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PRODUCT

Precision Cooling  
For Business-Critical Continuity™

# *Liebert Challenger™ 3000 and Liebert Challenger ITR, R-407C Models*

*Electrical Supplement*



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# 1.0 ELECTRICAL DATA—60 Hz

**Table 1 Liebert Challenger, 407C models, electrical data—60 Hz<sup>1</sup>**

Model Type	Self-Contained								Split System Evaporator or Chilled Water							
	3 Ton B*042A, 046WG				5 Ton B*067A, 071WG, 061G				3 Ton B*036E, 068C				5 Ton B*060E, 102C			
Voltage	All Voltages Are 3 Phase Unless Otherwise Noted															
	208	230	460	575	208	230	460	575	208	230	460	575	208	230	460	575
<b>With Electric Reheat &amp; Humidifier (Infrared or Steam Generating) (Note: See Table 2 for units w/SCR reheats.<sup>2</sup>)</b>																
<b>Motor</b>	<b>.75 HP (.56 kW)</b>				<b>NA</b>				<b>.75 HP (.56 kW)</b>				<b>NA</b>			
FLA	42.4	40.7	20.5	17.7	NA	NA	NA	NA	41.8	37.9	19.2	17.7	NA	NA	NA	NA
WSA	52.3	50.1	25.2	22.1	NA	NA	NA	NA	52.3	47.4	24.0	22.1	NA	NA	NA	NA
OPD	50	50	25	20	NA	NA	NA	NA	60	50	25	25	NA	NA	NA	NA
<b>Motor</b>	<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>				<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>			
FLA	43.5	41.7	21.0	18.1	69.8	66.6	33.1	25.2	42.9	38.9	19.7	18.1	62.4	57.0	28.9	25.2
WSA	53.6	51.1	25.7	22.6	85.4	81.6	40.5	31.5	53.6	48.6	24.6	22.6	78.0	71.3	36.1	31.5
OPD	60	50	25	20	90	90	45	30	60	50	25	25	80	80	40	35
<b>Motor</b>	<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>				<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>			
FLA	45.5	43.5	21.9	18.8	72.9	69.4	34.5	26.4	44.9	40.7	20.6	18.8	65.5	59.8	30.3	26.4
WSA	56.1	52.9	26.6	23.5	88.5	84.4	41.9	33.0	56.1	50.9	25.8	23.5	81.9	74.8	37.9	33.0
OPD	60	60	30	20	90	90	45	35	60	60	30	25	90	80	40	35
<b>Humidifier Only (Infrared or Steam Generating)</b>																
<b>Motor</b>	<b>.75 HP (.56 kW)</b>				<b>NA</b>				<b>.75 HP (.56 kW)</b>				<b>NA</b>			
FLA	30.7	28.2	14.5	14.1	NA	NA	NA	NA	16.8	14.3	7.4	8.7	NA	NA	NA	NA
WSA	34.2	31.7	16.3	15.5	NA	NA	NA	NA	21.0	17.9	9.3	10.9	NA	NA	NA	NA
OPD	45	45	20	20	NA	NA	NA	NA	20	15	15	15	NA	NA	NA	NA
<b>Motor</b>	<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>				<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>			
FLA	31.8	29.2	15.0	14.5	41.5	38.6	19.2	17.5	17.9	15.3	7.9	9.1	20.8	17.9	9.2	10.1
WSA	35.3	32.7	16.8	15.9	46.7	43.8	21.7	19.4	22.4	19.1	9.9	11.4	26.0	22.4	11.5	12.6
OPD	45	45	20	20	60	60	30	25	20	20	15	15	30	25	15	15
<b>Motor</b>	<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>				<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>			
FLA	33.8	31.0	15.9	15.2	44.6	41.4	20.6	18.7	19.9	17.1	8.8	9.8	23.9	20.7	10.6	11.3
WSA	37.3	34.5	17.7	16.6	49.8	46.6	23.1	20.6	24.9	21.4	11.0	12.3	29.9	25.9	13.3	14.1
OPD	50	45	20	20	70	60	30	25	25	20	15	15	35	30	15	15
<b>Electric Reheat Only (Note: See Table 2 for Self-contained units w/SCR reheats.<sup>2</sup>)</b>																
<b>Motor</b>	<b>.75 HP (.56 kW)</b>				<b>NA</b>				<b>.75 HP (.56 kW)</b>				<b>NA</b>			
FLA	42.4	40.7	20.5	15.7	NA	NA	NA	NA	28.5	26.8	13.4	10.3	NA	NA	NA	NA
WSA	52.1	50.1	25.2	19.3	NA	NA	NA	NA	35.6	33.5	16.8	12.9	NA	NA	NA	NA
OPD	50	50	25	20	NA	NA	NA	NA	40	35	20	15	NA	NA	NA	NA
<b>Motor</b>	<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>				<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>			
FLA	43.5	41.7	21.0	16.1	69.8	66.6	33.1	25.2	29.6	27.8	13.9	10.7	49.1	45.9	23.1	17.8
WSA	53.2	51.1	25.7	19.7	85.4	81.6	40.5	30.8	37.0	34.8	17.4	13.4	61.4	57.4	28.9	22.3
OPD	60	50	25	20	90	90	45	30	40	35	20	15	70	60	30	25
<b>Motor</b>	<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>				<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>			
FLA	45.5	43.5	21.9	16.8	72.9	69.4	34.5	26.4	31.6	29.6	14.8	11.4	52.2	48.7	24.5	19.0
WSA	55.2	52.9	26.6	20.4	88.5	84.4	41.9	32.0	39.5	37.0	18.5	14.3	65.3	60.9	30.6	23.8
OPD	60	60	30	20	90	90	45	35	35	35	15	15	60	70	35	20
<b>Without Electric Reheat &amp; Humidifier</b>																
<b>Motor</b>	<b>.75 HP (.56 kW)</b>				<b>NA</b>				<b>.75 HP (.56 kW)</b>				<b>NA</b>			
FLA	17.4	17.1	8.7	6.7	NA	NA	NA	NA	3.5	3.2	1.6	1.3	NA	NA	NA	NA
WSA	20.9	20.6	10.5	8.1	NA	NA	NA	NA	4.4	4.0	2.0	1.6	NA	NA	NA	NA
OPD	30	30	15	15	NA	NA	NA	NA	15	15	15	15	NA	NA	NA	NA
<b>Motor</b>	<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>				<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>			
FLA	18.5	18.1	9.2	7.1	28.2	27.5	13.4	10.1	4.6	4.2	2.1	1.7	7.5	6.8	3.4	2.7
WSA	22.0	21.6	11.0	8.5	33.4	32.7	15.9	12.0	5.8	5.3	2.6	2.1	9.4	8.5	4.3	3.4
OPD	35	30	15	15	50	50	25	15	15	15	15	15	15	15	15	15
<b>Motor</b>	<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>				<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>			
FLA	20.5	19.9	10.1	7.8	31.3	30.3	14.8	11.3	6.6	6.0	3.0	2.4	10.6	9.6	4.8	3.9
WSA	24.0	23.4	11.9	9.2	36.5	35.5	17.3	13.2	8.3	7.5	3.8	3.0	13.3	12.0	6.0	4.9
OPD	35	35	15	15	50	50	25	20	15	15	15	15	20	20	15	15

1. Contact factory for 380-3-60 data.

2. For Split System Evaporators with SCR reheat, use the values above.

The above values were calculated per UL Standard 1995.

FLA= Full Load Amps (Input Amps); WSA= Wire Size Amps (Minimum Supply Circuit Ampacity); OPD= Maximum Overcurrent Protective Device Size RLA= Rated Load Amps; LRA= Locked Rotor Amps

\* F= Downflow; U= Upflow; E= Downflow with Econ-O-Coil; K= Upflow with Econ-O-Coil



**Table 2 Self-contained with SCR reheat \***

Model	3 Ton				5 Ton			
Voltage (3, 60 Hz)	208	230	460	575	208	230	460	575
<b>Electric Reheat &amp; Humidifier (Infrared or Steam Generating)</b>								
<b>Motor</b>	<b>.75 HP (.56 kW)</b>				<b>NA</b>			
FLA	55.7	51.8	26.3	N/A	NA	NA	NA	NA
WSA	65.4	61.2	31.0	N/A	NA	NA	NA	NA
OPD	70	60	35	N/A	NA	NA	NA	NA
<b>Motor</b>	<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>			
FLA	56.8	52.8	26.8	N/A	83.1	77.7	38.9	NA
WSA	66.5	62.2	31.5	N/A	98.7	92.7	46.3	NA
OPD	70	70	35	N/A	100	100	50	NA
<b>Motor</b>	<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>			
FLA	58.8	54.6	27.7	N/A	86.2	80.5	40.3	NA
WSA	68.5	64.0	32.4	N/A	101.8	95.5	47.7	NA
OPD	70	70	35	N/A	110	100	50	NA
<b>Electric Reheat Only</b>								
<b>Motor</b>	<b>.75 HP (.56 kW)</b>				<b>NA</b>			
FLA	42.4	40.7	20.5	N/A	NA	NA	NA	NA
WSA	52.1	50.1	25.2	N/A	NA	NA	NA	NA
OPD	50	50	25	N/A	NA	NA	NA	NA
<b>Motor</b>	<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>			
FLA	43.5	41.7	21.0	N/A	69.8	66.6	33.1	NA
WSA	53.2	51.1	25.7	N/A	85.4	81.6	40.5	NA
OPD	60	50	25	N/A	90	90	45	NA
<b>Motor</b>	<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>			
FLA	45.5	43.5	21.9	N/A	72.9	69.4	34.5	NA
WSA	55.2	52.9	26.6	N/A	88.5	84.4	41.9	NA
OPD	60	60	30	N/A	90	90	45	NA

Compressor is locked on. Heater is same size as standard.

\* Contact factory for 380-3-60 data.

**Table 3 Scroll compressor and main fan (for comparison purposes only) \***

Model	3 Ton				5 Ton			
Voltage (3, 60 Hz)	208	230	460	575	208	230	460	575
<b>Scroll Compressor</b>								
RLA	13.9	13.9	7.1	5.4	20.7	20.7	10.0	7.4
LRA	88.0	88.0	44.0	34.0	137.0	137.0	63.0	53.0
<b>Main Fan</b>								
<b>Motor</b>	<b>.75 HP (.56 kW)</b>				<b>1.5 HP (1.1 kW)</b>			
RLA	3.5	3.2	1.6	1.3	6.6	6.0	3.0	2.4
LRA	27.6	25.0	12.5	10.0	44.0	40.0	20.0	16.0
<b>Motor</b>	<b>1.0 HP (.75 kW)</b>				<b>2.0 HP (1.5 kW)</b>			
RLA	4.6	4.2	2.1	1.7	7.5	6.8	3.4	2.7
LRA	33.0	30.0	15.0	12.0	55.0	50.0	25.0	20.0
<b>Motor</b>	<b>1.5 HP (1.1 kW)</b>				<b>3.0 HP (2.2 kW)</b>			
RLA	6.6	6.0	3.0	2.4	10.6	9.6	4.8	3.9
LRA	44.0	40.0	20.0	16.0	71.0	64.0	32.0	25.6

\* Contact factory for 380-3-60 data.

**Table 4 Outdoor condensing units**

<b>Electrical Data 60 Hz 95°F (35°C) Ambient</b>			
Voltage	Model	PFH042A_L	PFH067A-_L
208/230-3-60	FLA	15.3	24.1
	WSA	18.8	29.3
	OPD	30.0	45.0
380-3-60	FLA	N/A	12.4
	WSA	N/A	15.1
	OPD	N/A	25.0
460-3-60	FLA	7.1	11.7
	WSA	8.7	14.2
	OPD	15.0	20.0
575-3-60	FLA	6.6	9.1
	WSA	8.0	11.1
	OPD	15.0	15.0
<b>Electrical Data 60 Hz 105°F (40°C) Ambient</b>			
Voltage	Model	PFH042A-_H	PFH067A-_H
208/230-3-60	FLA	17.3	24.2
	WSA	20.8	29.4
	OPD	30.0	50.0
380-3-60	FLA	N/A	12.4
	WSA	N/A	15.1
	OPD	N/A	25.0
460-3-60	FLA	8.1	11.7
	WSA	9.7	14.2
	OPD	15.0	20.0

**Table 4 Outdoor condensing units (continued)**

<b>Electrical Data 60 Hz 95°F (35°C) Ambient</b>			
<b>Voltage</b>	<b>Model</b>	<b>PFH042A_L</b>	<b>PFH067A-_L</b>
575-3-60	FLA	6.6	9.3
	WSA	8.0	11.3
	OPD	15.0	15.0
<b>Electrical Data 60 Hz Quiet-Line 95°F (35°C)</b>			
<b>Voltage</b>	<b>Model</b>	<b>PFHZ42A-_L</b>	<b>PFHZ67A-_L</b>
208/230-3-60	FLA	14.8	21.1
	WSA	18.3	25.9
	OPD	30.0	45.0
380-3-60	FLA	N/A	12.5
	WSA	N/A	15.2
	OPD	N/A	25.0
460-3-60	FLA	6.9	10.9
	WSA	8.5	13.4
	OPD	15.0	20.0
575-3-60	FLA	5.9	8.8
	WSA	7.3	10.8
	OPD	15.0	15.0

**Table 5 Indoor condensing units, air-cooled \***

<b>Electrical Data 60 Hz 95°F (35°C) Ambient</b>			
<b>Voltage</b>	<b>Model</b>	<b>MC_40A</b>	<b>MC_65A</b>
208/230-3-60	FLA	20.5	26.5
	WSA	24.0	31.7
	OPD	35.0	50.0
460-3-60	FLA	9.7	12.9
	WSA	11.3	15.4
	OPD	15.0	25.0
575-3-60	FLA	N/A	9.7
	WSA	N/A	11.6
	OPD	N/A	15.0

\* Contact factory for 380-3-60 data.



**Table 6 Indoor condensing units, water-cooled \***

Voltage	Model	MC_44W	MC_69W
208/230-3-60	FLA	13.9	20.7
	WSA	17.4	25.9
	OPD	30.0	45.0
460-3-60	FLA	6.4	10.0
	WSA	8.0	12.5
	OPD	15.0	20.0
575-3-60	FLA	n/a	7.4
	WSA	n/a	9.3
	OPD	n/a	15.0

\* Contact factory for 380-3-60 data.

**Table 7 Fan speed control condensers \***

95°F (35°C) Ambient (1 Phase - 60 Hz)				
CSF083/CSF104				
Voltage	208	230	460	575
FLA	4.8	4.8	2.5	1.9
WSA	6.0	6.0	3.1	2.4
OPD	15.0	15.0	15.0	15.0

\* Contact factory for 380-3-60 data.

**Table 8 Liebert Lee-Temp condensers \***

95°F (35°C) Ambient (3 Phase - 60 Hz)				
CSL083/CSL104				
Voltage	208	230	460	575
FLA	4.8	4.8	2.5	1.4
WSA	6.0	6.0	3.1	1.8
OPD	15.0	15.0	15.0	15.0

\* Contact factory for 380-3-60 data.

**Table 9 Liebert Lee-Temp receiver heater pads for use w/CSL condensers**

<b>Volts</b>	120	230
<b>Watts/Pad</b>	150	150
<b>FLA</b>	1.25	0.65
<b>WSA</b>	1.6	0.8
<b>OPD</b>	15	15

Separate electrical source required for continuous operation of single phase heater pads for Liebert Lee-Temp.

**Table 10 Drycooler & pump package - 95°F (35°C) ambient \***

Tonnage	3 Ton			5 Ton		
	208/230	460	575	208/230	460	575
<b>Glycol</b>	<b>Drycooler &amp; Pump</b>					
DSF Model	092	092	092	109	109	109
Pump Hp	3/4	3/4	3/4	3/4	3/4	3/4
FLA	7.0	3.3	2.7	7.0	3.3	2.7
WSA	7.9	3.7	3.1	7.9	3.7	3.1
OPD	15	15.0	15.0	15	15.0	15.0
<b>GLYCOOL</b>	<b>Drycooler &amp; Pump</b>					
DSO Model	-	-	-	109	109	109
Pump Hp	-	-	-	1-1/2	1-1/2	1-1/2
FLA	-	-	-	10.1	4.7	3.8
WSA	-	-	-	11.8	5.5	4.4
OPD	-	-	-	15	15	15

1. Pump and drycooler powered from same 3 phase feeder.

\* Contact factory for 380-3-60 data.

**Table 11 Drycooler only - 95°F (35°C) ambient \***

Tonnage	3 Ton			5 Ton		
	208/230	460	575	208/230	460	575
<b>Glycol</b>	<b>Drycooler</b>					
DSF Model	092	092	092	109	109	109
FLA	4.8	2.4	1.9	4.8	2.4	1.9
<b>GLYCOOL</b>	<b>Drycooler</b>					
DSO Model	-	-	-	109	109	109
FLA	-	-	-	4.0	2.0	1.4

\* Contact factory for 380-3-60 data.

**Table 12 Pumps \***

HP	Voltage (3 Phase - 60 Hz)				
		208	230	460	575
3/4	FLA	3.5	3.2	1.6	1.3
1-1/2	FLA	6.6	6	3	2.4
2	FLA	7.5	6.8	3.4	2.7

\* Contact factory for 380-3-60 data.

## 2.0 ELECTRICAL DATA—50 Hz

**Table 13 Liebert Challenger, 407C models, electrical data—50 Hz**

Model Type	Self-Contained						Split System Evaporator or Chilled Water					
	3 Ton B*040A, 045WG			5 Ton B*065A, 070WG, 058G			3 Ton B*035E, 072C			5 Ton B*059E, 101C		
	3 Phase, 50 Hz											
Voltage	200	230	380/415	200	230	380/415	200	230	380/415	200	230	380/415
<b>With Electric Reheat &amp; Humidifier (Infrared or Steam Generating) (Note: See Table 14 for units w/SCR reheats.<sup>1</sup>)</b>												
<b>Motor</b>	<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>			<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>		
FLA	44.2	43.3	22.3	67.9	66.1	35.3	40.6	38.0	21.3	60.0	56.5	31.7
<b>Motor</b>	<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>			<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>		
FLA	47.0	45.7	23.7	70.5	68.3	36.6	43.4	40.4	22.7	62.6	58.7	33.0
<b>Humidifier Only (Infrared or Steam Generating)</b>												
<b>Motor</b>	<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>			<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>		
FLA	33.0	30.8	15.7	40.7	38.1	20.0	16.6	14.4	8.3	20.0	17.4	10.0
<b>Motor</b>	<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>			<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>		
FLA	35.8	33.2	17.1	43.3	40.3	21.3	19.4	16.8	9.7	22.6	19.6	11.3
<b>Electric Reheat Only (Note: See Table 14 for units w/SCR reheats.<sup>1</sup>)</b>												
<b>Motor</b>	<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>			<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>		
FLA	44.2	43.3	22.3	67.9	66.1	35.3	27.8	26.9	14.9	47.2	45.4	25.3
<b>Motor</b>	<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>			<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>		
FLA	47.0	45.7	23.7	70.5	68.3	36.6	30.6	29.3	16.3	49.8	47.6	26.6
<b>Without Electric Reheat &amp; Humidifier</b>												
<b>Motor</b>	<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>			<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>		
FLA	20.2	19.7	9.3	27.9	27.0	13.6	3.8	3.3	1.9	7.2	6.3	3.6
<b>Motor</b>	<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>			<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>		
FLA	23.0	22.1	10.7	30.5	29.2	14.9	6.6	5.7	3.3	9.8	8.5	4.9

1. For Split System Evaporators with SCR reheat, use the values above.

FLA = Full Load Amps (Input Amps)

RLA = Rated Load Amps

LRA = Locked Rotor Amps

\* F = Downflow

U = Upflow

E = Downflow with Econ-O-Coil

K = Upflow with Econ-O-Coil

**Table 14 Self-contained with SCR reheat**

Model	3 Ton			5 Ton		
Voltage (3, 50 Hz)	200	230	380/415	200	230	380/415
<b>Electric Reheat &amp; Humidifier (Infrared or Steam Generating)</b>						
<b>Motor</b>	<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>		
FLA	57.0	54.4	28.7	80.7	77.2	41.7
<b>Motor</b>	<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>		
FLA	59.8	56.8	30.1	83.3	79.4	43.0
<b>Electric Reheat Only</b>						
<b>Motor</b>	<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>		
FLA	42.7	41.8	23.1	67.7	65.9	35.2
<b>Motor</b>	<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>		
FLA	44.3	43.2	23.9	70.8	68.6	36.8

Compressor is locked on. Heater is same size as standard.

**Table 15 Scroll compressor and main fan (for comparison purposes only)**

Model	3 Ton			5 Ton		
Voltage (3, 50 Hz)	200	230	380/415	200	230	380/415
<b>Scroll Compressor</b>						
RLA	16.4	16.4	7.4	20.7	20.7	10.0
LRA	125.0	125.0	51.5	156.0	172.0	74.0
<b>Main Fan</b>						
<b>Motor</b>	<b>.75 kW (1.0 HP)</b>			<b>1.5 kW (2.0 HP)</b>		
RLA	3.8	3.3	1.9	7.2	6.3	3.6
LRA	22.7	19.7	11.8	56.4	49.0	28.2
<b>Motor</b>	<b>1.1 kW (1.5 HP)</b>			<b>2.2 kW (3.0 HP)</b>		
RLA	6.6	5.7	3.3	9.8	8.5	4.9
LRA	48.0	41.7	24.0	58.4	50.8	29.2

**Table 16 Outdoor condensing units**

<b>Electrical Data 50 Hz 35°C (95°F) Ambient</b>			
Voltage	Model	PFH041A-_L	PFH066A-_L
200/230-3-50	FLA	17.7	24.1
380/415-3-50	FLA	8.5	13.2
<b>Electrical Data 50 Hz 40°C (105°F) Ambient</b>			
Voltage	Model	PFH041A-_H	PFH066A-_H
200/230-3-50	FLA	19.8	24.2
380/415-3-50	FLA	9.6	13.2
<b>Electrical Data 50 Hz Quiet-Line 35°C (95°F)</b>			
Voltage	Model	PFHZ41A-_L	PFHZ66A-_L
200/230-3-50	FLA	17.3	22.5
380/415-3-50	FLA	8.4	12.4

**Table 17 Indoor condensing units air-cooled**

Electrical Data 50 Hz 35°C (95°F) Ambient			
Voltage	Model	MC_39A	MC_64A
380/415-3-50	FLA	10.4	13.7

1. Consult factory for 200/230 volts.

**Table 18 Indoor condensing units water-cooled**

Voltage	Model	MC_43W	MC_68W
380/415-3-50	FLA	7.5	10.0

1. Consult factory for 200/230 volts.

**Table 19 Fan speed control condensers**

35°C (95°F) Ambient (1 Phase - 50 Hz)			
CSF083/CSF104			
Voltage	200	230	380/415
FLA	4.0	4.0	2.0

**Table 20 Liebert Lee-Temp condensers**

35°C (95°F) Ambient (3 Phase - 50 Hz)			
CSL083/CSF104			
Voltage	200	230	380/415
FLA	4.0	4.0	1.8

**Table 21 Liebert Lee-Temp receiver heater pads; for use w/CSL condensers**

<b>Volts</b>	230
<b>Watts/Pad</b>	150
<b>Amps</b>	0.68

Separate electrical source required for continuous operation of single phase heater pads for Liebert Lee-Temp.

**Table 22 Drycooler & pump package - 35°C (95°F) ambient**

Tonnage	3 Ton			5 Ton		
	200	230	380/415	200	230	380/415
<b>Glycol</b>	<b>Drycooler &amp; Pump</b>					
DSF Model	092	092	092	109	109	109
Pump Hp	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2
FLA	9.6	9.6	4.6	9.6	9.6	4.6
<b>GLYCOOL</b>	<b>Drycooler &amp; Pump</b>					
DSO Model	-	-	-	109	109	109
Pump Hp	-	-	-	1-1/2	1-1/2	1-1/2
FLA	-	-	-	9.6	9.6	4.6

1. Pump and drycooler powered from same 3 phase feeder.

**Table 23 Drycooler only - 35°C (95°F) ambient**

Tonnage	3 Ton			5 Ton		
	200	230	380/415	200	230	380/415
<b>Glycol</b>	<b>Drycooler &amp; Pump</b>					
DSF Model	092	092	092	109	109	109
FLA	4.0	4.0	1.8	4.0	4.0	1.8
<b>GLYCOOL</b>	<b>Drycooler &amp; Pump</b>					
DSO Model	-	-	-	109	109	109
FLA	-	-	-	4.0	4.0	1.8

1. Drycooler powered from same 3 phase feeder as pumps.

**Table 24 Pumps**

HP	Voltage (3 Phase - 50 Hz)			
		200	230	380/415
1-1/2	FLA	5.6	5.6	2.8
2	FLA	7.2	6.3	3.6

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