

## Features, Selection, and Capacities Electric Heating Coils

Nailor manufactures its own electric heating coils. They have been specifically designed and tested for use with variable air volume single duct terminal units.

All terminals with electric heat have been tested and ETL listed as an assembly, eliminating the need to mount coils a minimum of 36" (914) downstream or having to ship a bulky length of ductwork when coils are to be supplied mounted on the terminal.

Nailor electric coils are factory mounted as an integral part of the terminal unit in an insulated extended plenum section. Total length of the casing including heater terminal is only 31" (787), providing a compact, easy to handle unit. Freight costs are reduced. All terminals include a perforated diffuser plate on the damper discharge in order to minimize air stratification, avoid nuisance tripping of the thermal cut-outs and to maximize heat pick-up.

For dimensional data, see page B5.

### Standard Features:

- Primary auto-reset high limit thermal cut-out (one per coil in control circuit).
- Secondary manual reset high limit thermal cut-outs (one per element).
- Positive pressure airflow switch.
- Derated high quality nickel-chrome alloy heating elements.
- Magnetic or safety contactors and/or PE switches as required.
- Line terminal block.
- ETL Listed as an assembly.
- Hinged door control enclosure.
- High performance arrowhead insulators.
- Slip and drive discharge connection.

### Selection:

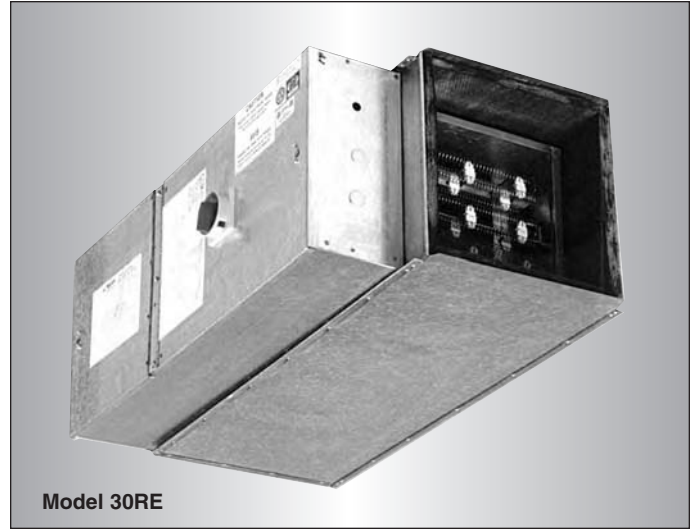
The adjacent table provides a general guideline as to the voltages, kilowatt range and number of stages available. Terminals are required to have a minimum of 0.5 kW per stage.

A minimum airflow of 70 cfm (33 l/s) per kW is required for any given terminal in order to avoid possible nuisance tripping of the thermal cutouts.

A good design will hold the discharge temperature between 90 and 105°F (32 to 40.5°C). Never select kW to exceed a discharge temperature of 120°F (49°C) maximum for comfort heating.

$$\Delta t \text{ (air temp. rise, } ^\circ\text{F)} = \frac{\text{kW} \times 3160}{\text{cfm}}$$

The coils ranges listed are restricted to a maximum of 48 amps and do not require circuit fusing to meet NEC code requirements. Total pressure at the airflow switch should be at least 0.07" w.g. (17 Pa) to ensure correct coil operation and prevent cut-out due to insufficient airflow over the coil elements.



Model 30RE

### Options:

- Class 2, 24V control transformer.
- Mercury contactors.
- Toggle type disconnect switch.
- Door interlock disconnect switch.
- Power circuit fusing.
- Dust tight construction.
- SCR control.
- Class 'A' 80/20 wire.



Tested and approved to the following standards:  
ANSI/UL 1996, 1<sup>st</sup>. ed.  
CSA C22.2 No. 155-M1986.

Electric Coil Limitations		
Voltage/Phase	kW Range	No. of Stages
120/1	0.1 – 3.0	1
	1.9 – 5.7	2
208/1	0.1 – 5.2	1
	3.2 – 9.9	2
240/1	0.1 – 6.0	1
	6.1 – 11.5	2
277/1	0.1 – 6.9	1
	4.2 – 13.0	2 or 3
480/1	0.1 – 6.0	1 or 2
	6.1 – 12.0	2
	6.1 – 18.0	3
208/3	0.1 – 9.0	1
	0.1 – 17.3	2 or 3
240/3	0.1 – 10.4	1
	0.1 – 20.0	2 or 3
480/3	0.1 – 20.8	1, 2 or 3
600/3	0.1 – 26.0	1, 2 or 3