

## Conversion Factors

|             | FROM                  | TO               | MULTIPLY BY             |
|-------------|-----------------------|------------------|-------------------------|
| HEAT FLOW   | Btu/hr                | kcal/hr          | 0.252                   |
|             | Btu/hr                | watts            | 0.293                   |
|             | watts                 | kcal/hr          | 0.86                    |
|             | watts                 | Btu/hr           | 3.4129                  |
|             | watts                 | Ton (refr)       | 0.0002843               |
|             | watts                 | HP               | 0.001333                |
|             | kcal/hr               | watts            | 1.163                   |
|             | kcal//hr              | Btu/hr           | 3.968                   |
|             | HP                    | watts            | 746                     |
| ton (refr)  | watts                 | 3517.2           |                         |
| VOLUME      | ft <sup>3</sup>       | m <sup>3</sup>   | 0.02832                 |
| VOLUME FLOW | cfm                   | l/s              | 0.4719                  |
|             | cfm                   | m <sup>3</sup> s | 0.000472                |
|             | imp. gal/min          | l/s              | 0.07577                 |
|             | U.S. gal/min          | l/s              | 0.06309                 |
| AREA        | ft <sup>2</sup>       | m <sup>2</sup>   | 0.092903                |
|             | m <sup>2</sup>        | ft <sup>2</sup>  | 10.7642                 |
| VELOCITY    | fps                   | m/s              | 0.3048                  |
|             | fpm                   | m/s              | 0.00508                 |
| PRESSURE    | psig                  | kPAg             | 6.89                    |
|             | inch Hg               | kPAg             | 3.39                    |
|             | inch H <sub>2</sub> O | kPAg             | 0.249                   |
|             | Bar                   | kPAg             | 100                     |
|             | mm Hg (1 torr)        | kPAg             | 0.133                   |
| TEMPERATURE | °F                    | °C               | (F - 32) X 0.55555 = °C |
|             | (°C x 1.8)+32 = °F    |                  |                         |

### THERMAL PROPERTIES AND HEAT TRANSFER COEFFICIENTS

|                            | FROM                         | TO                 | MULTIPLY BY |
|----------------------------|------------------------------|--------------------|-------------|
| ENTHALPY OR LATENT HEAT    | BTU/lb                       | kJ/kg              | 2.326       |
| SPECIFIC HEAT CAPACITY     | BTU/lb°F                     | kJ/kgK             | 4.187       |
|                            | BTU/lb °F                    | J/kgK              | 4187        |
| THERMAL CONDUCTIVITY       | BTU/hr ft°F                  | W/mK               | 1.731       |
|                            | BTU in/hr ft <sup>2</sup> °C | W/mK               | 0.1442      |
|                            | kcal/hr m °C                 | W/mK               | 1.163       |
| DENSITY                    | lb/ft <sup>3</sup>           | kg/m <sup>3</sup>  | 16.02       |
| HEAT TRANSFER COEFFICIENTS | BTU/hr ft <sup>2</sup> °F    | W/m <sup>2</sup> K | 5.678       |
|                            | kcal/hr m <sup>2</sup> °C    | W/m <sup>2</sup> K | 1.163       |

### THERMAL PROPERTIES AND HEAT TRANSFER COEFFICIENTS

|                            | FROM               | TO                       | MULTIPLY BY |
|----------------------------|--------------------|--------------------------|-------------|
| ENTHALPY OR LATENT HEAT    | kJ/kg              | BTU/lb                   | 0.4299      |
| SPECIFIC HEAT CAPACITY     | kJ/kgK             | BTU/lb°F                 | 0.2388      |
|                            | J/kgK              | BTU/lb°F                 | 0.0002388   |
| THERMAL CONDUCTIVITY       | W/mK               | BTU/hr ft°F              | 0.5777      |
| DENSITY                    | kg/m <sup>3</sup>  | lb/ft <sup>3</sup>       | 0.06242     |
| HEAT TRANSFER COEFFICIENTS | W/m <sup>2</sup> K | BTU/hrft <sup>2</sup> °F | 0.1761      |