-22.8	70-90	32-38	10.3-18.3
	2	50	5.3-9.3	18	8.2-12.2	18	32.0-38.0	400-440	178-188	17.2-25.2	100-120	46-52	8.5-16.5
	1	41	1.5-5.5	18	3.0-7.0	18	15.1-21.1	384-424	179-189	14.4-22.4	88-108	40-46	8.9-16.9
	1	50	2.0-6.0	18	3.7-7.7	18	14.8-20.8	386-426	168-178	14.2-22.2	106-126	48-54	8.0-16.0
NWD-096	2	32	4.7-8.7	20	10.0-14.0	20	18.1-24.1	399-439	191-201	17.7-25.7	66-86	24-30	6.3-14.3
	2	50	8.2-12.2	20	13.3-17.3	20	19.3-25.3	423-463	172-182	21.0-29.0	94-114	38-44	4.4-12.4
	1	41	2.6-6.6	20	5.1-9.1	20	17.4-23.4	394-434	169-179	15.9-23.9	87-107	34-40	4.1-12.1
	1	50	3.4-7.4	20	6.3-10.3	20	17.7-23.7	404-444	162-172	17.8-25.8	104-124	44-50	6.0-14.0
NWD-120	2	32	4.3-8.3	24	8.9-12.9	24	21.2-27.2	402-442	197-207	16.4-24.4	69-89	28-34	8.8-16.8
	2	50	7.4-11.4	24	12.3-16.3	24	22.0-28.0	422-462	181-191	18.8-26.8	96-116	41-47	6.6-14.6
	1	41	2.4-6.4	24	4.3-8.3	24	20.5-26.5	393-433	181-191	15.2-23.2	85-105	37-43	7.7-15.7
	1	50	2.7-6.7	24	5.4-9.4	24	20.0-26.0	399-439	171-181	15.4-23.4	103-123	44-50	6.6-14.6
NWD-144	2	32	3.9-7.9	30	8.5-12.5	30	27.1-33.1	394-434	158-168	13.5-21.5	73-93	25-31	3.0-11.0
	2	50	7.3-11.3	30	12.1-16.1	30	29.9-35.9	430-470	174-184	21.8-29.8	97-117	39-45	3.5-11.5
	1	41	2.5-6.5	30	4.5-8.5	30	27.3-33.3	403-443	176-186	18.5-26.5	88-108	33-39	2.1-10.1
	1	50	2.9-6.9	30	5.5-9.5	30	26.6-32.6	404-444	166-176	18.5-26.5	105-125	44-50	4.9-12.9

Physical Data, SS Series

Forced Air Models, Packaged Single Stage Vertical

	NVA-038	NVA-050	NVA-060
Compressor			
Nominal Tonnage	3	4	5
Compressor, # of Stages	1	1	1
Compressor Type	Scroll	Scroll	Scroll
Compressor Qty	1	1	1
Blower and Motor			
Max CFM	1250	1600	2000
Nominal External Static Pressure (in H ₂ O)	0.3	0.3	0.3
Blower wheel size (dia x w)	10 x 10	10 x 10	10 x 10
Motor Type	ECM	ECM	ECM
Motor HP	3/4	3/4	1
Motor Speeds	5	5	5
Drive Type	Direct	Direct	Direct
Air Coils			
Coil Type	Tube and fin, slab	Tube and fin, slab	Tube and fin, slab
Fin Spacing (fins/in)	14	14	14
No. of Rows	4	4	4
Coil Dimensions (H" x W")	27 x 25	36 x 25	36 x 25
Air Filter size (H" x W" x D") (x2)	29 x 28 x 1	38 x 28 x 1	38 x 28 x 1
Source Hx			
Hx Type	Coaxial	Coaxial	Coaxial
Hx & Piping Water Volume (gal)	0.65	1.10	1.10
Refrigeration Charge R410A (lbs/oz)	4 / 8	6 / 4	6 / 4
Min Flow (gpm)	10	12	16
Water connections, FNPT			
Source Loop Hx	1	1	1
Condensate Drain	3/4	3/4	3/4
Desuperheater	1/2	1/2	1/2
Weight– Shipping (lbs)	460	480	503

Physical Data, SS Series

Forced Air Models, Packaged Two Stage Vertical

	NVT-032	NVT-042	NVT-048	NVT-060	NVT-072
Compressor					
Nominal Tonnage	2.5	3.5	4	5	6
Compressor, # of Stages	2	2	2	2	2
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll
Compressor Qty	1	1	1	1	1
Blower and Motor					
Max CFM	1250	1400	1600	2000	2400
Nominal External Static Pressure (in H ₂ O)	0.3	0.3	0.3	0.3	0.3
Blower wheel size (dia x w)	9 x 9	10 x 10	10 x 10	10 x 10	10 x 10
Motor Type	ECM	ECM	ECM	ECM	ECM
Motor HP	3/4	3/4	3/4	3/4	1
Motor Speeds	5	5	5	5	5
Drive Type	Direct	Direct	Direct	Direct	Direct
Air Coils					
Coil Type	Tube and fin, slab	Tube and fin, slab	Tube and fin, slab	Tube and fin, slab	Tube and fin, slab
Fin Spacing (fins/in)	14	14	14	14	14
No. of Rows	3	4	4	4	4
Coil Dimensions (H" x W")	20 x 25	27 x 25	27 x 25	36 x 25	36 x 25
Air Filter size (H" x W" x D") (x2)	22 x 28 x 1	29 x 28 x 1	29 x 28 x 1	38 x 28 x 1	38 x 28 x 1
Source Hx					
Hx Type	Coaxial	Coaxial	Coaxial	Coaxial	Coaxial
Hx & Piping Water Volume (gal)	0.43	0.65	0.77	1.10	1.10
Refrigeration Charge R410A (lbs/oz)	3 / 3	4 / 8	4 / 8	6 / 4	6 / 4
Min Flow (gpm)	10	11	12	15	18
Water connections, FNPT					
Source Loop Hx	1	1	1	1	1
Condensate Drain	3/4	3/4	3/4	3/4	3/4
Desuperheater	1/2	1/2	1/2	1/2	1/2
Weight– Shipping (lbs)	440	460	490	503	530

Physical Data, SS Series

Forced Air, Two Stage Split

	NST-042	NST-060	NST-072
Compressor			
Nominal Tonnage	3.5	5	6
Compressor, # of Stages	2	2	2
Compressor Type	Scroll	Scroll	Scroll
Compressor Qty	1	1	1
Blower and Motor (optional indoor unit)			
Max CFM	1400	2000	2400
Nominal External Static Pressure (in H ₂ O)	0.3	0.3	0.3
Blower wheel size (dia x w)	10 x 10	10 x 10	10 x 10
Motor Type	ECM	ECM	ECM
Motor HP	3/4	3/4	3/4
Motor Speeds	5	5	5
Drive Type	Direct	Direct	Direct
Air Coils (optional aircoil)			
Coil Type	Tube and fin, a-coil	Tube and fin, a-coil	Tube and fin, a-coil
Fin Spacing (fins/in)	14	14	14
No. of Rows	4	4	4
Coil Dimensions (W" x D")	22 x 20	22 x 20	22 x 20
Air Filter size (H" x W" x D")	User Supplied	User Supplied	User Supplied
Air Coil Connections, (in)			
Liquid Line (OD)	1/2	1/2	1/2
Suction Line (OD)	7/8	7/8	7/8
Source Hx			
Hx Type	Coaxial	Coaxial	Coaxial
Hx & Piping Water Volume (gal)	0.65	1.10	1.10
Refrigeration Charge R410A (lbs/oz)	6 / 1	7 / 2	7 / 2
Min Flow (gpm)	11	15	18
Water connections, FNPT			
Source Loop Hx	1	1	1
Condensate Drain	3/4	3/4	3/4
Desuperheater	1/2	1/2	1/2
Weight– Shipping (lbs)	275	315	320

Physical Data, SS Series

Hydronic Models, Single Stage

	NWA-024	NWA-036	NWA-050	NWA-060	NWA-072
Compressor					
Nominal Tonnage	2	3	4	5	6
Compressor, # of Stages	1	1	1	1	1
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll
Compressor Qty	1	1	1	1	1
Source and Load Hx					
Hx Type	Coaxial	Coaxial	Coaxial	Coaxial	Coaxial
Load Hx & Piping Water Volume (gal)	0.74	0.98	0.98	1.38	2.30
Source Hx & Piping Water Volume (gal)	0.65	0.77	1.10	1.38	2.30
Refrigeration Charge R410A (lbs/oz)	3 / 4	3 / 14	4 / 8	6 / 6	7 / 8
Min Flow (gpm)	8	12	16	15	18
Water connections, FNPT					
Source / Load Hx	1	1	1	1 1/4	1 1/4
Desuperheater	1/2	1/2	1/2	1/2	1/2
Weight– Shipping (lbs)	440	340	345	525	630

Hydronic Models, Dual Compressor

	NWD-080	NWD-096	NWD-120	NWD-144
Compressor				
Nominal Tonnage	6.5	8	10	12
Compressor, # of Stages	2	2	2	2
Compressor Type	Scroll	Scroll	Scroll	Scroll
Compressor Qty	2	2	2	2
Source and Load Hx				
Hx Type	BPHE	BPHE	BPHE	BPHE
Load Hx & Piping Water Volume (gal)	1.15	1.62	1.62	1.62
Source Hx & Piping Water Volume (gal)	1.15	1.62	1.62	1.62
Refrigeration Charge R410A (lbs/oz)	3 / 8 (2x*)	4 / 2 (2x*)	4 / 2 (2x*)	4 / 2 (2x*)
Min Flow (gpm)	18	20	24	30
Water connections				
Source / Load Hx, MNPT	1 1/2	1 1/2	1 1/2	1 1/2
Desuperheater, FNPT	1/2	1/2	1/2	1/2
Weight– Shipping (lbs)	500	510	525	535

* Dual compressor models contain dual refrigeration circuits, amount shown is for each circuit.

Physical Data, eSeries

Forced Air, Two Stage Packaged Vertical, eSeries

	NVT-e38	NVT-e50
Compressor		
Nominal Tonnage	3	4
Compressor, # of Stages	2	2
Compressor Type	Scroll	Scroll
Compressor Qty	1	1
Blower and Motor		
Max CFM	1250	1600
Nominal External Static Pressure (in H ₂ O)	0.3	0.3
Blower wheel size (dia x w)	9 x 9	9 x 9
Motor Type	ECM	ECM
Motor HP	3/4	3/4
Motor Speeds	5	5
Drive Type	Direct	Direct
Air Coils		
Coil Type	Copper tube-aluminum fin	Copper tube-aluminum fin
Fin Spacing (fins/in)	12	12
No. of Rows	4	4
Coil Dimensions (H" x W")	28 x 18	28 x 18
Air Filter size (H" x W" x D")	30 x 20 x 1	30 x 20 x 1
Source Hx		
Hx Type	Coaxial	Coaxial
Hx & Piping Water Volume (gal)	0.65	0.65
Refrigeration Charge R410A (lbs/oz)	5 / 0	5 / 0
Min Flow (gpm)	9	12
Water connections, FNPT		
Source Loop Hx	3/4	3/4
Condensate Drain	3/4	3/4
Desuperheater	3/4	3/4
Weight– Shipping (lbs)	455	460

Physical Data, VQ™ Series

Hydronic Models, VQ™ Variable Capacity

	NWV-060	NWV-084
Compressor		
Nominal Tonnage	5	7
Compressor, # of Stages	8	8
Compressor Type	Scroll	Scroll
Compressor Qty	2	2
Source and Load Hx		
Hx Type	BPHE	BPHE
Load Hx & Piping Water Volume (gal)	1.15	1.15
Source Hx & Piping Water Volume (gal)	1.15	1.15
Refrigeration Charge R410A (lbs/oz)	F 3 / 8 - R 4 / 0	F 3 / 8 - R 4 / 0
Min Flow (gpm)	0-15	0-21
Water connections		
Source / Load Hx, MNPT	1 1/2	1 1/2
Desuperheater, FNPT	1/2	1/2
Weight– Shipping (lbs)	500	510

* VQ™ models contain dual refrigeration circuits, amount shown is for Front - Rear.

Dimensions, SS Series

Forced Air, Single and Two Stage Packaged Vertical

Mechanical Dimensions

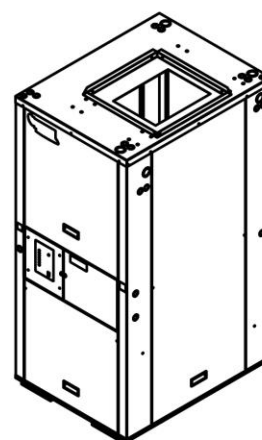
	Cabinet Dimensions			Supply Connections				Return Connections		
	A (Height)	B (Width)	C (Depth)	U	V	W	X	Y	Z	AA
NVT-032	60 5/8"	28 5/8"	34 7/8"	1 1/8"	8 3/8"	18"	18"	18"	20 7/8"	25 7/8"
NVA-038 NVT-042 NVT-048								11"	27 7/8"	
NVA-050 NVA-060 NVT-060 NVT-072								2"	36 7/8"	

Electrical Connections

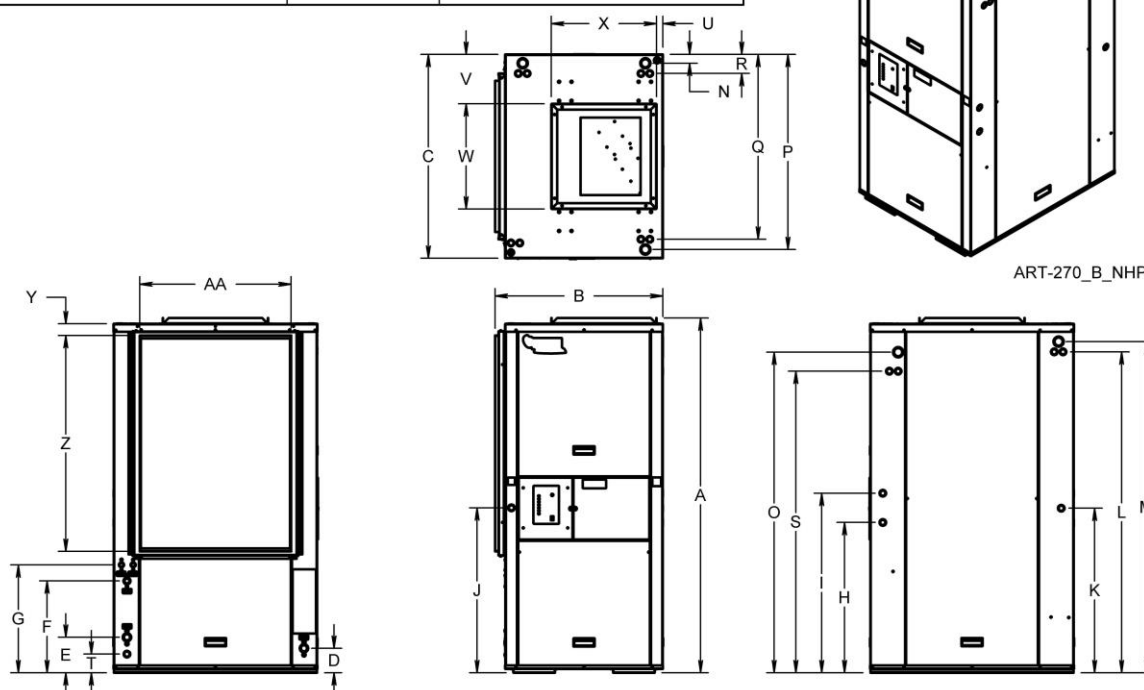
H	I	J	K	L	M	N	O	P	Q	R	S	T
25 3/4"	30 3/4"	28 1/4"	28 1/8"	54 7/8"	56 5/8"	1 1/2"	54 3/4"	33 3/8"	31 5/8"	3 1/4"	51 1/2"	3 1/4"
ϕ 1 1/8" X ϕ 7/8" Double Knockout					ϕ 1 3/4" X ϕ 1 3/8" Double Knockout				ϕ 1 1/8" X ϕ 7/8" Double Knockout			

Water Connections

Source		Drain	Desuperheater	
In	Out		In	Out
D	E	F	G	
4 1/4"	6 1/8"	15 3/4"	18 1/2"	
Connection Size 1" FPT		3/4" FPT	Connection Size 1/2" FPT	



ART-270_B_NHP



Dimensions, SS Series

Forced Air, Two Stage Split

Cabinet Dimensions

	A (Height)	B (Width)	C (Depth)
NST-042	29 5/8"	26 15/16"	34 13/16"
NST-060			
NST-072			

Water Connections

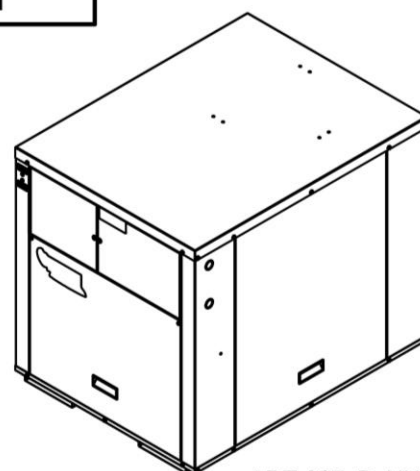
Source		Hydronic		Desuperheater	
In	Out	In	Out	In	Out
D	E	F	G	H	
4 3/16"	6 1/16"	8 11/16"	10 9/16"	21 7/16"	
Connection Size 1" FPT				Connection Size 1/2" FPT	

Electrical Connections

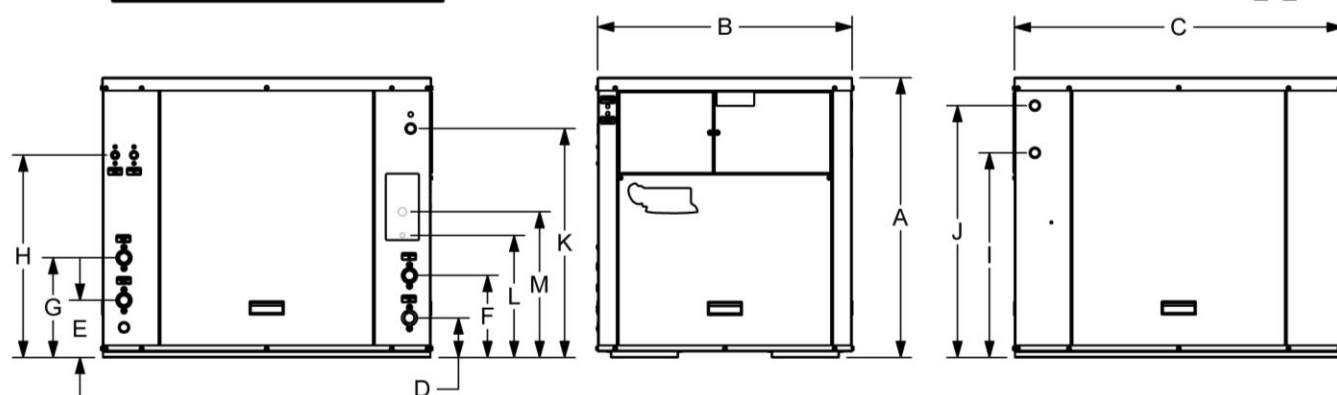
I	J	K
21 11/16"	26 11/16"	24 1/4"
ϕ 1.125 X ϕ .875 Double Knockout		

Air Coil Connections

L	M
12 15/16"	15 7/16"
L = Suction, 7/8" OD	
M = Liquid, 1/2" OD	



ART-267_B_NHP



Dimensions, SS Series

Hydronic, Single Stage – NWA-024 thru NWA-050

Mechanical Dimensions

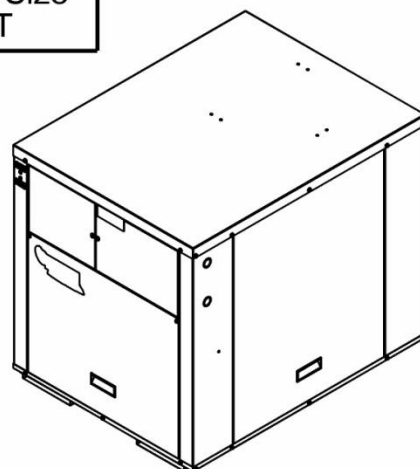
	Cabinet Dimensions		
	A (Height)	B (Width)	C (Depth)
NWA-024	29 5/8"	26 15/16"	34 13/16"
NWA-036			
NWA-050			

Water Connections

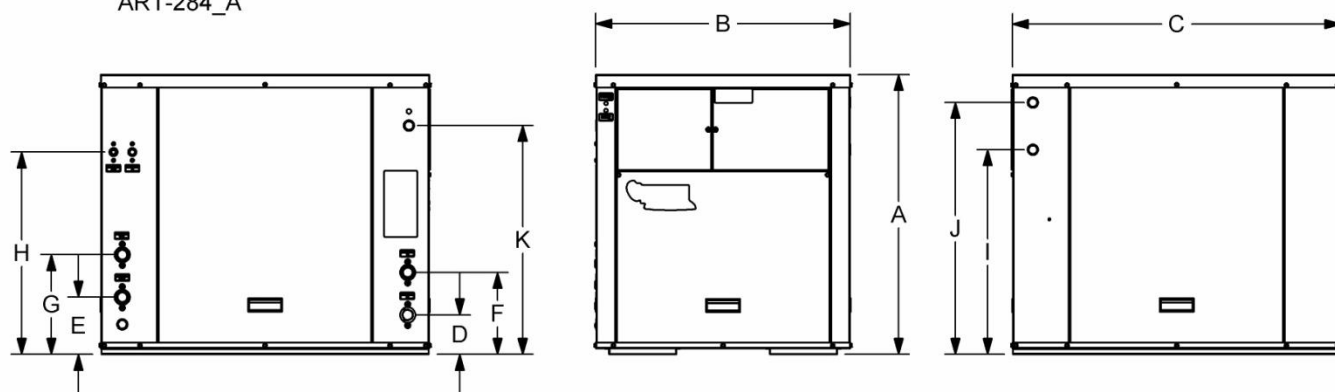
Source		Hydronic		Desuperheater	
In	Out	In	Out	In	Out
D	E	F	G	H	
4 3/16"	6 1/16"	8 11/16"	10 9/16"	21 7/16"	
Connection Size 1" FPT				Connection Size 1/2" FPT	

Electrical Connections

I	J	K
21 11/16"	26 11/16"	24 1/4"
Ø 1.125 X Ø .875 Double Knockout		



ART-284_A



Dimensions, SS Series

Hydronic, Single Stage – NWA-060 & NWA-072

Mechanical Dimensions

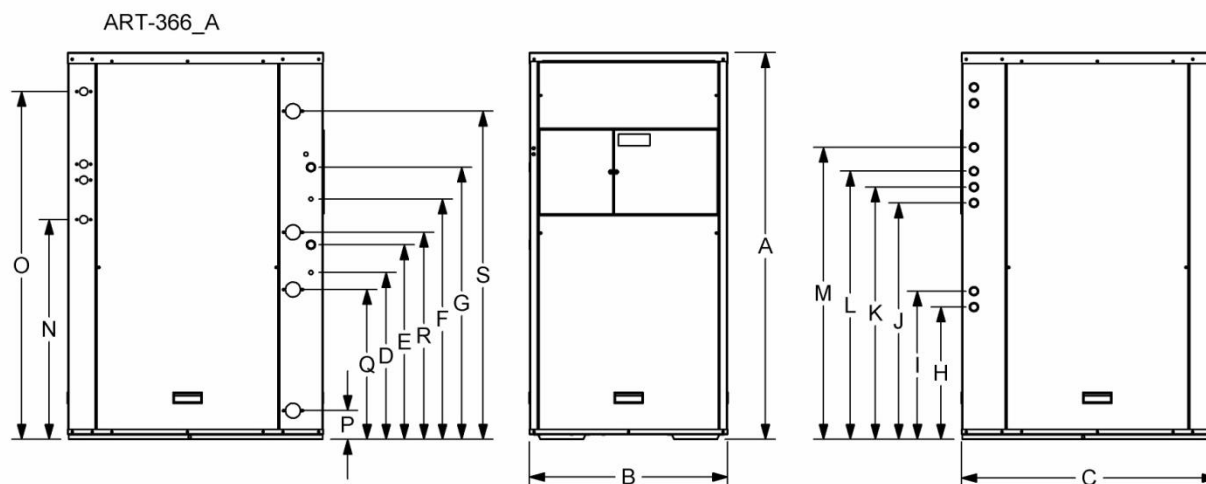
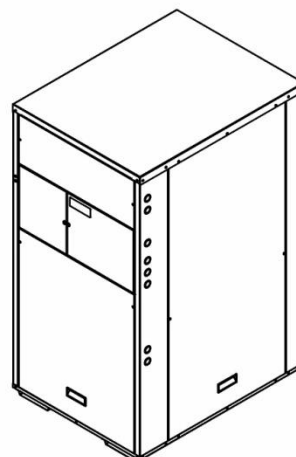
	Cabinet Dimensions		
	A (Height)	B (Width)	C (Depth)
NWA-060	48 11/16"	24 7/8"	32 1/16"
NWA-072			

Electrical Connections

D	E	F	G	H	I	J	K	L	M
21"	24 1/2"	30 1/4"	34 1/4"	16 11/16"	18 11/16"	29 3/4"	31 3/4"	33 3/4"	36 3/4"
Ø .500 Hole		Ø 1.125 X Ø .875 Double Knockout							

Water Connections

	Desuperheater		Source		Load	
	In	Out	In	Out	In	Out
	N	O	P	Q	R	S
NWA-060	27 11/16"	43 13/16"	3 5/8"	18 7/8"	26 1/16"	41 5/16"
NWA-072	27 11/16"	43 13/16"	3 5/8"	22 7/8"	26 1/16"	45 5/16"
	Connection Size 1/2" FPT		Connection Size 1 1/4" FPT			



Dimensions, SS Series

Hydronic, Dual Compressor

Mechanical Dimensions

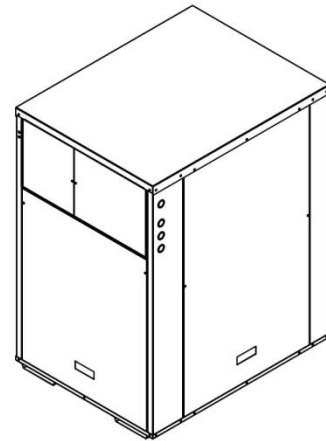
	A (Height)	B (Width)	C (Depth)
NWD-080	40 5/16"	24 7/8"	32 1/16"
NWD-096			
NWD-120			
NWD-144			

Electrical Connections

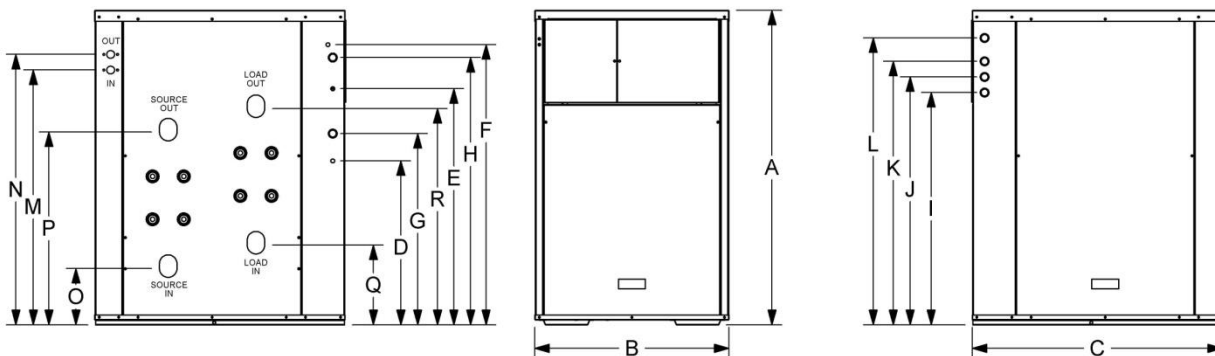
D	E	F	G	H	I	J	K	L
21"	30 1/4"	35 15/16"	24 1/2"	34 1/4"	29 3/4"	31 3/4"	33 3/4"	36 3/4"
Ø .500 Hole			Ø 1.125 X Ø .875 Double Knockout					

Water Connections

Desuperheater		Source		Load	
In	Out	In	Out	In	Out
M	N	O	P	Q	R
32 11/16"	34 11/16"	7 11/16"	7 3/16"	10 11/16"	27 11/16"
1/2" FPT		1 1/2" MPT			



ART-367_B-NHP



Dimensions, eSeries

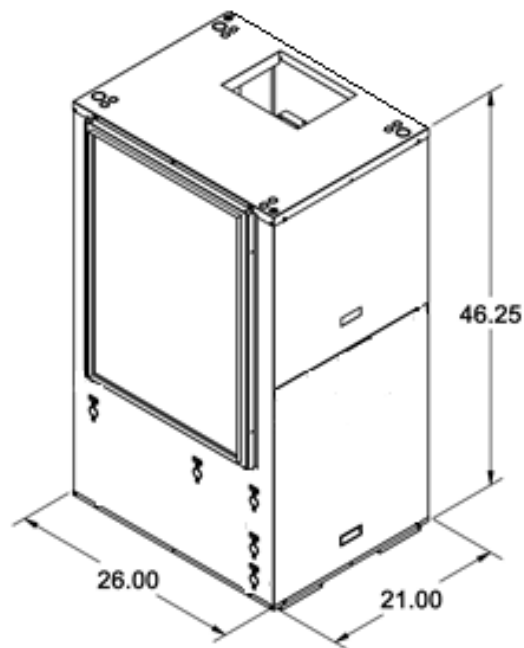
Forced Air, Two Stage Packaged Vertical, eSeries

Mechanical Dimensions

	Cabinet Dimensions			Air Supply Connections		Air Return Connections	
	Height	Width	Depth	Width	Depth	Height	Width
NVT-e38	46 1/2"	21"	26"	10 3/8"	11 7/8"	27 7/8"	17 7/8"
NVT-e50							

Water Connections

	Source		Drain	Desuperheater	
	In	Out		In	Out
NVT-e38	3/4" FNPT		3/4" FNPT	3/4" FNPT	
NVT-e50					



Dimensions, VQ™ Series

Hydronic Dual Compressor, VQ™ Variable Capacity

Mechanical Dimensions

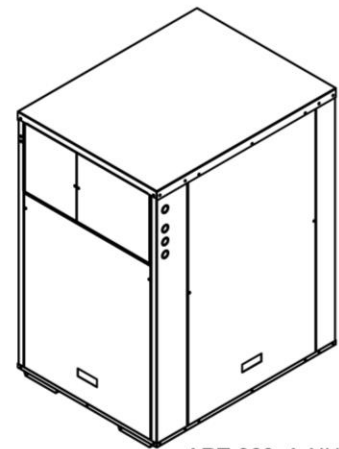
	A (Height)	B (Width)	C (Depth)
NWV-060	40 5/16"	24 7/8"	32 1/16"
NWV-084			

Electrical Connections

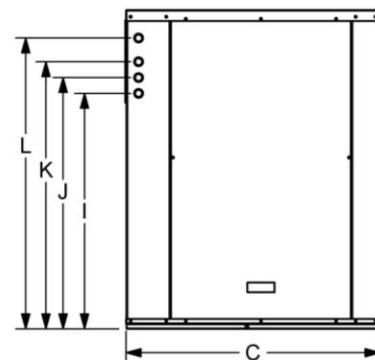
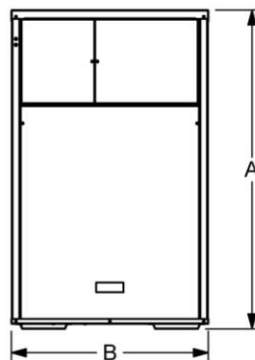
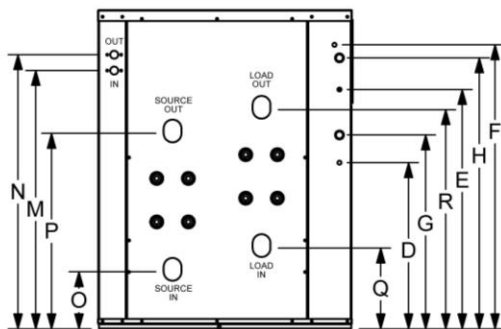
D	E	F	G	H	I	J	K	L
21"	30 1/4"	35 15/16"	24 1/2"	34 1/4"	29 3/4"	31 3/4"	33 3/4"	36 3/4"
Ø .500 Hole			Ø 1.125 X Ø .875 Double Knockout					

Water Connections

Desuperheater		Source		Load	
In	Out	In	Out	In	Out
M	N	O	P	Q	R
32 11/16"	34 11/16"	7 11/16"	7 3/16"	10 11/16"	27 11/16"
1/2" FPT		1 1/2" MPT			



ART-368_A-NHP



Electrical Data, SS Series

Packaged Forced Air Single Stage Vertical

Model	Voltage	Compressor		Blower	Desup. Pump	Loop Pump (Ext)	Total	Min.	Max. Fuse/ HACR
	(60 Hz)	RLA	LRA	FLA	FLA	FLA	FLA	Ampac.	
NVA-038	208/230-1	17.9	112	7.3	.15	4.4	29.8	34.2	50
	200/230-3	13.5	88	7.3	.15	4.4	25.4	28.7	40
	460-3	6.0	44	N/A	N/A	N/A	6.0	7.5	10
NVA-050	208/230-1	26.4	134	7.3	.15	4.4	38.3	44.9	70
	200/230-3	16.0	110	7.3	.15	4.4	27.9	31.9	45
	460-3	7.8	52	N/A	N/A	N/A	7.8	9.8	15
NVA-060	208/230-1	28.3	178	9.4	.15	4.4	42.3	49.3	70
	200/230-3	20.5	155	9.4	.15	4.4	34.5	39.6	60
	460-3	8.7	66	N/A	N/A	N/A	8.7	10.9	15

Packaged Forced Air Two Stage Vertical

Model	Voltage	Compressor		Blower	Desup. Pump	Loop Pump (Ext)	Total	Min.	Max. Fuse/ HACR
	(60 Hz)	RLA	LRA	FLA	FLA	FLA	FLA	Ampac.	
NVT-032	208/230-1	13.1	73	7.3	.15	4.4	25.0	28.2	40
	200/230-3	8.7	58	7.3	.15	4.4	20.6	22.7	35
	460-3	4.3	28	N/A	N/A	N/A	4.3	5.4	5
NVT-042	208/230-1	17.9	96	7.3	.15	4.4	29.8	34.2	50
	200/230-3	14.2	88	7.3	.15	4.4	26.1	29.6	45
	460-3	6.2	44	N/A	N/A	N/A	6.2	7.8	10
NVT-048	208/230-1	21.2	104	7.3	.15	4.4	33.1	38.4	50
	200/230-3	14.0	83	7.3	.15	4.4	25.9	29.4	45
	460-3	6.4	41	N/A	N/A	N/A	6.4	8.0	10
NVT-060	208/230-1	26.9	153	7.3	.15	4.4	38.8	45.5	70
	200/230-3	16.5	110	7.3	.15	4.4	28.4	32.5	50
	460-3	7.2	52	N/A	N/A	N/A	7.2	9.0	10
NVT-072	208/230-1	29.7	179	9.4	.15	4.4	43.7	51.1	70
	200/230-3	17.6	136	9.4	.15	4.4	31.6	36.0	50
	460-3	8.5	66	N/A	N/A	N/A	8.5	10.6	15

Split Forced Air Two Stage Vertical

Model	Voltage	Compressor		Desup. Pump	Loop Pump (Ext)	Total	Min.	Max. Fuse/ HACR
	(60 Hz)	RLA	LRA	FLA	FLA	FLA	Ampac.	
NST-042	208/230-1	17.9	96	.15	4.4	22.5	26.9	40
	200/230-3	14.2	88	.15	4.4	18.6	22.1	30
NST-060	208/230-1	27.1	152.9	.15	4.4	31.5	38.2	60
	200/230-3	16.5	110.0	.15	4.4	20.9	25.0	40
NST-072	208/230-1	29.7	179.2	.15	4.4	34.3	41.7	70

Note: All HCAR-type circuit breaker per NEC

Electrical Data, SS Series

Hydronic Single Stage – Single Phase

Model	Voltage	Compressor		Load Pump	Desup. Pump	Source Pump	Total	Min.	Max. Fuse/HACR
	(60 Hz)	RLA	LRA	FLA	FLA	FLA	FLA	Ampac.	
NWA-024	208/230-1	12.8	64	1.8	.15	4.4	19.1	22.4	35
NWA-036	208/230-1	17.9	112	1.8	.15	4.4	24.3	28.7	40
NWA-050	208/230-1	26.4	134	1.8	.15	4.4	33.3	39.2	60
NWA-060	208/230-1	28.3	178	1.8	.15	4.4	34.7	41.7	60
NWA-072	208/230-1	36.9	185	1.8	.15	4.4	43.3	52.5	80

Hydronic Dual Compressor – Single Phase

Model	Voltage	Compressor		Load Pump	Desup. Pump	Source Pump	Total	Min.	Max. Fuse/HACR ¹
	(60 Hz)	RLA	LRA	FLA	FLA	FLA	FLA	Ampac.	
NWD-080	208/230-1	21.8/17.9	117/112	1.8	.15	4.4	28.2/17.9	33.6/22.4	50/30 ²
NWD-096	208/230-1	26.4 x 2	134 x 2	1.8	.15	4.4	33.3 x 2	39.2 x 2	60 x 2
NWD-120	208/230-1	28.3 x 2	178 x 2	1.8	.15	4.4	34.7 x 2	41.7 x 2	60 x 2
NWD-144	208/230-1	36.9 x 2	185 x 2	1.8	.15	4.4	43.3 x 2	52.5 x 2	80 x 2

Hydronic Single Stage – Three-Phase, 200/230

Model	Voltage	Compressor		Total	Min.	Max. Fuse/HACR
	(60 Hz)	RLA	LRA	FLA	Ampac.	
NWA-036	200/230-3	13.5	88	24.3	29.4	45
NWA-050	200/230-3	17.6	123	28.4	32.6	50
NWA-060	200/230-3	20.5	155	31.3	38.2	50
NWA-072	200/230-3	23.2	164	34.0	41.6	60

Hydronic Dual Compressor – Three-Phase, 200/230

Model	Voltage	Compressor		Total	Min.	Max. Fuse/HACR ¹
	(60 Hz)	RLA	LRA	FLA	Ampac.	
NWD-080	200/230-3	13.7/13.5	83.1/88.0	24.5/13.5	29.7/16.9	45/25 ²
NWD-096	200/230-3	16.0 x 2	110 x 2	26.8/16.0	32.6/20.0	50/30 ²
NWD-120	200/230-3	19.2 x 2	136 x 2	30.0/19.2	36.6/24.0	55/35 ²
NWD-144	200/230-3	23.2 x 2	164 x 2	34.0/23.2	43.6/29.0	65/45 ²

Note: ¹Dual compressor models contain dual power circuits for the compressors, amperages shown are for each circuit.
²NWD-080 models: Max Fuse references front/rear contactor connection.
All HACR-type circuit breaker per NEC

Electrical Data, SS Series

Hydronic Single Stage – Three-Phase, 460

Model	Voltage	Compressor		Total	Min.	Max. Fuse/ HACR
	(60 Hz)	RLA	LRA	FLA	Ampac.	
NWA-036	460-3	6.0	44.0	6.0	7.5	10
NWA-050	460-3	7.8	52.0	7.8	9.75	15
NWA-060	460-3	8.7	66.1	8.7	10.8	15
NWA-072	460-3	11.2	75.0	11.2	14.0	20

Hydronic Dual Compressor – Three-Phase, 460

Model	Voltage	Compressor		Total	Min.	Max. Fuse/ HACR ¹
	(60 Hz)	RLA	LRA	FLA	Ampac.	
NWD-080	460-3	6.2/6.0	41.0/44.0	6.2/6.0	7.8/7.5	10/10 ²
NWD-096	460-3	7.8 x 2	52.0 x 2	7.8 x 2	9.75 x 2	15 x 2
NWD-120	460-3	8.7 x 2	66.1 x 2	8.7 x 2	10.8 x 2	15 x 2
NWD-144	460-3	11.2 x 2	75.0 x 2	11.2 x 2	14.0 x 2	20 x 2

Note: ¹Dual compressor models contain dual power circuits for the compressors, amperages shown are for each circuit.

²NWD-080 models: Max Fuse references front/rear contactor connection.

All HCAR-type circuit breaker per NEC

Electrical Data, eSeries

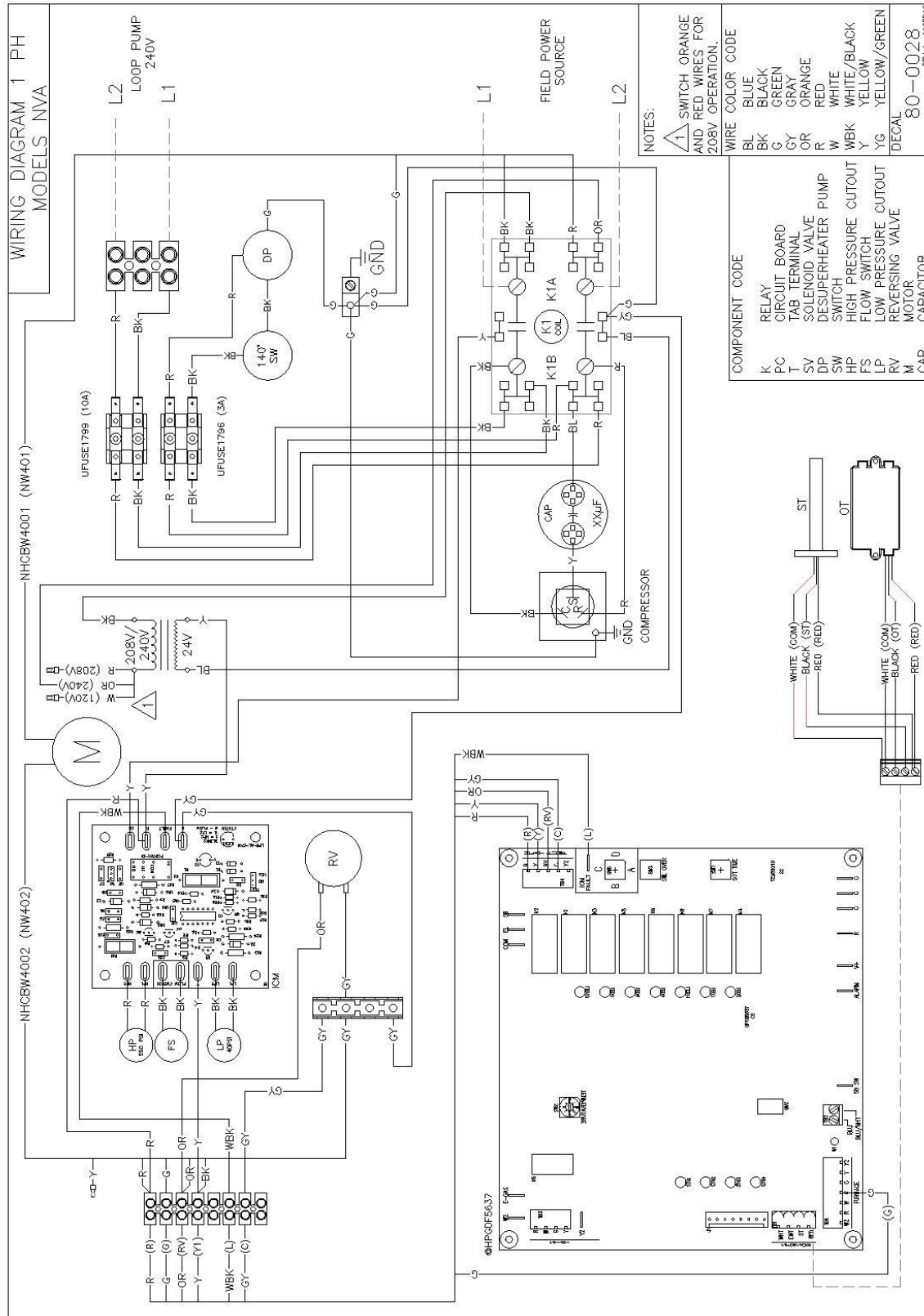
Packaged Forced Air Two Stage eSeries Vertical

Model	Voltage	Compressor		Blower	Desup. Pump	Loop Pump (Ext)	Total	Min.	Max. Fuse/HACR
	(60 Hz)	RLA	LRA	FLA	FLA	FLA	FLA	Ampac.	
NVT-e38	208/230-1	16.1	83.0	5.2	0.15	0.0	21.5	25.5	35
NVT-e50	208/230-1	21.2	104.0	5.2	0.15	0.0	26.6	31.9	45
	200/230-3	14.0	83.1	5.2	0.15	0.0	19.4	22.9	35

Note: All HCAR-type circuit breaker per NEC

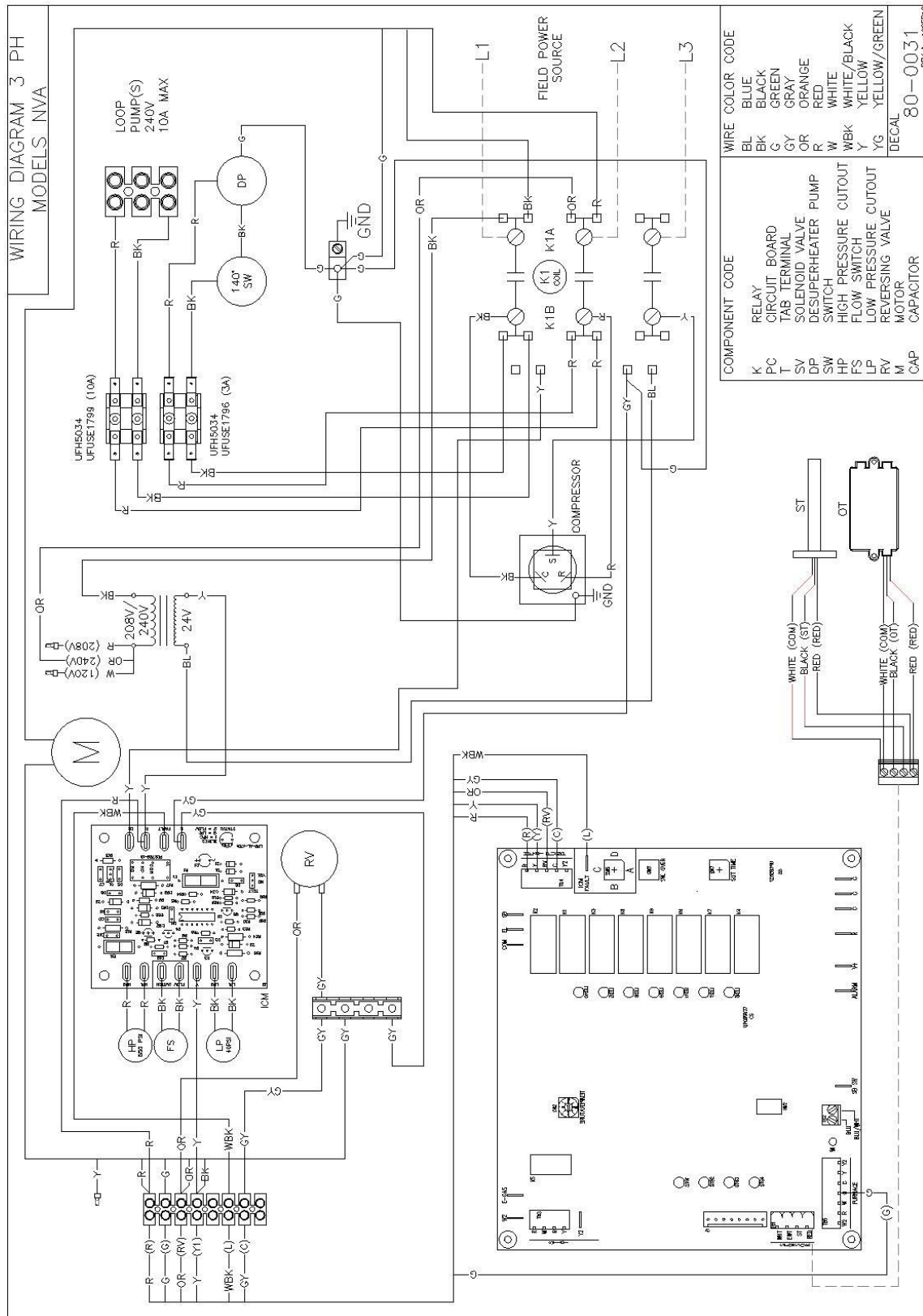
Wiring Diagrams, SS Series

Forced Air Models, Packaged Single Stage Vertical, 1 Phase



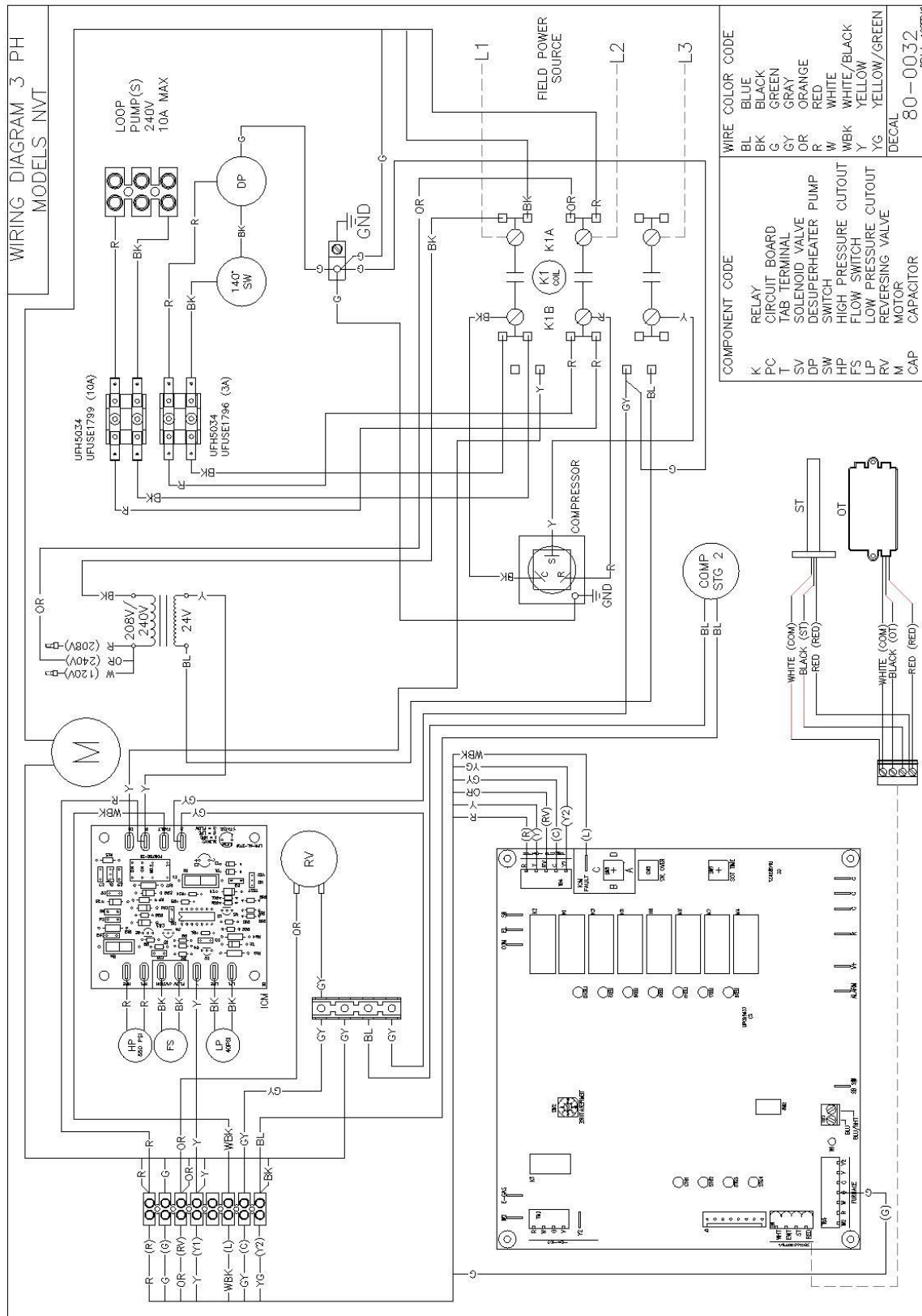
Wiring Diagrams, SS Series

Forced Air Packaged Single Stage Vertical, 3 Phase



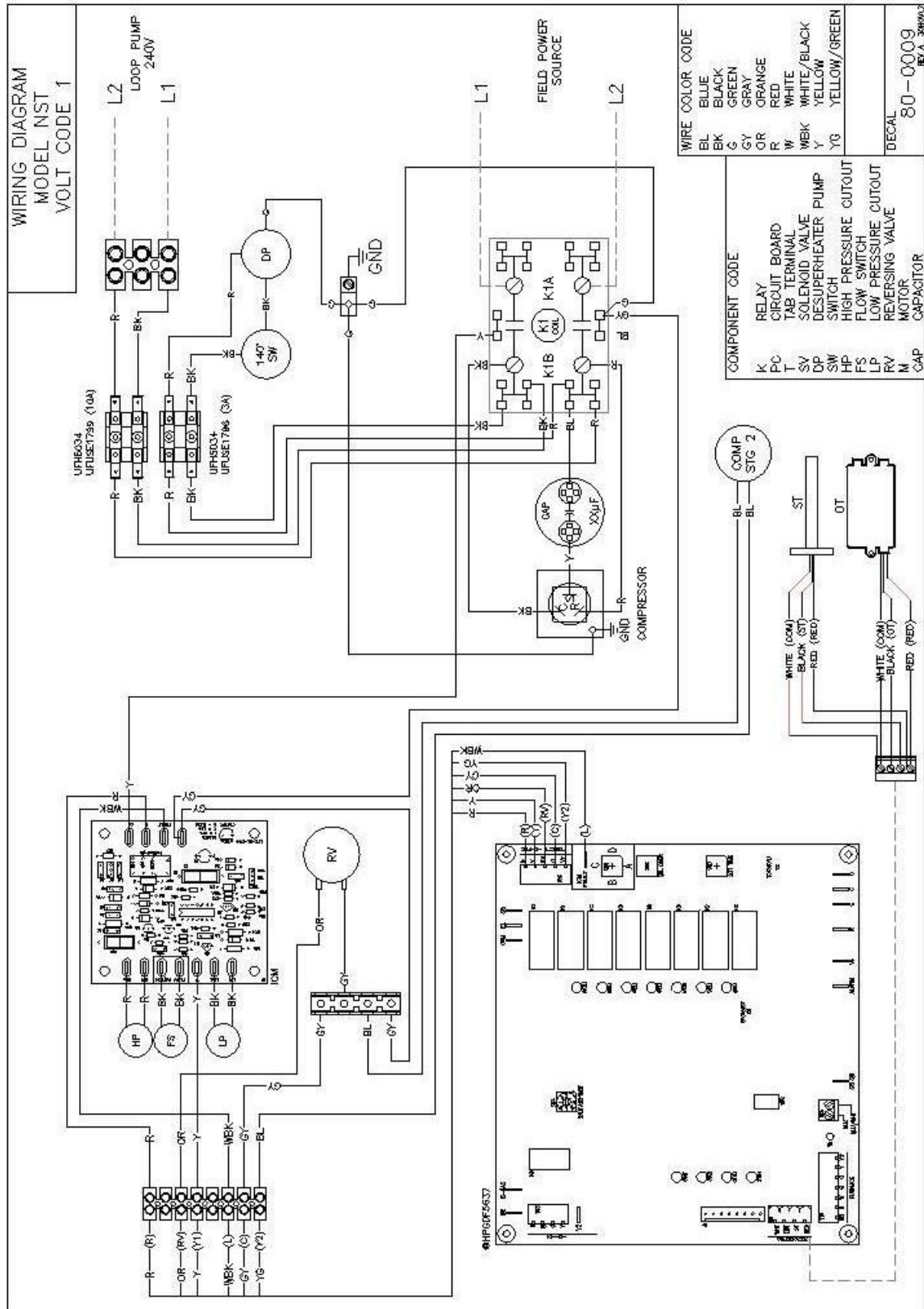
Wiring Diagrams, SS Series

Forced Air, Packaged Two Stage Vertical, 3 Phase



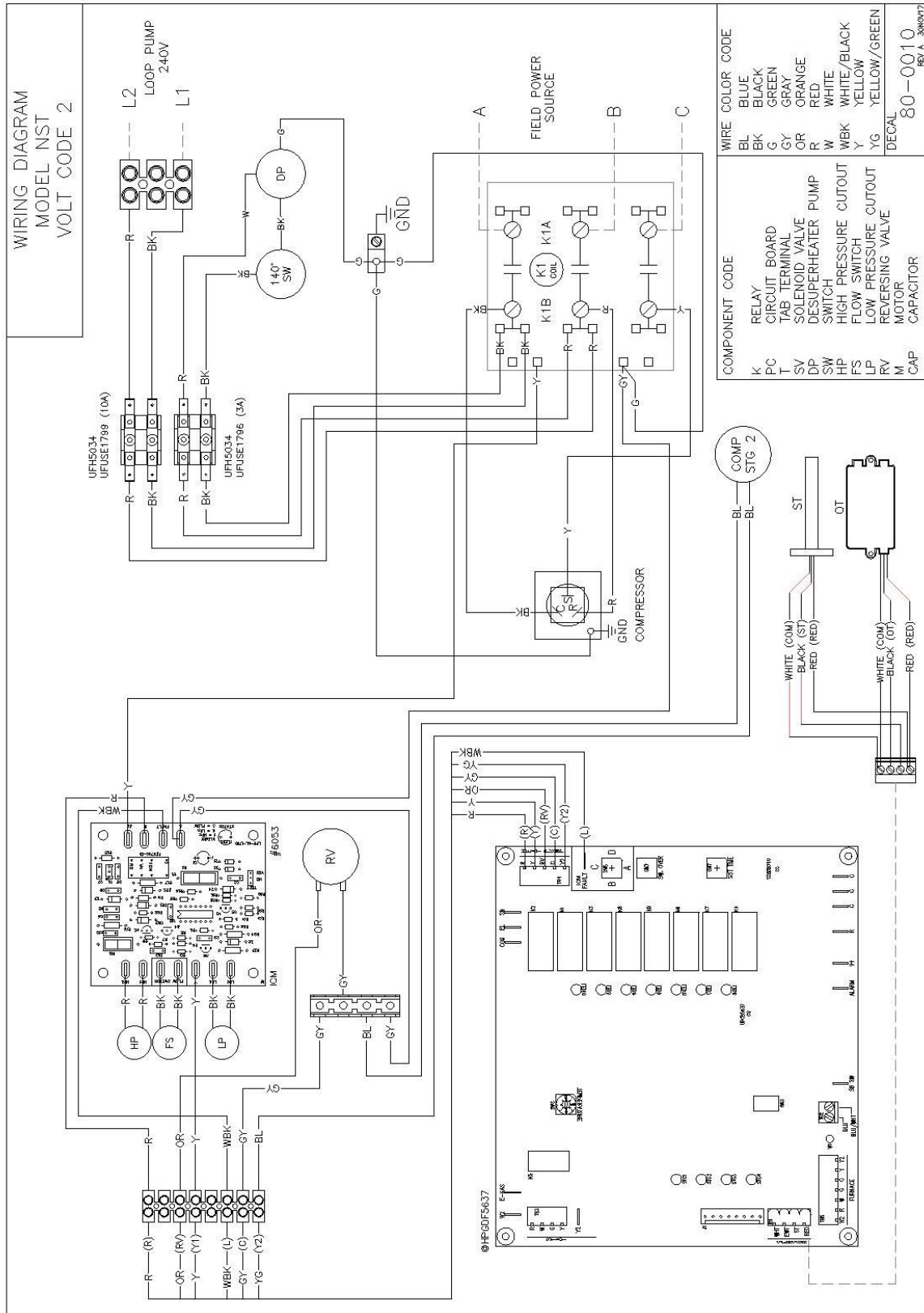
Wiring Diagrams, SS Series

Forced Air, Two Stage Split, 1 Phase



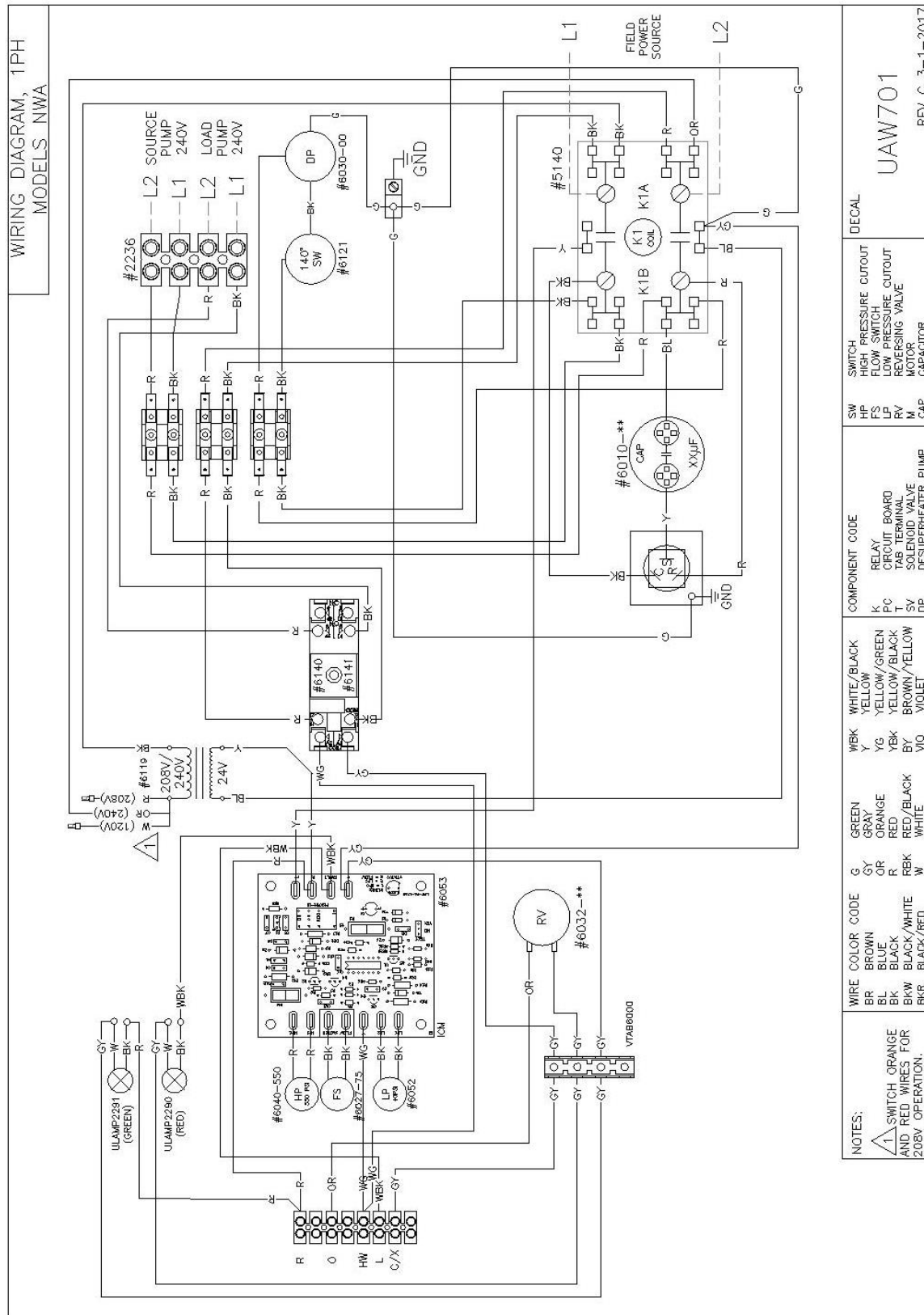
Wiring Diagrams, SS Series

Forced Air, Two Stage Split, 3 Phase



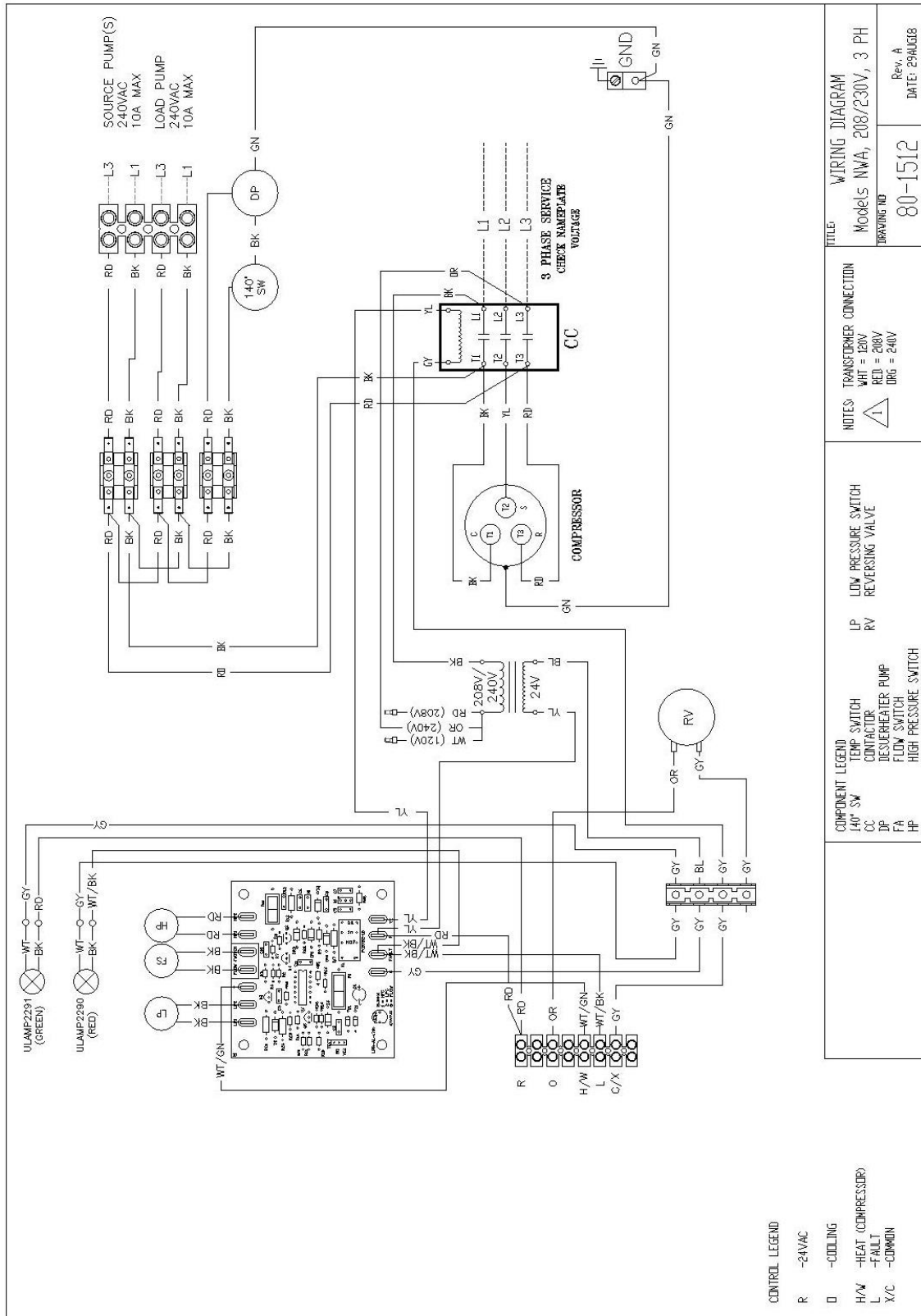
Wiring Diagrams, SS Series

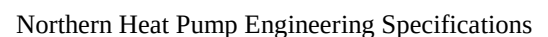
Hydronic, Single Stage, 1 Phase



Wiring Diagrams, SS Series

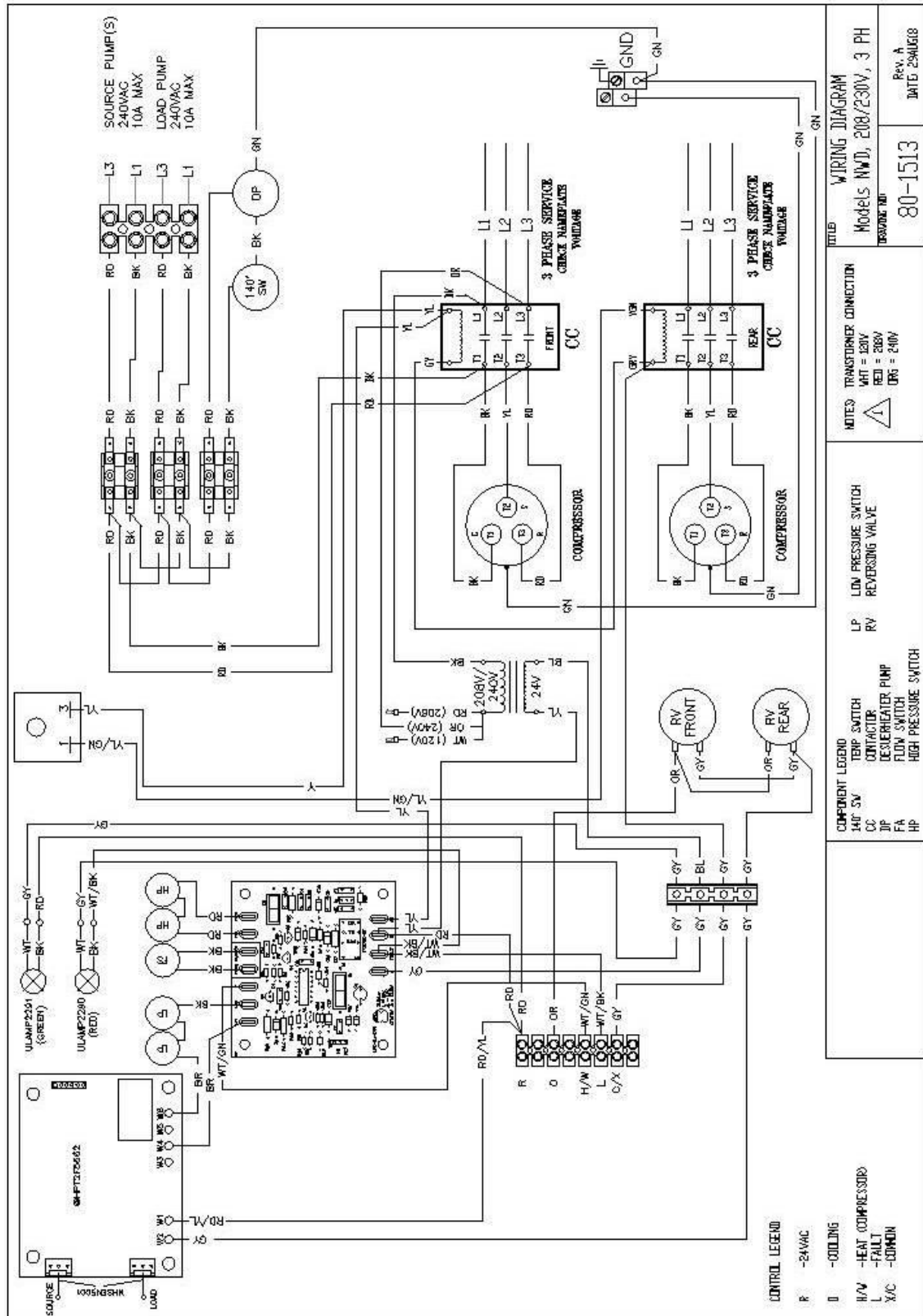
Hydronic, Single Stage, 3 Phase





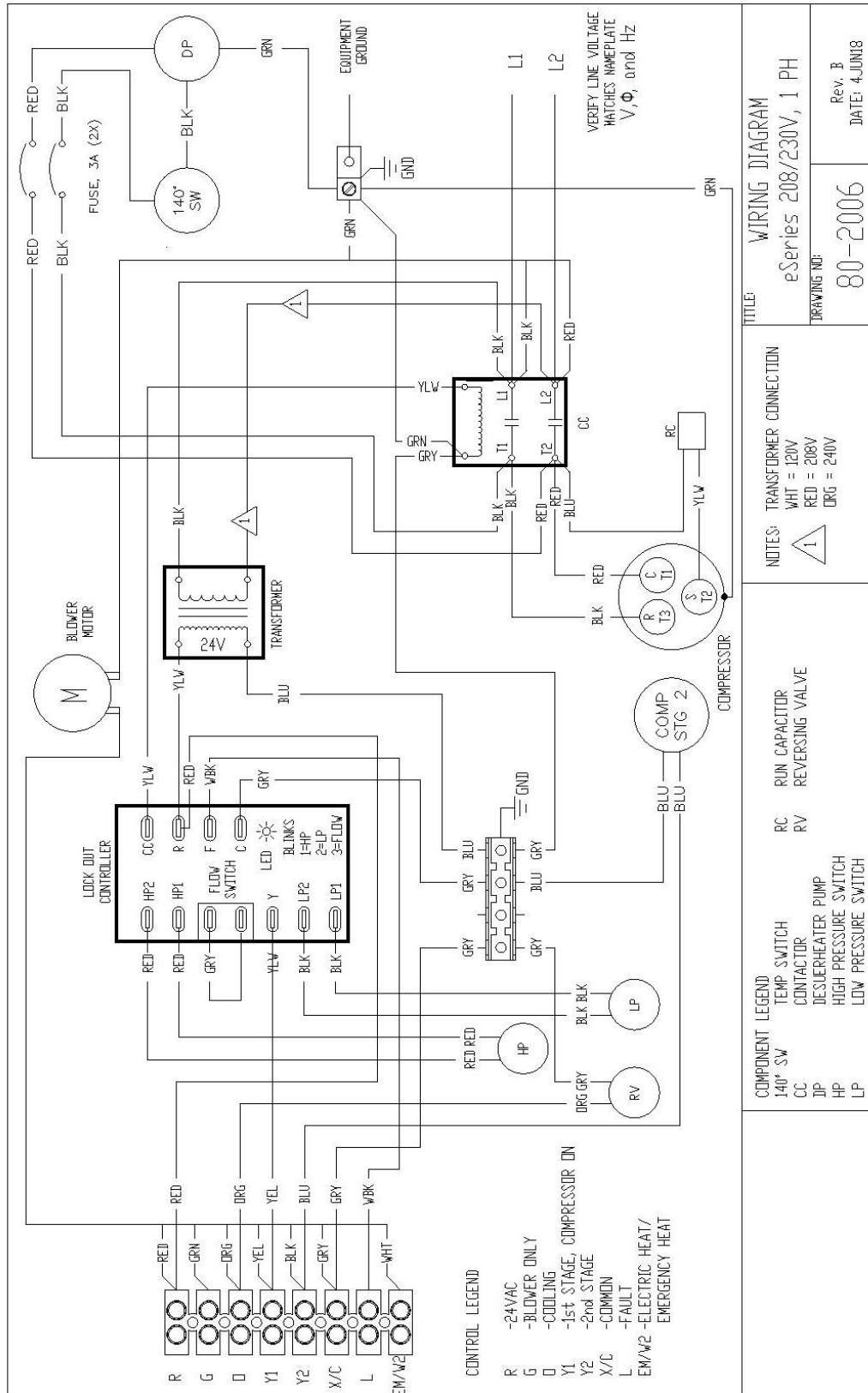
Wiring Diagrams, SS Series

Hydronic, Dual Compressor, 3 Phase



Wiring Diagrams, eSeries

Forced Air, Two Stage eSeries, 1 Phase



NOTES



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