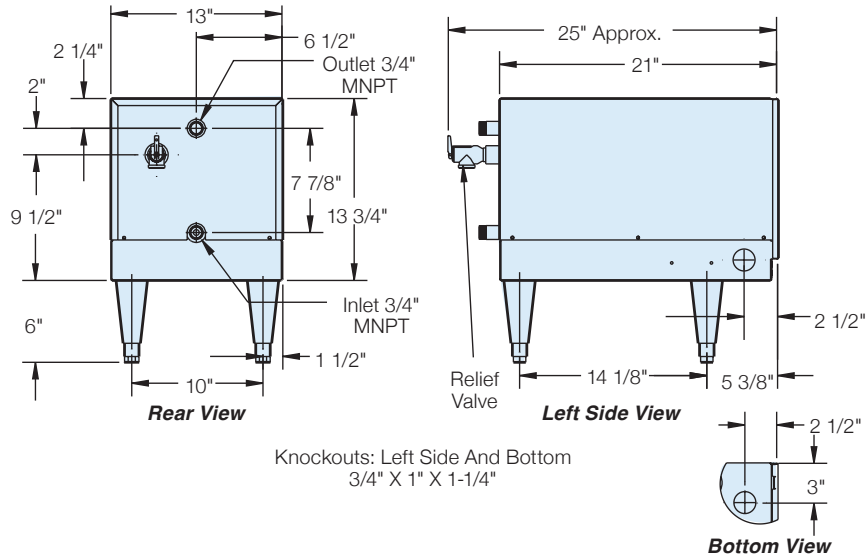


## Model J6 - (1 to 18 kW) Dimensions



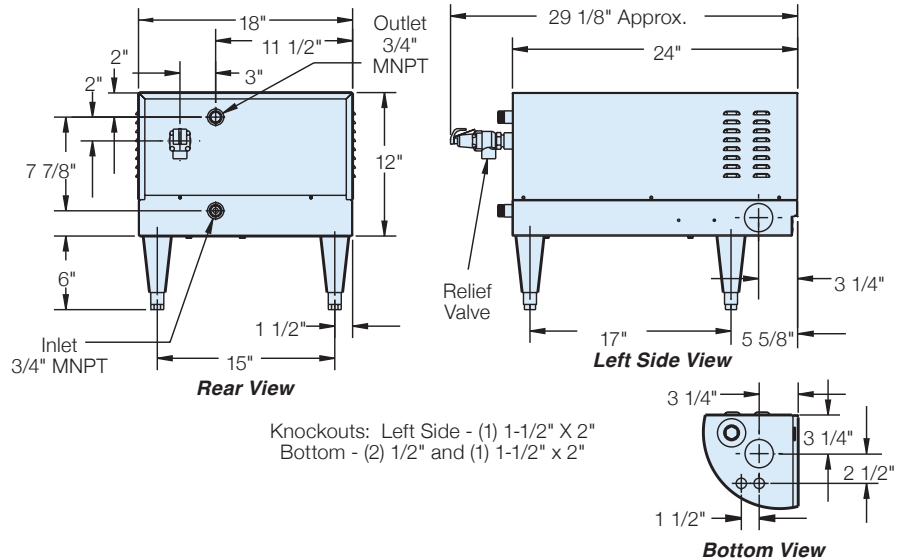
Shipping Weight: 95 lbs.



## Model J6 - (24 to 58.5 kW) Dimensions



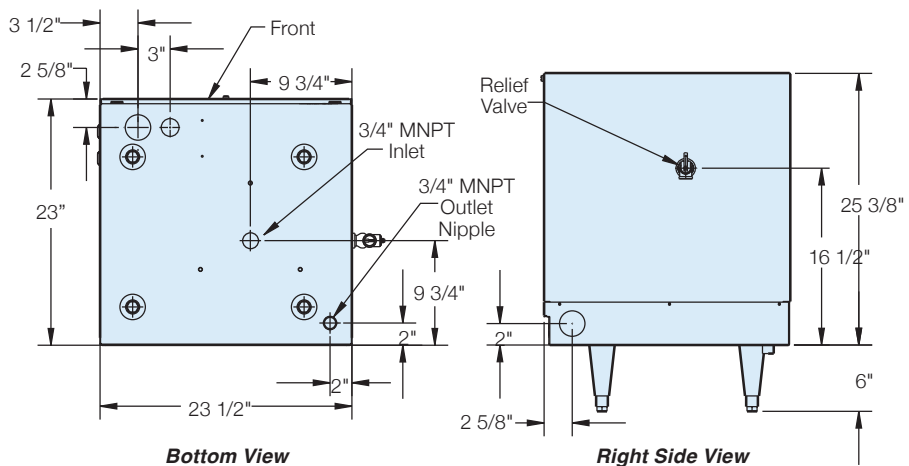
Shipping Weight: 110 lbs.



## Model J16 - (1 to 58.5 kW) Dimensions



Shipping Weight: 160 lbs.

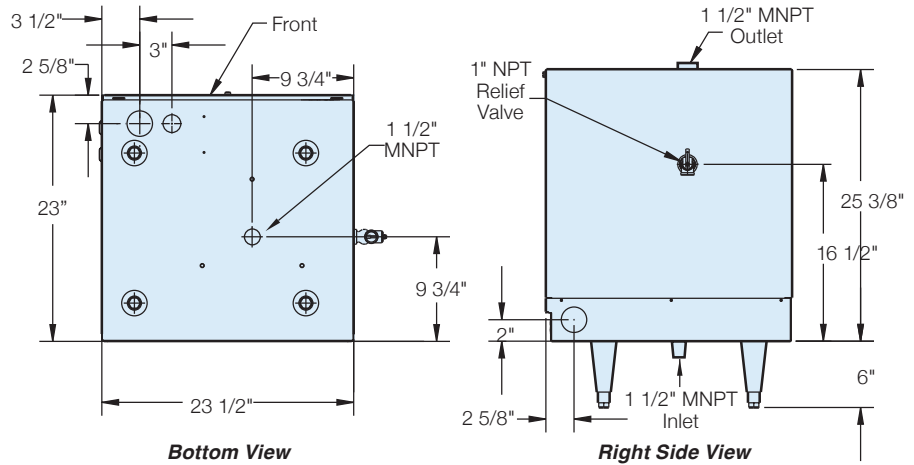


Knockouts: Left Side - 1-1/2" X 2"  
 Bottom - 1-1/2" X 2" and 3/4" X 1" X 1-1/4"

## Model **J16** - (64 to 88 kW) Dimensions



Shipping Weight: 195 lbs.

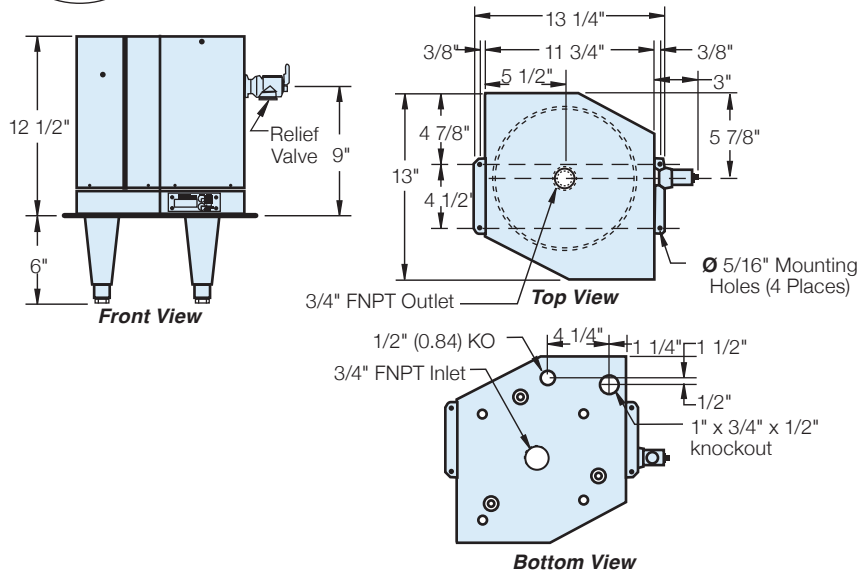


Knockouts: Left Side - 1-1/2" X 2"  
Bottom - 1-1/2" X 2" and 3/4" X 1" X 1-1/4"

## Model **J3** - (2.9 to 11.4 kW) Dimensions



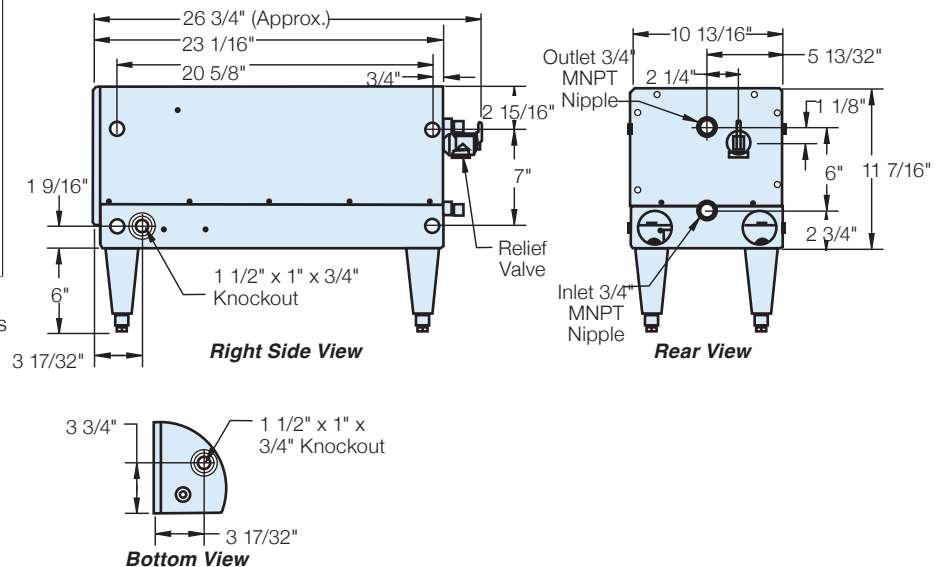
Shipping Weight: 46 lbs.  
Note: Shown with optional legs



## Model **J4** - (11.3 to 27 kW) Dimensions



Shipping Weight: 80 lbs.  
Note: Shown with optional legs



### J6 and J16 Wiring Chart

kW	Volt	Ph	Unit Amp Draw	Branch Amp Draw	Phase-Phase Resistance (Ohms)	Min. Feed Breaker or Fuse Size	Internal Power Wire Size	Element Jumper Wire Size	Copper Power Feed Wire Size	Conduit Size	Diagram
1	120	1	8.3	8.3	14.4	15	12	N/A	14	½"	1(NT)
1.5	120	1	12.5	12.5	9.6	20	12	N/A	14	½"	1(NT)
2	120	1	16.7	16.7	7.2	25	12	N/A	12	½"	1(NT)
3	120	1	25.0	25.0	4.8	35	12	12	10	½"	1(NT)
4	208	1	19.2	19.2	10.8	25	12	N/A	10	½"	1(NT)
	240	1	16.7	16.7	14.4	25	12	N/A	12	½"	1(NT)
	380	1	10.7	10.7	36.1	15	12	N/A	12	½"	1(WT)
	480	1	8.3	8.3	57.6	15	12	N/A	14	½"	1(WT)
5	208	1	24.0	24.0	8.7	30	12	N/A	10	½"	1(NT)
	240	1	20.8	20.8	11.5	30	12	N/A	10	½"	1(NT)
	380	1	13.2	13.2	28.9	20	12	N/A	12	½"	1(WT)
	480	1	10.4	10.4	46.1	15	12	N/A	14	½"	1(WT)
6	208	1	28.8	28.8	7.2	40	12	12	8	½"	4
	208	3	16.7	16.7	14.4	25	12	12	10	½"	10(NT)
	240	1	25.0	25.0	9.6	35	12	12	8	½"	4
	240	3	14.4	14.4	19.2	20	12	12	12	½"	10(NT)
	380	3	8.6	8.6	48.1	15	12	12	14	½"	10(WT)
	480	3	7.2	7.2	76.8	10	12	12	14	½"	10(WT)
	600	3	6.0	6.0	114.8	10	12	12	14	½"	14
7	208	1	32.5	32.5	6.4	45	12	12	8	½"	4
	208	3	18.7	18.7	12.4	25	12	12	10	½"	10(NT)
	240	1	30.5	30.5	8.2	40	12	12	8	½"	4
	240	3	17.6	17.6	16.5	25	12	12	10	½"	10(NT)
	380	3	10.0	10.0	41.3	15	12	12	12	½"	10(WT)
	480	3	8.4	8.4	65.8	15	12	12	14	½"	10(WT)
	600	3	6.8	6.8	102.0	10	12	12	14	½"	14
9	208	1	43.3	43.3	4.8	55	10	12	6	¾"	4
	208	3	25.0	25.0	9.6	35	10	12	8	½"	10(NT)
	240	1	37.5	37.5	6.4	50	10	12	8	½"	4
	240	3	21.7	21.7	12.8	30	10	12	10	½"	10(NT)
	380	3	14.3	14.3	32.1	20	12	12	12	½"	10(WT)
	480	3	10.8	10.8	51.2	15	12	12	14	½"	10(WT)
	600	3	9.1	9.1	76.5	15	12	12	14	½"	14
10.5	208	1	48.8	48.8	4.3	65	8	10	6	¾"	4
	208	3	29.1	29.1	8.2	40	12	12	8	½"	10(NT)
	240	1	43.8	43.8	5.5	55	10	12	6	¾"	4
	240	3	25.3	25.3	11.0	35	12	12	8	½"	10(NT)
	380	3	17.1	17.1	27.5	25	12	12	10	½"	10(WT)
	480	3	12.6	12.6	43.9	20	12	12	12	½"	10(WT)
	600	3	10.2	10.2	68.1	15	12	12	14	½"	14
12	208	1	57.7	57.7	3.6	75	8	10	4	1"	4
	208	3	33.3	33.3	7.2	45	12	12	8	½"	10(NT)
	240	1	50.0	50.0	4.8	65	8	10	6	¾"	4
	240	3	28.9	28.9	9.6	40	12	12	8	½"	10(NT)
	380	3	18.6	18.6	24.1	25	12	12	10	½"	10(WT)
	480	3	14.4	14.4	38.4	20	12	12	12	½"	10(WT)
	600	3	11.3	11.3	61.2	15	12	12	14	½"	14
13.5	208	1	64.9	64.9	3.2	85	8	10	4	1"	4
	208	3	37.5	37.5	6.4	50	10	12	8	½"	10(NT)
	240	1	56.3	56.3	4.3	75	8	10	4	1"	4
	240	3	32.5	32.5	8.5	45	12	12	8	½"	10(NT)
	380	3	21.4	21.4	21.4	30	12	12	10	½"	10(WT)
	480	3	16.2	16.2	34.1	25	12	12	12	½"	10(WT)
	600	3	13.6	13.6	51.0	20	12	12	12	½"	14

### J6 and J16 Wiring Chart (cont.)

kW	Volt	Ph	Unit Amp Draw	Branch Amp Draw	Phase-Phase Resistance (Ohms)	Min. Feed Breaker or Fuse Size	Internal Power Wire Size	Element Jumper Wire Size	Copper Power Feed Wire Size	Conduit Size	Diagram
15	208	1	72.1	72.1	2.9	95	6	8	3	1"	4 (DB)
	208	3	41.6	41.6	5.8	55	10	12	6	¾"	10(NT)
	240	1	62.5	62.5	3.8	80	8	10	4	1"	4
	240	3	36.1	36.1	7.7	50	10	12	8	½"	10(NT)
	380	3	22.9	22.9	19.3	30	12	12	8	½"	10(WT)
	480	3	18.0	18.0	30.7	25	12	12	10	½"	10(WT)
	600	3	14.7	14.7	47.1	20	12	12	12	½"	14
18	208	1	86.5	86.5	2.4	110	6	8	2	1"	4 (DB)
	208	3	50.0	50.0	4.8	65	8	10	6	¾"	10(NT)
	240	1	75.0	75.0	3.2	95	6	8	3	1"	4 (DB)
	240	3	43.3	43.3	6.4	55	10	12	6	¾"	10(NT)
	380	3	27.9	27.9	16.0	35	12	12	8	½"	10(WT)
	480	3	21.7	21.7	25.6	30	12	12	10	½"	10(WT)
	600	3	18.1	18.1	38.3	25	12	12	12	½"	14
24	208	1	115.4	38.5	1.8	145	10	12	1/0	1¼"	3A
	208	3	66.6	66.6	3.6	85	8	10	4	1"	13(NT)
	240	1	100.0	33.3	2.4	130	12	12	1	1¼"	3A
	240	3	57.7	57.7	4.8	75	8	10	4	1"	13(NT)
	380	3	37.1	37.1	12.0	50	10	12	6	¾"	13(WT)
	480	3	28.9	28.9	19.2	40	12	12	8	½"	13(WT)
	600	3	22.6	22.6	30.6	30	12	12	10	½"	15
27	208	1	130.0	43.3	1.6	165	10	12	2/0	1½"	6A
	208	3	74.9	37.5	3.2	95	10	12	3	1"	12(NCB)
	240	1	112.5	37.5	2.1	145	10	12	1/0	1¼"	3A
	240	3	65.0	65.0	4.3	85	8	10	4	1"	13(NT)
	380	3	42.9	42.9	10.7	55	10	12	6	¾"	13(WT)
	480	3	32.5	32.5	17.1	45	12	12	8	½"	13(WT)
	600	3	27.2	27.2	25.5	35	12	12	8	½"	15
30	208	1	144.2	48.1	1.4	185	8	10	3/0	1½"	6A
	208	3	83.3	41.6	2.9	105	10	12	2	1"	12(NCB)
	240	1	125.0	41.7	1.9	160	10	12	2/0	1½"	6A
	240	3	72.2	36.1	3.8	95	10	12	3	1"	12(NCB)
	380	3	45.7	45.7	9.6	60	10	12	4	1"	13(WT)
	480	3	36.1	36.1	15.4	50	10	12	8	½"	13(WT)
	600	3	29.4	29.4	23.6	40	12	12	8	½"	15
36	208	1	173.1	57.7	1.2	220	8	10	4/0	2"	6A
	208	3	99.9	50.0	2.4	125	8	10	1	1¼"	12(NCB)
	240	1	150.0	50.0	1.6	190	8	10	3/0	1½"	6A
	240	3	86.6	43.3	3.2	110	10	12	2	1"	12(NCB)
	380	3	55.7	55.7	8.0	70	8	10	3	1"	13(WT)
	480	3	43.3	43.3	12.8	55	10	12	6	¾"	13(WT)
	600	3	36.2	36.2	19.1	50	10	12	8	½"	15
39	208	1	187.5	62.5	1.1	235	8	10	250	2"	6A
	208	3	108.3	54.1	2.2	140	8	10	1/0	1¼"	12(NCB)
	240	1	162.5	54.2	1.5	205	8	10	4/0	1½"	6A
	240	3	93.8	46.9	3.0	120	10	12	1	1"	12(NCB)
	380	3	60.8	60.8	7.4	80	8	10	3	1"	13(WT)
	480	3	46.9	46.9	11.8	60	8	10	6	¾"	13(WT)
	600	3	36.2	36.2	19.1	50	10	12	8	¾"	15

### J6 and J16 Wiring Chart (cont.)

kW	Volt	Ph	Unit Amp Draw	Branch Amp Draw	Phase-Phase Resistance (Ohms)	Min. Feed Breaker or Fuse Size	Internal Power Wire Size	Element Jumper Wire Size	Copper Power Feed Wire Size	Conduit Size	Diagram
40.5	208	1	195.0	65.0	1.1	245	8	10	250	2"	6A
	208	3	112.6	56.3	2.1	145	8	10	1/0	1¼"	12(NCB)
	240	1	168.8	56.3	1.4	215	8	10	250	1½"	6A
	240	3	97.4	48.7	2.8	125	10	12	1	1"	12(NCB)
	380	3	60.8	60.8	7.1	80	8	10	3	1"	13(WT)
	480	3	48.7	48.7	11.4	65	8	10	4	¾"	13(WT)
	600	3	36.2	36.2	19.1	50	10	12	8	¾"	15
45	208	3	119.1	59.5	1.9	150	8	10	2/0	1¼"	12(NCB)
	240	1	187.5	62.5	1.3	235	8	10	250	2"	6A
	240	3	108.3	54.1	2.6	140	8	10	1/0	1¼"	12(NCB)
	380	3	68.6	34.3	6.4	90	12	12	2	1"	12(WT)
	480	3	54.1	54.1	10.2	70	8	10	4	¾"	13(WT)
	600	3	42.2	42.2	16.4	55	10	12	6	¾"	15
54	208	3	149.9	74.9	1.6	190	6	8	3/0	1½"	12
	240	3	129.9	65.0	2.1	165	8	10	2/0	1½"	12
	380	3	80.0	40.0	5.3	100	10	12	1	1"	12(WT)
	480	3	65.0	65.0	8.5	85	8	10	4	1"	13(WT)
	600	3	54.3	54.3	12.8	70	8	10	4	1"	15
58.5	208	3	159.9	79.9	1.5	200	6	8	4/0	1½"	12
	240	3	140.7	70.4	2.0	180	6	8	2/0	1½"	12
	380	3	91.4	45.7	4.9	115	10	12	1	1"	12(WT)
	480	3	70.4	35.2	7.9	90	12	12	3	1"	12(WT)
	600	3	54.3	54.3	12.3	70	8	10	4	1"	15
64	208	3	178.6	59.5	1.4	225	8	10	4/0	1½"	17
66	600	3	63.4	63.4	10.9	80	8	10	4	¾"	18
68	240	3	162.4	54.1	1.7	205	8	10	4/0	1½"	17
	380	3	102.8	34.3	4.2	130	12	12	1/0	1¼"	16(WT)
	480	3	81.2	27.1	6.8	105	12	12	2	1"	16(WT)
79	380	3	120.0	40.0	3.7	150	10	12	2/0	1¼"	16(WT)
81	208	3	224.8	74.9	1.1	285	6	8	300	2"	17
	240	3	194.9	65.0	1.4	245	8	10	250	2"	17
	480	3	105.5	35.2	5.7	135	12	12	1	1"	16(WT)
85	600	3	81.5	81.5	8.5	105	6	8	2	1"	18
86	208	3	239.8	79.9	1.0	300	6	8	350	2"	17
88	240	3	211.1	70.4	1.3	265	6	8	300	2"	17
	480	3	105.5	35.2	5.2	135	12	12	1/0	1¼"	16(WT)
90	380	3	137.1	45.7	3.2	175	10	12	2/0	1½"	16(CBWT)

**J6 and J16 Wiring Chart Notes:**

1. Power feed wire sizing is based on using 75°C Cu THHN wire with feeder branch protection rated at 125%.
2. Internal wire sizing is based on using 200°C SEW-2 or PTFE wiring in a raceway with an ambient temperature up to 60°C.
3. For information on 277V, 415V, or 440V models reference the supplied drawing or contact the factory.
4. Normal phase-to-phase resistance tolerance is ±5%.
5. 380, 480, and 600-volt phase-to-phase resistance values are shown with the transformer disconnected.
6. For 575V models, multiply the kW rating of the 600V model by a de-rating factor of 0.92 to get the actual rating for 575V.
7. For models manufactured prior to June 24, 2005, that utilize wiring diagrams 3, 5, 6, 7(NT), 7(WT), or 11 please contact the factory for wiring diagrams.

### J3 Wiring Chart

kW	Volt	Ph	Unit Amp Draw	Phase-Phase Resistance (Ohms)	Min. Feed Breaker or Fuse Size	Internal Power Wire Size	Element Jumper Wire Size	Copper Power Feed Wire Size	Conduit Size	Diagram
2.9	120	1	23.8	5.0	30	12	12	10	½"	4
5.7	120	1	47.5	2.5	60	10	12	6	¾"	4
9.9	208	1	47.6	4.4	60	10	12	6	¾"	4
	208	3	27.5	8.7	35	12	12	8	½"	10 (NT)
10.4	208	1	51.9	4.2	65	10	12	6	¾"	4
	208	3	28.8	8.3	40	12	12	8	½"	10 (NT)
11.4	240	1	47.5	5.1	60	10	12	6	¾"	4
	240	3	27.4	10.1	35	12	12	8	½"	10 (NT)
	277	1	41.2	6.7	55	10	12	6	¾"	4 (WT)
	380	3	16.8	25.3	25	12	12	12	½"	14
	415	3	15.9	30.2	20	12	12	12	½"	14
	480	3	13.7	40.4	20	12	12	14	½"	14
	600	3	11.0	63.2	15	12	12	14	½"	14

#### J3 Wiring Chart Notes:

1. Power feed wire sizing is based on using 75°C Cu THHN wire with feeder branch protection rated at 125%.
2. Internal wire sizing is based on using 200°C SEW-2 or PTFE wiring in a raceway with an ambient temperature up to 60°C.
3. Normal phase-to-phase resistance tolerance is ±5%.
4. 277, 380, 415, 480, and 600-volt phase-to-phase resistance values are shown with the transformer disconnected.

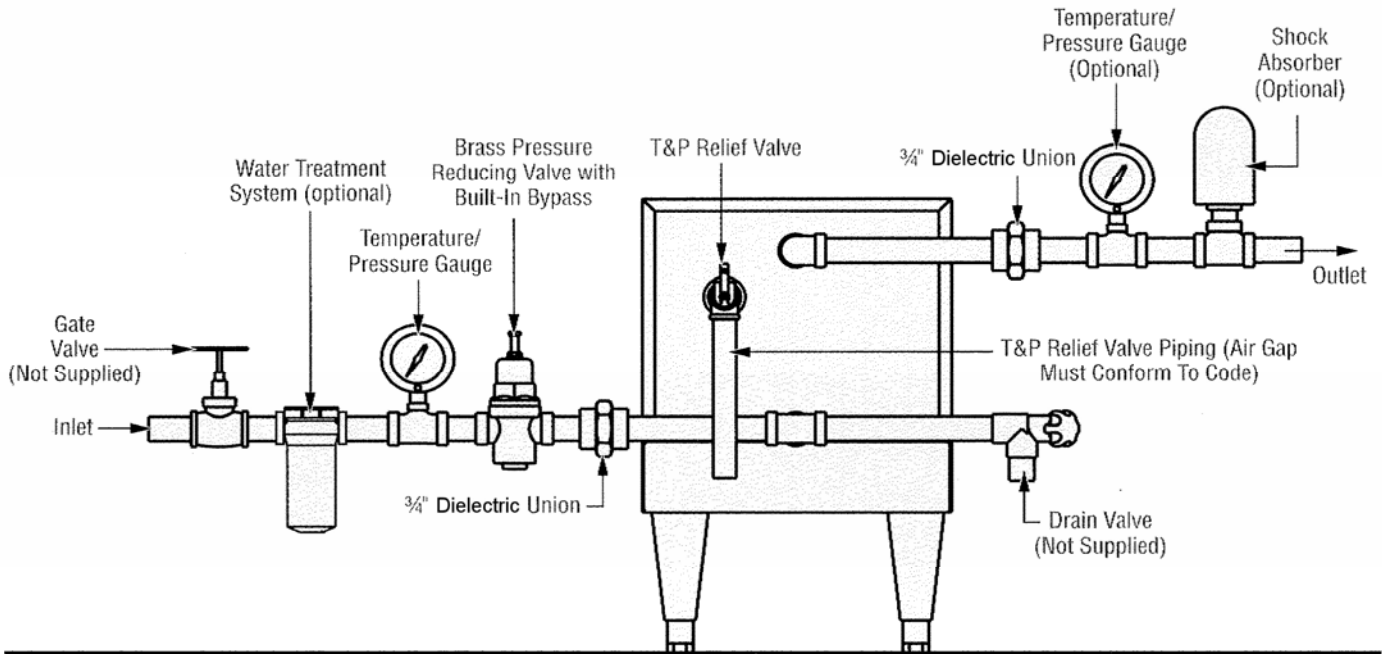
### J4 Wiring Chart

kW	Volt	Ph	Unit Amp Draw	Phase-Phase Resistance (Ohms)	Min. Feed Breaker or Fuse Size	Internal Power Wire Size	Element Jumper Wire Size	Copper Power Feed Wire Size	Conduit Size	Diagram
11.3	208	1	54.1	3.8	70	8	8	4	1"	4
	208	3	31.2	7.7	40	8	8	8	½"	10 (NT)
12.6	220	1	57.3	3.8	75	8	8	4	1"	4
	220	3	33.1	7.7	45	8	8	8	½"	10 (NT)
13.8	230	1	59.8	3.8	75	8	8	4	1"	4
	230	3	34.5	7.7	45	8	8	8	½"	10 (NT)
15	240	1	62.5	3.8	80	8	8	4	1"	4
	240	3	36.1	7.7	50	8	8	8	½"	10 (NT)
	480	3	18.0	30.7	25	12	12	10	½"	10 (WT)
27	208	3	75.0	3.2	95	6	8	3	1"	10 (NT)
	240	3	65.0	4.3	85	8	10	4	1"	10 (NT)
	480	3	32.5	17.1	45	12	12	8	½"	10 (WT)

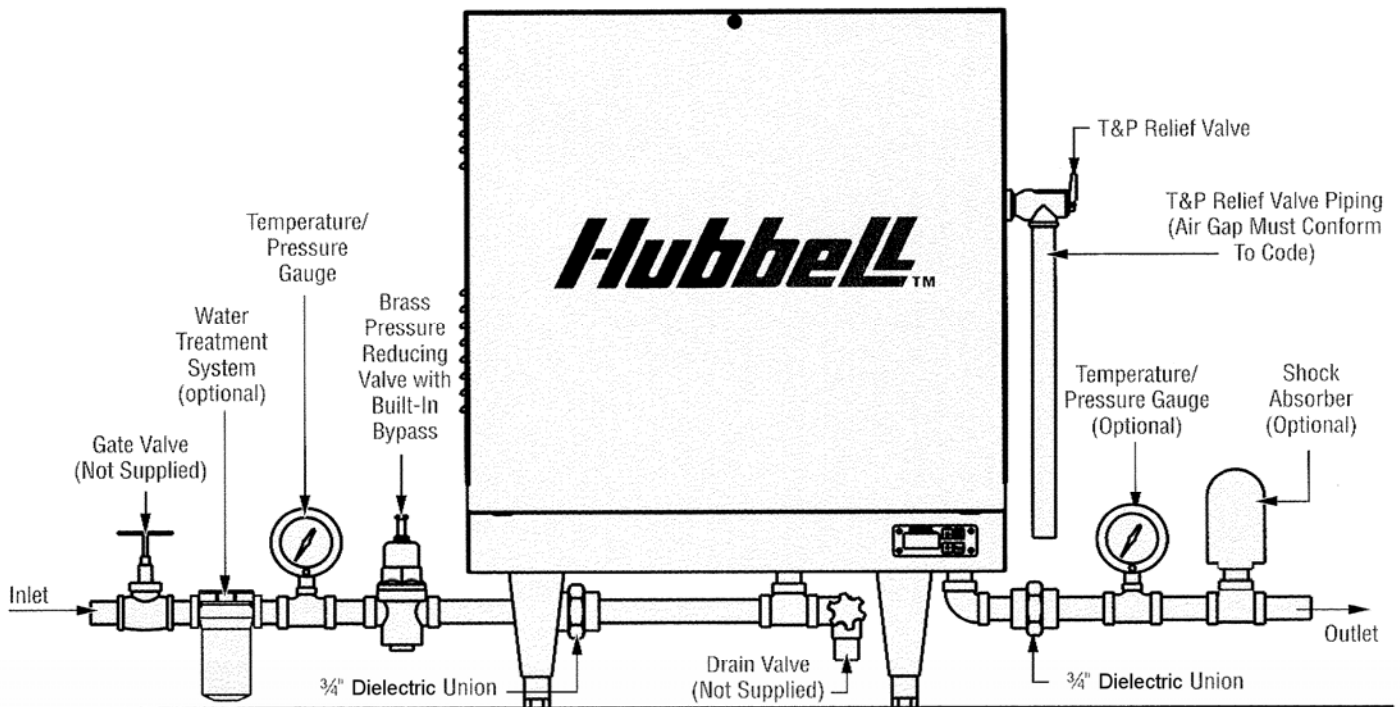
#### J4 Wiring Chart Notes:

1. Power feed wire sizing is based on using 75°C Cu THHN wire with feeder branch protection rated at 125%.
2. Internal wire sizing is based on using 200°C SEW-2 or PTFE wiring in a raceway with an ambient temperature up to 60°C.
3. Normal phase-to-phase resistance tolerance is ±5%.
4. 480-volt phase-to-phase resistance values are shown with the transformer disconnected.

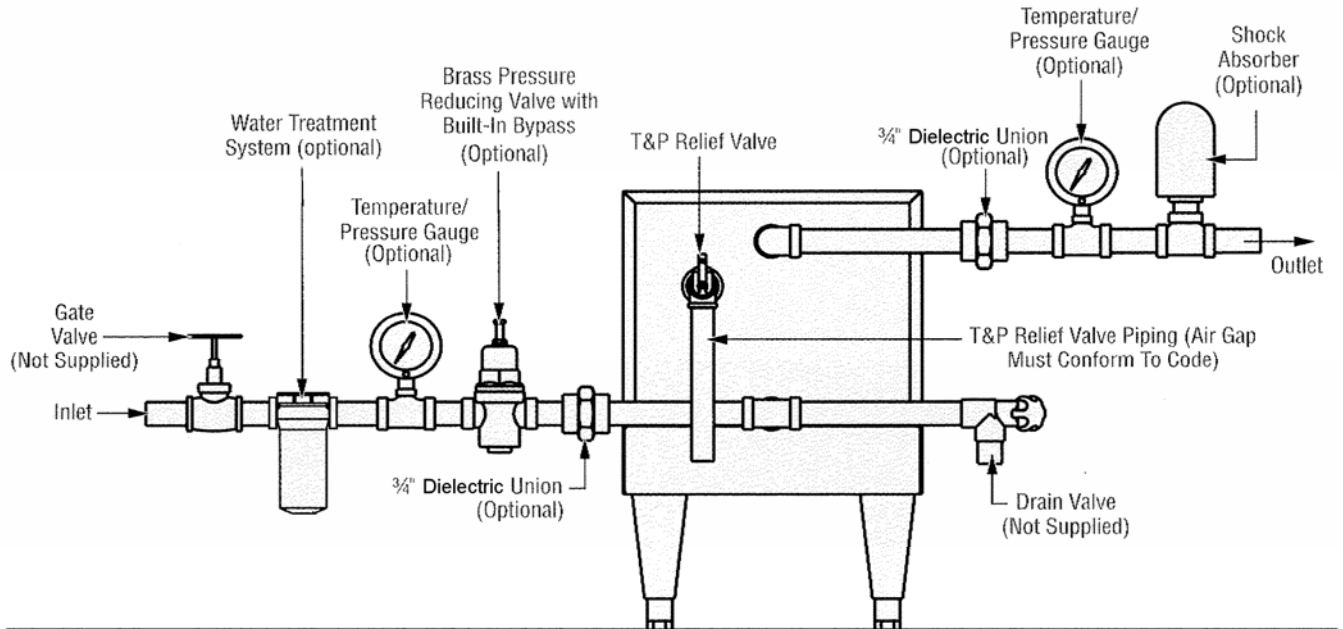
## Typical J6 Plumbing Connections (Rear View)



## Typical J16 Plumbing Connections (Front View)



## Typical J4 Plumbing Connections (Rear View, shown with optional legs)



## Typical J3 Plumbing Connections (Front View, shown with optional legs)

