

WIRING DIAGRAMS AND ELECTRICAL DATA FOR CUSTOM HI-POWER®

AMP CHART

Total Ele.				Total AMPS		Main Line Fuse		Field Wire Per Leg	
KW	KW	Qty	Volt	10	30	10	30	10	30
15	15	1	208	73	42	110	60	3	6
			240	63	36	110	50	4	8
			380	**	23	**	30	**	10
			400	**	22	**	30	**	10
			415	**	21	**	30	**	10
			480	**	18	**	25	**	10
			600	**	14	**	20	**	12
18	18	1	208	87	50	110	70	2	4
			240	75	44	110	60	3	6
			380	**	27	**	35	**	8
			400	**	26	**	35	**	8
			415	**	25	**	35	**	8
			480	**	22	**	30	**	10
			600	**	17	**	25	**	12
24	12	2	208	115	67	150	90	0	3
			240	100	58	150	80	0	4
			380	**	36	**	50	**	6
			400	**	35	**	50	**	6
			415	**	33	**	50	**	6
			480	**	29	**	40	**	8
			600	**	23	**	30	**	10
30	15	2	208	145	83	200	110	3/0	2
			240	125	72	175	100	2/0	2
			380	**	46	**	60	**	6
			400	**	43	**	60	**	6
			415	**	42	**	60	**	6
			480	**	36	**	50	**	6
			600	**	29	**	40	**	8
36	18	2	208	174	100	225	150	4/0	0
			240	150	87	200	110	3/0	2
			380	**	55	**	70	**	4
			400	**	52	**	70	**	4
			415	**	50	**	70	**	4
			480	**	43	**	60	**	6
			600	**	35	**	45	**	8
45	15	3	208	217	125	300	175	300	3/0
			240	188	108	250	150	250	2/0
			380	**	68	**	90	**	3
			400	**	65	**	90	**	3
			415	**	63	**	80	**	4
			480	**	54	**	70	**	4
			600	**	43	**	60	**	6
54	18	3	208	260	150	350	200	400	4/0
			240	225	130	300	175	350	3/0
			380	**	82	**	110	**	2
			400	**	78	**	100	**	2
			415	**	75	**	100	**	2
			480	**	65	**	90	**	3
			600	**	52	**	70	**	4
60	15	4	208	289	167	400	225	500	4/0
			240	250	144	350	200	400	4/0
			380	**	91	**	125	**	1
			400	**	87	**	110	**	1
			415	**	83	**	110	**	2
			480	**	72	**	100	**	2
			600	**	58	**	80	**	4
72	18	4	208	**	200	**	250	**	250
			240	**	173	**	225	**	4/0
			380	**	109	**	150	**	0
			400	**	104	**	150	**	0
			415	**	100	**	125	**	1
			480	**	87	**	110	**	2
			600	**	69	**	90	**	3
90	15	6	208	**	250	**	350	**	500
			240	**	217	**	300	**	350
			380	**	137	**	175	**	3/0
			400	**	130	**	175	**	3/0
			415	**	125	**	175	**	3/0
			480	**	108	**	150	**	2/0
			600	**	87	**	110	**	2
108	18	6	208	**	300	**	400	**	(2) 3/0
			240	**	260	**	350	**	500
			380	**	164	**	225	**	4/0
			400	**	156	**	200	**	4/0
			415	**	150	**	200	**	3/0
			480	**	130	**	175	**	2/0
			600	**	104	**	150	**	0
120	15	8	208	**	333	**	450	**	(2) 4/0
			240	**	289	**	400	**	(2) 3/0
			380	**	182	**	250	**	250
			400	**	173	**	225	**	250
			415	**	167	**	225	**	4/0
			480	**	144	**	200	**	3/0
			600	**	115	**	150	**	0
135	15	9	208	**	375	**	500	**	(2) 250
			240	**	325	**	450	**	(2) 4/0
			380	**	205	**	300	**	350
			400	**	195	**	250	**	350
			415	**	188	**	250	**	250
			480	**	162	**	225	**	4/0
			600	**	130	**	175	**	2/0
144	18	8	208	**	400	**	500	**	(2) 250
			240	**	346	**	450	**	(2) 4/0
			380	**	219	**	300	**	350
			400	**	208	**	300	**	300
			415	**	200	**	250	**	250
			480	**	173	**	225	**	4/0
			600	**	139	**	175	**	2/0
162	18	9	208	**	450	**	600	**	(2) 350
			240	**	390	**	500	**	(2) 250
			380	**	246	**	350	**	500
			400	**	234	**	300	**	350
			415	**	225	**	300	**	350
			480	**	195	**	250	**	250
			600	**	156	**	200	**	3/0
180	18	10	208	**	500	**	700	**	(2) 500
			240	**	433	**	600	**	(2) 350
			380	**	273	**	350	**	500
			400	**	260	**	350	**	500
			415	**	250	**	350	**	500
			480	**	217	**	300	**	350
			600	**	173	**	225	**	4/0

ELECTRICAL DATA FOR CUSTOM HI POWER®

AMP CHART

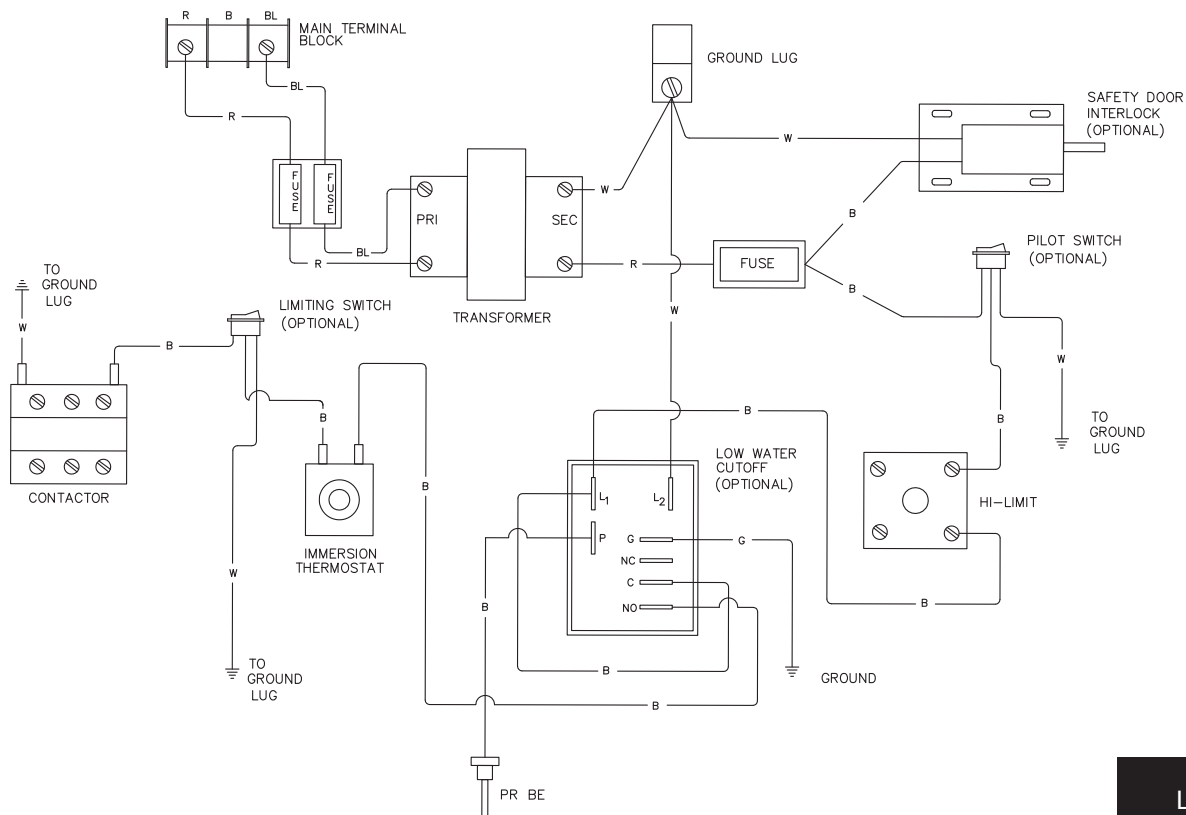
Total Ele.				Total AMPS		Main Line Fuse		Field Wire Per Leg	
KW	KW	Qty	Volt	10	30	10	30	10	30
216	18	12	208	**	600	**	800	**	(3) 300
			240	**	520	**	700	**	(2) 500
			380	**	328	**	450	**	(2) 4/0
			400	**	312	**	400	**	(2) 3/0
			415	**	301	**	400	**	(2) 3/0
			480	**	260	**	350	**	500
			600	**	208	**	300	**	350
234	18	13	208	**	650	**	1000	**	(2) 400
			240	**	563	**	800	**	(2) 300
			380	**	356	**	500	**	(2) 250
			400	**	338	**	450	**	(2) 4/0
			415	**	326	**	450	**	(2) 4/0
			480	**	281	**	400	**	(2) 3/0
			600	**	225	**	300	**	350
252	18	14	208	**	694	**	1000	**	(3) 400
			240	**	606	**	800	**	(3) 300
			380	**	383	**	500	**	(2) 250
			400	**	364	**	500	**	(2) 4/0
			415	**	351	**	450	**	(2) 4/0
			480	**	303	**	400	**	(2) 3/0
			600	**	242	**	350	**	500
270	18	15	208	**	749	**	1000	**	(3) 400
			240	**	650	**	1000	**	(3) 400
			380	**	410	**	600	**	(2) 350
			400	**	390	**	500	**	(2) 250
			415	**	376	**	500	**	(2) 250
			480	**	325	**	450	**	(2) 4/0
			600	**	260	**	350	**	500
288	18	16	208	**	799	**	1000	**	(3) 400
			240	**	693	**	1000	**	(3) 400
			380	**	438	**	600	**	(2) 350
			400	**	416	**	600	**	(2) 350
			415	**	401	**	600	**	(2) 350
			480	**	346	**	450	**	(2) 4/0
			600	**	277	**	350	**	500
306	18	17	208	**	849	**	1200	**	(4) 350
			240	**	736	**	1000	**	(3) 400
			380	**	465	**	600	**	(2) 350
			400	**	442	**	600	**	(2) 350
			415	**	426	**	600	**	(2) 350
			480	**	368	**	500	**	(2) 250
			600	**	294	**	400	**	(2) 3/0
324	18	18	208	**	899	**	1200	**	(4) 350
			240	**	779	**	1000	**	(3) 400
			380	**	492	**	700	**	(2) 500
			400	**	468	**	600	**	(2) 350
			415	**	451	**	600	**	(2) 350
			480	**	390	**	500	**	(2) 250
			600	**	312	**	400	**	(2) 3/0
342	18	19	208	**	949	**	1200	**	(4) 350
			240	**	823	**	1200	**	(4) 350
			380	**	520	**	700	**	(2) 500
			400	**	494	**	700	**	(2) 350
			415	**	476	**	600	**	(2) 350
			480	**	411	**	600	**	(2) 350
			600	**	329	**	450	**	(2) 4/2

Total Ele.				Total AMPS		Main Line Fuse		Field Wire Per Leg	
KW	KW	Qty	Volt	10	30	10	30	10	30
360	18	20	208	**	999	**	1600	**	(5) 400
			240	**	866	**	1200	**	(4) 350
			380	**	547	**	700	**	(2) 500
			400	**	520	**	700	**	(2) 500
			415	**	501	**	700	**	(2) 500
			480	**	433	**	600	**	(2) 350
			600	**	346	**	450	**	(2) 4/0
378	18	21	208	**	1049	**	1600	**	(5) 400
			240	**	909	**	1200	**	(4) 350
			380	**	574	**	800	**	(3) 300
			400	**	546	**	700	**	(2) 500
			415	**	526	**	700	**	(2) 500
			480	**	455	**	600	**	(2) 350
			600	**	364	**	500	**	(2) 250
396	18	22	208	**	1099	**	1600	**	(5) 400
			240	**	953	**	1200	**	(4) 350
			380	**	602	**	800	**	(3) 300
			400	**	572	**	800	**	(2) 500
			415	**	551	**	700	**	(2) 500
			480	**	476	**	600	**	(2) 350
			600	**	381	**	500	**	(2) 250
414	18	23	208	**	1149	**	1600	**	(5) 400
			240	**	996	**	1600	**	(5) 400
			380	**	629	**	800	**	(3) 300
			400	**	598	**	800	**	(3) 300
			415	**	576	**	800	**	(3) 300
			480	**	498	**	700	**	(2) 500
			600	**	398	**	500	**	(2) 250
432	18	24	208	**	1199	**	1600	**	(5) 400
			240	**	1039	**	1600	**	(5) 400
			380	**	656	**	1000	**	(3) 400
			400	**	624	**	800	**	(3) 300
			415	**	601	**	800	**	(3) 300
			480	**	520	**	700	**	(2) 500
			600	**	416	**	600	**	(2) 350

*CONSULT FACTORY FOR 432 KW AND HIGHER.

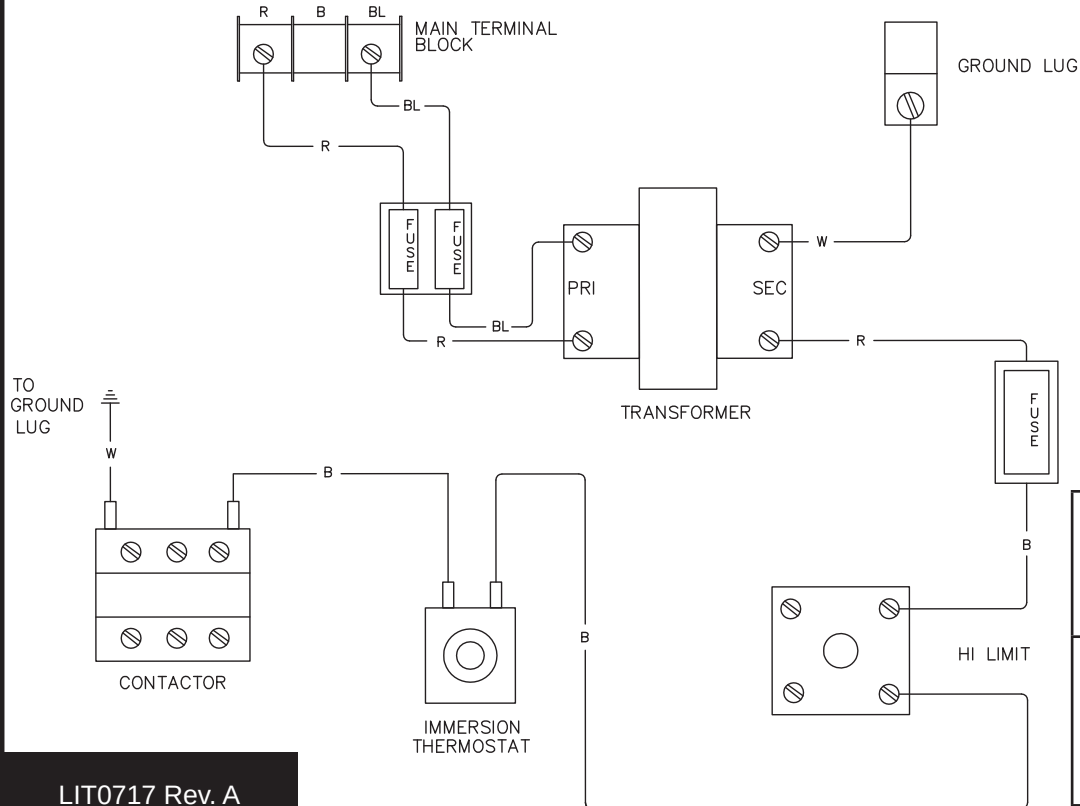
WIRING DIAGRAMS FOR CUSTOM HI POWER®

IMMERSION THERMOSTAT WITH OPTIONS (Control Circuit)



LIT0716 Rev. A

BASIC IMMERSION THERMOSTAT (Control Circuit)



WIRE COLOR CODE

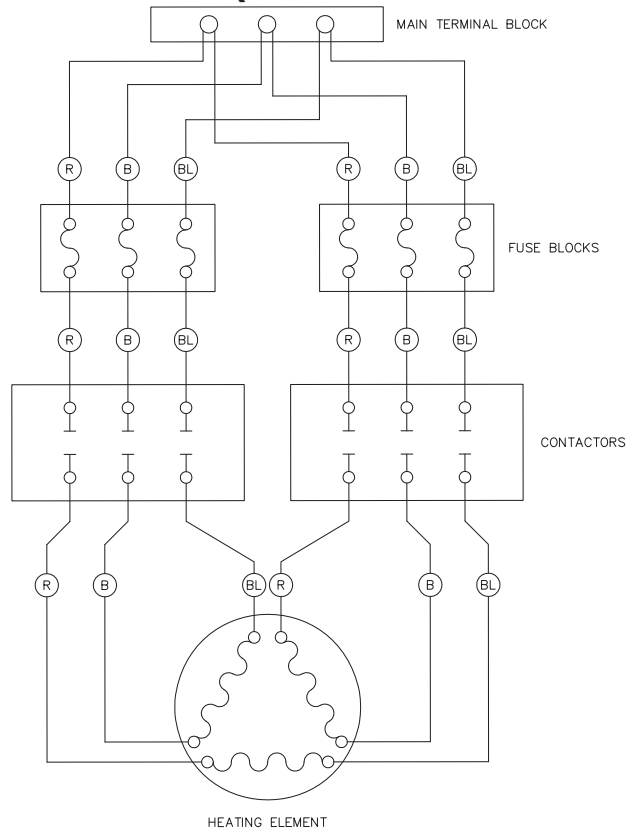
R = RED **W = WHITE**
B = BLACK **BL = BLUE**

NOTE: Diagrams do not show wiring from terminal block to fuses, contractors, and heating elements. Control circuit is shown only.

LIT0717 Rev. A

WIRING DIAGRAMS FOR CUSTOM HI POWER®

POWER CIRCUIT (ONE WIRE PER ELEMENT)

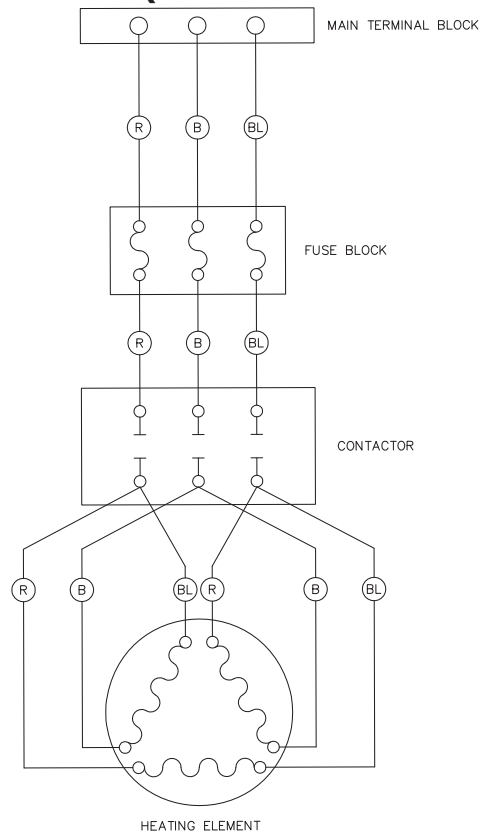


CIRCUIT LIMITED TO 48 AMPS

Power Circuits fused
when total amperage
exceeds 120 amps.

LIT0712 Rev. A

POWER CIRCUIT (TWO WIRES PER ELEMENT)



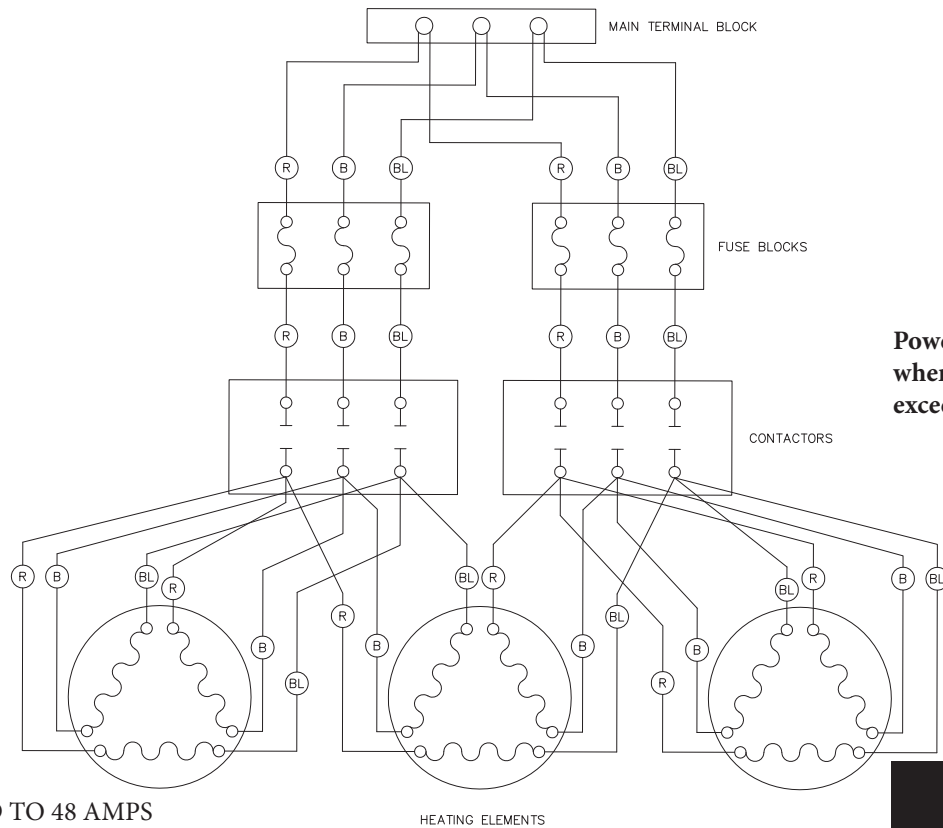
CIRCUIT LIMITED TO 48 AMPS

Power Circuits fused
when total amperage
exceeds 120 amps.

LIT0713 Rev. A

WIRING DIAGRAMS FOR CUSTOM HI POWER®

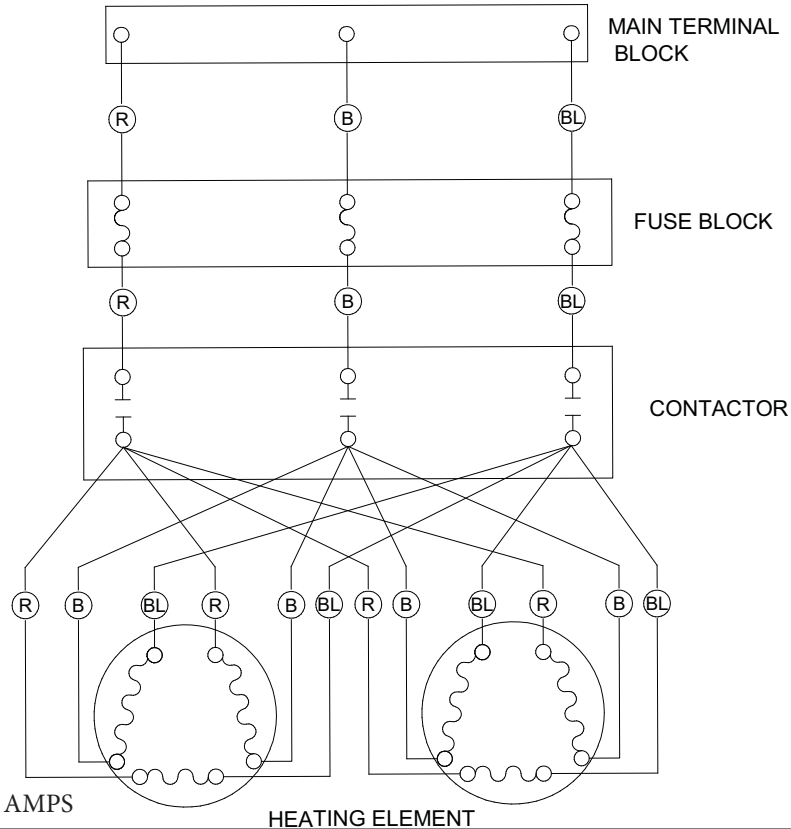
POWER CIRCUIT (THREE WIRES PER ELEMENT)



CIRCUIT LIMITED TO 48 AMPS

LIT0714 Rev. A

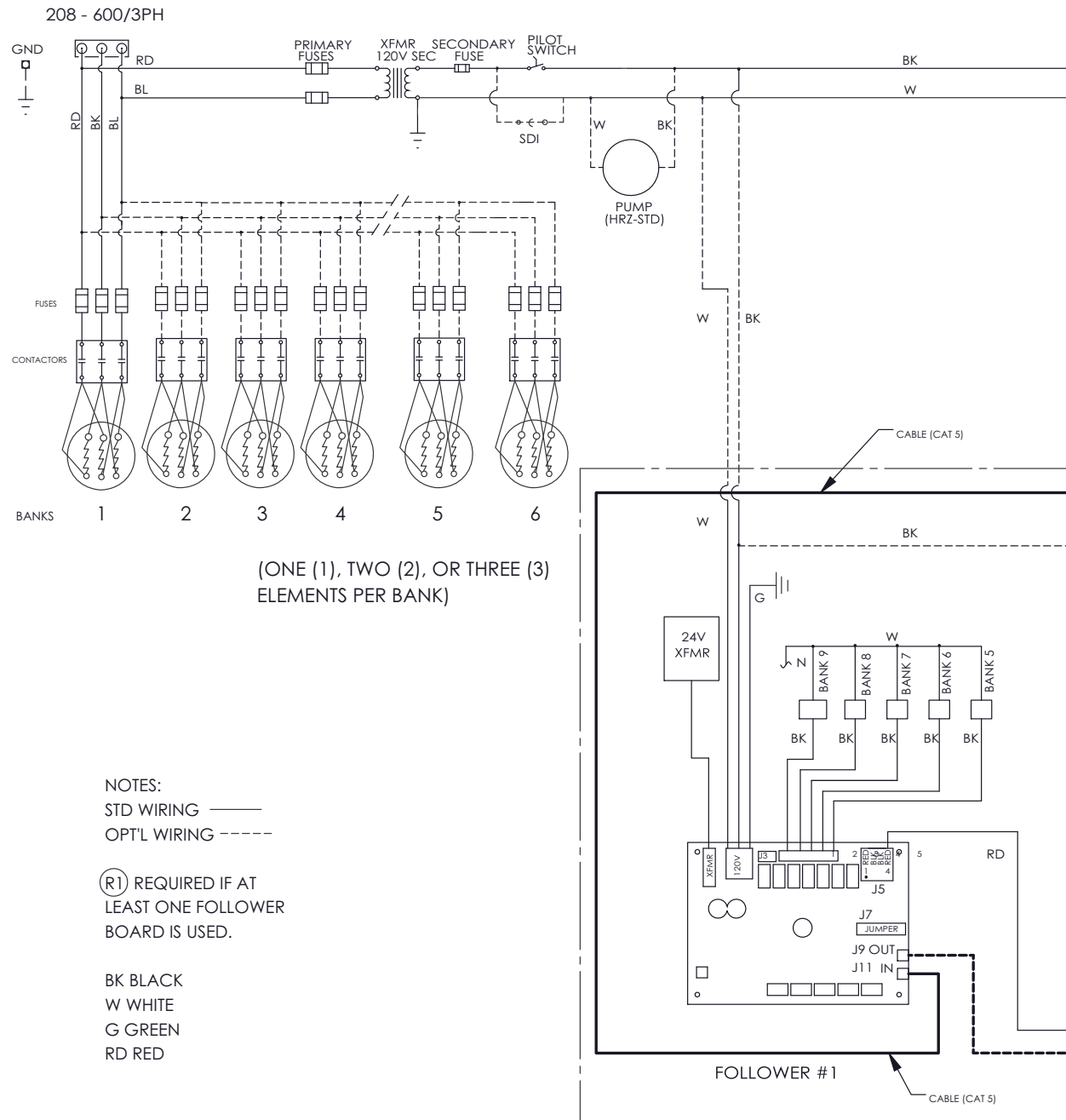
POWER CIRCUIT (FOUR WIRES PER ELEMENT)



CIRCUIT LIMITED TO 48 AMPS

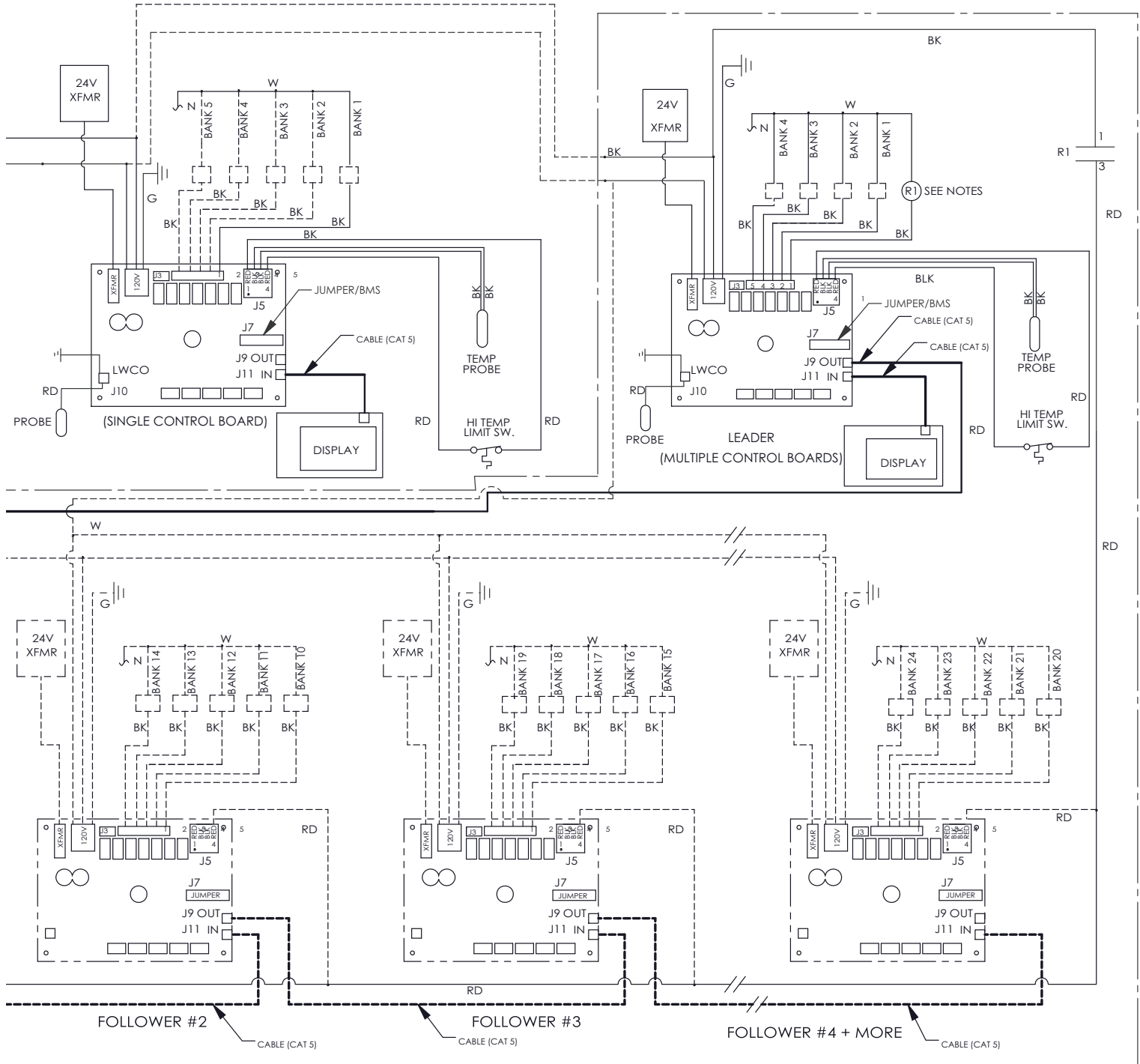
HEATING ELEMENT

WIRING DIAGRAMS FOR CUSTOM HI POWER®



CHV & CHH MODELS

WIRING DIAGRAMS FOR CUSTOM HI POWER®



Revision Notes: Revision A (ECO C03667) reflects the update of the AMP data chart and addition of the Four-Wire Diagram on page 6.

Revision B (ECO C07675) reflects the addition of 400 Volt information to AMP charts on pages 1 and 2. The AMP charts have also been reformatted to reflect current INS standards.

Revision C (PCP# 3000006311 / CN# 500006401) reflects the removal of 12 kW section from the amp chart and the addition of the CHV/CHH diagram.