

# Rittling Unit Heater

Submittal Data,  
English Language, IP Units

## Submittal data

Unit designation
Job name
Architect
Engineer
Contractor

## Electrical data

Power supply	Volts	Phase	Hz
Minimum circuit ampacity			
Maximum overcurrent protection			

## Performance data

Heating capacity
BTU/hr
Entering water temperature
°F
Entering air temperature
°F
Water flow
GPM
Airflow
CFM
Fan speed or motor/RPM/turns
Operating weight
lb.



## Table of contents

## \*Page number

Unit features . . . . .	1
General data . . . . .	3
Electrical data . . . . .	6
Wiring diagrams . . . . .	8
Dimensions and data . . . . .	13
Mechanical specifications . . . . .	17
Cutsheets	
Controls . . . . .	19
Electrical . . . . .	24
Mechanical . . . . .	26
Warranty . . . . .	28

## Standard unit features

Summary of all features, some features may not be specific to every project.

### Construction

- All units
  - ◆ 18-gauge exterior steel panel construction
  - ◆ Durable epoxy powder coat paint
  - ◆ Top casing furnished with threaded hanger connections for suspension of unit
  - ◆ Die-formed fan venturi

### Coils

- 1 row hot water or steam
- 1/2" nominal O.D. seamless copper tubes
- 0.028" tube wall thickness
- High efficiency aluminum fins, 12 FPI
- 0.010" minimum fin thickness
- Tubes are mechanically bonded to the fins
- Vertical coils have steel header tubes with external threaded NPT connections
- CRN pressure vessel certification for Ontario and Quebec provinces

### Fan assemblies

- Propeller type
- 115 volt, single phase, two speed PSC motors
- Thermal overload protection with the exception of three phase motors
- Non-conducting aluminum fan blades with steel hub
- Balanced fan blade
- Standard finger-proof steel fan guard

### Electrical

- <sub>c</sub>ETL<sub>US</sub> listed for safety compliance
- Electrical junction box for field wiring terminations

## Optional unit features

Summary of all features, some features may not be specific to every project.

### Construction

- Vertical air diffuser blades for horizontal units
- Field installed air outlet accessories for vertical units
  - ◆ Cone-jet
  - ◆ Truncone
  - ◆ One-way louver
  - ◆ Two-way louver
  - ◆ 3-cone anemostat
  - ◆ 4-cone anemostat
- Pipe hanging kit

### Fan assemblies

- 208-230 single phase, 230/460 three phase and 115/208-230 single phase explosion proof motors

### Electrical

- Toggle disconnect switch
- Variable speed controller
- Manual motor starter with thermal overload protection

### Thermostats

- Analog
- Explosion proof
- Unit and remote mounted
- Thermostat guard: clear plastic with lock and keys
- Aquastat, pipe mounted, shipped loose

# Unit Heater Submittal Data

English, IP Units

## General data, horizontal high motor speed

Standard conditions of 200 °F entering water, 60 °F entering air, and 20 °F water temperature drop

Model type	Model number	BTU/Hr	Water data			Air data					
			GPM	Pressure drop (ft. of water)	Min./max. GPM	Sound Class **	Maximum mounting height (ft.)*	Heat spread at maximum height	CFM	Outlet velocity	Final air temp. (°F)
Horizontal air delivery	RH-18	13,000	1.3	0.49	0.3/5.0	II	9	18	400	500	90
	RH-24	17,300	1.7	0.83	0.3/5.0	II	10	20	450	570	96
	RH-33	24,500	2.5	0.12	0.4/10.0	II	11	22	630	495	96
	RH-47	33,800	3.4	0.21	0.4/10.0	III	13	26	730	580	103
	RH-63	46,500	4.7	0.47	0.5/15.0	III	15	30	1120	590	98
	RH-86	61,900	6.2	0.79	0.5/15.0	III	16	31	1340	710	103
	RH-108	81,000	8.1	0.85	0.5/20.0	III	16	33	1550	605	108
	RH-121	90,000	9.0	1.04	0.7/20.0	III	17	36	1775	690	107
	RH-165	133,000	13.3	2.48	2.0/30.0	IV	18	38	2500	735	109
	RH-193	156,000	15.6	3.35	2.0/30.0	IV	19	40	2900	850	110
	RH-258	198,000	19.8	3.54	2.5/40.0	V	20	42	3900	895	107
	RH-290	224,000	22.4	4.45	2.5/40.0	V	21	46	4300	990	108
RH-340	273,000	27.3	3.24	2.5/50.0	V	22	50	5130	945	109	

## General data, horizontal reduced motor speed

Standard conditions of 200 °F entering water, 60 °F entering air, and 20 °F water

Model type	Model number	BTU/Hr	Water data			Air data					
			GPM	Pressure drop (ft. of water)	Min./max. GPM	Sound class**	Max. mounting height	Heat spread at max height*	CFM	Outlet velocity (FPM)	Final air temp. (°F)
Horizontal air delivery	RH-18	10,660	1.3	0.49	0.2/5.0	I	9	13	310	390	92
	RH-24	14,186	1.7	0.83	0.2/5.0	I	10	14	350	450	98
	RH-33	20,090	2.5	0.12	0.6/10.0	I	11	16	490	390	98
	RH-47	27,716	3.4	0.21	0.6/10.0	II	13	18	565	455	105
	RH-63	38,130	4.7	0.47	0.6/15.0	II	15	21	870	460	101
	RH-86	50,758	6.2	0.79	0.6/15.0	II	16	22	1040	550	105
	RH-108	66,420	8.1	0.85	0.5/20.0	II	16	23	1240	485	110
	RH-121	73,800	9.0	1.04	0.5/20.0	II	17	26	1415	555	108
	RH-165	109,060	13.3	2.48	0.5/30.0	III	18	27	1990	590	111
	RH-193	127,920	15.6	3.35	0.5/30.0	III	19	28	2310	680	111

### Notes

- See page 4 for sound class definitions
- Data for horizontal air delivery units is based upon horizontal louvers open 30°
- Data for vertical air delivery units is based upon no deflectors installed, see page 10 for data on units with the addition of air outlet accessories

# Unit Heater Submittal Data

English, IP Units

## General data, horizontal high motor speed

Standard conditions of 2 lb. steam and 60 °F entering air

Model type	Model number	Btu/Hr	Sq. ft. EDR	Air data							115V motor data	
				Sound class*	Maximum mounting height (ft.)**	Heat spread at max. height (ft.)**	CFM	Outlet velocity	Final air temperature (°F)	Condensate lb./hr.	Hp	Approx. RPM
Horizontal air delivery	<b>RH-18</b>	18,000	75	II	9	17	400	510	102	18	1/30	1550
	<b>RH-24</b>	24,000	100	II	9	18	450	580	109	25	1/30	1550
	<b>RH-33</b>	33,000	138	II	10	20	630	510	109	35	1/15	1550
	<b>RH-47</b>	47,000	196	III	12	25	730	600	120	49	1/15	1550
	<b>RH-63</b>	63,000	263	III	14	29	1120	605	112	66	1/10	1550
	<b>RH-86</b>	86,000	358	III	15	31	1340	730	119	89	1/10	1550
	<b>RH-108</b>	108,000	450	III	15	32	1550	625	125	111	1/8	1075
	<b>RH-121</b>	121,000	504	III	16	33	1775	715	123	126	1/8	1075
	<b>RH-165</b>	165,000	688	IV	17	34	2500	750	121	170	1/4	1075
	<b>RH-193</b>	193,000	804	IV	18	37	2900	870	122	200	1/4	1075
	<b>RH-258</b>	258,000	1075	V	19	40	3900	920	121	267	1/3	1075
<b>RH-290</b>	290,000	1208	V	20	44	4300	1010	122	300	1/2	1100	
<b>RH-340</b>	340,000	1417	V	20	46	5130	965	121	352	1/2	1100	

## General data, horizontal reduced motor speed

Standard conditions of 2 lb. steam and 60 °F entering air

Model type	Model number	Btu/Hr	Sq. ft. EDR	Air data							115V motor data	
				Sound class*	Maximum mounting height (ft.)**	Heat spread at max. height (ft.)**	CFM	Outlet velocity	Final air temperature (°F)	Condensate lb./hr.	Hp	Approx. RPM
Horizontal air delivery	<b>RH-18</b>	14,800	62	I	9	12	310	395	104	15	1/30	1200
	<b>RH-24</b>	19,700	82	I	9	13	350	455	112	21	1/30	1200
	<b>RH-33</b>	27,100	113	I	10	14	490	395	111	29	1/15	1200
	<b>RH-47</b>	38,500	161	II	12	18	565	465	123	40	1/15	1200
	<b>RH-63</b>	51,700	216	II	14	21	870	470	115	54	1/10	1200
	<b>RH-86</b>	70,500	294	II	15	22	1040	570	123	73	1/10	1200
	<b>RH-108</b>	88,600	369	II	15	23	1240	500	126	91	1/8	875
	<b>RH-121</b>	99,200	413	II	16	23	1415	570	125	103	1/8	875
	<b>RH-165</b>	135,300	564	III	17	24	1990	600	123	139	1/4	875
	<b>RH-193</b>	158,300	659	III	18	26	2310	695	123	164	1/4	875

**Notes:**

- Units with horizontal louvers open 30° from vertical plane, vertical types equipped with cone jet deflector blades fully opened are shown in bold. Non-bolded mounting height/spread data is for units without deflectors.

Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

English, IP Units

## General data, vertical high motor speed

Standard conditions of 200 °F entering water, 60 °F entering air, and 20 °F water temperature drop

Model type	Model number	BTU/Hr	Water data			Air data							
			GPM	Pressure drop (ft. of water)	Min./max. GPM	Sound Class **	Maximum mounting height (ft.)*		Heat spread at maximum height		CFM	Outlet velocity	Final air temp. (°F)
Vertical air delivery	RV-42	30,500	3.1	0.09	0.5/10.0	II	11	15	17	11	950	776	91
	RV-59	44,300	4.5	0.18	0.8/15.0	II	14	19	21	15	1150	940	97
	RV-78	58,500	6.0	0.43	1.0/20.0	II	15	21	23	16	1550	990	96
	RV-95	71,000	7.2	0.61	1.3/25.0	II	17	23	25	17	1775	1132	99
	RV-139	111,000	11.3	0.84	1.0/30.0	III	18	25	28	19	2500	1281	103
	RV-161	128,800	13.1	1.11	1.3/40.0	III	22	30	33	21	2900	1488	103
	RV-193	142,700	14.5	0.81	1.5/50.0	IV	24	33	36	24	3900	1640	95
	RV-212	159,000	16.1	0.98	2.0/60.0	IV	25	35	37	25	4300	1809	96
	RV-247	197,000	19.9	1.65	2.0/60.0	IV	27	36	40	27	5130	1803	97
	RV-279	220,000	22.2	2.01	2.3/75.0	V	31	39	47	31	5800	2037	97
	RV-333	265,000	26.7	1.27	2.8/75.0	V	30	38	46	30	6600	1966	99
	RV-385	308,000	31.1	1.68	3.3/75.0	VI	33	40	49	33	7860	1928	97
	RV-500	403,000	40.9	2.32	3.0/100.0	VI	40	48	60	40	10790	2487	94
RV-610	459,000	46.3	2.42	6.0/100.0	VI	39	47	58	40	12350	2343	97	

### Notes

- Data for vertical air delivery units is based upon no deflectors installed, see page 10 for data on units with the addition of air outlet accessories

## General data, vertical high motor speed

Standard conditions of 2 lb. steam and 60 °F entering air

Model type	Model number	Btu/Hr	Sq. ft. EDR	Air data								115V motor data		
				Sound class*	Maximum mounting height (ft.)**	Heat spread at max. height (ft.)**		CFM	Outlet velocity	Final air temperature (°F)	Condensate lb./hr.	Hp	Approx. RPM	
Vertical air delivery	RV-42	42,000	175	II	11	<b>15</b>	17	<b>11</b>	950	779	103	43	1/10	1550
	RV-59	59,000	246	II	13	<b>18</b>	20	<b>13</b>	1150	943	111	61	1/10	1550
	RV-78	78,000	325	II	14	<b>19</b>	22	<b>14</b>	1550	992	110	81	1/6	1550
	RV-95	95,000	396	II	16	<b>21</b>	24	<b>16</b>	1775	1136	113	99	1/6	1550
	RV-139	139,000	579	III	18	<b>24</b>	27	<b>18</b>	2500	1284	116	144	1/4	1075
	RV-161	161,000	671	III	21	<b>28</b>	31	<b>21</b>	2900	1490	115	167	1/4	1075
	RV-193	193,000	804	IV	23	<b>31</b>	34	<b>23</b>	3900	1643	109	200	1/2	900
	RV-212	212,000	883	IV	25	<b>33</b>	37	<b>25</b>	4300	1812	109	219	1/2	1075
	RV-247	247,000	1029	IV	26	<b>34</b>	39	<b>26</b>	5130	1805	107	256	5/8	900
	RV-279	279,000	1163	V	30	<b>37</b>	45	<b>30</b>	5800	2040	107	288	5/8	1075
	RV-333	333,000	1388	V	30	<b>37</b>	45	<b>30</b>	6600	1968	110	345	1	1075
	RV-385	385,000	1604	VI	30	<b>36</b>	45	<b>30</b>	7860	1930	106	398	1	1140
	RV-500	500,000	2083	VI	37	<b>44</b>	56	<b>37</b>	10790	2490	103	518	1-1/2	1140
RV-610	610,000	2542	VI	36	<b>43</b>	54	<b>36</b>	12350	2345	106	631	1-1/2	1140	

### Notes

- Vertical types equipped with cone jet deflector blades fully opened are shown in bold

# Unit Heater Submittal Data

English, IP Units

General electrical data, horizontal

Model number	Voltage, motor type and power code						
	115/60/1 and 230/60/1	115/60/1	230/60/1	230/460/60/3	230/460/60/3	115/208-230/60/1	115/208-230/60/1
	Motor HP	Totally enclosed with thermal overload	Totally enclosed with thermal overload	Motor HP**	Totally enclosed**	Explosion proof motor HP*	Explosion proof* with thermal overload
		01 Amps	02 Amps		05 Amps		06 Amps
RH-18	1/30	0.70	0.22	N/A	N/A	1/4	4.8/2.3-2.4
RH-24	1/30	0.70	0.22	N/A	N/A	1/4	4.8/2.3-2.4
RH-33	1/15	0.72	0.50	N/A	N/A	1/4	4.8/2.3-2.4
RH-47	1/15	0.72	0.50	N/A	N/A	1/4	4.8/2.3-2.4
RH-63	1/10	1.30	0.59	1/3	1.4/0.7	1/4	4.8/2.3-2.4
RH-86	1/10	1.30	0.59	1/3	1.4/0.7	1/4	4.8/2.3-2.4
RH-108	1/8	1.58	0.80	1/2	2.2/1.1	1/4	6.8/3.1-3.4
RH-121	1/8	1.58	0.80	1/2	2.2/1.1	1/4	6.8/3.1-3.4
RH-165	1/4	2.65	1.40	1/2	2.2/1.1	1/4	6.8/3.1-3.4
RH-193	1/4	2.75	1.40	1/2	2.2/1.1	1/4	6.8/3.1-3.4
RH-258	1/3	3.60	2.00	1/2	2.2/1.1	1/3	7.8/3.6-3.9
RH-290	1/2	4.68	2.20	1/2	2.2/1.1	1/2	9.6/4.7-4.8
RH-340	1/2	4.68	2.20	1/2	2.2/1.1	1/2	9.6/4.7-4.8

- Notes**
- Definition: Explosion proof motors are suitable for Class I, Group C & D; Class II, Groups F & G. The explosion proof units may not be used with a fluid temperature in excess of 329 °F and still maintain their explosion proof rating for National Electric Code ignition temperature rating T3B for grain dust. Class I, Group D motors are for operations in areas containing gasoline, petroleum, naphtha, benzene, butane, propane, alcohol, acetone, lacquer solvent or natural gas. Class II, Group F motors are for operations in areas containing carbon black, coal or coke dust. Class II, Group G motors are for operations in areas containing flour, starch or grain dust. Class III motors are for operations in areas containing easily ignitable fibers and flyings.
  - Three-phase motors require field supplied motor overload protection to be rated in compliance with the applicable installation code, as specified by the authority having jurisdiction.



# Unit Heater Submittal Data

English, IP Units

General electrical data, vertical

Model number	Voltage, motor type and power code						
	115/60/1 and 230/60/1	115/60/1	230/60/1	230/460/60/3	230/460/60/3	115/208-230/60/1	115/208-230/60/1
	Motor HP	Totally enclosed with thermal overload	Totally enclosed with thermal overload	Motor HP**	Totally enclosed**	Explosion proof motor HP*	Explosion proof* with thermal overload
		01 Amps	02 Amps		05 Amps		06 Amps
RV-42	1/10	1.30	0.59	1/3	1.4/0.7	1/4	4.8/2.3-2.4
RV-59	1/10	1.30	0.59	1/3	1.4/0.7	1/4	4.8/2.3-2.4
RV-78	1/6	2.20	1.10	1/3	1.4/0.7	1/4	4.8/2.3-2.4
RV-95	1/6	2.20	1.10	1/3	1.4/0.7	1/4	4.8/2.3-2.4
RV-139	1/4	2.75	1.40	1/2	2.2/1.1	1/3	6.6/3.1-3.3
RV-161	1/4	2.75	1.40	1/2	2.2/1.1	1/3	6.6/3.1-3.3
RV-193	1/2	4.68	2.20	1/2	2.2/1.1	1/2	9.6/4.7-4.8
RV-212	1/2	4.68	2.20	1/2	2.2/1.1	1/2	9.6/4.7-4.8
RV-247	5/8	5.85	3.40	1	4.2/2.1	1/2	9.6/4.7-4.8
RV-279	5/8	5.85	3.40	1	4.2/2.1	1/2	9.6/4.7-4.8
RV-333	1	8.95	4.50	1	4.2/2.1	-	--
RV-385	1	--	--	1	4.2/2.1	-	--
RV-500	1-1/2	--	--	1-1/2	5.0/2.5	-	--
RV-610	2	--	--	2	6.8/3.4	-	--

- Notes:**
- Definition: Explosion proof motors are suitable for Class I, Group C & D; Class II, Groups F & G. The explosion proof units may not be used with a fluid temperature in excess of 329 °F and still maintain their explosion proof rating for National Electric Code ignition temperature rating T3B for grain dust. Class I, Group D motors are for operations in areas containing gasoline, petroleum, naphtha, benzene, butane, propane, alcohol, acetone, lacquer solvent or natural gas. Class II, Group F motors are for operations in areas containing carbon black, coal or coke dust. Class II, Group G motors are for operations in areas containing flour, starch or grain dust. Class III motors are for operations in areas containing easily ignitable fibers and flyings.
  - Three-phase motors require field supplied motor overload protection to be rated in compliance with the applicable installation code, as specified by the authority having jurisdiction.

Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

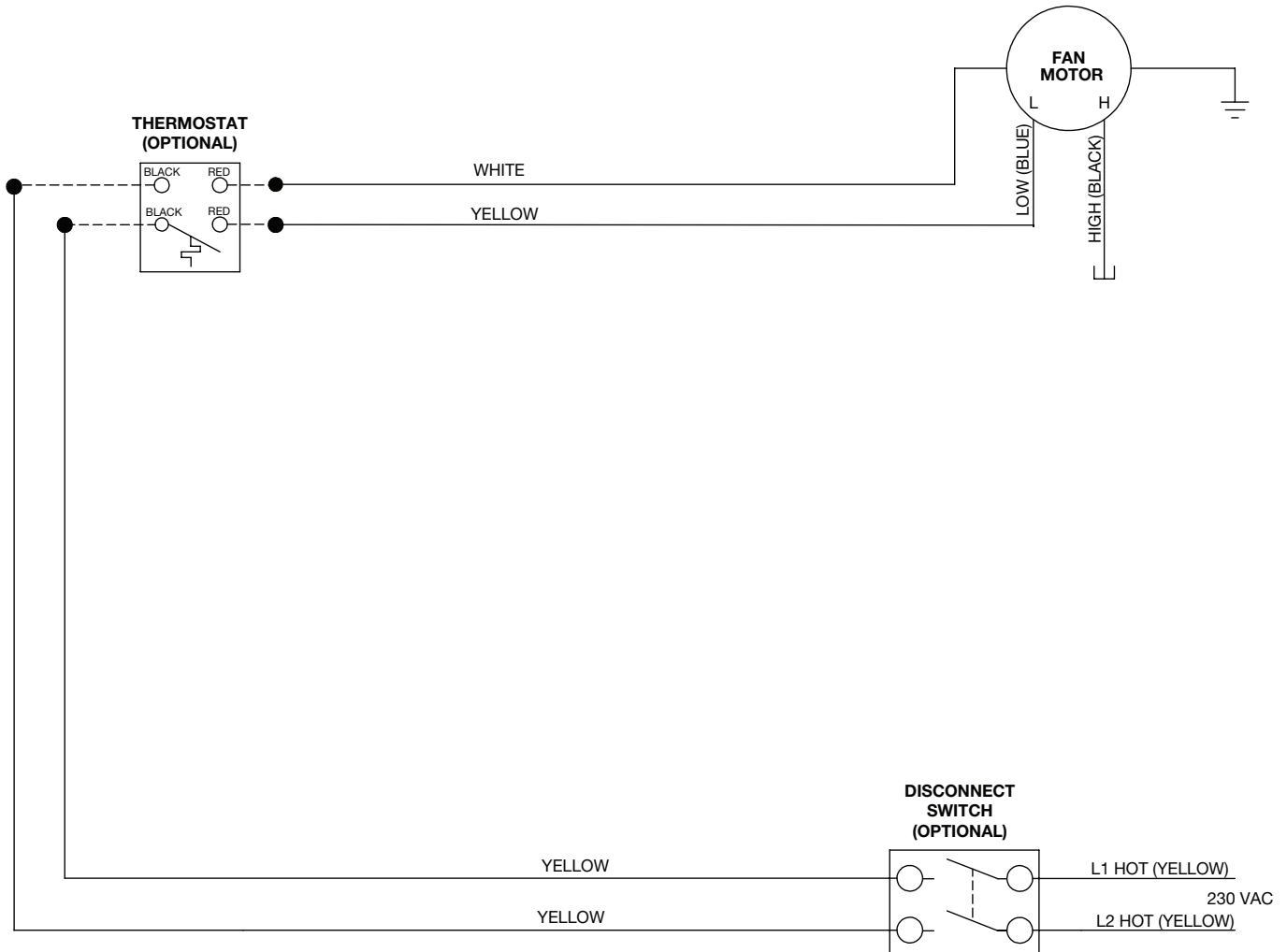


# Unit Heater Submittal Data

English, IP Units

Wiring diagram

208-230V



**CAUTION: Not following proper wiring procedure can cause injury or death**

**Notes:**

- Complete the wiring in accordance with national and local codes.
- Wiring diagram is for typical application. If other controls are specified wiring may differ from what is shown.

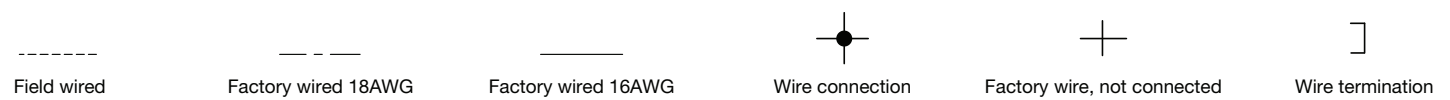
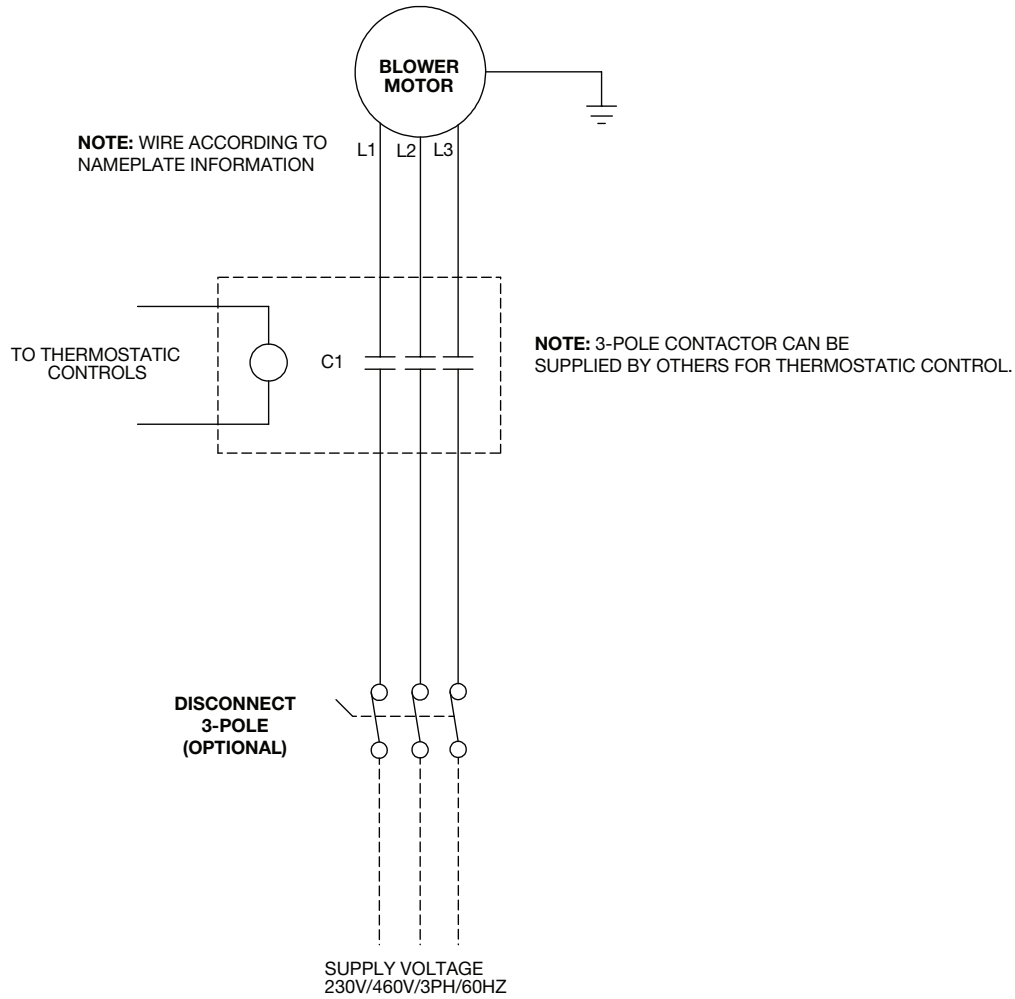
Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

English, IP Units

 Wiring diagram

230 / 460V / 3Ph



**CAUTION: Not following proper wiring procedure can cause injury or death**

**Notes:**

- Complete the wiring in accordance with national and local codes.
- Wiring diagram is for typical application. If other controls are specified wiring may differ from what is shown.

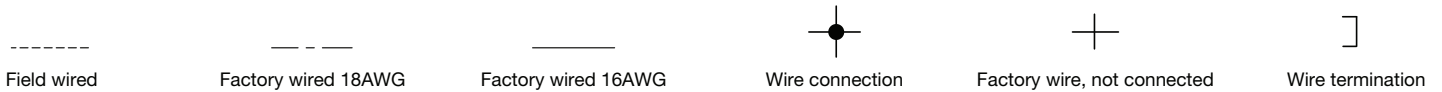
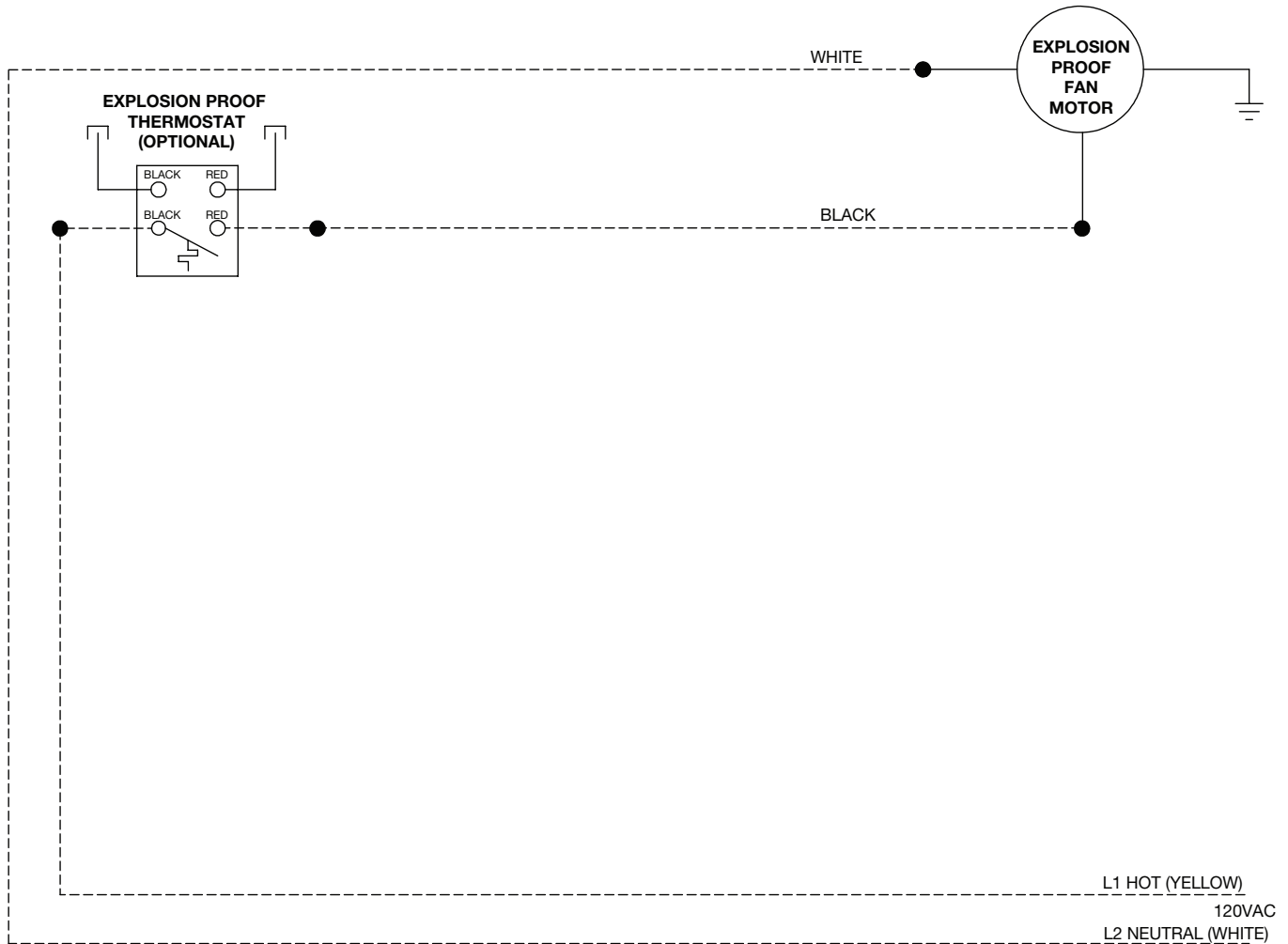
Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

English, IP Units

Wiring diagram

Explosion proof motor, 120V



**CAUTION: Not following proper wiring procedure can cause injury or death**

**Notes:**

- Complete the wiring in accordance with national and local codes.
- Wiring diagram is for typical application. If other controls are specified wiring may differ from what is shown.
- Wire according to nameplate information.

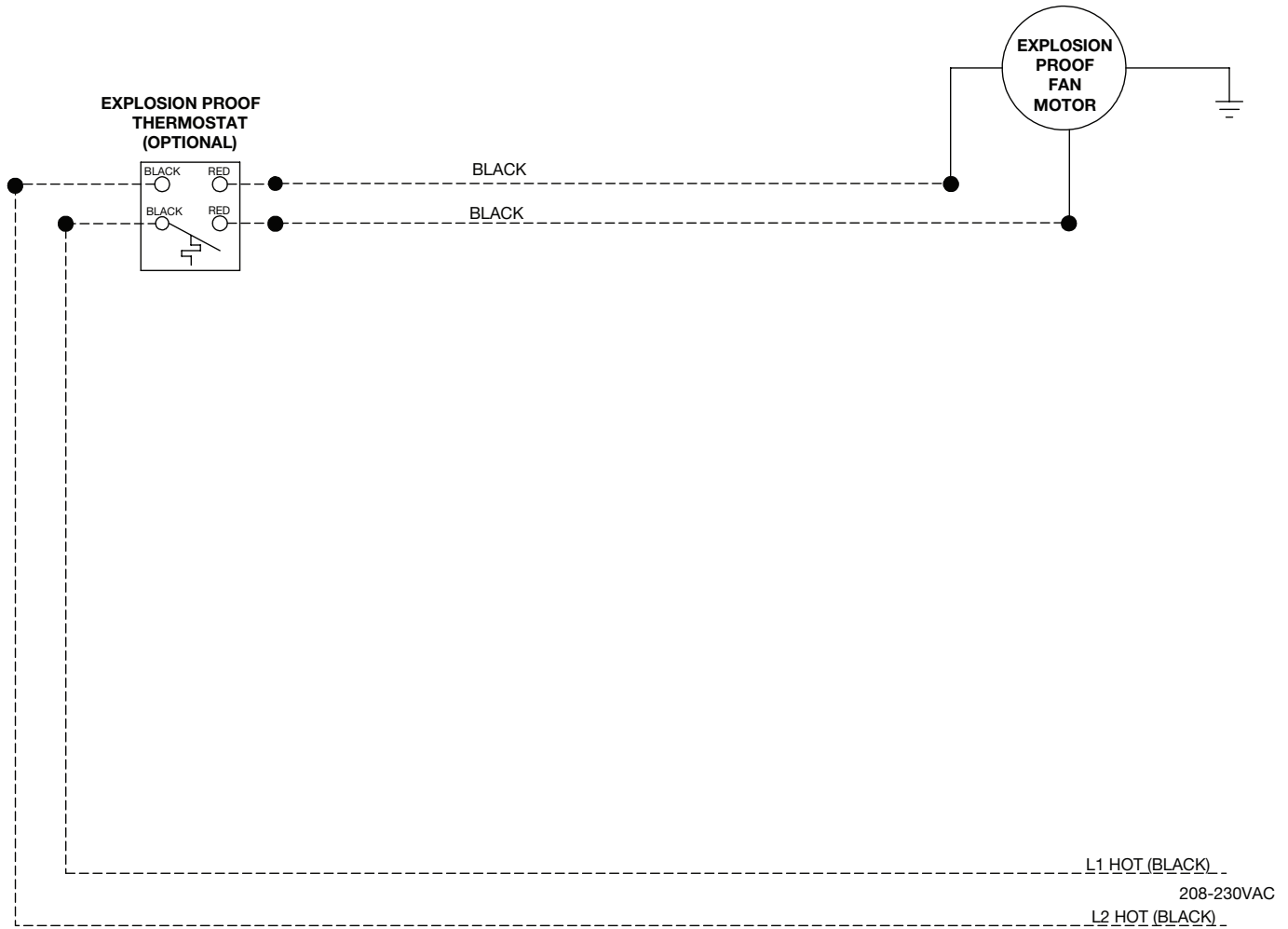
Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

English, IP Units

Wiring diagram

Explosion proof motor, 208-230V



**CAUTION: Not following proper wiring procedure can cause injury or death**

**Notes:**

- Complete the wiring in accordance with national and local codes.
- Wiring diagram is for typical application. If other controls are specified wiring may differ from what is shown.
- Wire according to nameplate information.

Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

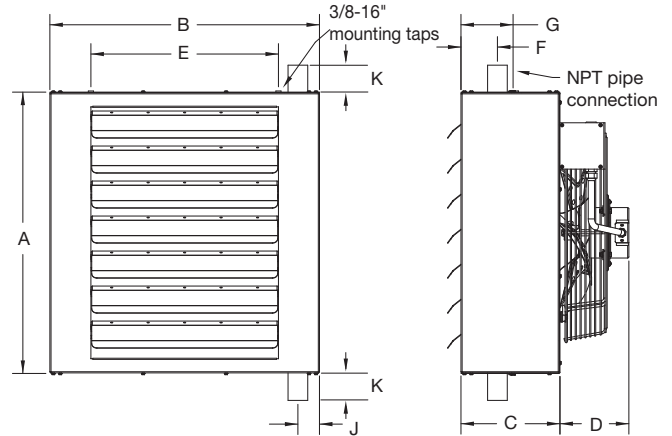
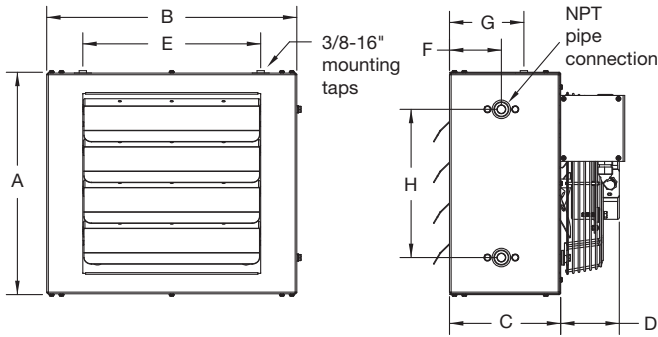
English, IP Units

## Dimensions and data

Model RH

### RH-18 through RH-86

### RH-108 through RH-340



### Dimensional data

Model	A	B	C	D	E	F	G	H	J	K	NPT connections	Fan diameter	Approximate shipping weight (lb)
RH-18	15	16-7/8	7-1/2	4-1/2	12	3-1/2	5	10	-	-	3/4	9	37
RH-24	15	16-7/8	7-1/2	4-1/2	12	3-1/2	5	10	-	-	3/4	9	39
RH-33	19	19-3/4	7-1/2	4-3/4	12	3-1/2	5	14	-	-	3/4	12	48
RH-47	19	19-3/4	7-1/2	4-3/4	12	3-1/2	5	14	-	-	3/4	12	50
RH-63	19	25-3/4	8-1/2	4-3/4	18	3-1/2	5	14	-	-	3/4	14	61
RH-86	19	25-3/4	8-1/2	4-3/4	18	3-1/2	5	14	-	-	3/4	14	63
RH-108	27	25-7/8	9-1/2	6-1/4	18	3-1/2	5-1/4	-	2	3	1-1/2	18	88
RH-121	27	25-7/8	9-1/2	6-1/4	18	3-1/2	5-1/4	-	2	3	1-1/2	18	90
RH-165	27	31-7/8	10	6-1/4	24-7/8	3-1/2	6-1/4	-	2	3	1-1/2	20	110
RH-193	27	31-7/8	10	8-3/8	24-7/8	3-1/2	6-1/4	-	2	3	1-1/2	20	115
RH-258	33	40-13/16	11	8-3/8	32-7/8	3-1/2	6-1/4	-	2-1/4	3	2	22	162
RH-290	33	40-13/16	11	8-3/8	32-7/8	3-1/2	6-1/4	-	2-1/4	3	2	22	164
RH-340	39	40-13/16	12	8-3/8	32-7/8	3-1/2	7-1/4	-	2-1/4	3	2	24	210

### Notes:

- All dimensions in inches unless otherwise noted
- RH-18 through RH-86 have side female NPT pipe connections
- RH-108 through RH-340 have top and bottom male NPT pipe connections
- Units should be mounted a minimum of 5" from wall

### Maximum mounting height

Model	200 °F EWT and 60 °F EAT		2 lbs. steam and 60 °F EAT	
	Height	Spread	Height	Spread
RH-18	9'	18'	9'	17'
RH-24	10'	20'	9'	18'
RH-33	11'	22'	10'	20'
RH-47	13'	26'	12'	25'
RH-63	15'	30'	14'	29'
RH-86	16'	31'	15'	31'
RH-108	16'	33'	15'	32'
RH-121	17'	36'	16'	33'
RH-165	18'	38'	17'	34'
RH-193	19'	40'	18'	37'
RH-258	20'	42'	19'	40'
RH-290	21'	46'	20'	44'
RH-340	22'	50'	20'	46'

Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

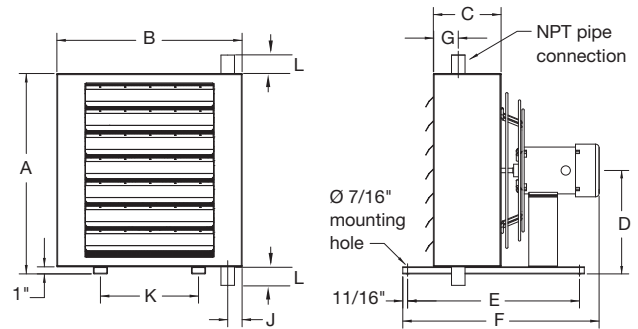
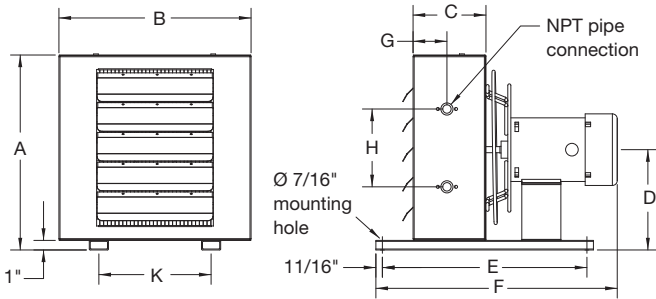
English, IP Units

## Dimensions and data

## Model RH with explosion proof motor

### RH-18 through RH-86

### RH-108 through RH-340



### Dimensional data

Model	A	B	C	D	E	F	G	H	J	K	L	NPT connections	Fan diameter	Approximate shipping weight (lb)
RH-18	16	16-7/8	7-1/2	8-1/2	21-1/2	24-7/8	3-1/2	10	-	13-1/8	-	3/4	9	64
RH-24	16	16-7/8	7-1/2	8-1/2	21-1/2	24-7/8	3-1/2	10	-	13-1/8	-	3/4	9	66
RH-33	20	19-3/4	7-1/2	10-1/2	21-1/2	24-7/8	3-1/2	14	-	11-7/8	-	3/4	12	75
RH-47	20	19-3/4	7-1/2	10-1/2	21-1/2	24-7/8	3-1/2	14	-	11-7/8	-	3/4	12	77
RH-63	20	25-3/4	8-1/2	10-1/2	22-11/16	25-3/4	3-1/2	14	-	15-7/16	-	3/4	14	88
RH-86	20	25-3/4	8-1/2	10-1/2	22-11/16	25-3/4	3-1/2	14	-	15-7/16	-	3/4	14	90
RH-108	28	25-7/8	9-1/2	14-1/2	23-7/16	27-7/16	3-1/2	-	2	14	3	1-1/2	18	118
RH-121	28	25-7/8	9-1/2	14-1/2	23-7/16	27-7/16	3-1/2	-	2	14	3	1-1/2	18	120
RH-165	28	31-7/8	10	14-1/2	24-5/8	28-7/16	3-1/2	-	2	20-1/16	3	1-1/2	20	140
RH-193	28	31-7/8	10	14-1/2	24-5/8	28-7/16	3-1/2	-	2	20-1/16	3	1-1/2	20	145
RH-258	34	40-13/16	11	17-1/2	26-5/8	29-11/16	3-1/2	-	2-1/4	23-9/16	3	2	22	195
RH-290	34	40-13/16	11	17-1/2	26-5/8	29-11/16	3-1/2	-	2-1/4	23-9/16	3	2	22	205
RH-340	40	40-13/16	12	20-1/2	28-3/16	31-3/16	3-1/2	-	2-1/4	27	3	2	24	251

### Notes:

- Dimensions in inches unless otherwise noted
- RH-18 through RH-86 have side female NPT pipe connections
- RH-108 through RH-340 have top and bottom male NPT pipe connections
- Units should be mounted a minimum of 5" from wall

### Maximum mounting height

Model	200 °F EWT and 60 °F EAT		2 lbs. steam and 60 °F EAT	
	Height	Spread	Height	Spread
RH-18	9'	18'	9'	17'
RH-24	10'	20'	9'	18'
RH-33	11'	22'	10'	20'
RH-47	13'	26'	12'	25'
RH-63	15'	30'	14'	29'
RH-86	16'	31'	15'	31'
RH-108	16'	33'	15'	32'
RH-121	17'	36'	16'	33'
RH-165	18'	38'	17'	34'
RH-193	19'	40'	18'	37'
RH-258	20'	42'	19'	40'
RH-290	21'	46'	20'	44'
RH-340	22'	50'	20'	46'

Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).



# Unit Heater Submittal Data

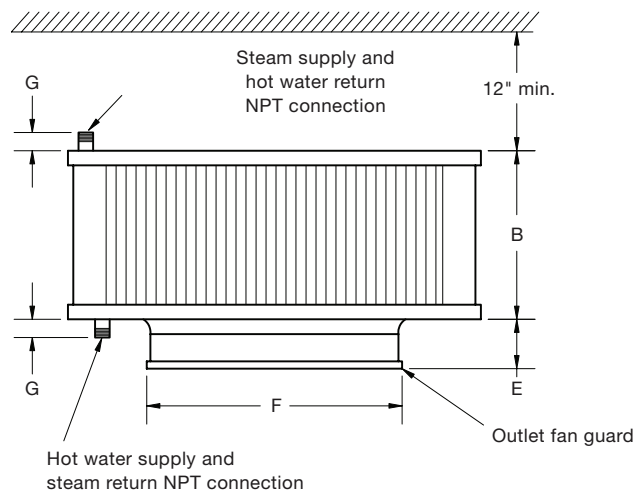
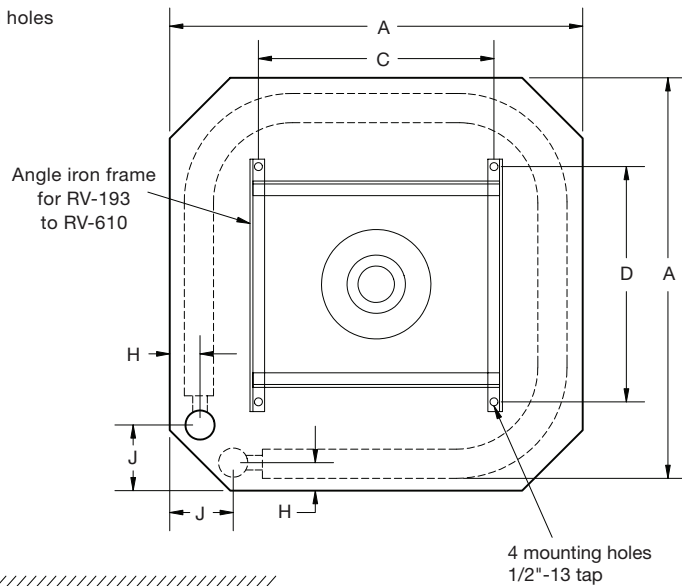
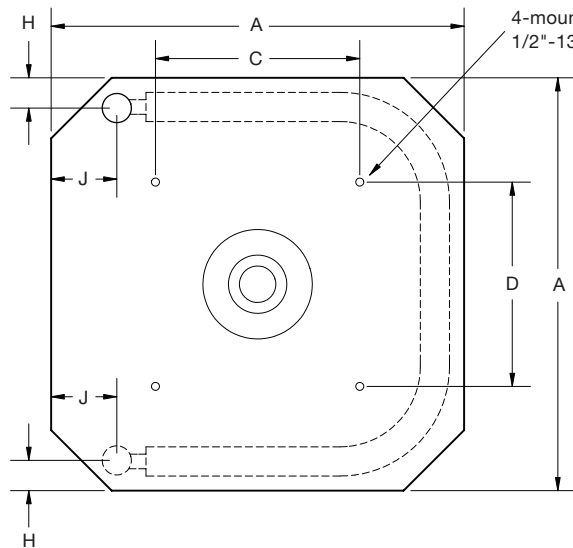
English, IP Units

Dimensions and data

**Model RV**

**RV-42, RV-59**

**RV-78 through RV-610**



**Dimensional data**

Model	A	B	C	D	E	F	G	H	J	Male NPT connections	Fan diameter	Approx. shipping weight lb.
RV-42/RV-59	23	6-3/8	12	12	3-1/8	15	2-3/4	1-7/8	3-1/4	1-1/2	13-3/4	65
RV-78/RV-95	25	6-3/8	13	13	3-1/8	17	2-3/4	1-7/8	3-1/4	1-1/2	15-3/4	76
RV-139/RV-161	25	10-3/8	14-7/16	14-7/16	3-1/8	18-7/8	2-3/4	2	3-1.4	1-1/2	17-3/4	118
RV-193/RV-212	30	12-3/8	19	17	4	20-7/8	2-3/4	2	3-5/8	2	19-3/4	157
RV-247/RV-279	35	12-3/8	20	18	4	22-7/8	2-3/4	2	3-5/8	2	21-3/4	185
RV-333/RV-385	35	18-3/8	21	21	4	24-3/4	2-3/4	2-1/2	4-1/2	2-1/2	23-3/4	220
RV-500	43	18-3/8	14	14	4	28-3/4	2-3/4	2-1/2	4-1/2	2-1/2	27-3/4	285
RV-610	43	18-3/8	14	14	4	30-3/4	2-3/4	2-1/2	4-1/2	2-1/2	29-3/4	331

**Notes:**

- All dimensions in inches
- RH-18 through RH-86 have side female NPT pipe connections
- RH-108 through RH-340 have top and bottom male NPT pipe connections
- Units should be mounted a minimum of 5" from wall

Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

English, IP Units

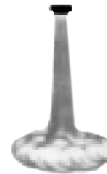
## Vertical unit mounting maximums and air outlet accessories

### No deflector



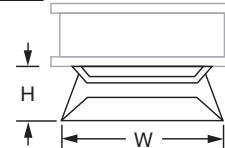
Model number	Mounting maximums	
	Height	Spread
RV-42	11'	17'
RV-59	13'	20'
RV-78	14'	22'
RV-95	16'	24'
RV-139	18'	27'
RV-161	21'	31'
RV-193	23'	34'
RV-212	25'	37'
RV-247	26'	39'
RV-279	30'	45'
RV-333	30'	45'
RV-385	30'	45'
RV-500	37'	56'
RV-610	36'	54'

### Cone jet



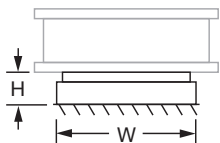
Model number	Accessory dimensions		Mounting maximums	
	Height	Width	Height	Spread
RV-42	6-1/2"	16-1/2"	15'	11'
RV-59			18'	13'
RV-78			19'	14'
RV-95	6-1/2"	18-1/2"	21'	16'
RV-139	8"	20-1/2"	24'	18'
RV-161			28'	21'
RV-193	8"	22-1/2"	31'	23'
RV-212			33'	25'
RV-247	9"	24-1/2"	34'	26'
RV-279			37'	30'
RV-333	9"	26-1/2"	37'	30'
RV-385			36'	30'
RV-500	10"	30-1/2"	44'	37'
RV-610			43'	36'

### Trunccone



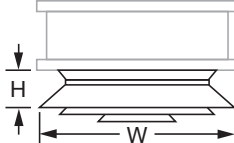
Model number	Accessory dimensions		Mounting maximums	
	Height	Width	Height	Spread
RV-42	10"	25"	8'	19'
RV-59			9'	25'
RV-78			11'	26'
RV-95			11'	26'
RV-139	12"	29"	13'	32'
RV-161			14'	35'
RV-193			16'	39'
RV-212			16'	39'
RV-247	14"	33"	17'	46'
RV-279			18'	53'
RV-333			17'	53'
RV-385			17'	53'
RV-500	18"	37"	19'	65'
RV-610	18"	39"	19'	63'

### Louvers



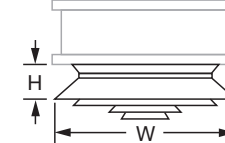
Model number	Accessory dimensions		Mounting maximums	
	Height	Width	Height	Spread
RV-42	6-1/2"	16-1/2"	13'	11'
RV-59			16'	14'
RV-78			17'	15'
RV-95	6-1/2"	18-1/2"	17'	15'
RV-139	8"	20-1/2"	21'	18'
RV-161			23'	20'
RV-193	8"	22-1/2"	25'	22'
RV-212			25'	22'
RV-247	9"	24-1/2"	30'	26'
RV-279			35'	30'
RV-333	9"	26-1/2"	35'	30'
RV-385			35'	30'
RV-500	10"	30-1/2"	42'	37'
RV-610			41'	41'

### 3-cone anemostat



Model number	Accessory dimensions		Mounting maximums	
	Height	Width	Height	Spread
RV-42	12-1/2"	22-1/2"	8'	22'
RV-59			9'	28'
RV-78			11'	30'
RV-95	12-1/2"	24-1/2"	11'	30'
RV-139	14"	26-1/2"	13'	36'
RV-161			14'	40'
RV-193	14"	28-1/2"	16'	44'
RV-212			16'	44'
RV-247	15"	30-1/2"	17'	52'
RV-279			18'	60'
RV-333	15"	32-1/2"	17'	60'
RV-385			17'	60'
RV-500	16"	36-1/2"	19'	74'
RV-610	16"	38-1/2"	—	—

### 4-cone anemostat



Model number	Accessory dimensions		Mounting maximums	
	Height	Width	Height	Spread
RV-42	14"	25"	8'	28'
RV-59			8'	35'
RV-78			8'	30'
RV-95	14"	27"	8'	30'
RV-139			9'	45'
RV-161	15-1/2"	29"	10'	50'
RV-193	15-1/2"	31"	12'	55'
RV-212			12'	55'
RV-247	16-1/2"	33"	13'	65'
RV-279			13'	75'
RV-333	16-1/2"	35"	13'	75'
RV-385			13'	75'
RV-500	17-1/2"	39"	13'	93'
RV-610	17-1/2"	41"	—	—

#### Notes:

- Data shown for standard 2lb. steam and 60 °F EWT conditions. For louvers or cone jet, data shown for deflectors in fully-opened position.
- For mounting height and spread for hot water, multiply the value above by 1.06 to approximate the mounting height and spread. 200 °F EWT.

Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

## General mechanical specifications

### General

Furnish and install Unit Heaters where indicated on the plans and in the specifications, with required mounting components and accessories. All units shall be capable of meeting or exceeding the scheduled capacities for heating and air delivery. Units shall be ETL certified for the United States and Canada in compliance with UL/ANSI Standard 1995 and CSA C22.2 No. 236-95.

### Construction

All units shall have panels fabricated of not less than 18-gauge cold rolled steel and consist of top/back and side halves. Both halves are joined on top and back with hex head screws. Top casing is furnished with threaded hanger connections for suspension of unit. Fan venture is die-formed on back half.

Casing on all vertical units are top and bottom pieces joined by corners and additional hardware. Top casing is furnished with threaded hanger connections for suspension of unit.

Units shall be equipped with horizontal, individually adjustable louvers (RH). [Vertical louvers for four-way air control shall be included (RH).]

- Option: Provide a [cone-jet] [trunccone] [one-way louver] [two-way louver] [3-cone anemostat] [4-cone anemostat] to provide specific air throw pattern on vertical unit heater.
- Option: Provide a pipe hanging kit that allows the unit to be hung from threaded pipe in lieu of threaded hanger rod.

### Painted finish

All painted cabinet exterior panels shall be finished with a standard textured gray epoxy powder coat paint.

### Power

Units shall not exceed scheduled power consumption.

### Motor

Motors shall be two speed, permanent split-capacitor, totally enclosed, permanently lubricated bearing type with automatic reset integral thermal overload protection (3-phase motors require field supplied motor overload protection), designed to handle up to 104°F maximum constant ambient temperature. Shaded pole motors are not acceptable. Single speed motors are not acceptable.

[Explosion proof motors have an enclosure designed and constructed to withstand an explosion of a specified gas or vapor which may occur within the motor and to prevent the ignition of this gas or vapor surrounding the unit. Explosion proof motor is suitable for Class I, Div I&II, Groups C&D and Class II, Div I&II, Groups F&G. The explosion proof motors may not be used with a fluid temperature in excess of 329°F and still maintain the explosion proof rating for NEC ignition temperature rating T3B for grain dust. All explosion proof motors are shelf mounted.

- Option: Provide a solid state variable speed controller.

### Fan

Fans shall have non-conducting, spark-proof aluminum blades, with a steel hub. Each fan blade is balanced and designed specifically for the unit in which it is installed to assure maximum air delivery and quiet operation.

### Fan guard

Fan guard shall be finger-proof, constructed of welded steel rod and finished with a standard black epoxy powder coat paint. Units mounted below 8 feet from the floor must be equipped with an OSHA fan guard to meet ETL and OSHA requirements.

## General mechanical specifications

### Coils

Heating coil is designed for either two-pipe steam or hot water heating system. Coils shall have ½" nominal diameter seamless copper tubes and shall be mechanically expanded to provide an efficient, permanent bond between the tube and integral collar of the aluminum fin. Minimum copper tube thickness shall be 0.028".

Fins shall be die-formed and have a high efficiency aluminum surface optimized for heat transfer, air pressure drop and carryover. Minimum fin thickness shall be 0.010". Lanced fins shall not be acceptable. Fins are continuous across width and depth of coil and are vertically oriented to resist collection of dirt and foreign particles.

Coils are of non-ferrous construction and serpentine design for RH-18 and RH-24. All other units incorporate brazed steel header tubes. RH-18 through RH-86 units have ¾" female threaded NPT, brass header connections while all other units have male threaded NPT connections.

All coils shall be tested at 275 PSIG air pressure under water, and rated for a maximum 220 PSIG water or 150 PSIG steam and 375°F. Coils have CRN pressure vessel certification for Ontario and Quebec provinces.

### Electrical

Units shall be furnished with single point power connection. Provide an electrical junction box for motor and other electrical terminations.

- Option: Provide an explosion proof wall thermostat, shipped loose for remote mounting.
- Option: Provide a line voltage wall thermostat, shipped loose for remote mounting. Adjustable setpoint dial included.
- Option: Provide a clear, plastic locking thermostat guard, shipped loose for remote mounting.
- Option: Provide a service disconnect switch to isolate power from the unit during maintenance.
- Option: Provide a manual motor starter to provide overload protection for the motor.
- Option: Provide a line voltage aquastat, shipped loose for remote mounting on the incoming supply piping. Adjustable setpoint dial included.

Units shall be manufactured in accordance with ISO 9001:2008 standards established and maintained by Zehnder Rittling.

## Wall thermostat

### Features and benefits

- Convenient temperature display
  - ◆ View comfort level at-a-glance
- Bimetal temperature sensing
  - ◆ For improved thermal performance
- Mercury-free
  - ◆ No leveling or special disposal required
- J-box compatible
  - ◆ Not only will it meet code, but it speeds up installation
- Positive-off
  - ◆ Assured shutdown of HVAC system
- Universal replacement
  - ◆ Can retrofit most existing electric heat thermostats

### Specifications

- Heating switch action: SPST
- Electrical rating:
  - ◆ 25 AMP at 250 VAC Res.
  - ◆ 18 AMP at 277 VAC Res.
  - ◆ 1 HP at 125 VAC
  - ◆ 2 HP at 250 VAC
  - ◆ 125 VA pilot duty
- Temperature control range: 50 °F to 90 °F (10 °C to 30 °C)
- Accuracy:  $\pm 2$  °F
- Shipping, retail ctn.: 3.18" W x 5" H x 2.87" L



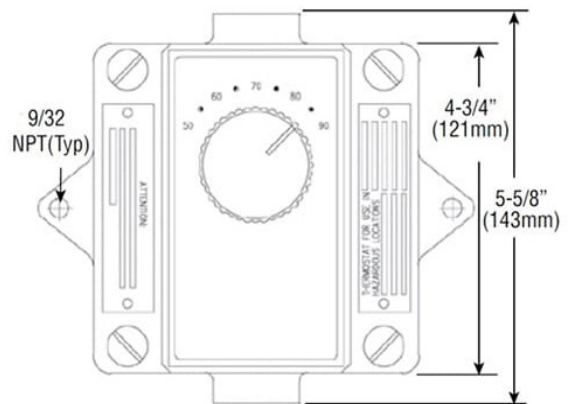
Explosion proof thermostat

### Features and benefits

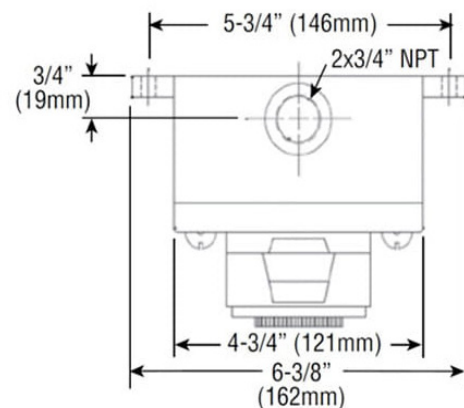
- Bi-metal temperature sensor
- DPDT Snap action switch operation
- 1/2" Cast Aluminum housing
- NEMA Class 7, Div 1 approved
- Top and bottom 3/4" NPT taps
- Scale range
  - ◆ 50 to 90 °F; scale marked 50, 60, 70, 80, 90
  - ◆ (10 to 32 °C; scale marked 10, 16, 21, 27, 32)

### Specifications

- Underwriters Laboratories, Inc. listed:
  - ◆ Explosion-proof enclosure: Class I, Groups C and D and Class 2, Groups E, F, and G
- Electrical ratings (amperes)
  - ◆ 22A at 120-277VAC
  - ◆ 3/4 HP at 120VAC
  - ◆ 1.5 HP at 277VAC
- Pilot duty rating
  - ◆ 125 VA
- Differential
  - ◆ 2 °F (0.6 °C)
- Switching
  - ◆ Snap-acting switch makes on temperature fall for heating
- Cover
  - ◆ Molded cover



Front View



Top View

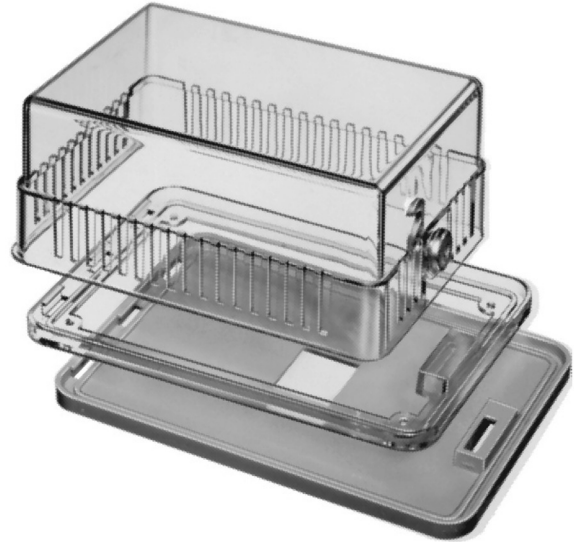
Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

Locking thermostat guard

## Features

- Furnished with one key and can be mounted vertically or horizontally
- Clear plastic for applications that need the thermostat visible
- Furnished with a ring and/or solid wall mounting plate

Description	Horizontal (ring) inside dimensions			Horizontal (solid) inside dimensions		
	Length	Height	Depth	Length	Height	Depth
Clear plastic	8-1/8"	4-5/8"	3-5/8"	8-1/4"	5-3/8"	3-1/2"



**Revised May 2015.** Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

## Aquastat

### Overview

A SPDT, strap-on, surface type hot water control for direct or reverse action. Can be used as either an open high control or an open low control.

### Features

- Terminals are color-coded to simplify installation
- Can be mounted on either a horizontal or a vertical rise pipe
- The insulated back portion of the case minimizes the effects of ambient temperature
- The SPDT switch action for high or low temperature detection
- Supplied with convertible range adjuster, which provides either knob or screwdriver adjustment

### Electrical ratings

Motor ratings VAC	120	240
AC full load amp	10.0	6.0
AC locked rotor amp	60.0	36.0
AC non-inductive amp	10.0	6.0
Pilot duty-125 VA, 24 to 240 VAC		

### Selection chart

Switch action	Range °F (°C)	Diff °F (°C)	Mounting
SPDT	100 to 240 (38 to 116)	10 (5.6)	Clamp-on strap supplied

### Specifications

- **Maximum case-ambient temperature:** 131 °F (55 °C)
- **Maximum sensing element temperature:** 250 °F (121 °C)





## Variable speed controller

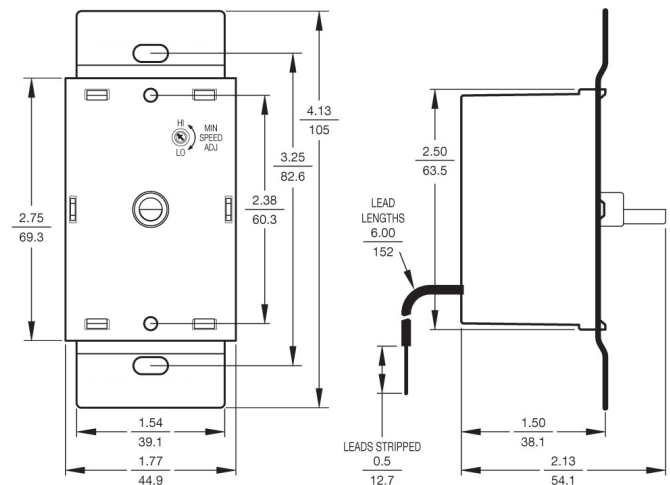
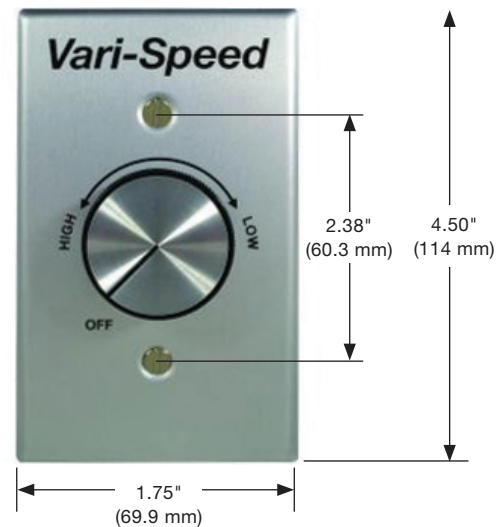
### Description

These economical speed controls are designed to replace obsolete, tapped winding, or reactive methods of speed control. The full-wave phase control circuitry minimizes power loss, thereby reducing energy requirements. The controls provide infinitely variable speed adjustment which allows the end-user to select the desired level of air volume.

### Features

- Built-in on/off AC line switch
- Minimum speed trimpot
- RFI filter (provides RFI and EMI suppression)
- Mounts in a standard 2" x 4" electrical wall box
- Agency approvals
  - ◆ UL listing/recognition
  - ◆ ISO-9001: 2000 QMS certified

AC line input voltage (Volts AC: 50/60 Hz)	Max. current rating (Amps RMS)	Ambient temperature (°C)
115	6	25



**Revised May 2015.** Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

# Unit Heater Submittal Data

English, IP Units

## Disconnect switch

120V, 15A

Single pole switch with grounded terminals, has a thermoplastic toggle and frame. It has a smooth, quiet toggle action and is made with high-impact resistant construction.

### Features

- Side wire #12 and #14 AWG
- Push wire #14 AWG
- Tri-drive ground, terminal, and mounting screws
- Easy-access green hex head ground screw

### Specifications

#### General

- Type: toggle
- Number of poles: 1-way
- Special features: self-grounding

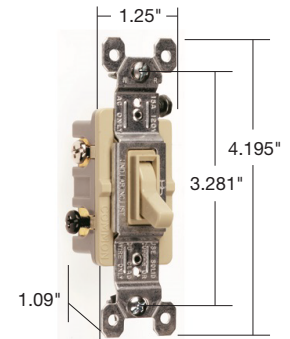
#### 3rd party compliance

- CSA listing info: C22.2 111
- CSA standard: yes

- UL listing no: 20
- UL Standard: yes
- U N SPS C: 39121406

#### Technical information

- Amps: 15 Amp
- Volts: 120VAC



208/230/277V, 15A

### Features

- One-piece brass alloy contact arm for reliable electrical performance
- One-piece steel strap with integral ground is plated for corrosion resistance
- High strength thermoplastic polycarbonate toggle resists breaking and chipping under heavy abuse
- Heavy-duty toggle bumpers for smooth and quiet operation
- Back body made of glass-reinforced nylon
- Locking support provides resistance to face and back body separation
- Available with side wire or external screw-pressure-plate back and side wire models capable of accepting #14 – #10 AWG copper or copper-clad wire
- Cam designed for fast make with positive break action to minimize arcing and prolong switch life
- Oversized silver alloy contacts for longer dependable switch life
- Tri-drive terminal and mounting screws

### Specifications

#### General

- Type: toggle
- Double pole

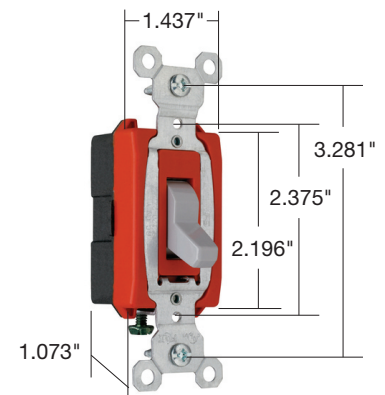
#### 3rd party compliance

- CSA listing info: C22.2 111
- CSA standard: yes

- UL listing no: 20
- UL Standard: yes
- FSUL WS896

#### Technical information

- Amps: 15 Amp
- Volts: 120/277VAC



## Disconnect switch

460/230V, 30A

### Description

- Three pole, three phase switch, 30 amp, 600 volts

### Specifications

#### General

- Number of poles: 3-way

#### 3rd party compliance

- CSA listing info: C22.23 14
- CSA standard: yes
  
- UL listing no: 508
- UL Standard: yes
- UN SPS C: 39121507

#### Dimensions

- Depth: 1.753"
- Height: 2.375"
- Width: 1.825"

#### Technical information

- Amps: 30 Amp
- Volts: 600VAC
- Volts A C: 600



# Unit Heater Submittal Data

English, IP Units

## Manual motor starter

### Single-phase

1 Hp maximum @ 115V or 230V

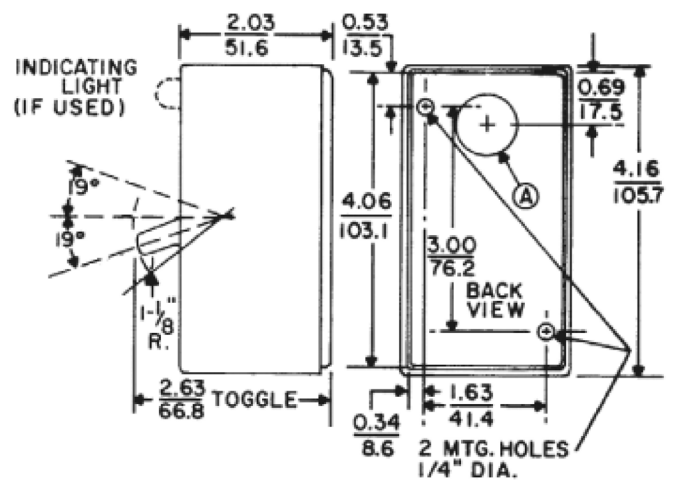
25-60 Hz

The manual motor starter provides dependable overload protection for single-phase motors up to one horsepower (115 or 230 volts), and are the most economical starter choices where undervoltage protection is not required.

### Features

- Terminal design; box terminals provide easy access for wiring
- Molded plastic switch housing; protects starter mechanism
- NEMA 1 enclosure
- Small size; open starter fits GEM™ or handy box

Open starters include an unmounted nameplate and are single pole. Each starter includes a heater, sized to trip the switch on approximately 125% motor current.



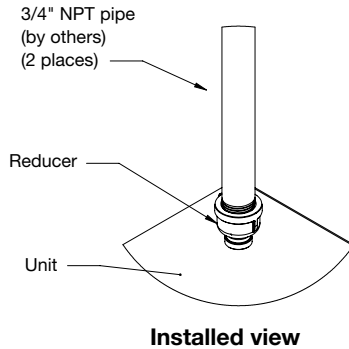
# Unit Heater Submittal Data

English, IP Units

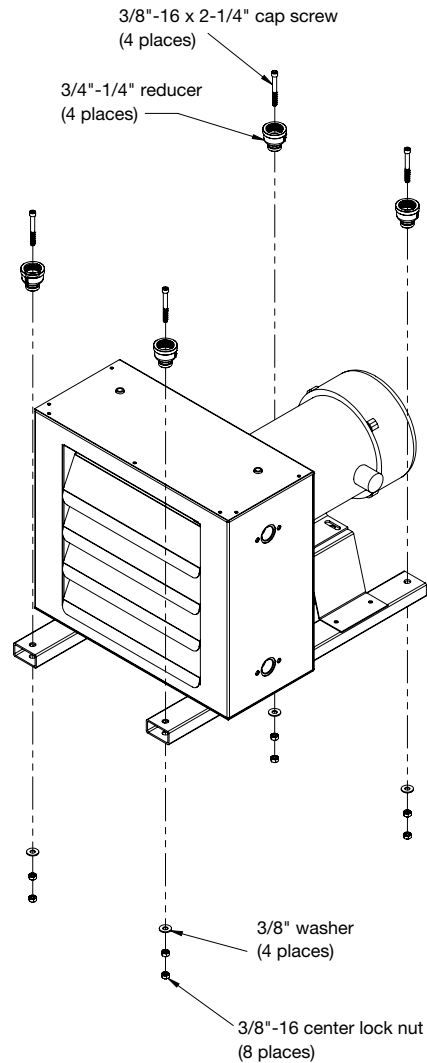
## □ Pipe hanging kit

### Kit includes

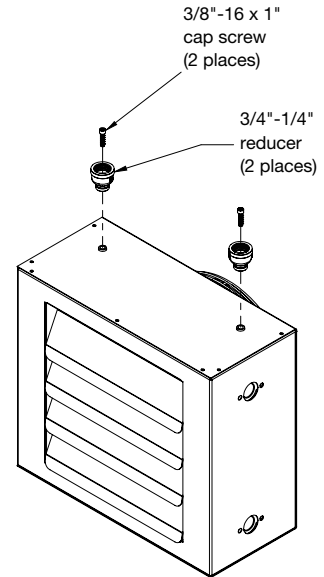
- (2) 3/4" - 1/4" reducer, steel
- (2) 3/8"-16 x 2-1/4" cap screw, oxide coated steel



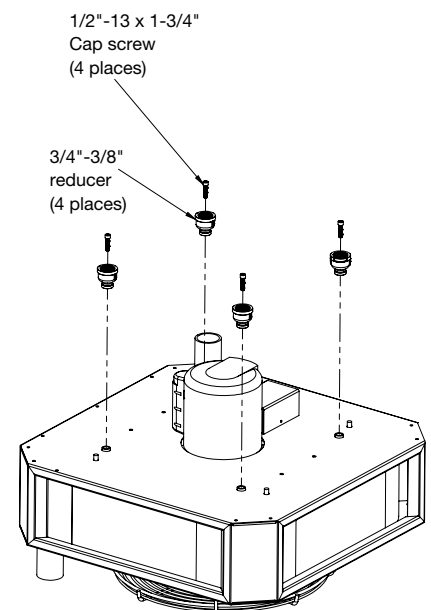
### RH units with explosion proof motors



### RH units



### RV units



Revised May 2015. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at [www.zehnder-ritting.com](http://www.zehnder-ritting.com).

## Warranty

Zehnder Rittling guarantees its products to be free from defects in material and workmanship for a period of two years from date of shipment from our factory.

Should there be any defects in the good(s), the purchaser should promptly notify Zehnder Rittling. Upon receipt of written consent from Zehnder Rittling, the purchaser shall return the defective good(s) to the factory for inspection with freight prepaid. If inspection shows the goods to be defective, Zehnder Rittling will at its discretion repair or replace the said item(s).

Defects arising from damage due to shipment, improper installation, negligence or misuse by others are not covered by this warranty.

This warranty is extended only to the original purchaser from Zehnder Rittling.

