

**embraco**

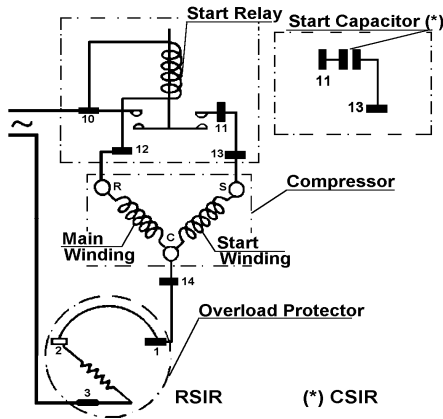
**FF8.5HBK**

LBP/MBP/HBP

**115 V**

**134a**

**Wiring Diagram**



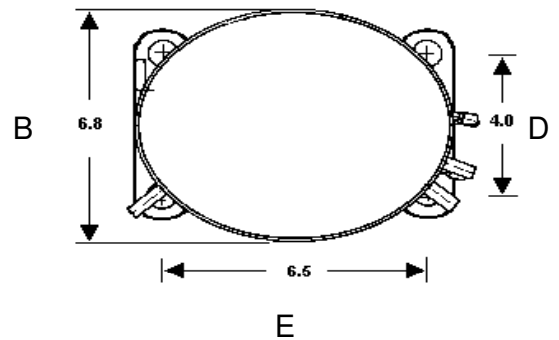
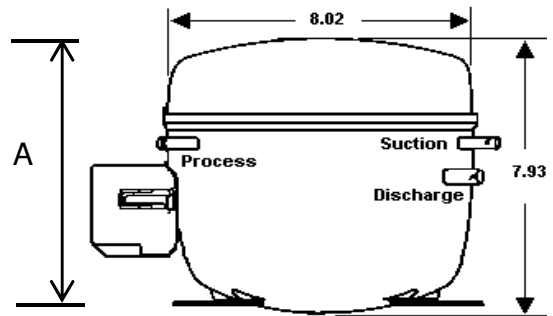
**Compressor Terminals**

- C = Common
- R = Run
- S = Start

Electrical components are supplied unassembled. Use of components other than specified will void warranty.

**Dimensions (inches)**

A:7.93" B: 6.8" C: 8.02" D: 4.0" E: 6.5"




**Tube Diameter**

| ID        | Inch | MM  |
|-----------|------|-----|
| process   | .255 | 6.5 |
| suction   | .325 | 8.3 |
| discharge | .255 | 6.5 |

**Technical Specifications**

Rev 04-2013

| Mechanical Data   | English    | Metric    | Electrical Data   |              |
|---|------------|-----------|---|--------------|
| Bore  | 0.886 in   | 22.5 mm   | <b>motor:</b><br>2 pole - 1 phase                               | RSIR/CSIR    |
| Stroke  | 0.787 in   | 20 mm     | voltage   | 115v / 60 Hz |
| Displacement  | 0.48 cu in | 7.95 cc   | voltage range   | 103-135v     |
| Speed   | 3,500 rpm  | 3,500 rpm | run winding resistance at 25° C                                 | 1.73 Ω       |
| Weight  | 23.81 lb   | 10.8 kg   | start winding resistance at 25° C                               | 8.96 Ω       |
| Oil Charge  | 9.47 oz.   | 280 ml    | locked rotor current  | 34.5 amps    |
| <b>Compressor Cooling:</b><br>Static.<br>Fan Cooled by forced draft over shell with 6 watt minimum fan. |            |           |   |              |
| <b>Restrictor:</b><br>Capillary Tube  |            |           | <b>Capacitor:</b><br>Start cap                      270-324 mfd | 180V         |
|   |            |           | Run cap   | N/A          |

|   |                 |             |                        |             |
|---|-----------------|-------------|------------------------|-------------|
|  | <b>FF8.5HBK</b> | LBP/MBP/HBP | <b>115 V</b>           | <b>134a</b> |
| <b>Specifications</b>   |                 |             | <b>Usage</b>           |             |
| Approximate H. P.   | 1/4             |             | Drinking Water Coolers |             |
| Starting Torque   | Normal          |             | Dehumidifiers          |             |
| Refrigerant   | 134a            |             | Ice Machines           |             |
| Evaporator Temperature  | Low/Med/High    |             | Reach In Refrigerators |             |
| Evaporator Temperature  | -31° to 59°F    |             | Beer Coolers           |             |

| <b>LBP Performance</b>  |               |  |                   |               |       |
|-------------------------|---------------|--|-------------------|---------------|-------|
| <b>Temperature °F</b>   | -22           | <b>-10</b>                             | 5                 | 14            | 32    |
| <b>Capacity BTU/Hr</b>  | 496           | <b>740</b>                             | 1,160             | 1,488         | 2,343 |
| <b>Power W</b>          | 160           | <b>198</b>                             | 250               | 284           | 356   |
| <b>Current Amps</b>     | 2.72          | <b>2.88</b>                            | 3.17              | 3.39          | 3.92  |
| <b>Temperature °C</b>   | -30           | <b>-23.3</b>                           | -15               | -10           | 0     |
| <b>Capacity Kcal/Hr</b> | 125           | <b>186</b>                             | 292               | 375           | 590   |
| <b>HBP Performance</b>  |               |  |                   |               |       |
| <b>Temperature °F</b>   | 14            | 23                                     | 32                | <b>45</b>     | 50    |
| <b>Capacity BTU/Hr</b>  | 1,488         | 1,880                                  | 2,343             | <b>3,135</b>  | 3,508 |
| <b>Power W</b>          | 284           | 319                                    | 356               | <b>407</b>    | 431   |
| <b>Current Amps</b>     | 3.39          | 3.65                                   | 3.92              | <b>4.4</b>    | 4.53  |
| <b>Temperature °C</b>   | -10           | -5                                     | 0                 | <b>7.2</b>    | 10    |
| <b>Capacity Kcal/Hr</b> | 375           | 474                                    | 590               | <b>790</b>    | 884   |
| <b>LBP Rating</b>       | <b>ASHRAE</b> | <b>Rating Point<br/>(bolded above)</b> | <b>HBP Rating</b> | <b>ASHRAE</b> |       |
| Condensing              | 130°F         |  | Condensing        | 130°F         |       |
| Evaporator              | -10°F         |  | Evaporator        | 45°F          |       |
| Return Gas              | 90°F          |  | Return Gas        | 95°F          |       |
| Ambient                 | 90°F          |  | Ambient           | 95°F          |       |
| Liquid Temp.            | 90°F          |  | Liquid Temp.      | 115°F         |       |

| <b>Material</b>                              | <b>Part number</b> | <b>Description</b>           | <b>Compressor Cross Ref.</b> |          |
|--|--------------------|------------------------------|------------------------------|----------|
| Compressor                                   | 513200156          | FF8.5HBK                     | Model                        | Appl.    |
| Relay  | 513506244          | For use on RSIR applications | AEA3430YXA                   | HBP, LST |
| Relay  | 513506252          | For use on CSIR applications | AEA4430YXA                   | HBP, HST |
| *Overload                                    | 13554000           | MST 30AIN-5590               |                              |          |
| **Start Cap                                  | 513556529          | 270-324 mfd / 180V           |                              |          |
| Grommet                                      | 2221003            |                              |                              |          |
| Sleeve                                       | 2222015            |                              |                              |          |
| *Included in relay kit                       |                    |                              |                              |          |
| **Start cap optional, must use correct relay |                    |                              |                              |          |

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