

Accuchiller TSE Central Chiller



Single-Circuit Chiller

Standard Features

Direct Drive Scroll Compressors

Direct-drive hermetically sealed scroll compressors with proven performance in industrial cooling for reliable, low maintenance, and efficient operation.

Stainless Steel Evaporator

High-efficiency stainless steel plates with copper brazing provide maximum performance, long life, and an enhanced level of protection from harsh process conditions.

Evaporator Inlet Strainer

The evaporator inlet strainer removes any debris present in the process fluid to prevent costly downtime and repair due to a clogged chiller evaporator.

Fits through Doors

Single circuit chillers up to 80 tons are compact and easily fit through standard 36-inch wide doors for easy maneuvering into tight installation spaces.

Dual Circuit Manifolds

Dual circuit chillers include evaporator manifolds and water-cooled condenser units include condenser water manifolds for quick and easy installation.

Modular Expandable System

Our modular system design provides for system expansion to over 1,000 tons using up to six chillers and twelve refrigeration circuits.

Single or Multiple Circuit Configurations

Dual-circuit chillers for redundancy and back up of critical processes or systems and single-circuit chillers for dedicated loads.

UL 508A Industrial Control Panel

Every chiller has a UL label certifying our panel design and components comply with UL 508A standards ensuring the panels are safe and consistent for reliable operation.

Color Touch-Screen Display

A high-resolution, high-speed, 7-inch color touch-screen with English text clearly shows chiller operation for quick and easy monitoring and control of the system.

| TSE SERIES VERSION 2.00 | 10 | | | | | | | | | | | |
|----------------------------|--------------|------------|------------|--|--|--|--|--|--|--|--|--|
| NO ACTIVE MESSAGES | | | | | | | | | | | | |
| | | CIRCUIT 1 | CIRCUIT 2 | | | | | | | | | |
| SETPOINT | 50.0 | COMP(S) ON | COMP(9) ON | | | | | | | | | |
| | | з | з | | | | | | | | | |
| CONDENSER FLUI | DIN 85.0 °C | COND OUT | COND OUT | | | | | | | | | |
| EVAPORATOR FLUI | D IN 60.0 °C | 95.0 | 95.0 | | | | | | | | | |
| | | EVAP DUT | EVAP DUT | | | | | | | | | |
| TO PROCESS FLUI | | 50.0 °C | 50.0 | | | | | | | | | |
| PROCESS DELTA T | 10.0 °C | | | | | | | | | | | |
| STAGE DEMAND | 100.0 % | | | | | | | | | | | |
| | | | | | | | | | | | | |

Standard PLC Home Screen

CONNEX4.0 Ready Controls

Every chiller is equipped with an Ethernet port and is fully compatible with the CONNEX4.0 plant-wide equipment control and monitoring system.

Warranty

- 3 year PLC controller parts
- 1 year entire unit parts
- 1 year labor
- One-day factory authorized start-up supervision

Available Options

Integral Reservoir and Pumping System

An integral stainless steel reservoir and pumping system all piped, insulated, and wired to the chiller control panel for a quick and easy complete chilled water system installation. Available on chillers up to 160 tons.

Rotary Non-Fused Disconnect Switch

Adds a 5 kA SCCR (Short Circuit Current Rating) rotary non-fused disconnect switch to the control panel for safe lockout of main power.

10-inch HMI

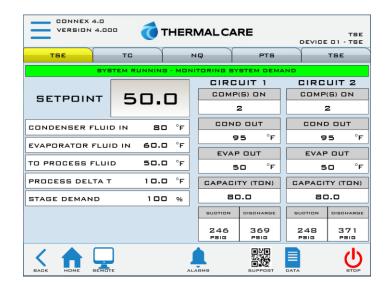
Replaces the standard 7-inch screen with a 10-inch, high resolution, color screen for larger presentation of the same menus and functions as the standard screen.

12 inch HMI

Replaces the standard 7-inch screen with a 12-inch, high resolution, color screen with a built-in industrial computer to allow for remote monitoring and control using Teamviewer software installed on any remote Windows based PC or smart phone.

12-inch HMI and CONNEX4.0 Master Controller

Replaces the standard 7-inch screen with a 12-inch, high resolution, color screen with a built-in industrial computer to allow for remote monitoring and control using Teamviewer software installed on any remote Windows based PC or smart phone. This package also adds a second PLC to allow for connection of up to 15 total Thermal Care Connex4.0 ready devices for many ways to interact with the connected equipment such as smart phone/tablet control, configurable email and text alerts for alarms, warnings, event alerts, and data collection.



BACnet or Lon Works Communications Port

Adds a ModBUS to BACnet or Lon Works gateway which is wired to a RS-485 connector on the chiller control panel.

Water-Cooled Condenser Single-Circuit Chillers

| | TSEW | TSEW | TSEW | TSEW | TSEW | TSEW | TSEW | TSEW | TSEW | TSEW | TSEW |
|--------------------------------------|----------|----------|--------------|--------------|-------------|-------------|----------|----------|----------|---|----------|
| | 10S | 155 | 205 | 255 | 30S | 40S | 50S | 60S | 80S | 1005 | 120S |
| Cooling Capacity (tons) ¹ | 11 | 16 | 22 | 27 | 32 | 42 | 53 | 69 | 86 | 110 | 128 |
| Set Point Range (°F) | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 |
| Compressors (qty) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| Process In/Out (in) – Standard | 11/2 | 11/2 | 2 | 2 | 21/2 | 21/2 | 3 | 4 | 4 | 4 | 4 |
| w/high flow evaporator option | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | n/a | 6 | 6 |
| Condenser Water In & Out (in) | 11/2 | 2 | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 4 |
| | | | | Ch | iller | | | | | | |
| Length (in) | 68 | 72 | 75 | 75 | 77 | 102 | 92 | 102 | 102 | 123 | 125 |
| Width (in) | 30 | 30 | 30 | 30 | 30 | 30 | 36 | 36 | 36 | 30 | 30 |
| Height (in) | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 70 | 71 |
| Ship Weight (lbs) | 990 | 1,072 | 1,149 | 1,189 | 1,339 | 1,763 | 1,802 | 2,294 | 2,467 | 3,230 | 3,250 |
| Operating Weight (lbs) | 1,005 | 1,092 | 1,179 | 1,222 | 1,376 | 1,823 | 1,872 | 2,380 | 2,557 | 3,330 | 3,350 |
| MCA @ 460/3/60 (amps) ² | 23 | 34 | 41 | 53 | 61 | 70 | 86 | 124 | 165 | 205 | 238 |
| MOP @ 460/3/60 (amps) ³ | 30 | 45 | 50 | 70 | 80 | 100 | 110 | 175 | 225 | 250 | 300 |
| | | | Chiller with | n Standard | Flow Reserv | voir Option | | | | | |
| Reservoir Capacity (gal) | 275 | 275 | 275 | 275 | 275 | 275 | 275 | 450 | 450 | | |
| Process / Chiller Pump (hp) | 5/1.5 | 5/1.5 | 5/1.5 | 5/1.5 | 7.5/2 | 10/2 | 10/3 | 10/3 | 15/3 | | |
| Process Connection Size (in) | 11/2 | 11⁄2 | 2 | 2 | 21/2 | 21/2 | 3 | 3 | 4 | | |
| Condenser Water In & Out (in) | 11/2 | 2 | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | | |
| Length (in) | 99 | 99 | 99 | 99 | 99 | 99 | 102 | 114 | 114 | The TSEW TSEW120 | |
| Width (in) | 68 | 72 | 75 | 75 | 78 | 98 | 102 | 101 | 101 | available | |
| Height (in) | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | integral | |
| Ship Weight (lbs) | 2,337 | 2,418 | 2,496 | 2,537 | 2,769 | 3,238 | 3,374 | 4,147 | 4,370 | | |
| Operating Weight (lbs) | 4,631 | 4,712 | 4,790 | 4,831 | 5,063 | 5,532 | 5,668 | 7,901 | 8,124 | | |
| MCA @ 460/3/60 (amps) ² | 33 | 43 | 49 | 60 | 72 | 83 | 99 | 132 | 178 | | |
| MOP @ 460/3/60 (amps) ³ | 40 | 50 | 60 | 80 | 100 | 110 | 125 | 175 | 250 | | |
| | | | Chiller w | ith High Flo | ow Reservo | ir Option | | | | | |
| Reservoir Capacity (gal) | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 650 | 650 | | |
| Process/Chiller Pump (hp) | 5/1.5 | 7.5/1.5 | 10/1.5 | 10/1.5 | 10/2 | 15/2 | 15/3 | 20/3 | 25/3 | | |
| Process Connection Size (in) | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | | |
| Condenser Water In & Out (in) | 11⁄2 | 2 | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | | 1000 1 |
| Length (in) | 99 | 99 | 99 | 99 | 99 | 99 | 102 | 114 | 114 | The TSEW100S and TSEW120S are not available with an integral reservoir | |
| Width (in) | 68 | 72 | 75 | 75 | 78 | 98 | 102 | 101 | 101 | | |
| Height (in) | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | | |
| Ship Weight (lbs) | 2,850 | 2,950 | 3,100 | 3,150 | 3,450 | 4,000 | 4,250 | 4,950 | 5,750 | | - |
| Operating Weight (lbs) | 6,200 | 6,300 | 6,450 | 6,500 | 6,800 | 7,350 | 7,600 | 10,400 | 11,200 | | |
| MCA @ 460/3/60 (amps) ² | 33 | 48 | 58 | 70 | 79 | 95 | 112 | 155 | 204 | | |
| MOP @ 460/3/60 (amps) ³ | 40 | 60 | 70 | 90 | 100 | 125 | 125 | 200 | 250 | | |

¹Cooling capacity when cooling water with 50°F set point, 60°F return, 85°F condenser water, R410A refrigerant.

²MCA is Minimum Circuit Amps under full load, used for minimum wire size requirement.

³MOP is Maximum Overcurrent Protection, used for sizing main power protection device.

Water-Cooled Condenser Dual-Circuit Chillers

| Water-Cooled Collde | | | | | | | | | | | | |
|--------------------------------------|-------------|-------------|--------------|-------------|-------------|-------------|--------------|------------------|------------------|---------------------|--------------|--|
| | TSEW 20D | TSEW 30D | TSEW 40D | TSEW 50D | TSEW 60D | TSEW 80D | TSEW 100D | TSEW 120D | TSEW 160D | TSEW 200D | TSEW 240D | |
| Cooling Capacity (tons) ¹ | 22 | 32 | 44 | 54 | 65 | 84 | 106 | 137 | 171 | 220 | 256 | |
| Set Point Range (°F) | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | |
| Compressors Circuit 1 (qty) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | |
| Compressors Circuit 2 (qty) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | |
| Process In/Out (in) – Standard | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | 6 | 6 | |
| w/high flow evaporator option | 21/2 | 3 | 4 | 4 | 4 | 6 | 6 | 6 | n/a | 8 | 8 | |
| Condenser Water In/Out (in) | 2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | |
| | | | | | | | | | | | | |
| Length (in) | 76 | 77 | 80 | 81 | 87 | 117 | 113 | 119 | 120 | 139 | 141 | |
| Width (in) | 48 | 49 | 50 | 50 | 52 | 51 | 52 | 54 | 54 | 60 | 60 | |
| Height (in) | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 70 | 71 | |
| Ship Weight (lbs) | 1,925 | 2,093 | 2,255 | 2,343 | 2,657 | 3,516 | 3,595 | 4,361 | 4,736 | 5.760 | 5,780 | |
| Operating Weight (lbs) | 1,955 | 2,133 | 2,315 | 2,409 | 2,731 | 3,636 | 3,735 | 4,533 | 4,916 | 5,960 | 5,980 | |
| MCA @ 460/3/60 (amps) ² | 42 | 64 | 77 | 99 | 116 | 132 | 162 | 233 | 311 | 391 | 457 | |
| MOP @ 460/3/60 (amps) ³ | 50 | 70 | 90 | 110 | 125 | 150 | 175 | 250 | 350 | 450 | 500 | |
| | | | Chiller with | n Standard | Flow Reser | voir Option | l | | | | | |
| Reservoir Capacity (gal) | 275 | 275 | 275 | 275 | 450 | 450 | 700 | 700 | 1,000 | | | |
| Process/Chiller Pump (hp) | 5/1.5 | 7.5/2 | 10/2 | 10/3 | 10/3 | 15/3 | 15/5 | 20/7.5 | 25/10 | | | |
| Process Connection Size (in) | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | | | |
| Condenser Water In/Out (in) | 2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | 6 | | 2005 | |
| Length (in) | 123 | 123 | 123 | 123 | 135 | 135 | 135 | 135 | 148 | The TSEW TSEW240 | | |
| Width (in) | 74 | 74 | 77 | 78 | 81 | 98 | 102 | 111 ⁴ | 111 ⁴ | available | | |
| Height (in) | 73 | 73 | 73 | 75 | 75 | 79 | 79 | 79 | 90 | integral i | | |
| Ship Weight (lbs) | 3,486 | 3,748 | 3,948 | 4,068 | 4,546 | 5,390 | 6,067 | 7,160 | 8,168 | | | |
| Operating Weight (lbs) | 5,780 | 6,042 | 6,229 | 6,362 | 8,300 | 9,144 | 11,936 | 12,999 | 16,510 | | | |
| MCA @ 460/3/60 (amps) ² | 53 | 78 | 95 | 118 | 134 | 158 | 190 | 267 | 359 | | | |
| MOP @ 460/3/60 (amps) ³ | 60 | 90 | 110 | 125 | 150 | 175 | 225 | 300 | 400 | | | |
| | | | Chiller w | ith High Fl | ow Reservo | ir Option | | | | | | |
| Reservoir Capacity (gal) | 400 | 400 | 400 | 400 | 650 | 650 | 1,000 | 1,000 | 1,000 | | | |
| Process/Chiller Pump (hp) | 10/1.5 | 10/2 | 15/2 | 15/3 | 20/3 | 25/3 | 30/5 | 40/7.5 | 40/10 | | | |
| Process Connection Size (in) | 21/2 | 3 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | | | |
| Condenser Water In/Out (in) | 2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | 6 | | | |
| Length (in) | 123 | 123 | 123 | 123 | 135 | 135 | 135 | 135 | 148 | The TSEW TSEW240 | | |
| Width (in) | 74 | 74 | 77 | 78 | 81 | 98 | 102 | 111 ⁴ | 111 ⁴ | available | | |
| Height (in) | 73 | 73 | 73 | 75 | 75 | 79 | 79 | 79 | 90 | integral i | | |
| Ship Weight (lbs) | 5,950 | 6,400 | 6,750 | 6,950 | 8,950 | 10,300 | 13,050 | 14,150 | 18,500 | | | |
| Operating Weight (lbs) | 7,200 | 7,650 | 8,000 | 8,200 | 10,900 | 12,250 | 16,250 | 17,250 | 19,500 | | | |
| MCA @ 460/3/60 (amps) ² | 61 | 81 | 102 | 125 | 147 | 172 | 210 | 292 | 377 | | | |
| MOP @ 460/3/60 (amps) ³ | 70 | 90 | 110 | 125 | 150 | 200 | 225 | 300 | 450 | | | |

¹Cooling capacity when cooling water with 50°F set point, 60°F return, 85°F condenser water, R410A refrigerant.

²MCA is Minimum Circuit Amps under full load, used for minimum wire size requirement.

³MOP is Maximum Overcurrent Protection, used for sizing main power protection device.

⁴To keep shipping dimensions within the 102" width of a standard flatbed, the condenser inlet manifold ships separately.

Remote Air-Cooled Condenser Single-Circuit Chillers

| Remote All-Cooled C | TSER 10S | TSER 15S | TSER 20S | TSER 25S | TSER 30S | TSER 40S | TSER 50S | TSER 60S | TSER 80S | TSER 100S | TSER 120S | | |
|--------------------------------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--|--|
| Cooling Capacity (tons) ¹ | 10 | 15 | 20 | 25 | 30 | 39 | 49 | 64 | 79 | 101 | 119 | | |
| Set Point Range (°F) | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | | |
| Compressors (qty) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | | |
| Process In/Out (in) – Standard | 11/2 | 11/2 | 2 | 2 | 21/2 | 21/2 | 3 | 4 | 4 | 4 | 4 | | |
| w/high flow evaporator option | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | n/a | 6 | 6 | | |
| Refrigerant Discharge Line (in) | 7⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 13⁄8 | 13⁄8 | 15⁄8 | 15⁄8 | 21⁄8 | 21⁄8 | 21/8 | | |
| Refrigerant Liquid Line (in) | 5⁄8 | 7⁄8 | 7⁄8 | 11⁄8 | 11⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 15⁄8 | 21⁄8 | 21/8 | | |
| Chiller | | | | | | | | | | | | | |
| Length (in) | 64 | 65 | 68 | 68 | 74 | 102 | 99 | 102 | 102 | 123 | 125 | | |
| Width (in) | 30 | 30 | 30 | 30 | 30 | 30 | 36 | 36 | 36 | 30 | 30 | | |
| Height (in) | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 64 | 64 | | |
| Ship Weight (lbs) | 897 | 1,024 | 1,060 | 1,076 | 1,202 | 1,554 | 1,588 | 1,995 | 2,161 | 2,800 | 2,820 | | |
| Operating Weight (lbs) | 912 | 1,044 | 1,090 | 1,109 | 1,239 | 1,614 | 1,658 | 2,081 | 2,251 | 2,900 | 2,920 | | |
| MCA @ 460/3/60 (amps) ² | 23 | 34 | 41 | 53 | 61 | 70 | 86 | 124 | 165 | 205 | 238 | | |
| MOP @ 460/3/60 (amps) ³ | 30 | 45 | 50 | 70 | 80 | 100 | 110 | 175 | 225 | 250 | 300 | | |
| | | | Chiller with | n Standard | Flow Reser | voir Option | | | | | | | |
| Reservoir Capacity (gal) | 275 | 275 | 275 | 275 | 275 | 275 | 275 | 450 | 450 | | | | |
| Process/Chiller Pump (hp) | 5/1.5 | 5/1.5 | 5/1.5 | 5/1.5 | 7.5/2 | 10/2 | 10/3 | 10/3 | 15/3 | | | | |
| Process Connection Size (in) | 11/2 | 11/2 | 2 | 2 | 21/2 | 21/2 | 3 | 3 | 4 | | | | |
| Refrigerant Discharge Line (in) | 7⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 13⁄8 | 15⁄8 | 15⁄8 | 15⁄8 | 21⁄8 | | | | |
| Refrigerant Liquid Line (in) | 5⁄8 | 7⁄8 | 7⁄8 | 11⁄8 | 11⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 15⁄8 | The TSER | 100S and | | |
| Length (in) | 99 | 99 | 99 | 99 | 99 | 99 | 102 | 114 | 114 | TSER120 | S are not | | |
| Width (in) | 66 | 66 | 67 | 67 | 71 | 98 | 102 | 101 | 101 | available | | | |
| Height (in) | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | integral ı | reservoir | | |
| Ship Weight (lbs) | 2,267 | 2,370 | 2,407 | 2,423 | 2,628 | 3,030 | 3,158 | 3,846 | 4,063 | | | | |
| Operating Weight (lbs) | 4,561 | 4,664 | 4,701 | 4,717 | 4,922 | 5,324 | 5,452 | 7,600 | 7,817 | | | | |
| MCA @ 460/3/60 (amps) ² | 33 | 43 | 49 | 60 | 72 | 83 | 99 | 132 | 178 | | | | |
| MOP @ 460/3/60 (amps) ³ | 40 | 50 | 60 | 80 | 100 | 110 | 125 | 175 | 250 | | | | |
| | | | Chiller w | ith High Fl | ow Reservo | ir Option | | | | | | | |
| Reservoir Capacity (gal) | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 650 | 650 | | | | |
| Process/Chiller Pump (hp) | 5/1.5 | 7.5/1.5 | 10/1.5 | 10/1.5 | 10/2 | 15/2 | 15/3 | 20/3 | 25/3 | | | | |
| Process Connection Size (in) | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | | | | |
| Refrigerant Discharge Line (in) | 7⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 13⁄8 | 15⁄8 | 15⁄8 | 15⁄8 | 21⁄8 | | | | |
| Refrigerant Liquid Line (in) | 5⁄8 | 7⁄8 | 7⁄8 | 11⁄8 | 11⁄/8 | 11⁄8 | 11⁄8 | 13⁄8 | 15⁄8 | The TSER | 100S and | | |
| Length (in) | 99 | 99 | 99 | 99 | 99 | 99 | 102 | 114 | 114 | TSER120 | S are not | | |
| Width (in) | 66 | 66 | 67 | 67 | 71 | 98 | 102 | 101 | 101 | available | | | |
| Height (in) | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | integral ı | reservoir | | |
| Ship Weight (lbs) | 2,800 | 2,950 | 2,950 | 3,000 | 3,300 | 3,750 | 4,000 | 4,600 | 5,350 | | | | |
| Operating Weight (lbs) | 6,150 | 6,300 | 6,300 | 6,350 | 6,650 | 7,100 | 7,350 | 10,050 | 10,800 | | | | |
| MCA @ 460/3/60 (amps) ² | 33 | 48 | 58 | 70 | 79 | 95 | 112 | 155 | 204 | | | | |
| MOP @ 460/3/60 (amps) ³ | 40 | 60 | 70 | 90 | 100 | 125 | 125 | 200 | 250 | | | | |

¹Cooling capacity when cooling water with 50°F set point, 60°F return, 95°F condenser air, R410A refrigerant.

²MCA is Minimum Circuit Amps under full load, used for minimum wire size requirement.

³MOP is Maximum Overcurrent Protection, used for sizing main power protection device.

Remote Air-Cooled Condenser Dual-Circuit Chillers

| Remote Air-Cooled Co | phaense | r Duai- | Circuit | Chillers | | | | | | | | | | |
|--|----------------|-------------------|----------------|----------------|----------------|----------------|-----------------|--------------|--------------|-----------------------|--------------|--|--|--|
| | TSER 20D | TSER 30D | TSER 40D | TSER 50D | TSER 60D | TSER 80D | TSER 100D | TSER 120D | TSER 160D | TSER 200D | TSER 240D | | | |
| Cooling Capacity (tons) ¹ | 20 | 30 | 41 | 50 | 60 | 78 | 98 | 127 | 158 | 201 | 237 | | | |
| Set Point Range (°F) | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | 20 to 80 | | | |
| Compressors Circuit 1 (qty) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | | | |
| Compressors Circuit 2 (qty) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | | | |
| Process In/Out (in) – Standard | 2 | 21/2 | 21/2 | 3 | 3 | 4 | 4 | 4 | 6 | 6 | 6 | | | |
| w/high flow evaporator option | 21/2 | 3 | 4 | 4 | 4 | 6 | 6 | 6 | n/a | 8 | 8 | | | |
| Refrigerant Discharge | | | | | | - | | - | | - | | | | |
| Line/Circuit (in) | 7⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 13⁄8 | 13⁄8 | 15⁄8 | 15⁄8 | 21⁄8 | 21⁄8 | 21⁄8 | | | |
| Refrigerant Liquid | 5.4 | | | | | | | 4.5.4 | 454 | o. / | | | | |
| Line/Circuit (in) | 5⁄8 | 7⁄8 | 7⁄8 | 11⁄8 | 11⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 15⁄8 | 21⁄8 | 21⁄8 | | | |
| Chiller | | | | | | | | | | | | | | |
| Length (in) | 76 | 77 | 80 | 81 | 87 | 117 | 113 | 116 | 120 | 139 | 141 | | | |
| Width (in) | 48 | 48 | 48 | 48 | 48 | 49 | 49 | 49 | 51 | 60 | 60 | | | |
| Height (in) | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 65 | 65 | | | |
| Ship Weight (lbs) | 1,722 | 1,760 | 1,834 | 2,091 | 2,335 | 3,061 | 3,129 | 3,820 | 4,069 | 5,350 | 5,370 | | | |
| Operating Weight (lbs) | 1,752 | 1,800 | 1,894 | 2,157 | 2,409 | 3,181 | 3,269 | 3,992 | 4,249 | 5,550 | 5,570 | | | |
| MCA @ 460/3/60 (amps) ² | 42 | 64 | 77 | 99 | 116 | 132 | 162 | 233 | 311 | 391 | 457 | | | |
| MOP @ 460/3/60 (amps) ³ | 50 | 70 | 90 | 110 | 125 | 152 | 175 | 250 | 350 | 450 | 500 | | | |
| | 50 | | Chiller with | | | | 175 | 230 | 550 | 450 | 500 | | | |
| Reservoir Capacity (gal) | 275 | 275 | 275 | 275 | 450 | 450 | 700 | 700 | 1,000 | | | | | |
| Process/Chiller Pump (hp) | 5/1.5 | 7.5/2 | 10/2 | 10/3 | 10/3 | 15/3 | 15/5 | 20/7.5 | 25/10 | | | | | |
| | | | | | | | | 20/7.5 | 25/10 | | | | | |
| Process Connection Size (in) | 2 | 21/2 | 21⁄2 | 3 | 3 | 4 | 4 | 4 | 0 | | | | | |
| Refrigerant Discharge Line/Circuit (in) | 7⁄8 | 11⁄8 | 11⁄8 | 13⁄8 | 13⁄8 | 15⁄8 | 15⁄/8 | 15⁄8 | 21⁄8 | | | | | |
| Refrigerant Liquid | | | | | | | | | | | | | | |
| Line/Circuit (in) | 5⁄8 | 7⁄8 | 7⁄8 | 11⁄/8 | 11⁄/8 | 11⁄8 | 11⁄8 | 13⁄8 | 15⁄8 | The TSER | | | | |
| Length (in) | 123 | 123 | 123 | 123 | 135 | 135 | 135 | 135 | 148 | TSER240I available | | | | |
| Width (in) | 66 | 66 | 67 | 68 | 71 | 99 | 99 | 98 | 140 | integral i | | | | |
| Height (in) | 72 | 72 | 72 | 75 | 75 | 75 | 78 | 50 79 | 90 | integran | CSCIVOII | | | |
| Ship Weight (lbs) | 3,335 | 3,634 | 3,624 | 3,814 | 4,224 | 5,040 | 5,628 | 6,478 | 7,499 | | | | | |
| Operating Weight (lbs) | 5,555 5,629 | 5,054 5,928 | 5,024 5,918 | 5,814 6,109 | 4,224 7,978 | 3,040 8,794 | 5,626 11,467 | 12,317 | 15,841 | | | | | |
| | | | 5,916 95 | | 134 | 0,794 158 | | | | | | | | |
| MCA @ 460/3/60 (amps) ² | 53 | 78 | | 118 | | | 190 | 267 | 359 | | | | | |
| MOP @ 460/3/60 (amps) ³ | 60 | 90 | 110 | 125 | 150 | 175 Q:. | 225 | 300 | 400 | | | | | |
| | 100 | 100 | | th High Flo | | | 1 000 | 1 000 | 1 000 | | | | | |
| Reservoir Capacity (gal) | 400 | 400 | 400 | 400 | 650 | 650 | 1,000 | 1,000 | 1,000 | | | | | |
| Process/Chiller Pump (hp) | 10/1.5 | 10/2 | 15/2 | 15/3 | 20/3 | 25/3 | 30/5 | 40/7.5 | 40/10 | | | | | |
| Process Connection Size (in) | 21/2 | 3 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | | | | | |
| Refrigerant Discharge | 7⁄8 | 11⁄/8 | 11⁄8 | 13⁄8 | 13⁄8 | 15⁄8 | 15⁄8 | 15⁄8 | 21/8 | | | | | |
| Line/Circuit (in) | | | | | | | | | | | | | | |
| Refrigerant Liquid | 5⁄8 | 7⁄8 | 7⁄8 | 11⁄8 | 11⁄8 | 11⁄/8 | 11⁄8 | 13⁄8 | 15⁄8 | The TSER | | | | |
| Line/Circuit (in) | 100 | 100 | 100 | 100 | 100 | 105 | 105 | 175 | 1.40 | TSER240 | | | | |
| Length (in) | 123 | 123 | 123 | 123 | 135 | 135 | 135 | 135 | 148 101 | available | | | | |
| Width (in) | 66 70 | 66 70 | 67 72 | 68 75 | 71 | 99 75 | 99 70 | 98 70 | 101 | integral | eservoir | | | |
| Height (in) | 72 | 72 | 72 | 75 | 75 | 75 | 78 | 79 | 90 | | | | | |
| Ship Weight (lbs) | 3,850 | 4,200 | 4,400 | 4,550 | 5,050 | 6,250 | 7,300 | 8,100 | 10,300 | | | | | |
| Operating Weight (lbs) | 7,200 | 7,550 | 7,750 | 7,900 | 10,500 | 11,700 | 15,650 | 16,450 | 18,650 | | | | | |
| MCA @ 460/3/60 (amps) ² | 61 | 81 | 102 | 125 | 147 | 172 | 210 | 292 | 377 | | | | | |
| MOP @ 460/3/60 (amps) ³ | 70 | 90 P°E cot poi | 110 | 125 | 150 | 200 | 225 | 300 | 450 | | | | | |

¹Cooling capacity when cooling water with 50°F set point, 60°F return, 95°F condenser air, R410A refrigerant.

²MCA is Minimum Circuit Amps under full load, used for minimum wire size requirement.

³MOP is Maximum Overcurrent Protection, used for sizing main power protection device.

Remote Condensers (single-circuit)

| Model | KCM014 | KCL023 | KCL030 | KCL037 | KCL045 | KCL056 | KCL068 | KCL095 | KCL110 | S-GVW 090.1/4- N(2).M | S-GVW 090.1/5- N(2).M |
|---------------------------------------|---------|---------|---------|------------|--------------|-------------|------------|--------------|---------|-----------------------------|-----------------------------|
| Chiller Used With | TSER10S | TSER15S | TSER20S | TSER25S | TSER30S | TSER40S | TSER50S | TSER60S | TSER80S | TSER100S | TSER120S |
| Number of Fans | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 5 | 6 | 4 | 5 |
| Refrigerant Inlet (in) | 13⁄8 | 21⁄8 | 21⁄8 | 21⁄8 | 25⁄8 | 25⁄8 | 25⁄8 | 31⁄8 | 31⁄8 | 31⁄8 | 31⁄8 |
| Refrigerant Outlet (in) | 11⁄8 | 13⁄8 | 15⁄8 | 15⁄8 | 15⁄8 | 21⁄8 | 21⁄8 | 25⁄8 | 25⁄8 | 31⁄8 | 31⁄8 |
| Length (in) | 83 | 113 | 113 | 113 | 168 | 168 | 223 | 278 | 333 | 223 | 271 |
| Width (in) | 43 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 51 | 51 |
| Height (in) | 48 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 69 | 69 |
| Shipping Weight (lbs) | 415 | 680 | 720 | 1,050 | 1,075 | 1,450 | 1,475 | 1,950 | 2,300 | 3,000 | 3,625 |
| Operating Weight (lbs) | | | Varie | s based on | system refri | gerant char | ge and ope | rating condi | tions | | |
| MCA @ 460/3/60 (amps) ¹ | 3 | 7 | 7 | 7 | 10 | 10 | 16 | 16 | 21 | 24 | 30 |
| MOP @ 460/3/60 (amps) ² | 15 | 15 | 15 | 15 | 15 | 15 | 20 | 20 | 25 | 25 | 35 |

¹MCA is Minimum Circuit Amps, used for minimum wire size requirement.

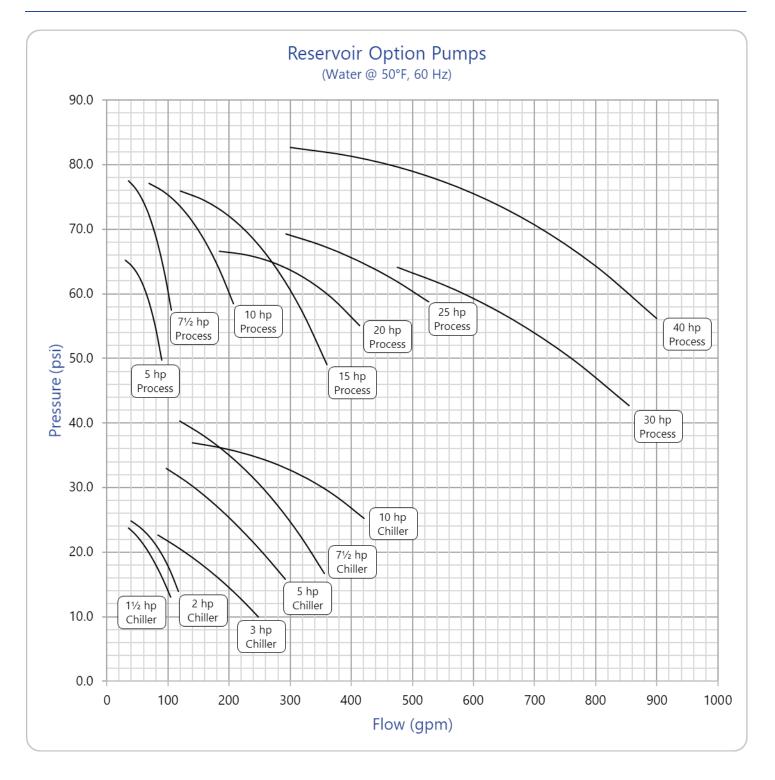
²MOP is Maximum Overcurrent Protection, used for sizing main power protection device.

Remote Condensers (dual-circuit)

| | | | - / | | | | | | | | |
|---------------------------------------|---------|---------|---------|-------------|--------------|-------------|-------------|--------------|----------|------------------------------|------------------------------|
| Model | KCM034 | KCL047 | KCL060 | KCL074 | KCL090 | KCL112 | KCL137 | KCL190 | KCL224 | S-GVD 090.1D/2 x4-M2.M | S-GVD 090.1D/2 x5-M2.M |
| Chiller Used With | TSER20D | TSER30D | TSER40D | TSER50D | TSER60D | TSER80D | TSER100D | TSER120D | TSER160D | TSER200D | TSER240D |
| Number of Fans | 4 | 4 | 4 | 4 | 6 | 6 | 8 | 10 | 12 | 8 | 10 |
| Refrigerant Inlet (in) | 15⁄8 | 21⁄8 | 21⁄8 | 21⁄8 | 21⁄8 | 25⁄8 | 25⁄8 | 31⁄8 | 31⁄8 | 31⁄8 x 2 | 35∕8 x 2 |
| Refrigerant Outlet (in) | 11⁄8 | 13⁄8 | 15⁄8 | 15⁄8 | 15⁄8 | 21⁄8 | 21⁄8 | 25⁄8 | 25⁄8 | 31⁄8 x 2 | 35∕8 x 2 |
| Length (in) | 83 | 113 | 113 | 113 | 168 | 168 | 223 | 278 | 333 | 225 | 275 |
| Width (in) | 83 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 95 | 95 |
| Height (in) | 48 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 112 | 112 |
| Shipping Weight (lbs) | 830 | 1,175 | 1,525 | 1,525 | 2,000 | 2,275 | 2,800 | 3,700 | 4,400 | 7,800 | 10,025 |
| Operating Weight (lbs) | | | Varie | es based on | system refri | gerant char | ge and oper | rating condi | tions | | |
| MCA @ 460/3/60 (amps) ¹ | 5 | 16 | 16 | 16 | 21 | 21 | 31 | 36 | 46 | 31 | 38 |
| MOP @ 460/3/60 (amps) ² | 15 | 20 | 20 | 20 | 25 | 25 | 35 | 40 | 50 | 35 | 40 |

¹MCA is Minimum Circuit Amps, used for minimum wire size requirement.

²MOP is Maximum Overcurrent Protection, used for sizing main power protection device.





Thermal Care is ISO-9001 Certified Manufacturer reserve the right to change specification or design without notification or obligation TSE Specifications 04