

BRAZED PLATE HEAT EXCHANGER SELECTION



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Radiant floor

| | | |
|-----------|---------------------|---------------|
| Hot side | Boiler water | 180°F ⇄ 160°F |
| Cold side | Radiant floor water | 100°F ⇄ 120°F |

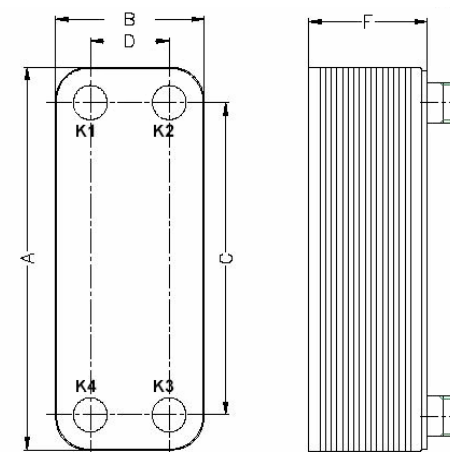
Pressure Drop of 20ft of Water or less

LC110Y models have significantly lower pressure drops than LC110X models

| GPM | | Model | | | | BTU/h |
|------------------------|-----------|-----------|-----------|--------------|--------------|-----------|
| Hot side | Cold side | LA14 | LB31 | LC110-X | LC110-Y | |
| 2.6 | 2.5 | LA14-10 | LB31 - 10 | LC110 - 10X | LC110 - 20Y | 25,000 |
| 4.1 | 4.0 | LA14-10 | LB31 - 10 | LC110 - 10X | LC110 - 20Y | 40,000 |
| 5.2 | 5.1 | LA14-20 | LB31 - 10 | LC110 - 20X | LC110 - 20Y | 50,000 |
| 6.2 | 6.1 | LA14-20 | LB31 - 10 | LC110 - 20X | LC110 - 30Y | 60,000 |
| 7.7 | 7.6 | LA14-20 | LB31 - 20 | LC110 - 20X | LC110 - 30Y | 75,000 |
| 9.3 | 9.1 | LA14-30 | LB31 - 20 | LC110 - 30X | LC110 - 30Y | 90,000 |
| 10.3 | 10.1 | LA14-30 | LB31 - 20 | LC110 - 30X | LC110 - 40Y | 100,000 |
| 12.9 | 12.6 | LA14-30 | LB31 - 20 | LC110 - 30X | LC110 - 40Y | 125,000 |
| 14.4 | 14.1 | LA14-40 | LB31 - 30 | LC110 - 40X | LC110 - 40Y | 140,000 |
| 15.5 | 15.1 | LA14-40 | LB31 - 30 | LC110 - 40X | LC110 - 50Y | 150,000 |
| 18.0 | 17.7 | LA14-50 | LB31 - 30 | LC110 - 50X | LC110 - 50Y | 175,000 |
| 20.6 | 20.2 | LA14-50 | LB31 - 40 | LC110 - 50X | LC110 - 60Y | 200,000 |
| 25.8 | 25.2 | LA14-50 | LB31 - 50 | LC110 - 50X | LC110 - 60Y | 250,000 |
| 30.9 | 30.3 | - | LB31 - 60 | LC110 - 60X | LC110 - 70Y | 300,000 |
| 36.1 | 35.3 | - | LB31 - 70 | LC110 - 60X | LC110 - 70Y | 350,000 |
| 41.2 | 40.4 | - | LB31 - 80 | LC110 - 70X | LC110 - 80Y | 400,000 |
| 46.4 | 45.4 | - | - | LC110 - 80X | LC110 - 80Y | 450,000 |
| 51.5 | 50.5 | - | - | LC110 - 80X | LC110 - 90Y | 500,000 |
| 56.7 | 55.5 | - | - | LC110 - 80X | LC110 - 90Y | 550,000 |
| 61.8 | 60.6 | - | - | LC110 - 90X | LC110 - 100Y | 600,000 |
| 67.0 | 65.6 | - | - | LC110 - 100X | LC110 - 110Y | 650,000 |
| 72.1 | 70.7 | - | - | LC110 - 110X | LC110 - 120Y | 700,000 |
| 77.3 | 75.7 | - | - | LC110 - 120X | LC110 - 130Y | 750,000 |
| 82.4 | 80.8 | - | - | LC110 - 130X | LC110 - 140Y | 800,000 |
| 92.7 | 90.9 | - | - | LC110 - 130X | LC110 - 140Y | 900,000 |
| 103.0 | 101.0 | - | - | LC110 - 140X | LC110 - 150Y | 1,000,000 |
| Connections NPT | | ¾" | 1" | 1½" | 2½" | |
| Size | | 3" x 7.5" | 5" x 12" | 10" x 21" | | |

Default Nozzle Placement

- K1 – Hot Side INLET
- K2 – Cold Side OUTLET
- K3 – Cold Side INLET
- K4 – Hot Side OUTLET



| Heat Exchanger Type | Dimensions (in) | | | | | Plate Area (sq.ft.) |
|---------------------|-----------------|-----|------|-----|--------------|---------------------|
| | A | B | C | D | F | |
| LA14 | 7.6 | 3.1 | 6.1 | 1.6 | 0.39+0.009NP | 0.13 |
| LB31 | 12.0 | 5.0 | 9.8 | 2.8 | 0.49+0.09NP | 0.34 |
| LC110X | 20.9 | 9.8 | 17.9 | 6.9 | 0.51+0.09NP | 1.22 |
| LC110Y | 20.6 | 9.5 | 16.9 | 5.8 | 0.53+0.11NP | 1.12 |

NP = number of plates

Standard Construction:

Plates & Connections: AISI 316
Brazing Material: Copper (Optional-Nickel)
Single Wall Plates (Optional-Double Wall)

Design Parameters:

Working Pressure up to 481 PSI
Working Temperature up to 445° F

All charts are to be used for reference only. For any sizing information contact your AIC Sales Rep at 905-829-4666