



HOSHIZAKI AMERICA, INC.

SERVICE BULLETIN

SB99-0005

May 18, 1999

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Subject: TECHNICAL INFORMATION FOR F-2000M SERIES FLAKER.

The following technical information applies to the F-2000M_F series.

Unit Size – 30” wide x 27-1/2” x deep x 33-1/4” high

Drain System - Solenoid drain valve operates by timer for periodic flush and manual switch for service.

Voltage Requirements –

MWF / MRF - 208 - 230 / 60 / 1 (3 wire with neutral for 115 V)
MWF3 / MRF3 - 208 - 230 / 60 / 3
MLF - 115 / 60 / 1

Maximum Circuit Amps –

1Æ 30A (Recommend separate circuit)
3Æ 20A (Recommend separate circuit)

Amperage –

MWF / MRF	1Æ	Compressor - 10.8 A
MWF / MRF	1Æ	Gear motor - 5.6 A
MRF	1Æ	Fan motor - 3.0 A
MWF	1Æ	Fan motor - 0.51A
	1Æ	Other - 0.03A
MRF3	3Æ	Compressor - 9.0 A
MRF3	3Æ	Gear motor - 5.6 A
MRF3	3Æ	Fan motor - 3.0
MRF3	3Æ	Other - 0.03A

Amperage -

Note: **MLF** Gear motor - 5.6A
Other - 0.13A

Gear Motor Protection - Manual reset circuit breaker or Fuse 1.5A and secondary auto reset thermal overload in motor windings.

Refrigerant Type - R-404A

Refrigerant Charge - MWF - 2 lb. (910g.)
MRF 1/3 Æ - Unit - 6 lb. 13 oz.
Condenser - 7 lb. 12 oz.
Total - 14 lb. 9 oz. (6600g)
MLF - Holding charge 3.6 oz. (100g.)

Compressor Data -

MWF / MRF	Copeland CS20-K6E-PFV Capacity (BTU) 20,050
	RLA - 18.6A LRA - 96.0A
(Resistance @ 25°C)	SWR- 2.204 ~ 2.536 ohms RWR- 0.605 ~ 0.697 ohms
	Oil Charge - 44 fl. oz. (1331cc)
	Oil Type - Mobil EAL Arctic 22CC (POE)
MRF 3Æ	Copeland CS20-K6E-TF5 Capacity (BTU) 19,760
	RLA - 11.4A LRA - 75.0A
(Resistance @ 25°C)	Line to line - 0.984 ~ 1.132 ohms
	Oil Charge - 44 fl. oz. (1331cc)
	Oil Type - Mobil EAL Arctic 22CC (POE)

(Note: see refrigeration rack for MLF model.)

Heat of Rejection for AC load –

MWF - 2910 BTU/h
MRF - 2870 BTU/h
MRF3 - 2860 BTU/h

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Ambient Temp (F°)		70		80		90		100	
	Water Temp.	Water	Remote	Water	Remote	Water	Remote	Water	Remote
Production 24 hours	50	2030	1992	1875	1827	1759	1683	1651	1550
	70	1957	1930	1836	1777	1730	1676	1616	1508
	90	1916	1878	1797	1729	1686	1593	1500	1393
Evaporator outlet	50	11 (-12)	12 (-11)	11 (-12)	12 (-11)	11 (-12)	12 (-11)	11 (-12)	14 (-10)
	70	11 (-12)	12 (-11)	11 (-12)	12 (-11)	11 (-12)	12 (-11)	11 (-12)	14 (-10)
	90	11 (-12)	12 (-11)	11 (-12)	12 (-11)	11 (-12)	14 (-10)	11 (-12)	14 (-10)
Pressure High Side	50	262	221	262	230	262	238	262	274
	70	262	221	262	230	262	238	262	274
	90	262	221	262	230	262	238	262	274
Pressure Low Side	50	26	25	26	26	26	26	26	29
	70	26	25	26	26	26	26	26	29
	90	26	25	26	26	26	26	26	29

Performance Data F-2000MWF/MRF-C:

Ambient Temp (F°)		70		80		90		100	
	Water Temp.	Water	Remote	Water	Remote	Water	Remote	Water	Remote
Production 24 hours	50	1790	1714	1669	1595	1587	1498	1508	1408
	70	1727	1662	1641	1562	1560	1491	1483	1379
	90	1698	1628	1614	1530	1534	1437	1375	1272
Evaporator outlet	50	10 (-12)	12 (-11)	10 (-12)	12 (-11)	10 (-12)	14 (-10)	10 (-12)	14 (-10)
	70	10 (-12)	12 (-11)	10 (-12)	14 (-10)	10 (-12)	14 (-10)	10 (-12)	14 (-10)
	90	10 (-12)	12 (-11)	10 (-12)	14 (-10)	10 (-12)	14 (-10)	10 (-12)	14 (-10)
Pressure High Side	50	262	220	262	227	262	233	262	266
	70	263	220	263	227	263	233	263	266
	90	266	220	266	227	266	233	266	266
Pressure Low Side	50	26	25	26	25	27	26	29	29
	70	26	25	26	25	27	26	29	29
	90	26	25	26	25	27	26	29	29

Performance Data for MLF model. Data will vary depending on the R-404A rack system it is connected to. The EPR setting is 22 psig for an evaporator temperature of no less than -12°F.

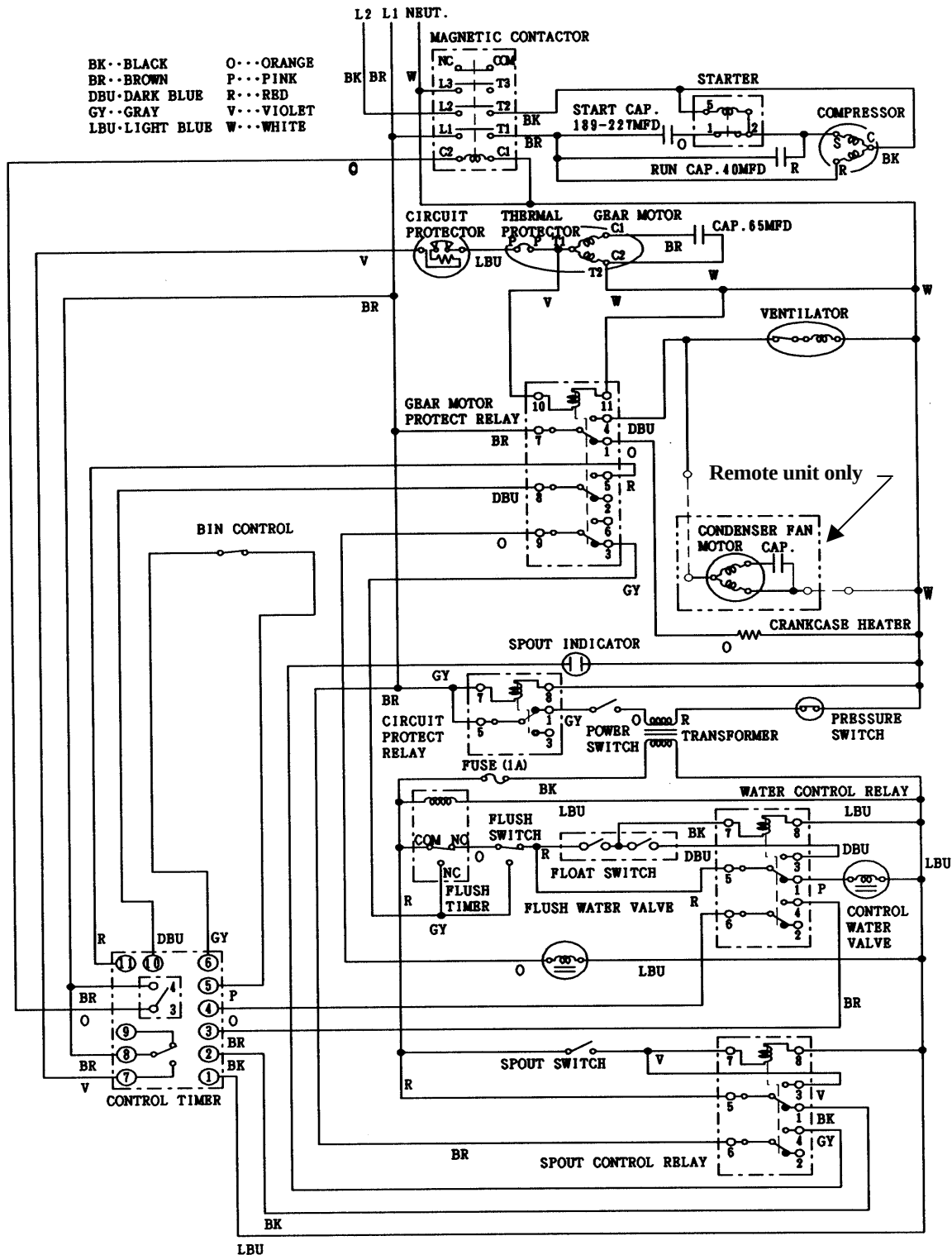
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Wiring Diagram F-2000MWF/MRF:

208-230/60/1 (3WIRE WITH NEUTRAL FOR 115V)



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Wiring Diagram F-2000MRF3:

208-230/60/3

