

**BULLETIN 2100 HEATER ELEMENT SELECTION TABLES FOR  
BULLETIN 2100, 2107, 2112, 2113, 2122E, 2122F, 2122G, 2123E, 2123F, 2123G**

**WARNING:** If burnout of an overload relay heater element occurs, the heater element must be replaced to provide continued protection against fire and shock hazard.

**AVERTISSEMENT:** Si un élément chauffant du relais de protection contre les surcharges est brûlé, cet élément doit être remplacé afin de fournir une protection continue contre les hasards d'incendie et de chocs.

**IMPORTANT:** When ordering heater elements, specify the desired "Heater Type No."

**MOTORS RATED FOR CONTINUOUS DUTY WITH MARKED SERVICE FACTOR NOT LESS THAN 1.15 OR MARKED TEMPERATURE RISE NOT OVER 40°C.**

Select the "Heater Type No." with the listed "Full Load Amps." nearest the full load current value shown on the motor nameplate when the ambient temperature at the controller and the motor is the same. If the ambient temperature at the controller is higher than at the motor and nameplate full load current is between the values listed, select the "Heater Type No." with the higher value . If the ambient temperature at the controller is lower than at the motor and the nameplate full load current is between the values listed, select the Heater Type No." with the lower value .

When temperature difference exceeds 10°C (18°F), consult local Allen-Bradley Office.

**ALL OTHER MOTORS RATED FOR CONTINUOUS DUTY (INCLUDES MOTORS WITH MARKED SERVICE FACTOR OF 1.0).**

Select the "Heater Type No." one rating smaller than determined by the above rules. This will provide protection at current levels 10% lower.

**MOTORS RATED FOR INTERMITTENT DUTY:** Consult local Allen-Bradley Office.

**TABLE 347**

Heater Type No.	Full Load Amps	Heater Type No.	Full Load Amps
	Size 5 and 320A Vacuum		Size 5 and 320A Vacuum
W29	77	W37	150
W30	83	W38	164
W31	90	W39	178
W32	98	W40	194
W33	107	W41	212
W34	116	W42	232
W35	126	W43	254
W36	138	W44	279

**TABLE 147**

Heater Type No.	Full Load Amps	Heater Type No.	Full Load Amps
	Size 6 and 400A Vacuum		Size 6 and 400A Vacuum
W29	144	W37	294
W30	157	W38	325
W31	171	W39	355
W32	186	W40	390
W33	209	W41	430
W34	222	W42	470
W35	242	W43	515
W36	268	W44	560

The rating of the relay at 40°C is 115% of the "Full Load Amps." listed for "Heater Type No."

Select the Motor Branch Circuit Overcurrent Protection in accordance with the National Electrical Code and Canadian Electrical Code. In no case shall the rating of the Class H (non-time delay) or Class K5 (time delay) fuses exceed 400 amperes.

Exceptions: When using Class H or E fuses, the maximum motor full load current must not exceed 445 amperes. If Class L fuses are used for motor full load currents greater than 445 amperes, fuse rating must not be less than 800 amperes.

