ADSORPTION CHILLER
ADC Series C-FRAME

FEATURE HIGHLIGHTS
* Ultra low electricity consumption
* Zero ozone depletion potential
* No dangerous chemicals
* Very few moving parts
* Ease of maintenance
* Advanced microprocessor control
* Designed for outdoor installation
* Wide temperature ranges allowed

<table>
<thead>
<tr>
<th>MODEL</th>
<th>C-40</th>
<th>C-30</th>
<th>C-20</th>
<th>C-10</th>
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</thead>
<tbody>
<tr>
<td>Rated Capacity (Tons)</td>
<td>41</td>
<td>30</td>
<td>20</td>
<td>10</td>
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</tbody>
</table>

**Chilled Water**
- Inlet Temperature (°C): 12.8, 12.8, 12.8, 12.8
- Outlet Temperature (°C): 7.2, 7.2, 7.2, 7.2
- Flow Rate (l/min): 371, 273, 162, 91
- Pressure Drop (mtr. H₂O): 8.5, 5.8, 3.4, 1.2
- Connection Size: (mm) 65, 65, 65, 65

**Condenser Water**
- Inlet Temperature (°C): 29, 29, 29, 29
- Outlet Temperature (°C): 35, 35, 35, 35
- Flow Rate (l/min): 1120, 821, 549, 273
- Pressure Drop (mtr. H₂O): 11.9, 7.9, 4.6, 1.8
- Connection Size: (mm) 100, 80, 65, 65

**Hot Water**
- Inlet Temperature (°C): 90.6, 90.6, 90.6, 90.6
- Outlet Temperature (°C): 84, 84, 84, 84
- Flow Rate (l/min): 621, 454, 303, 151
- Pressure Drop (mtr. H₂O): 4.3, 2.7, 1.8, 0.8
- Connection Size: (mm) 80, 65, 65, 65

*Rated for maximum capacity mode. Higher efficiencies are available at reduced capacities.

*All data is preliminary and subject to change without notice.

**Electrical**
- Voltage: 415-3-50/60 Hz
- Frequency: 50/60 Hz
- Operating kW Consumption: 0.6 kW
- Maximum kW Consumption: 1.7 kW

**Air Supply**
- Air Pressure (bar): 4.89
- Air Consumption (cfm): 0.34

**Unit Dimensions**
- Width (mm): 2032
- Length (mm): 4826
- Height (mm): 2388

*with cabinets mounted on the side as shown

**Weight**
- Empty (kg): 7250
- Operating (kg): 8165

**Refrigerant type**
- Water (H₂O)

**Operating Range**
- Chilled Water (°C): 3 to 20
- Hot Water (°C): 52 to 93
- Condenser Water (°C): 10 to 39
- Maximum Pressure (bar): 4.82

*Maximum pressure 4.82 for hot, chilled, & condenser water
FEATURE HIGHLIGHTS

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### MODEL

<table>
<thead>
<tr>
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<tr>
<td>Rated Capacity (Tons)</td>
<td>76</td>
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<td>51</td>
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</tbody>
</table>

### Chilled Water

| Inlet Temperature (°C) | 12.8 | 12.8 | 12.8 |
| Outlet Temperature (°C) | 7.2 | 7.2 | 7.2 |
| Flow Rate (l/min) | 689 | 553 | 462 |
| Pressure Drop (mtr. H2O) | 8.5 | 6.4 | 5.2 |
| Connection Size: (mm) | 100 | 100 | 100 |

### Condenser Water

| Inlet Temperature (°C) | 29 | 29 | 29 |
| Outlet Temperature (°C) | 35 | 35 | 35 |
| Flow Rate (l/min) | 2078 | 1669 | 1397 |
| Pressure Drop (mtr. H2O) | 11.9 | 8.8 | 7.0 |
| Connection Size: (mm) | 125 | 125 | 125 |

### Hot Water

| Inlet Temperature (°C) | 90.6 | 90.6 | 90.6 |
| Outlet Temperature (°C) | 84 | 84 | 84 |
| Flow Rate (l/min) | 1151 | 924 | 772 |
| Pressure Drop (mtr. H2O) | 4.3 | 3.4 | 2.4 |
| Connection Size: (mm) | 100 | 100 | 100 |

*Rated for maximum capacity mode. Higher efficiencies are available at reduced capacities.

*All data is preliminary and subject to change without notice.

**Electrical**

- Voltage: 415-3-50/60
- Frequency: 50/60 Hz
- Operating kW Consumption: 0.8 kW
- Maximum kW Consumption: 1.9 kW

**Air Supply**

- Air Pressure (bar): 4.89
- Air Consumption (cfm): 0.34

**Unit Dimensions**

- Width (mm): 2159
- Length (mm): 5055
- Height (mm): 2921
  *with cabinets mounted on the side as shown

**Weight**

- Empty (kg): 11793
- Operating (kg): 13154

**Refrigerant type**

- Water (H2O)

**Operating Range**

- Chilled Water (°C): 3 to 20
- Hot Water (°C): 52 to 93
- Condenser Water (°C): 10 to 39
- Maximum Pressure (bar): 4.82

*Maximum pressure 4.82 for hot, chilled, & condenser water
**FEATURE HIGHLIGHTS**

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* Ease of maintenance
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* Designed for outdoor installation
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### MODEL

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<td>142</td>
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**Chilled Water**

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<td>12.8</td>
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<tr>
<td>Outlet Temperature (°C)</td>
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<td>Flow Rate (l/min)</td>
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**Condenser Water**

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<tbody>
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<td>29</td>
<td>29</td>
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<td>Outlet Temperature (°C)</td>
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<td>35</td>
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<td>Flow Rate (l/min)</td>
<td>4164</td>
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**Hot Water**

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<th>E-100</th>
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<td>Inlet Temperature (°C)</td>
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<td>90.6</td>
<td>90.6</td>
<td>90.6</td>
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<td>Outlet Temperature (°C)</td>
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<td>Flow Rate (l/min)</td>
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<td>6.1</td>
<td>5.2</td>
<td>4.0</td>
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<tr>
<td>Connection Size: (mm)</td>
<td>100</td>
<td>100</td>
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</table>

*Rated for maximum capacity mode. Higher efficiencies are available at reduced capacities.

*All data is preliminary and subject to change without notice.

**Electrical**

- Voltage: 415-3-50/60 Hz
- Frequency: 50/60 Hz
- Operating kW Consumption: 0.8 kW
- Maximum kW Consumption: 1.9 kW

**Air Supply**

- Air Pressure (bar): 4.89
- Air Consumption (cfm): 0.34

**Unit Dimensions**

- Width (mm): 2489
- Length (mm): 5060
- Height (mm): 2921

*with cabinets mounted on the side as shown

**Weight**

- Empty (kg): 14969
- Operating (kg): 18366

**Refrigerant type**: Water (H₂O)

**Operating Range**

- Chilled Water (°C): 3 to 20
- Hot Water (°C): 52 to 93
- Condenser Water (°C): 10 to 39

- Maximum Pressure (bar): 4.82

*Maximum pressure 4.82 for hot, chilled & condenser water
FEATURE HIGHLIGHTS

* Ultra low electricity consumption
* Zero ozone depletion potential
* No dangerous chemicals
* Very few moving parts

Ease of maintenance
Advanced microprocessor control
Designed for outdoor installation
Wide temperature ranges allowed

MODEL | E-190

| Rated Capacity (Tons) | 190 |

Chilled Water
Inlet Temperature (°C) | 12.8 |
Outlet Temperature (°C) | 7.2 |
Flow Rate (l/min) | 1728 |
Pressure Drop (mtr. H₂O) | 10.7 |
Connection Size (mm) | 100 |

Condenser Water
Inlet Temperature (°C) | 29 |
Outlet Temperature (°C) | 35 |
Flow Rate (l/min) | 5201 |
Pressure Drop (mtr. H₂O) | 13.7 |
Connection Size (mm) | 150 |

Hot Water
Inlet Temperature (°C) | 90.6 |
Outlet Temperature (°C) | 84 |
Flow Rate (l/min) | 2877 |
Pressure Drop (mtr. H₂O) | 9.1 |
Connection Size (mm) | 100 |

*Rated for maximum capacity mode. Higher efficiencies are available at reduced capacities.

Electrical
Voltage | 415-3-50/60 |
Frequency | 50/60 Hz |
Operating kW Consumption | 0.8 kW |
Maximum kW Consumption | 1.9 kW |

Air Supply
Air Pressure (bar) | 4.89 |
Air Consumption (cfm) | 0.34 |

Unit Dimensions*
Width (mm) | 2489 |
Length (mm) | 5060 |
Height (mm) | 3251 |

*with cabinets mounted on the side as shown

Weight
Empty (kg) | 18144 |
Operating (kg) | 19958 |

Refrigerant type | Water (H₂O) |

Operating Range
Chilled Water (°C) | 3 to 20 |
Hot Water (°C) | 52 to 93 |
Condenser Water (°C) | 10 to 39 |
Maximum Pressure (bar) | 4.82 |

*Maximum pressure 4.82 for hot, chilled, & condenser water

*All data is preliminary and subject to change without notice.
## ADSORPTION CHILLER
### ADC Series F-FRAME

### FEATURE HIGHLIGHTS
- Ultra low electricity consumption
- Zero ozone depletion potential
- No dangerous chemicals
- Very few moving parts
- Ease of maintenance
- Advanced microprocessor control
- Designed for outdoor installation
- Wide temperature ranges allowed

### MODEL

<table>
<thead>
<tr>
<th>MODEL</th>
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<th>F-300</th>
<th>F-250</th>
<th>F-200</th>
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<td>Rated Capacity (Tons)</td>
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<td>305</td>
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### Chilled Water

<table>
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<th>F-200</th>
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<tbody>
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<td>Inlet Temperature (°C)</td>
<td>12.8</td>
<td>12.8</td>
<td>12.8</td>
<td>12.8</td>
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<tr>
<td>Outlet Temperature (°C)</td>
<td>7.2</td>
<td>7.2</td>
<td>7.2</td>
<td>7.2</td>
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<tr>
<td>Flow Rate (l/min)</td>
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### Condenser Water

<table>
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<tr>
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<th>F-300</th>
<th>F-250</th>
<th>F-200</th>
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<td>Outlet Temperature (°C)</td>
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<td>Flow Rate (l/min)</td>
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### Hot Water:

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<th>F-300</th>
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<tbody>
<tr>
<td>Inlet Temperature (°C)</td>
<td>90.6</td>
<td>90.6</td>
<td>90.6</td>
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<tr>
<td>Outlet Temperature (°C)</td>
<td>84</td>
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<td>Flow Rate (l/min)</td>
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<td>6.1</td>
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<td>4.3</td>
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<td>Connection Size: (mm)</td>
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</tbody>
</table>

*Rated for maximum capacity mode. Higher efficiencies are available at reduced capacities.  
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### Electrical
- Voltage: 415-3-50/60
- Frequency: 50/60 Hz
- Operating kW Consumption: 1.3 kW
- Maximum kW Consumption: 2.4 kW

### Air Supply
- Air Pressure (bar): 4.89
- Air Consumption (cfm): 0.34

### Unit Dimensions*
- Width (mm): 3658
- Length (mm): 5334
- Height (mm): 3505

*with cabinets mounted on the side as shown

### Weight
- Empty (kg): 21319
- Operating (kg): 24040

### Refrigerant type
- Water (H₂O)

### Operating Range
- Chilled Water (°C): 3 to 20
- Hot Water (°C): 52 to 93
- Condenser Water (°C): 10 to 39

- Maximum Pressure (bar): 4.82

*Maximum pressure 4.82 for hot, chilled, & condenser water
LEFT SIDE

FRONT

RIGHT SIDE

See drawings for specific piping connections and sizes.
**Performance Chart**

**Adsorption vs Absorption Capacity**

![Chart showing the comparison between Adsorption Chiller and Absorption Chiller in terms of Refrigeration Capacity and Hot Water Temp.](chart)

**High Efficiency even at Low Hot Water temperature**

**Feature Overview**

**Main Benefits**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Adsorption Chiller</th>
<th>Absorption Chiller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Expectancy</td>
<td>Greater than 20 Years</td>
<td>7 to 9 Years</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Negligible Maintenance</td>
<td>Require High Maintenance</td>
</tr>
<tr>
<td>Regeneration Temperature (Hot Water)</td>
<td>Down to 50°C (122°F)</td>
<td>Shut down at 82°C (180°F), Needs Back-up Heater</td>
</tr>
<tr>
<td>Desiccant Used</td>
<td>Silica Gel (Inert)</td>
<td>Lithium Bromide (Highly Corrosive)</td>
</tr>
<tr>
<td>Replacement Requirements (Periodic Maintenance)</td>
<td>Not Required</td>
<td>Heat Exchangers, Boilers, Absorbent Replacement Required</td>
</tr>
</tbody>
</table>

**Additional Benefits**

- Start up Times 5 to 7 Minutes compared to 15 minutes for absorption
- Chilled Water output 4°C-13°C (40°-55°F)
- No crystallization, corrosion, hazardous leaks, or chemical disposal issues
- Vibration or noise & simple and continuous operations
- Quite High COP (Coefficient of Performance)
- Versatile operation – Can be used for a wide range of Industrial and commercial application.

*ALL DATA SUBJECT TO CHANGE WITHOUT NOTICE*