



Model: EMT43HLP  
Code: 192DA47

**embraco** POWER IN.  
CHANGE ON

|                                       |                     |
|---------------------------------------|---------------------|
| Type:                                 | On-off              |
| Voltage [V] / Frequency [Hz] / Phases | 220-240 V 50 Hz 1 ~ |
| Refrigerant:                          | R-134a              |
| Application:                          | LBP                 |

|                  |                      |
|------------------|----------------------|
| Motor type:      | RSIR                 |
| Starting torque: | LST                  |
| HP:              |                      |
| Displacement:    | 4.85 cm <sup>3</sup> |

### OPERATING CONDITION : ASHRAE LBP 32

|                   |          |              |         |              |        |
|-------------------|----------|--------------|---------|--------------|--------|
| Evaporation Temp. | -23.3 °C | Return Temp. | 32.2 °C | Superheating | 55.5 K |
| Condensing Temp.  | 54.4 °C  | Liquid Temp. | 32.2 °C | Subcooling   | 22.2 K |

|                         |                          |                       |                   |
|-------------------------|--------------------------|-----------------------|-------------------|
| <b>Cooling capacity</b> | <b>Power consumption</b> | <b>Mass flow rate</b> | <b>Efficiency</b> |
| 129.19 W                | 100.53 W                 | 2.51 kg/h             | 1.29 W/W          |

### APPLICATION

|                                          |                |                            |        |
|------------------------------------------|----------------|----------------------------|--------|
| Evaporating temperature range:           | -35 to -10 °C  | Cooling type:              | Static |
| Permanent operating temperature (peak) : | 60 (70) °C     | Air Flow                   | --     |
| Expansion device:                        | Capillary tube | Maximum motor temperature: | 130 °C |

### ELECTRICAL DATA

|                                                   |               |                                                 |               |
|---------------------------------------------------|---------------|-------------------------------------------------|---------------|
| Start winding resistance at 25°C (77°F):          | 23.7 Ω +/- 8% | Run winding resistance at 25°C (77°F):          | 22.3 Ω +/- 8% |
| FLA - full load amperage L/MBP [A] 50 Hz / 60 Hz: | - / -         | LRA (A) 50 Hz / 60 Hz:                          | - / -         |
|                                                   |               | FLA - full load amperage HBP [A] 50 Hz / 60 Hz: | - / -         |

### MECHANICAL DATA

|       |       |               |                      |
|-------|-------|---------------|----------------------|
| Bore: | 21 mm | Stroke:       | 7 mm                 |
|       |       | Displacement: | 4.85 cm <sup>3</sup> |

### OTHER INFORMATION

|                 |                   |                  |        |
|-----------------|-------------------|------------------|--------|
| Weight:         | 7.52 kg           | Oil charge:      | 180 ml |
| Lubricant type: | Polyolester ISO22 | Nitrogen charge: | No     |

### EXTERNAL SETTINGS

|                     | Shape                          | Material     | Diameter [mm] |
|---------------------|--------------------------------|--------------|---------------|
| -                   |                                |              |               |
| Suction connector   | Slanted 42°                    | Copper       | 6.10          |
| Discharge connector | Slanted parallel to Base Plate | Copper       | 4.94          |
| Process connector   | Slanted 42°                    | Copper       | 6.10          |
| Base plate:         | European Standard              | Tray holder: | Yes           |

### PERFORMANCES AT STANDARD CHECK-POINTS

| Checkpoint    | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|---------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|               | +/-5%<br>W       | +/-5%<br>W        | +/-5%<br>kg/h | +/- 7%<br>W/W      | 5% *<br>W            | +/- 7%<br>W/W      |
| ARI LBP       | 111.20           | 100.15            | 2.92          | 1.11               | 157.85               | 1.58               |
| ASHRAE LBP 32 | 129.19           | 100.53            | 2.51          | 1.29               | 176.47               | 1.76               |
| CECOMAF LBP   | 93.81            | 95.57             | 2.24          | 0.98               | 137.75               | 1.44               |
| EN12900 LBP** | 64.77            | 72.01             | 1.33          | 0.90               | 92.49                | 1.28               |
| EN12900 MBP** | 247.60           | 134.76            | 5.41          | 1.84               | 314.19               | 2.33               |

\* Calculations performed considering isentropic compression and a housing loss of 10%. This is an estimated heat amount discarded in the discharge pipe and the condenser combined.

**CONDENSING TEMP. 35 °C****(SUBCOOLING : 22.2 K, RETURN TEMP.: 32 °C)**

| Evaporating temperature °C | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|----------------------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|                            | +/-5%            | +/-5%             | +/-5%         | +/- 7%             | 5% *                 | +/- 7%             |
|                            | W                | W                 | kg/h          | W/W                | W                    | W/W                |
| -35.00                     | 83.95            | 71.77             | 1.41          | 1.17               | 111.74               | 1.56               |
| -30.00                     | 116.72           | 81.12             | 1.97          | 1.44               | 151.24               | 1.86               |
| -25.00                     | 156.61           | 91.33             | 2.65          | 1.71               | 197.78               | 2.17               |
| -20.00                     | 204.31           | 101.92            | 3.46          | 2.00               | 251.75               | 2.47               |
| -15.00                     | 260.82           | 112.41            | 4.43          | 2.32               | 313.89               | 2.79               |
| -10.00                     | 327.36           | 122.30            | 5.58          | 2.68               | 385.18               | 3.15               |

**CONDENSING TEMP. 45 °C****(SUBCOOLING : 22.2 K, RETURN TEMP.: 32 °C)**

| Evaporating temperature °C | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|----------------------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|                            | +/-5%            | +/-5%             | +/-5%         | +/- 7%             | 5% *                 | +/- 7%             |
|                            | W                | W                 | kg/h          | W/W                | W                    | W/W                |
| -35.00                     | 69.69            | 72.05             | 1.26          | 0.97               | 97.17                | 1.35               |
| -30.00                     | 99.00            | 82.42             | 1.79          | 1.20               | 134.19               | 1.63               |
| -25.00                     | 136.02           | 94.49             | 2.46          | 1.44               | 179.46               | 1.90               |
| -20.00                     | 180.78           | 107.60            | 3.28          | 1.68               | 232.43               | 2.16               |
| -15.00                     | 233.93           | 121.19            | 4.25          | 1.93               | 293.38               | 2.42               |
| -10.00                     | 296.45           | 134.76            | 5.41          | 2.20               | 363.05               | 2.69               |

**CONDENSING TEMP. 55 °C****(SUBCOOLING : 22.2 K, RETURN TEMP.: 32 °C)**

| Evaporating temperature °C | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|----------------------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|                            | +/-5%            | +/-5%             | +/-5%         | +/- 7%             | 5% *                 | +/- 7%             |
|                            | W                | W                 | kg/h          | W/W                | W                    | W/W                |
| -35.00                     | 58.74            | 72.29             | 1.14          | 0.81               | 86.08                | 1.19               |
| -30.00                     | 81.96            | 82.37             | 1.59          | 1.00               | 116.61               | 1.42               |
| -25.00                     | 114.74           | 95.57             | 2.24          | 1.20               | 158.67               | 1.66               |
| -20.00                     | 155.85           | 110.81            | 3.05          | 1.41               | 209.74               | 1.89               |
| -15.00                     | 205.26           | 127.29            | 4.02          | 1.61               | 269.08               | 2.11               |
| -10.00                     | 263.55           | 144.37            | 5.18          | 1.83               | 336.90               | 2.33               |

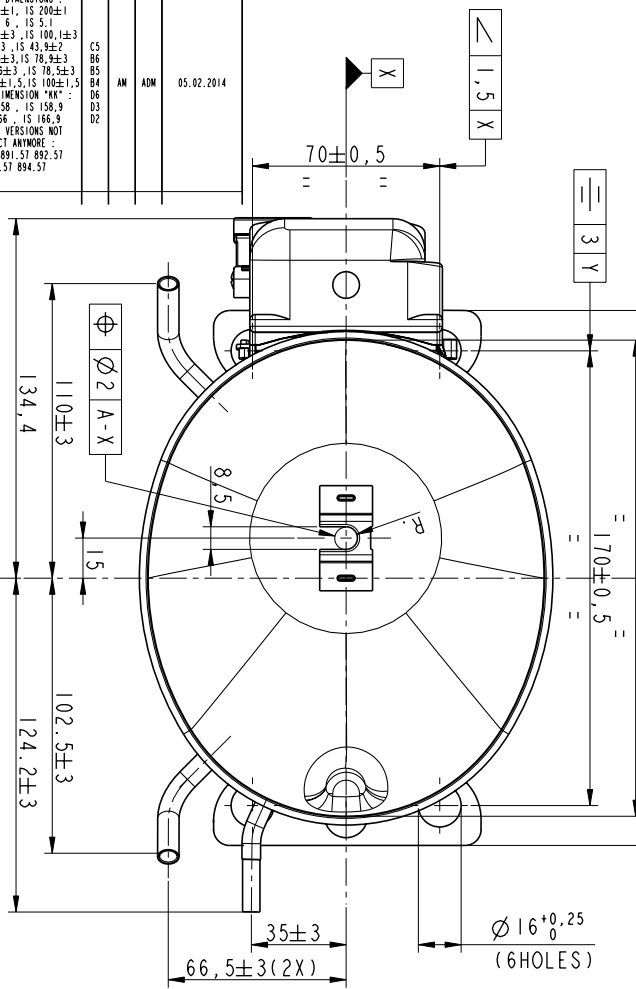
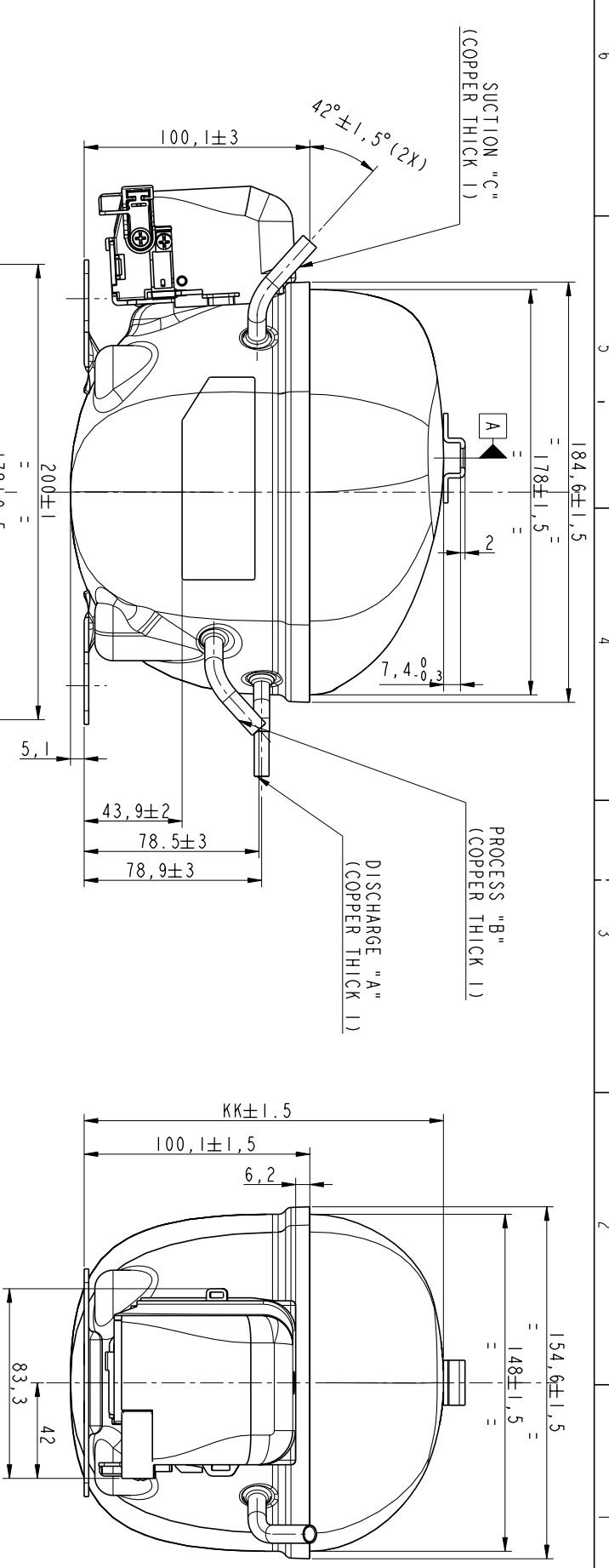
**ELECTRICAL ACCESSORIES**

|                            |      |
|----------------------------|------|
| <b>Kit:</b>                | 3    |
| <b>Starter device:</b>     | PTC  |
| <b>Engineering code:</b>   | V230 |
| <b>Run capacitor:</b>      | --   |
| <b>Starting capacitor:</b> | --   |

**Thermal protector:** T0225/G6**Institutes approved for this electric kit:**

If purchased without electricals consult Embraco to verify the supplier of electricals approved for this compressor

**MECHANICAL ACCESSORIES****Rubber damper:** Yes**Metal bushing:** Optional



| ECM    | REVISION | LO                                                                                                                                                                                                                                                                                                                                                                                          | BY | APP | DATE       |
|--------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|------------|
| 508261 | 1        | REVISTIONATO;<br>AGGIUNTI MODELLI<br>STANDARDIZZATI                                                                                                                                                                                                                                                                                                                                         | FB | ADM | 01.08.2006 |
| 32441  | 2        | CHANGED BASE PLATE.<br>CHANGED DIMENSIONS :<br>- WAS 204±1, IS 200±1<br>- WAS 6 - IS 5,1<br>- WAS 99,2±3, IS 100,1±3<br>- WAS 43, IS 43,9±2<br>- WAS 78±3, IS 78,9±3<br>- WAS 77,6±3, IS 78,5±3<br>- WAS 99,2±1,5, IS 100±1,5<br>CHANGED DIMENSION "KK"<br>- WAS 158 - IS 158,9<br>- WAS 166 - IS 166,9<br>DELETED VERSIONS NOT<br>PRODUCT ANYMORE<br>193.47.891.57.892.57<br>893.57.894.57 | AM | ADM | 05.02.2014 |

| CODE : | NAME :                                | GEN. TOL. : |
|--------|---------------------------------------|-------------|
| 158,9  | EMZ/X20CLC EMZ66CLC EMY46CLC EMT36HLP |             |
| 166,9  | EMZ/X26CLC EMZ70CLC EMY55CLP EMT43HLP |             |
| 166,9  | EMZ/X32CLC EMY20CLC EMY66CLP EMT49HLP |             |
| 166,9  | EMZ/X40CLC EMY26CLC EMT56CLP EMT45HDR |             |
| 166,9  | EMZ/X46CLC EMY32CLC EMT45CDP EMT50HDP |             |
| 166,9  | EMZ55CLC EMY40CLC EMU46CLC            |             |
| 166,9  | EMZ26CLP EMT30CDP EMT22HLP            |             |
| 166,9  | EMT32CLP EMU26CLC EMT22HHR            |             |
| 166,9  | EMT40CLP EMU32CLC EMT30HHR            |             |
| 166,9  | EMT46CLP EMU40CLC EMT37HDP            |             |



MATERIAL :  
 KK A B C MODELS  
 DRAWN : N. PREZIOSO 26.10.2004  
 APP. : A. DE MARTIIS 26.10.2004  
 ECM : 503342  
 NAME : VISTA ESTERNA EM REDESIGN / EMS  
 EXTERNAL VIEW EMS COMPRESSORS  
 191.47.192.47.194.47.193.67.194.67  
 893.77.896.77.897.77.898.77  
 1.960.873  
 GEN. TOL. :  
 ANG. TOL. :  
 SCALE : 1 : 2  
 REF. :  
 REPL. :  
 No. : 1.960.873

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