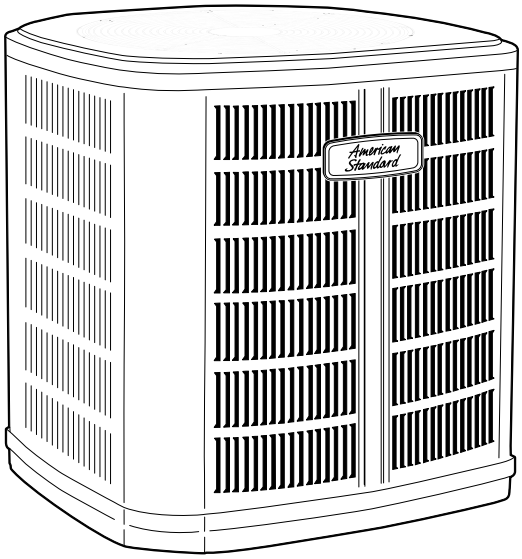
American Standard®
HEATING & AIR CONDITIONING

Product Data

Split System Heat Pump

208–230V MODEL
4A6C4036A3000A
4A6C4042A3000A
4A6C4048A3000A
4A6C4060A3000A
460V MODEL
4A6C4036A4000A
4A6C4042A4000A
4A6C4048A4000A
4A6C4060A4000A



Note: *"Graphics in this document are for representation only. Actual model may differ in appearance."*

November 2016

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Product Specifications

Table 1. 230v Models

OUTDOOR UNIT (a)	4A6C4036A3000A	4A6C4042A3000A	4A6C4048A3000A	4A6C4060A3000A
POWER CONNS. — V/PH/HZ (b)	208–230/3/60	208–230/3/60	208–230/3/60	208–230/3/60
MIN. BRCH. CIR. AMPACITY	13	18	18	21
BR. CIR. PROT. RTG. — MAX. (AMPS)	20	30	30	35
COMPRESSOR	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL
R.L. AMPS — L.R. AMPS	9.9 — 70	13.5— 88	13.7–83.1	15.9 — 110
OUTDOOR FAN	PROPELLER	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.) — NO. USED	27.6 — 1	27.6 — 1	27.6 — 1	27.6 — 1
NO. MOTORS — HP	1 — 1/8	1 — 1/5	1 — 1/5	1 — 1/5
F.L. AMPS	0.8	1.1	1.1	1.1
OUTDOOR COIL — TYPE	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
REFRIGERANT				
LBS. — R-410A (O.D. UNIT)	7 LBS., 1 OZ	7LBS., 8 OZ	8 LBS., 2 OZ	10 LBS., 9 OZ
LINE SIZE — IN. O.D. GAS (c) (d)	7/8	7/8	7/8	1–1/8
LINE SIZE — IN. O.D. LIQ.	3/8	3/8	3/8	3/8
CHARGING SPECIFICATIONS				
SUBCOOLING	10°F	10°F	10°F	8°F
DIMENSIONS	H X W X D	H X W X D	H X W X D	H X W X D
CRATED (IN.)	34.4 x 38.7 x 35.1	34.4 x 38.7 x 35.1	38.4 x 38.7 x 35.1	51 x 38.7 x 35.1
WEIGHT				
SHIPPING (LBS.)	240	240	295	298
NET (LBS.)	208	208	261	248
Optional Accessories:				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X084	AY28X084	AY28X084	AY28X084
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Extreme Condition Mount Kit	BAYECMT004	BAYECMT004	BAYECMT004	BAYECMT004
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM107	BAYLOAM107	BAYLOAM107	BAYLOAM107
Refrigerant Lineset (e)	TAYREFLN3*	TAYREFLN3*	TAYREFLN3*	TAYREFLN3*
Sound Enclosure	BAYSDEN004	BAYSDEN004	BAYSDEN004	BAYSDEN004
Service Valve Panel Cover	TAYSVPANL3343AA	TAYSVPANL3343AA	TAYSVPANL0046AA	TAYSVPANL0032AA

(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.
(b) Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.
(c) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the refrigerant piping software pub #32–3312–xx or refrigerant piping application guide SS-APG006–xx for long line sets or specialty applications (xx denotes latest revision).
(d) Outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer's Guide for full charging instructions.
(e) * = 15, 20, 25, 30, 40 and 50 foot lineset available,

Table 2. 460v Models

OUTDOOR UNIT (a)	4A6C4036A4000A	4A6C4042A4000A	4A6C4048A4000A	4A6C4060A4000A
POWER CONNS. — V/PH/HZ (b)	460/3/60	460/3/60	460/3/60	460/3/60
MIN. BRCH. CIR. AMPACITY	6	8	8	9
BR. CIR. PROT. RTG. — MAX. (AMPS)	15	15	15	15
COMPRESSOR	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL	DURATION®- SCROLL

Table 2. 460v Models (continued)

R.L. AMPS — L.R. AMPS	4.3-31	6–44	6.2 — 41	7.1 — 52
OUTDOOR FAN	PROPELLER	PROPELLER	PROPELLER	PROPELLER
DIA. (IN.) — NO. USED	27.6 — 1	27.6 — 1	27.6 — 1	27.6 — 1
NO. MOTORS — HP	1 — 1/8	1 — 1/5	1 — 1/5	1 — 1/5
F.L. AMPS	0.4	0.6	0.6	0.6
OUTDOOR COIL — TYPE	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
REFRIGERANT				
LBS. — R-410A (O.D. UNIT)	7 LBS., 1 OZ	7LBS., 8 OZ	8 LBS., 2 OZ	10 LBS., 9 OZ
LINE SIZE — IN. O.D. GAS (c) (d)	7/8	7/8	7/8	1–1/8
LINE SIZE — IN. O.D. LIQ.	3/8	3/8	3/8	3/8
CHARGING SPECIFICATIONS				
SUBCOOLING	10°F	10°F	10°F	8°F
DIMENSIONS	H X W X D	H X W X D	H X W X D	H X W X D
CRATED (IN.)	34.4 x 38.7 x 35.1	34.4 x 38.7 x 35.1	38.4 x 38.7 x 35.1	51 x 38.7 x 35.1
WEIGHT				
SHIPPING (LBS.)	248	240	295	298
NET (LBS.)	216	208	261	248
Optional Accessories:				
Anti-short Cycle Timer	TAYASCT501A	TAYASCT501A	TAYASCT501A	TAYASCT501A
Evaporator Defrost Control	AY28X084	AY28X084	AY28X084	AY28X084
Rubber Isolator Kit	BAYISLT101	BAYISLT101	BAYISLT101	BAYISLT101
Extreme Condition Mount Kit	BAYECMT004	BAYECMT004	BAYECMT004	BAYECMT004
Seacoast Kit	BAYSEAC001	BAYSEAC001	BAYSEAC001	BAYSEAC001
Low Ambient Kit	BAYLOAM107	BAYLOAM107	BAYLOAM107	BAYLOAM107
Refrigerant Lineset (e)	TAYREFLN3*	TAYREFLN3*	TAYREFLN3*	TAYREFLN3*
Sound Enclosure	BAYSDEN004	BAYSDEN004	BAYSDEN004	BAYSDEN004
Service Valve Panel Cover	TAYSVPANL3343AA	TAYSVPANL3343AA	TAYSVPANL0046AA	TAYSVPANL0032AA

(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.
(b) Calculated in accordance with N.E.C. Only use HACR circuit breakers or fuses.
(c) Reference the outdoor unit ship-with literature for refrigerant piping length and lift guidelines. Reference the refrigerant piping software pub #32–3312–xx or refrigerant piping application guide SS-APG006–xx for long line sets or specialty applications (xx denotes latest revision).
(d) Outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit and 15 feet of tested connecting lines. If connecting line length exceeds 15 feet, then final refrigerant charge adjustment is necessary. Each additional foot over 15 feet requires 0.6 ozs of refrigerant. See the Installer's Guide for full charging instructions.
(e) * = 15, 20, 25, 30, 40 and 50 foot lineset available,

Sound Power Level									
MODEL	**A-Weighted Sound Power Level [dB(A)]**	**Full Octave Sound Power(dB)**							
		63 Hz*	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
4A6C4036A3	75	72	72	71	69	70	62	57	52
4A6C4042A3	74	85	74	68	69	69	63	58	54
4A6C4048A3	74	85	74	68	69	69	63	58	54
4A6C4060A3	74	85	74	68	69	69	63	58	54
4A6C4036A4	75	72	72	71	69	70	62	57	52
4A6C4042A4	74	85	74	68	69	69	63	58	54
4A6C4048A4	74	85	74	68	69	69	63	58	54
4A6C4060A4	74	85	74	68	69	69	63	58	54

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Accessory Description and Usage

Anti-Short Cycle Timer — Solid state timing device that prevents compressor recycling until five (5) minutes have elapsed after satisfying call or power interruptions. Use in area with questionable power delivery, commercial applications, long lineset, etc.

Evaporation Defrost Control — SPST Temperature actuated switch that cycles the condenser off as indoor coil reaches freeze-up conditions. Used for low ambient cooling to 30°F with TXV.

Rubber Isolators — Five (5) large rubber donuts to isolate condensing unit from transmitting energy into mounting frame or pad. Use on any application where sound transmission needs to be minimized.

Extreme Condition Mount Kit — Bracket kits to securely mount condensing unit to a frame or pad without removing any panels. Use in areas with high winds, or on commercial roof tops, etc.

AHRI Standard Capacity Rating Conditions

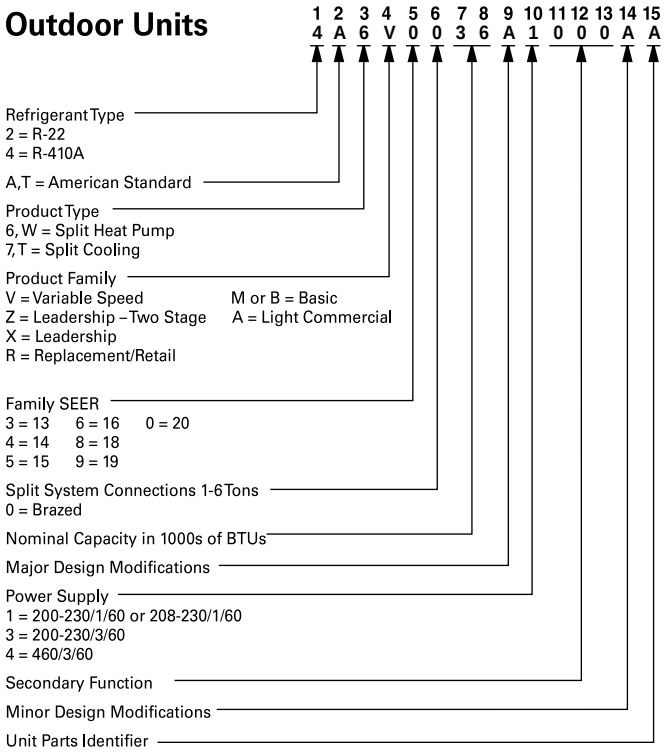
AHRI Standard 210/240 Rating Conditions

1. Cooling 80°F DB, 67°F WB air entering indoor coil, 95°F DB air entering outdoor coil.
2. High Temperature Heating 47°F DB, 43°F WB air entering outdoor coil, 70°F DB air entering indoor coil.
3. Low Temperature Heating 17°F DB air entering outdoor coil.
4. Rated indoor airflow for heating is the same as for cooling.

AHRI Standard 270 Rating Conditions — (Noise rating numbers are determined with the unit in cooling operations.) Standard Noise Rating number is at 95°F outdoor air.

Model Nomenclature

Outdoor Units



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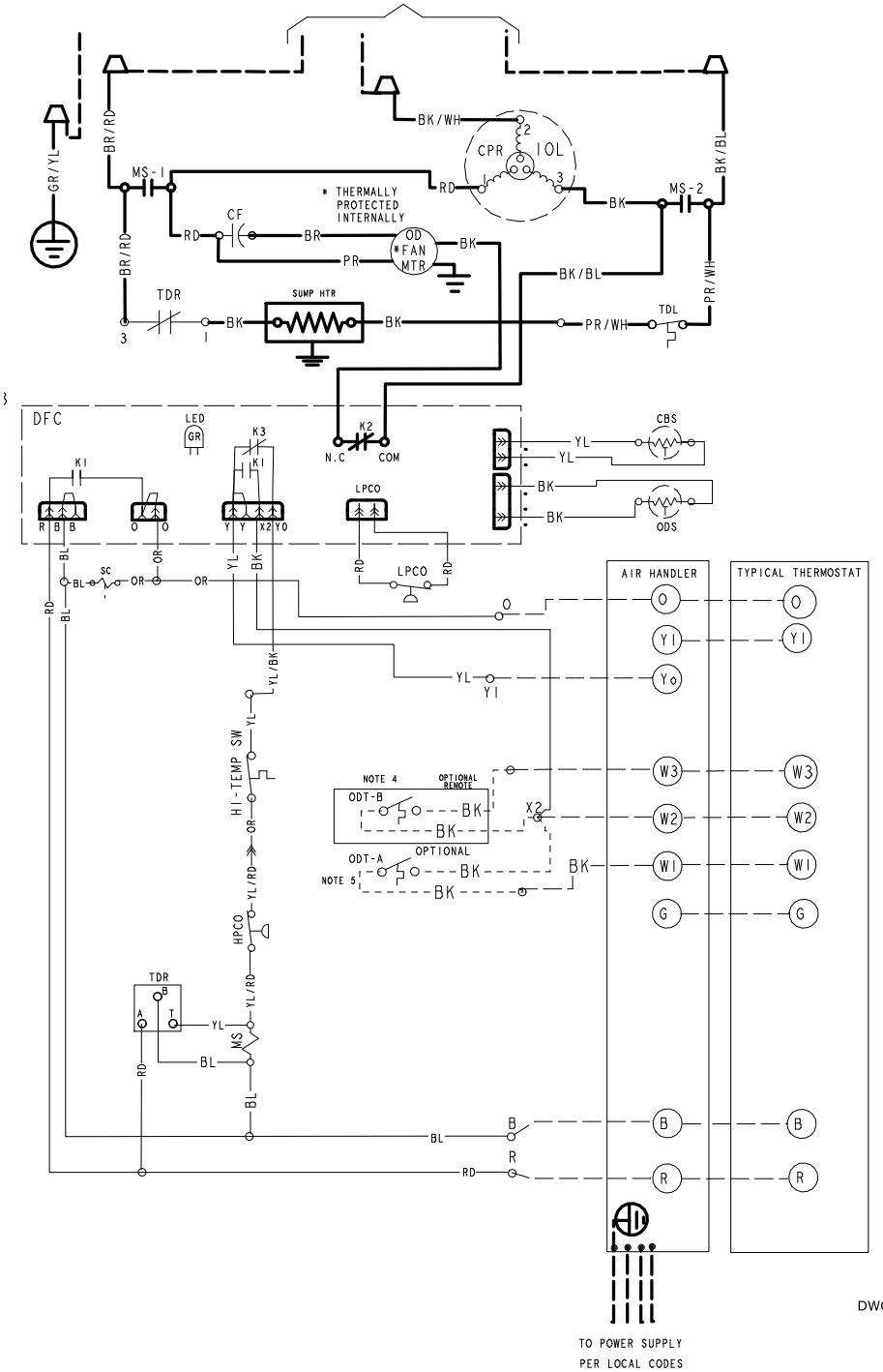
Schematic

Figure 1. 3.0 Ton 230V Models



LEGEND

COLOR OF WIRE
BK/BL
COLOR OF MARKER

BK	BLACK	RD	RED	OR	ORANGE
BL	BLUE	WH	WHITE	GR	GREEN
BR	BROWN	YL	YELLOW	PR	PURPLE
PK	PINK				

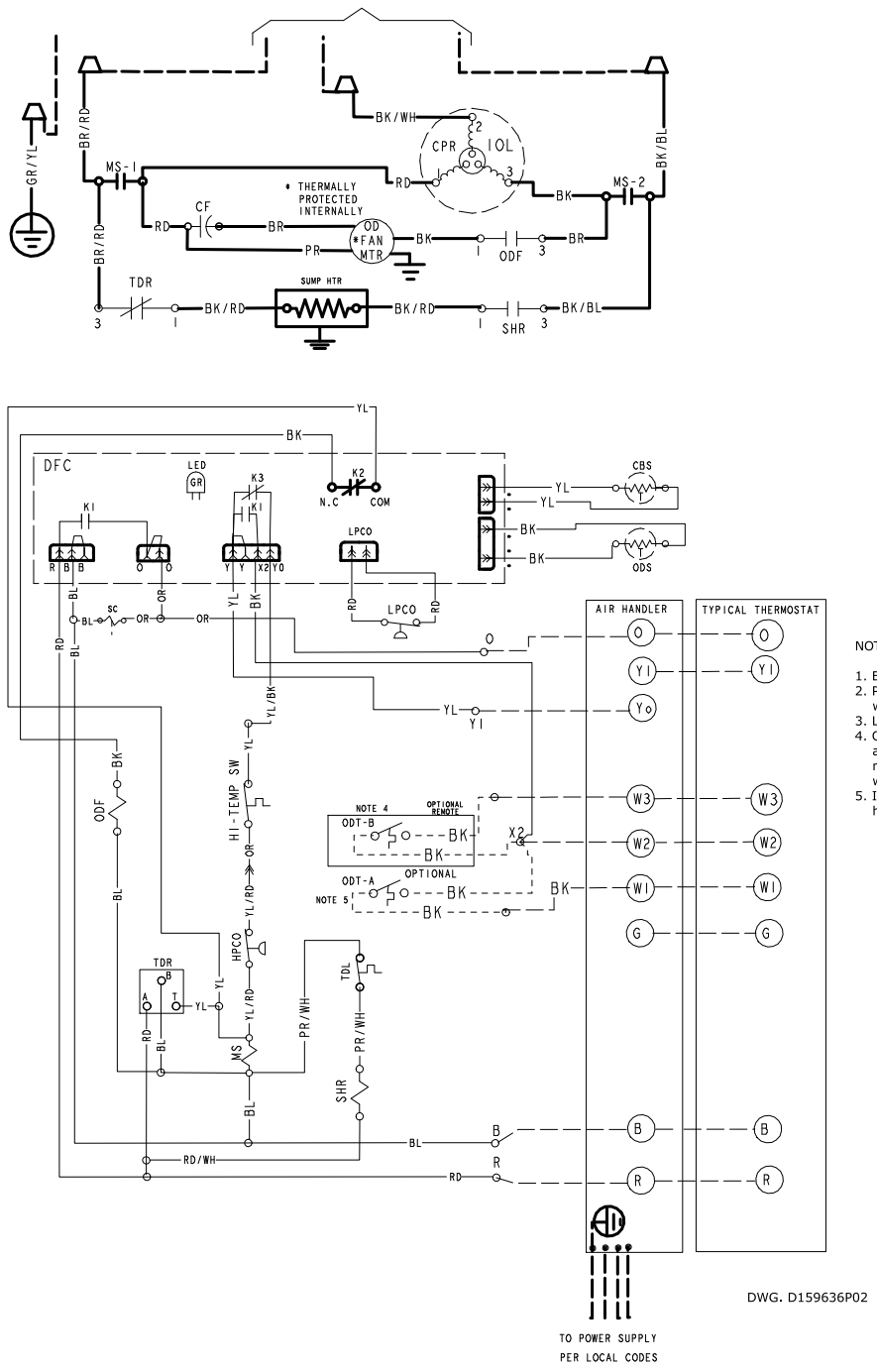
ACR	A/C RECTIFIER
CBS	COIL BOTTOM SENSOR
CF	FAN CAPACITOR
CN	WIRE CONNECTOR
CPR	COMPRESSOR
CR	RUN CAPACITOR
CS	STARTING CAPACITOR
CSR	CAPACITOR SWITCHING RELAY
DFC	DEFROST CONTROL
EEV	ELECTRONIC EXP VALVE
EEVC	ELECTRONIC EXP VALVE CONTROL
F	INDOOR FAN RELAY
HPCO	HIGH PRESSURE CUTOUT SWITCH
HTS	HIGH TEMPERATURE SWITCH
IOL	INTERNAL OVERLOAD PROTECTOR
LPCO	LOW PRESSURE CUTOUT SWITCH
MS	COMPRESSOR MOTOR CONTACTOR
ODA	OUTDOOR ANTICIPATOR
ODF	OUTDOOR FAN RELAY
OFT	OUTDOOR FAN THERMOSTAT
ODS	OUTDOOR TEMPERATURE SENSOR
ODT	OUTDOOR THERMOSTAT
P-TRD	PRESSURE TRANSDUCER
SC	SWITCH OVER VALVE SOLENOID
SHR	SUMP HEATER RELAY
SM	SYSTEM ON-OFF SWITCH
TDL	DISCHARGE LINE THERMOSTAT
TDR	TIME DELAY RELAY (5 SEC DELAY ON)
TNS	TRANSFORMER
TEMP	SENSOR, TEMPERATURE
Y2C	HIGH CAPACITY CONTROL RELAY

NOTES:

1. Be sure power supply agrees with equipment nameplate.
2. Power wiring and grounding of equipment must comply with local codes.
3. Low voltage wiring to be no. 18 AWG minimum conductor.
4. ODT-B must be set lower than ODT-A, if ODT-B is not used, add jumper between W2 and W3 at air handler. IF used, ODT-B must be mounted remote of control box in an approved weatherproof enclosure.
5. If ODT-A is not used, add jumper between W1 and W2 at air handler.

DWG. D159635P02

Figure 2. 3.0 Ton 460V Models



DWG. D159636P02

LEGEND

COLOR OF WIRE
BK/BL
COLOR OF MARKER

BK	BLACK	RD	RED	OR	ORANGE
BL	BLUE	WH	WHITE	GR	GREEN
BR	BROWN	YL	YELLOW	PR	PURPLE
PK	PINK				

ACR	A/C RECTIFIER
CBS	COIL BOTTOM SENSOR
CF	FAN CAPACITOR
CN	WIRE CONNECTOR
CPR	COMPRESSOR
CR	RUN CAPACITOR
CS	STARTING CAPACITOR
CSR	CAPACITOR SWITCHING RELAY
DFC	DEFROST CONTROL
EEV	ELECTRONIC EXP VALVE
EEVC	ELECTRONIC EXP VALVE CONTROL
F	INDOOR FAN RELAY
HPCO	HIGH PRESSURE CUTOUT SWITCH
HTS	HIGH TEMPERATURE SWITCH
IOL	INTERNAL OVERLOAD PROTECTOR
LPCO	LOW PRESSURE CUTOUT SWITCH
MS	COMPRESSOR MOTOR CONTACTOR
ODA	OUTDOOR ANTICIPATOR
ODF	OUTDOOR FAN RELAY
OFT	OUTDOOR FAN THERMOSTAT
ODS	OUTDOOR TEMPERATURE SENSOR
ODT	OUTDOOR THERMOSTAT
P-TRD	PRESSURE TRANSDUCER
SC	SWITCH OVER VALVE SOLENOID
SHR	SUMP HEATER RELAY
SM	SYSTEM ON-OFF SWITCH
TDL	DISCHARGE LINE THERMOSTAT
TDR	TIME DELAY RELAY (5 SEC DELAY O)
TNS	TRANSFORMER
TEMP	SENSOR, TEMPERATURE
Y2C	HIGH CAPACITY CONTROL RELAY

NOTES:

1. Be sure power supply agrees with equipment nameplate.
2. Power wiring and grounding of equipment must comply with local codes.
3. Low voltage wiring to be NO. 18 AWG minimum conductor.
4. ODT-B must be set lower than ODT-A, if ODT-B is not used, add jumper between W2 and W3 at air handler. If used, ODT-B must be mounted remote of control box in an approved weatherproof enclosure.
5. If ODT-A is not used, add jumper between W1 and W2 at air handler.

Figure 3. 3.5, 4.0 & 5.0 Ton 230V Models

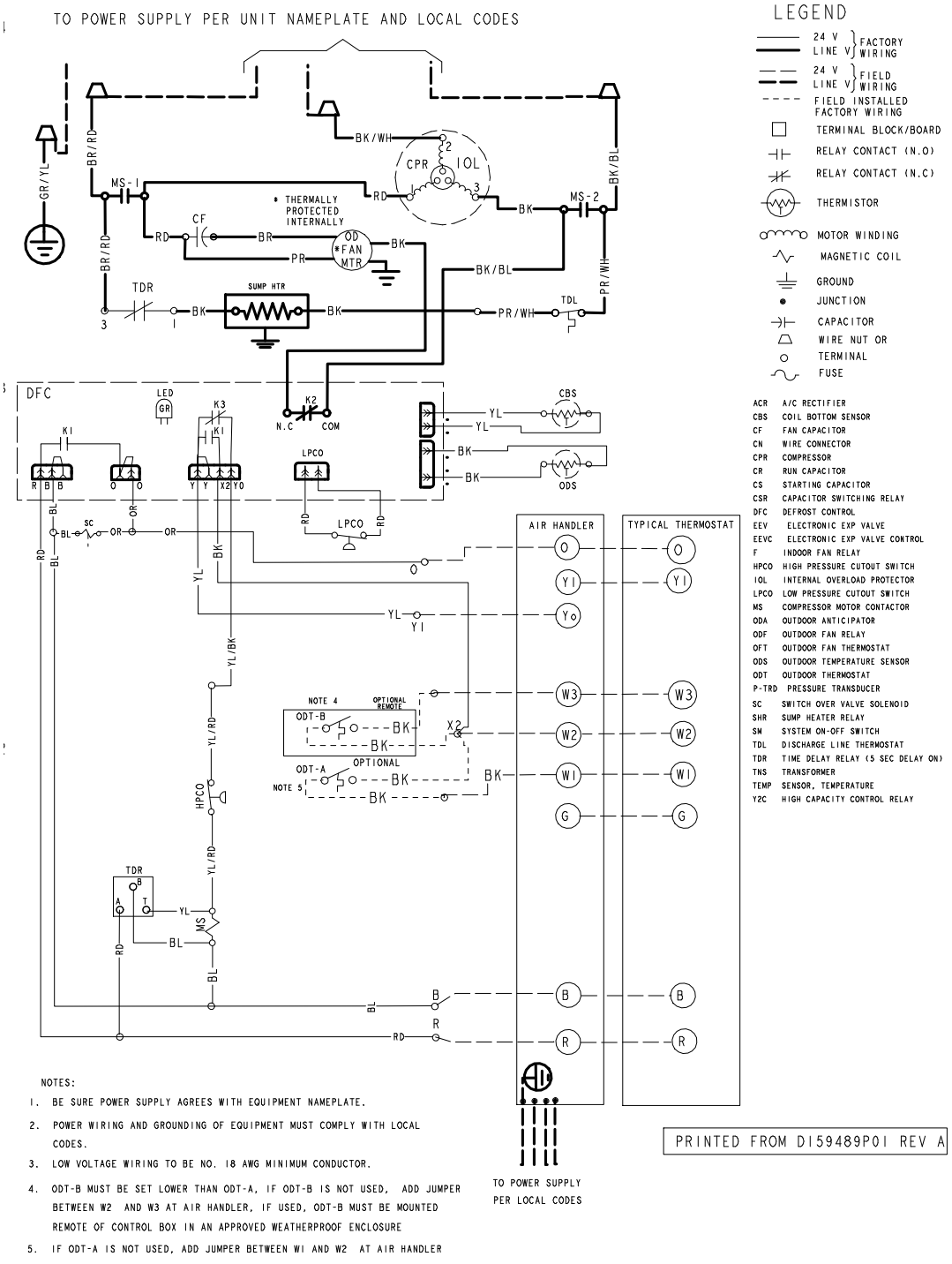
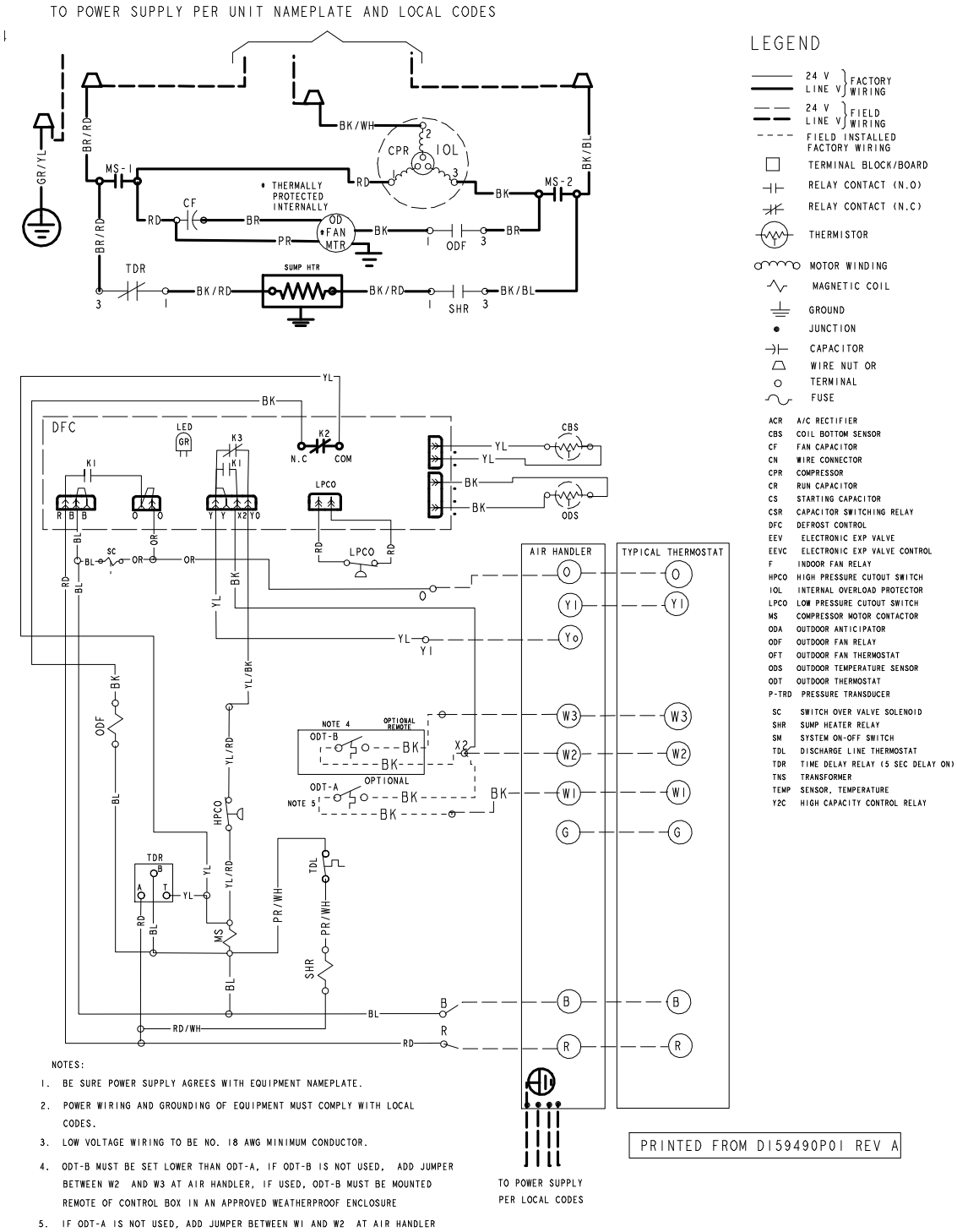


Figure 4. 3.5, 4.0 & 5.0 Ton 460V Models



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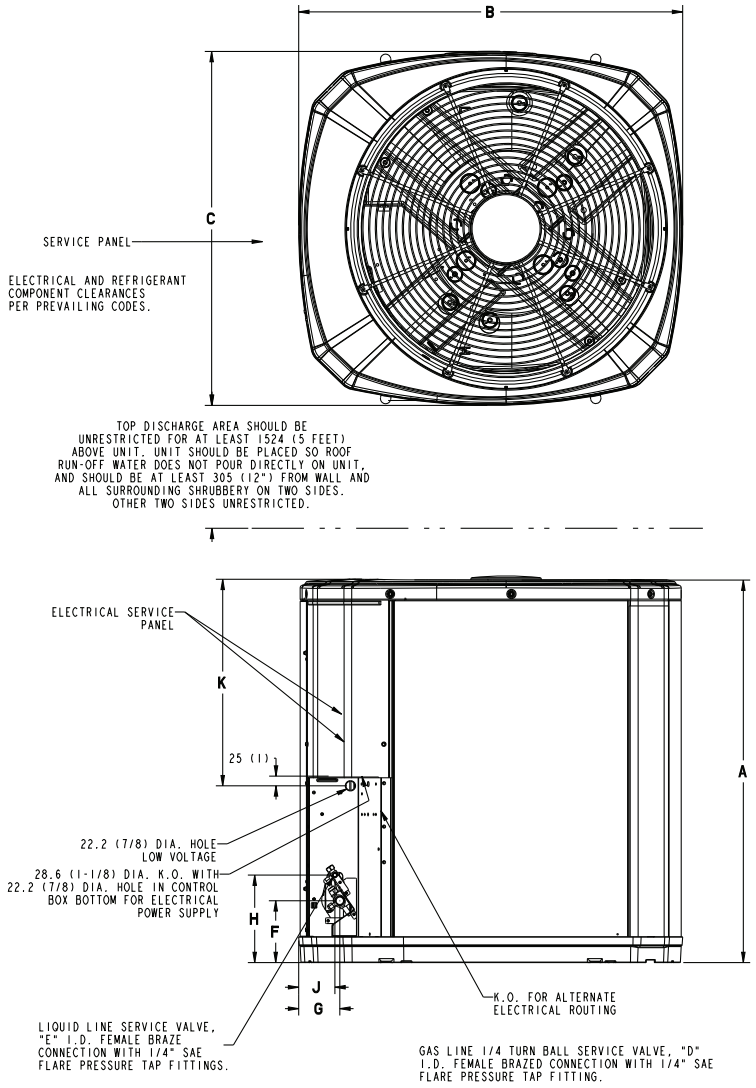
Outline Drawing



Model	Base	A	B	C	D	E	F	G	H	J	K
4A6A4036A3	4	741 (29–1/8)	946 (37–1/4)	870 (34–1/4)	3/4	3/8	143 (5–5/8)	83 (3–1/4)	206 (8–1/8)	70 (2–3/4)	508 (20)
4A6A4042A3	4	741 (29–1/8)	946 (37–1/4)	870 (34–1/4)	3/4	3/8	143 (5–5/8)	83 (3–1/4)	206 (8–1/8)	70 (2–3/4)	508 (20)
4A6A4048A3	4	841 (33–1/8)	946 (37–1/4)	870 (34–1/4)	3/4	3/8	156 (6)	98 (3–7/8)	219 (8–5/8)	86 (3–3/8)	508 (20)
4A6A4060A3	4	1147 (45–1/8)	946 (37–1/4)	870 (34–1/4)	7/8	3/8	152 (6)	98 (3–7/8)	219 (8–5/8)	86 (3–3/8)	813 (32)
4A6A4036A4	4	741 (29–1/8)	946 (37–1/4)	870 (34–1/4)	7/8	3/8	143 (5–5/8)	83 (3–1/4)	206 (8–1/8)	70 (2–3/4)	508 (20)
4A6A4042A4	4	741 (29–1/8)	946 (37–1/4)	870 (34–1/4)	3/4	3/8	143 (5–5/8)	83 (3–1/4)	206 (8–1/8)	70 (2–3/4)	508 (20)
4A6A4048A4	4	841 (33–1/8)	946 (37–1/4)	870 (34–1/4)	3/4	3/8	156 (6)	98 (3–7/8)	219 (8–5/8)	86 (3–3/8)	508 (20)
4A6A4060A4	4	1147 (45–1/8)	946 (37–1/4)	870 (34–1/4)	7/8	3/8	152 (6)	98 (3–7/8)	219 (8–5/8)	86 (3–3/8)	813 (32)

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Mechanical Specification Options

General

The Outdoor Units are fully charged from the factory for up to 15 feet of piping. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit is certified to UL 1995. Exterior is designed for outdoor application.

Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint finish on all louvered panels and the fan top panel. The corner panels are prepainted. All panels are subjected to our 1,000 hour salt spray test . The base is made of a CMBP-G30 weatherproof material to resist corrosion.

Refrigerant Controls

Refrigeration system controls include condenser fan, compressor contactor and high pressure switch. High and low pressure controls are inherent to the compressor. A factory supplied liquid line drier is standard. Some models may require field installation.

Compressor

The compressor features internal over temperature, pressure protection and total dipped hermetic motor. Other features include: Centrifugal oil pump and low vibration and noise.

Condenser Coil

The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

Low Ambient Cooling

As manufactured, this system has a cooling capacity to 55°F. The addition of an evaporator defrost control permits operation to 40°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

Thermostats—Cooling only and heat/cooling (manual and automatic change over). Sub-base to match thermostat and locking thermostat cover.

Evaporator Defrost Control — See Low Ambient Cooling.

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