

# Air Cooled Condensing Units



COOLING CAPACITIES  
5.3 kW to 17.5 kW

 **York**<sup>®</sup>

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# DESCRIPTION

The HDA Series condensing unit is the outdoor part of a versatile system of air conditioning. It is designed to be custom-matched with one of YORK's complete line of evaporator sections, each designed to serve a specific function. Matching Air Handlers are available for upflow, downflow or horizontal application to provide a complete system. Electric heaters are available if required.

# FEATURES

**QUALITY CONDENSER COILS** — The coil is constructed of copper tube and hardened aluminum fins for durability and long lasting efficient operation. The fins on the unit are protected with a decorative grille.

**PROTECTED COMPRESSOR** — The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of high pressure relief valve and a temperature sensor which protect the compressor if undesirable operating conditions occur. H1DA030 and larger models have standard crankcase heat for added protection.

**DURABLE FINISH** — Cabinet is made of pre-painted steel. The pre-treated flat galvanized steel provides a better paint to steel bond, which resists corrosion and rust creep. Special primer formulas and glossy earth tone finish insure less fading when exposed to sunlight.

**LOWER INSTALLED COST** — Installation time and costs are reduced by easy power and control wiring connections. Discharge line heat exchanger knockouts are provided, if required. The unit contains enough refrigerant for matching indoor coils. The small base dimension means less space is required on the ground or roof.

**TOP DISCHARGE** — The warm air from the top mounted fan is blown away from the structure and any landscaping. This allows compact location on multi-unit applications.

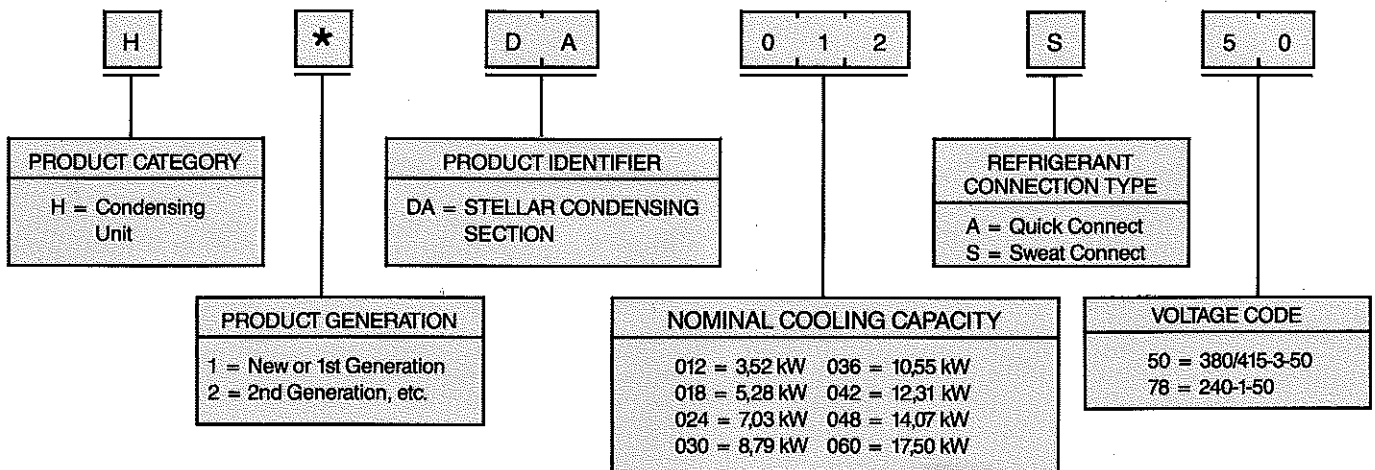
**LOW OPERATING SOUND LEVEL** — The upward air flow carries the normal operating noise up away from the living area. The rigid top panel effectively isolates any motor sound. Isolator mounted compressor and the rippled fins of the condenser coil muffle the normal fan motor and compressor operating sounds.

**LOW MAINTENANCE** — Long life permanently lubricated motor-bearings need no annual servicing.

**EASY SERVICE ACCESS** — Fully exposed refrigerant connections and a single panel covering the electrical controls make servicing easy.

# Product Nomenclature

## Condensing Unit



# ACCESSORIES

Refer to Price Manual for specific model numbers.

**Precharged Line Sets** — Available in 4,5/7,5/12,5 and 15 m lengths for connection of quick connect models. Outdoor liquid ends have M-6 connectors, vapor ends have M-11 connectors. Indoor liquid ends have F-6 connectors, vapor ends have F-11 connectors. All indoor vapor ends are provided with a 90° bend.

A 9.5 m set with straight ends is available for splicing to other lines for longer runs. All vapor lines are insulated with 12 mm sponge rubber.

**Off Cycle Timer** — Provides a 5 minute off cycle to prevent rapid recycling of the compressor.

**Room Thermostats** — A wide selection of matching thermostats is available to provide features required for any installation.

**Stub Adapters** — Available to adapt sweat connect units to quick connect coils or sweat connect coils to quick connect coils.

**Start Assist Kit** — Provides increased starting torque for areas with low voltage conditions.

## COOLING PERFORMANCE (CONDENSING UNIT)

MODEL	SUCTION T/P @ COMPRESSOR		AIR TEMP. ON CONDENSER						MODEL	SUCTION T/P @ COMPRESSOR		AIR TEMP. ON CONDENSER					
			24°C		35°C		46°C					24°C		35°C		46°C	
	T	P	KW	KW	KW	KW	KW	KW		T	P	KW	KW	KW	KW	KW	KW
H1DA012	1.5	4.3	3.81	1.31	3.20	1.41	2.63	1.53	H1DA036	1.5	4.3	9.84	3.07	8.43	3.43	7.02	3.82
	4.5	4.8	4.25	1.36	3.61	1.49	2.92	1.62		4.5	4.8	10.92	3.09	9.39	3.48	7.90	3.88
	7	5.3	4.72	1.41	4.02	1.54	3.30	1.69		7	5.3	12.00	3.23	10.30	3.60	8.84	4.13
H1DA018	10	5.8	5.19	1.44	4.46	1.58	3.63	1.74	H1DA048	10	5.8	13.13	3.37	11.45	3.85	9.77	4.35
	1.5	4.3	5.22	1.67	4.38	1.80	3.60	1.95		1.5	4.3	13.58	4.06	11.01	4.48	9.40	4.91
	4.5	4.8	5.83	1.74	4.96	1.90	4.08	2.07		4.5	4.8	13.74	4.21	12.09	4.68	10.40	4.65
H1DA024	7	5.3	6.48	1.80	5.51	1.99	4.53	2.16	H1DA060	7	5.3	14.08	4.38	13.28	5.17	11.45	5.45
	10	5.8	7.12	1.84	6.12	2.03	4.98	2.27		10	5.8	16.28	4.54	14.43	5.12	12.57	5.71
	1.5	4.3	6.39	2.12	5.43	2.31	4.42	2.52		1.5	4.3	15.75	5.91	12.49	6.56	11.66	7.23
H1DA030	4.5	4.8	7.13	2.21	6.06	2.43	4.99	2.67	H1DA060	4.5	4.8	17.23	6.15	15.09	6.86	12.92	7.60
	7	5.3	7.90	2.30	6.71	2.56	5.60	2.80		7	5.3	18.75	6.41	16.50	7.20	14.19	8.01
	10	5.8	8.67	2.39	7.45	2.68	6.15	2.96		10	5.8	20.36	6.68	17.98	7.51	15.55	8.41
H1DA030	1.5	4.3	7.65	2.65	6.56	2.97	5.59	3.30	H1DA060	1.5	4.3	15.75	5.91	12.49	6.56	11.66	7.23
	4.5	4.8	8.55	2.78	7.35	3.11	6.18	3.49		4.5	4.8	17.23	6.15	15.09	6.86	12.92	7.60
	7	5.3	9.44	2.90	8.19	3.25	6.96	3.68		7	5.3	18.75	6.41	16.50	7.20	14.19	8.01
H1DA030	10	5.8	10.36	3.04	9.03	3.47	7.66	3.92	H1DA060	10	5.8	20.36	6.68	17.98	7.51	15.55	8.41

### NOTES:

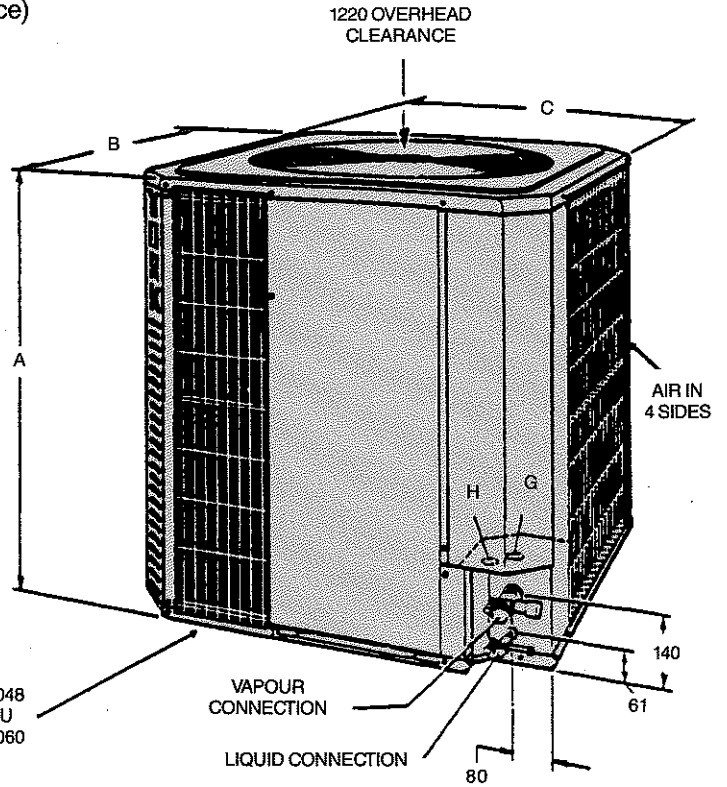
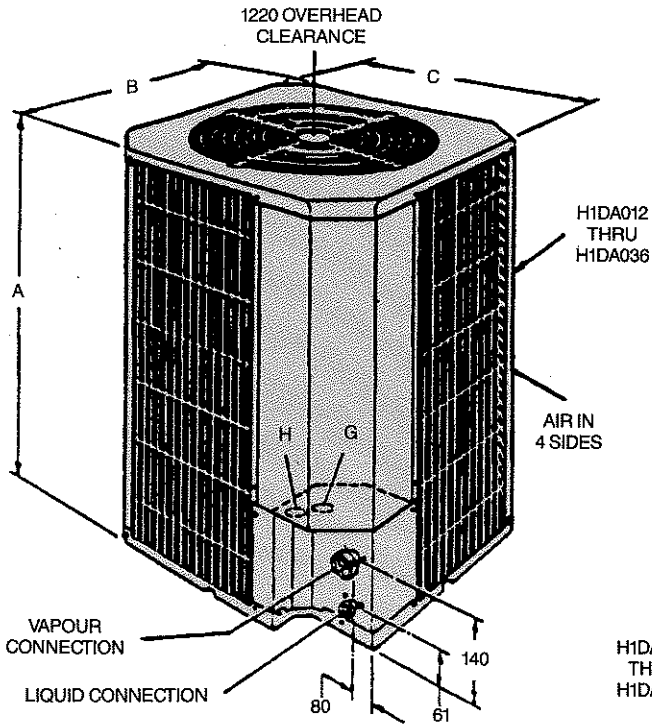
- For condensing unit only. Does not include effect of evaporator motor power or heat.
- Performance based on 8°C superheat and 8°C sub-cooling at condensing unit.
  - Increase capacity 1% for each 2° increase in sub-cooling.
  - Decrease capacity 1% for each 2° decrease in sub-cooling.
- Sub-cooling in excess of 11°C may result in excessively high condensing temperature with air on condenser above 46°C. Maximum recommended condensing temperature 60°C.

## PHYSICAL AND ELECTRICAL DATA

MODEL H1DA		012	018	024	030	036	048	060
UNIT SUPPLY VOLTAGE		220/240-1-50				380/415-3-50		
NORMAL VOLTAGE RANGE (1)		207-253				342-156		
MIN. CIRCUIT CURRENT (A)		10.4	13.6	16.4	20.4	8.4	12.0	16.4
MAX. OVERCURRENT DEVICE (A)		15.0	20.0	25.0	30.0	15.0	15.0	25.0
COMPRESSOR (A)	RATED LOAD	6.4	9.2	12.2	13.8	5.8	7.5	11.8
	LOCKED ROTOR	40.0	53.0	65.0	78.0	39.0	62.0	79.0
CRANKCASE HEATER		NO	NO	NO	YES	YES	YES	YES
FAN MOTOR (A)	RATED LOAD	0.8	0.8	0.8	1.6	0.8	0.8	0.8
	LOCKED ROTOR	1.7	1.7	1.7	3.8	1.8	1.7	1.7
FAN DIAMETER (mm)		46	46	46	46	46	61	61
FAN MOTOR 50 Hz	MOTOR POWER (kW)	0.094	0.094	0.094	0.188	0.188	0.188	0.188
	NOMINAL SPEED (min.)	1075	1075	1075	1075	1075	850	850
	RATED VOLTAGE	230	230	230	230	460	460	460
COIL	FACE AREA (m <sup>2</sup> )	0.87	1.05	1.05	1.05	1.05	1.86	1.86
	ROWS DEEP	1	1	1	1	1	1	1
	FIN DISTANCE (mm)	1.6	1.4	1.4	1.4	1.4	1.05	1.4
LIQUID LINE OD (inch)		5/16	5/16	5/16	5/16	5/16	3/8	3/8
VAPOUR LINE OD (inch)		5/8	5/8	5/8	3/4	3/4	7/8	7/8
OPERATING WEIGHT (kg)		55	61	61	66	62	95	106

(1) Dual element fuses or HACR circuit breaker.

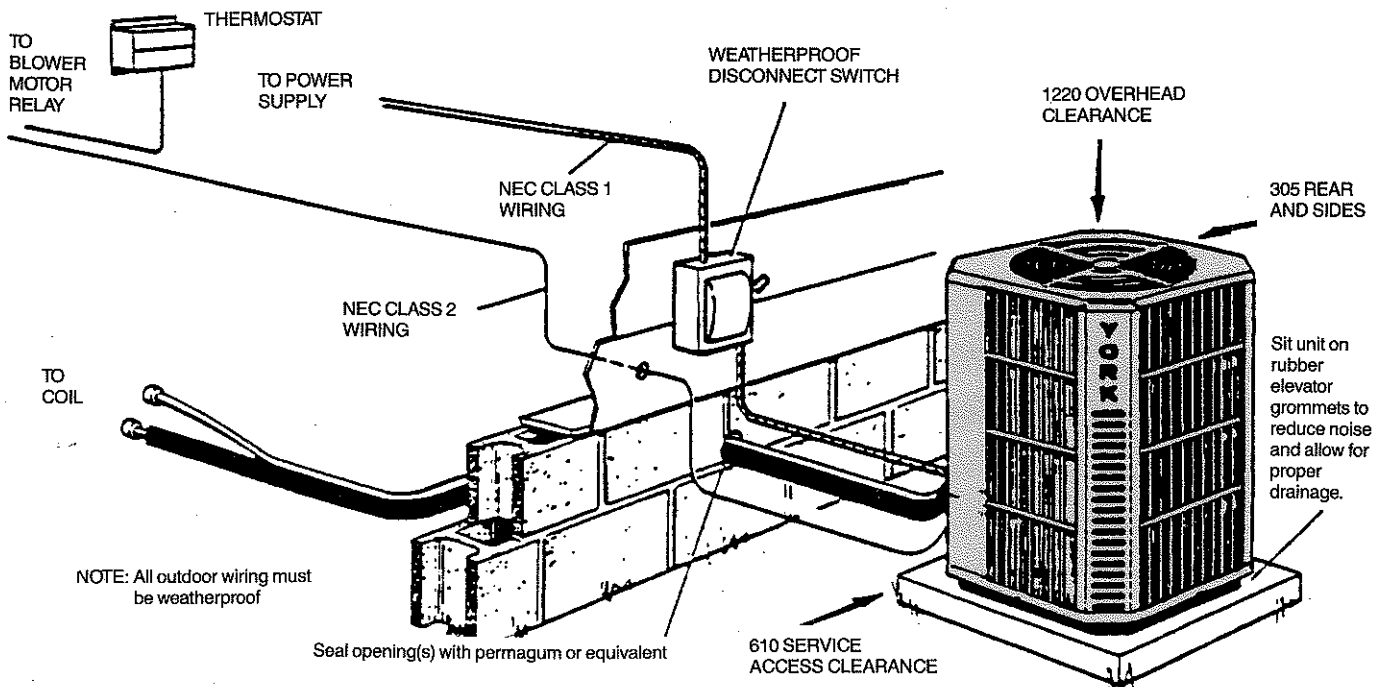
# DIMENSIONS (MM / Subject to change without notice)



MODEL	Dimensions			Wiring K.O.'s*		Refrigerant Connections			
	A	B	C	G	H	Line Size		Quick Conn.	
	Height	Width	Depth	Power	Control	Liquid	Vapour	Liquid	Vapour
H1DA012	512	610	610	22 28	22	5/16	5/8	M-6	M-11
H1DA018	613	610	610						
H1DA024	613	610	610						
H1DA030	613	610	610			3/8	7/8		
H1DA036	613	610	610						
H1DA048	810	877	877						
H1DA060	810	877	877						

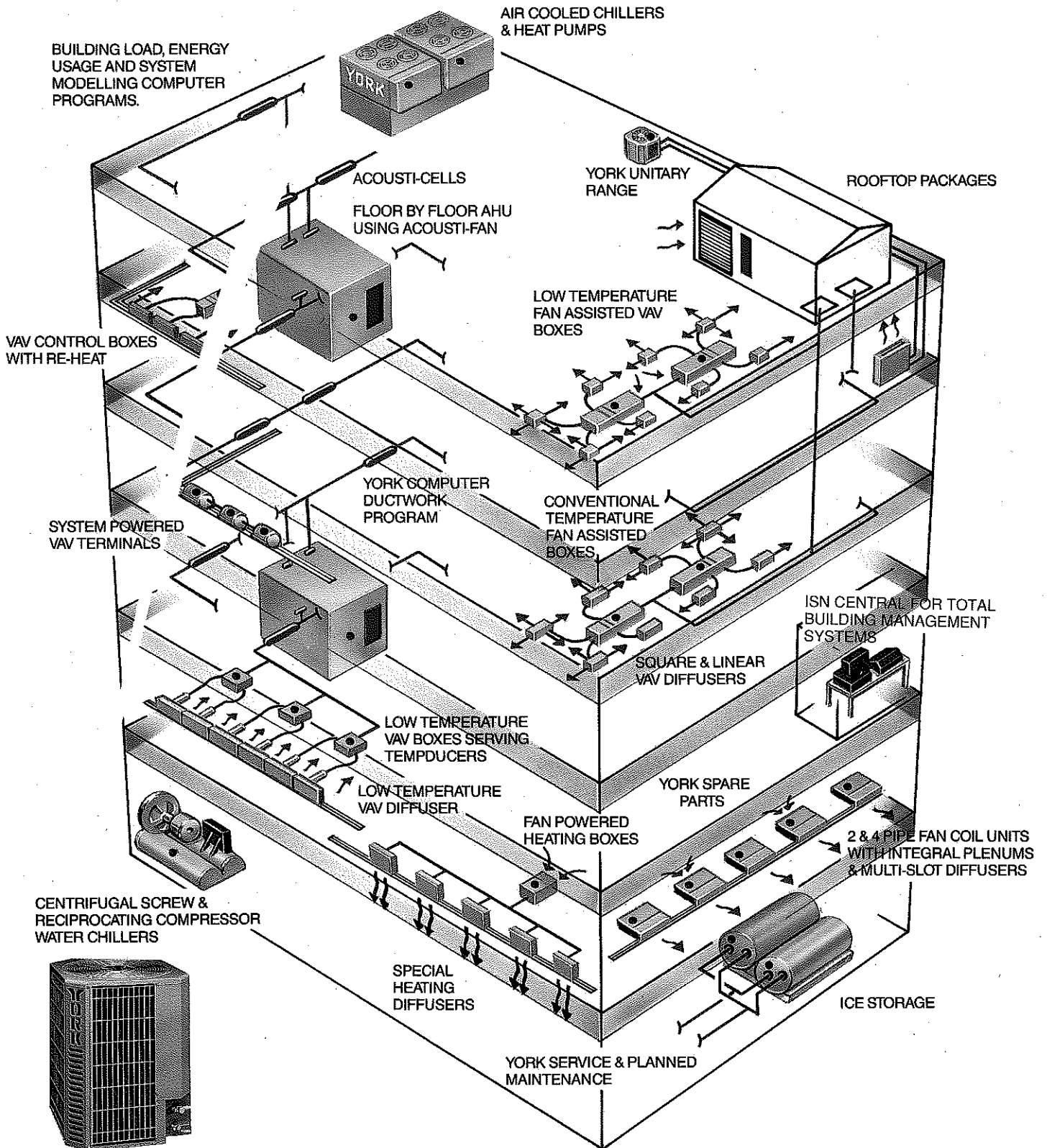
\*Use the 7/8" KO with a 1/2" conduit fitting for #8 AWG wire or smaller.  
Use the 1-1/8" KO with a 3/4" conduit fitting for #6 AWG wire or smaller.

## TYPICAL INSTALLATION



NOTE: All outdoor wiring must be weatherproof

# YORK TOTAL CAPABILITY



Subject to change without notice.

Form No: YD 595 AC 193 CP

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