

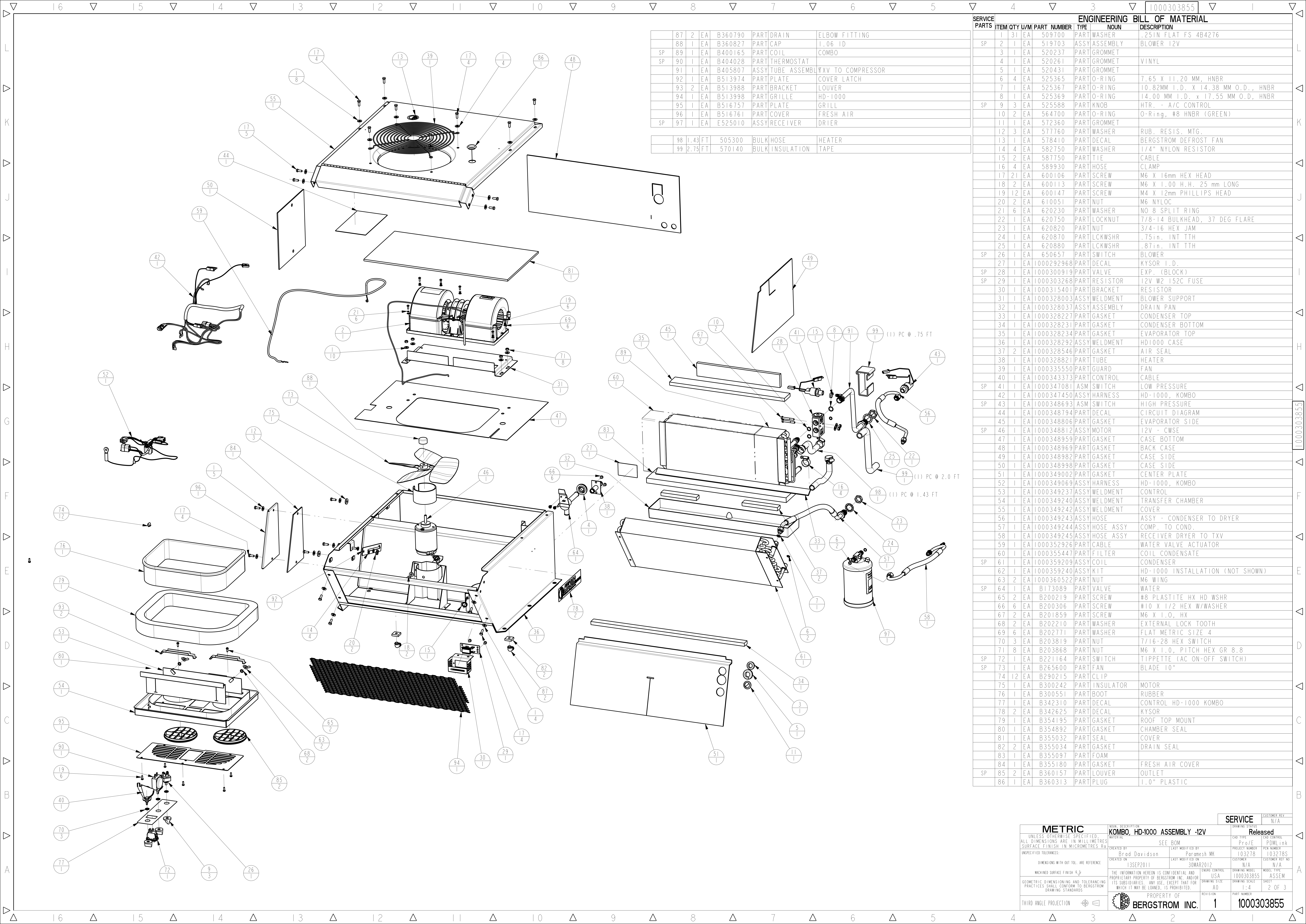


**Bergstrom**  
*Climate Control Systems*

# **HD-1000 Kombo 12V**

**3380024 / 1000303855**

**MARCH 30, 2012**



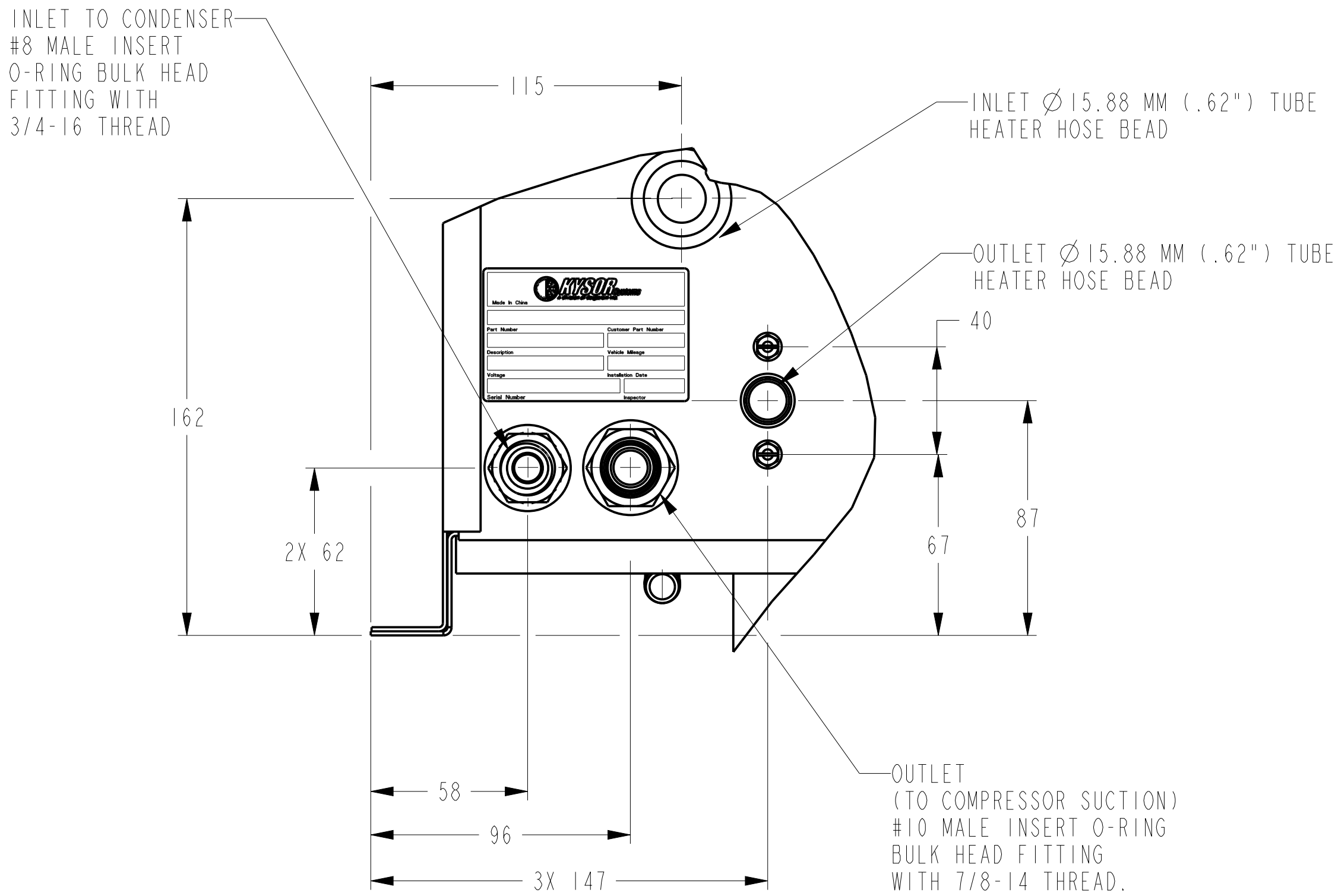
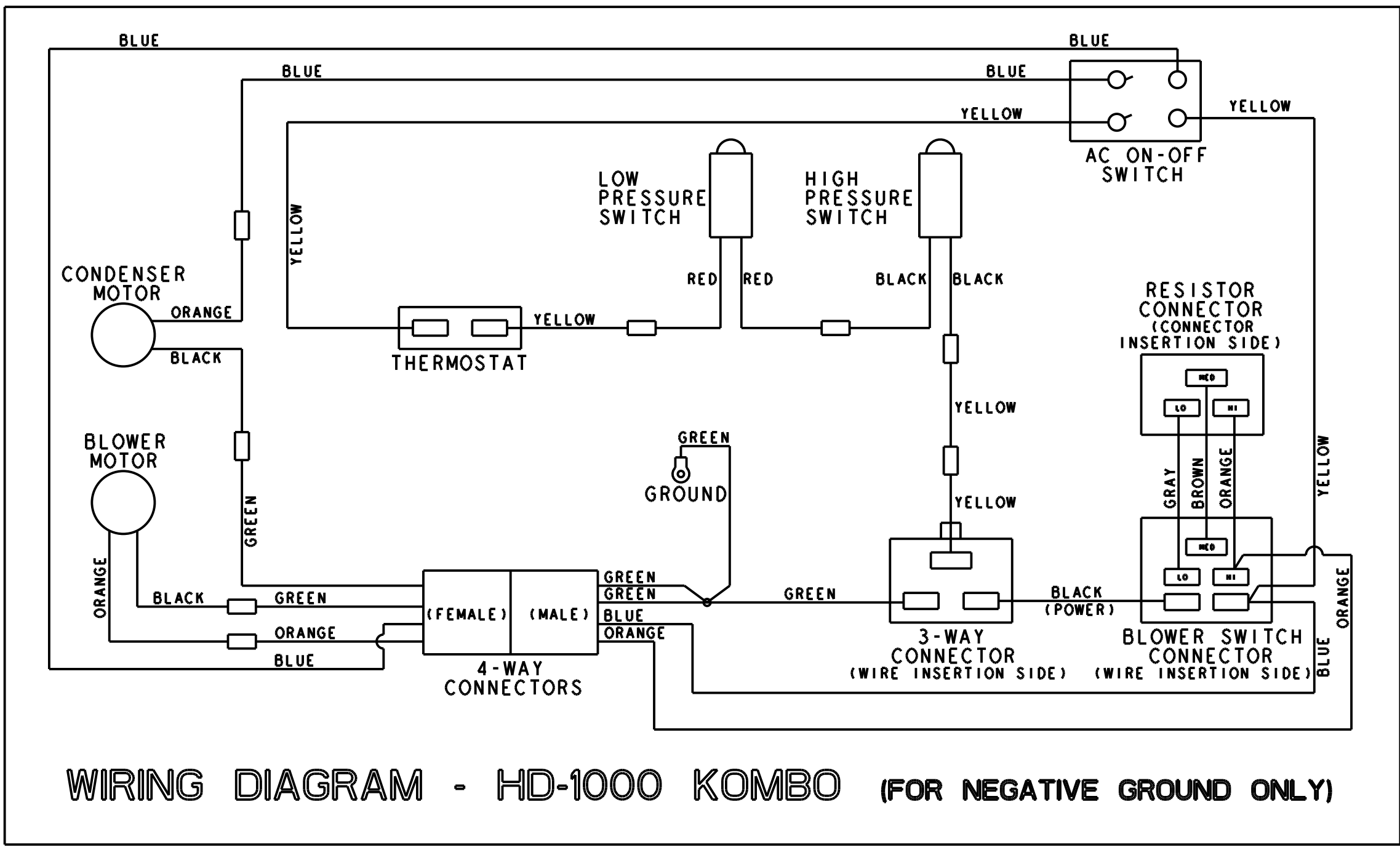
|    |    |      |    |         |                    |                   |
|----|----|------|----|---------|--------------------|-------------------|
|    | 87 | 2    | EA | B360790 | PART DRAIN         | ELBOW FITTING     |
|    | 88 | 1    | EA | B360827 | PART CAP           | 1.06 ID           |
| SP | 89 | 1    | EA | B400165 | PART COIL          | COMBO             |
| SP | 90 | 1    | EA | B404028 | PART THERMOSTAT    |                   |
|    | 91 | 1    | EA | B405807 | ASSY TUBE ASSEMBLY | TXV TO COMPRESSOR |
|    | 92 | 1    | EA | B513974 | PART PLATE         | COVER LATCH       |
|    | 93 | 2    | EA | B513988 | PART BRACKET       | LOUVER            |
|    | 94 | 1    | EA | B513998 | PART GRILLE        | HD-1000           |
|    | 95 | 1    | EA | B516757 | PART PLATE         | GRILL             |
|    | 96 | 1    | EA | B516761 | PART COVER         | FRESH AIR         |
| SP | 97 | 1    | EA | E525010 | ASSY RECEIVER      | DRIER             |
|    | 98 | 1.43 | FT | 505300  | BULK HOSE          | HEATER            |
|    | 99 | 2.75 | FT | 570140  | BULK INSULATION    | TAPE              |

| SERVICE PARTS |  | ITEM QTY |    | U/M PART NUMBER |            | ENGINEERING BILL OF MATERIAL |                                     |
|---------------|--|----------|----|-----------------|------------|------------------------------|-------------------------------------|
|               |  |          |    |                 |            | TYPE                         | DESCRIPTION                         |
|               |  | 1        | 31 | EA              | 509700     | PART WASHER                  | .25IN FLAT FS 4B4276                |
| SP            |  | 2        | 1  | EA              | 519703     | ASSY ASSEMBLY                | BLOWER 12V                          |
|               |  | 3        | 1  | EA              | 520237     | PART GROMMET                 |                                     |
|               |  | 4        | 1  | EA              | 520261     | PART GROMMET                 | VINYL                               |
|               |  | 5        | 1  | EA              | 520431     | PART GROMMET                 |                                     |
|               |  | 6        | 4  | EA              | 525365     | PART O-RING                  | 7.65 X 11.20 MM, HNBR               |
|               |  | 7        | 1  | EA              | 525367     | PART O-RING                  | 10.82MM I.D. X 14.38 MM O.D., HNBR  |
|               |  | 8        | 1  | EA              | 525369     | PART O-RING                  | 14.00 MM I.D. X 17.55 MM O.D., HNBR |
| SP            |  | 9        | 3  | EA              | 525588     | PART KNOB                    | HTR. - A/C CONTROL                  |
|               |  | 10       | 2  | EA              | 564700     | PART O-RING                  | O-Ring, #8 HNBR (GREEN)             |
|               |  | 11       | 1  | EA              | 572360     | PART GROMMET                 |                                     |
|               |  | 12       | 3  | EA              | 577760     | PART WASHER                  | RUB. RESIS. MTG.                    |
|               |  | 13       | 1  | EA              | 578410     | PART DECAL                   | BERGSTROM DEFROST FAN               |
|               |  | 14       | 4  | EA              | 582750     | PART WASHER                  | 1/4" NYLON RESISTOR                 |
|               |  | 15       | 2  | EA              | 587750     | PART TIE                     | CABLE                               |
|               |  | 16       | 4  | EA              | 589930     | PART HOSE                    | CLAMP                               |
|               |  | 17       | 21 | EA              | 600106     | PART SCREW                   | M6 X 16mm HEX HEAD                  |
|               |  | 18       | 2  | EA              | 600113     | PART SCREW                   | M6 X 1.00 H.H. 25 mm LONG           |
|               |  | 19       | 12 | EA              | 600147     | PART SCREW                   | M4 X 12mm PHILLIPS HEAD             |
|               |  | 20       | 2  | EA              | 610051     | PART NUT                     | M6 NYLOC                            |
|               |  | 21       | 6  | EA              | 620230     | PART WASHER                  | NO 8 SPLIT RING                     |
|               |  | 22       | 1  | EA              | 620750     | PART LOCKNUT                 | 7/8-14 BULKHEAD, 37 DEG FLARE       |
|               |  | 23       | 1  | EA              | 620820     | PART NUT                     | 3/4-16 HEX JAM                      |
|               |  | 24       | 1  | EA              | 620870     | PART LCKWSHR                 | .75in. INT TTH                      |
|               |  | 25       | 1  | EA              | 620880     | PART LCKWSHR                 | .87in. INT TTH                      |
| SP            |  | 26       | 1  | EA              | 650657     | PART SWITCH                  | BLOWER                              |
|               |  | 27       | 1  | EA              | 1000292968 | PART DECAL                   | KYSOR I.D.                          |
| SP            |  | 28       | 1  | EA              | 1000300919 | PART VALVE                   | EXP. (BLOCK)                        |
| SP            |  | 29       | 1  | EA              | 1000303268 | PART RESISTOR                | 12V W2 152C FUSE                    |
|               |  | 30       | 1  | EA              | 1000315401 | PART BRACKET                 | RESISTOR                            |
|               |  | 31       | 1  | EA              | 1000328003 | ASSY WELDMENT                | BLOWER SUPPORT                      |
|               |  | 32       | 1  | EA              | 1000328037 | ASSY ASSEMBLY                | DRAIN PAN                           |
|               |  | 33       | 1  | EA              | 1000328227 | PART GASKET                  | CONDENSER TOP                       |
|               |  | 34       | 1  | EA              | 1000328231 | PART GASKET                  | CONDENSER BOTTOM                    |
|               |  | 35       | 1  | EA              | 1000328234 | PART GASKET                  | EVAPORATOR TOP                      |
|               |  | 36       | 1  | EA              | 1000328292 | ASSY WELDMENT                | HD1000 CASE                         |
|               |  | 37       | 2  | EA              | 1000328546 | PART GASKET                  | AIR SEAL                            |
|               |  | 38       | 1  | EA              | 1000328821 | PART TUBE                    | HEATER                              |
|               |  | 39       | 1  | EA              | 1000335550 | PART GUARD                   | FAN                                 |
|               |  | 40       | 1  | EA              | 1000343373 | PART CONTROL                 | CABLE                               |
| SP            |  | 41       | 1  | EA              | 1000347081 | ASM SWITCH                   | LOW PRESSURE                        |
|               |  | 42       | 1  | EA              | 1000347450 | ASSY HARNESS                 | HD-1000, KOMBO                      |
| SP            |  | 43       | 1  | EA              | 1000348693 | ASM SWITCH                   | HIGH PRESSURE                       |
|               |  | 44       | 1  | EA              | 1000348794 | PART DECAL                   | CIRCUIT DIAGRAM                     |
|               |  | 45       | 1  | EA              | 1000348806 | PART GASKET                  | EVAPORATOR SIDE                     |
| SP            |  | 46       | 1  | EA              | 1000348812 | ASSY MOTOR                   | 12V - CWSE                          |
|               |  | 47       | 1  | EA              | 1000348959 | PART GASKET                  | CASE BOTTOM                         |
|               |  | 48       | 1  | EA              | 1000348969 | PART GASKET                  | BACK CASE                           |
|               |  | 49       | 1  | EA              | 1000348982 | PART GASKET                  | CASE SIDE                           |
|               |  | 50       | 1  | EA              | 1000348998 | PART GASKET                  | CASE SIDE                           |
|               |  | 51       | 1  | EA              | 1000349002 | PART GASKET                  | CENTER PLATE                        |
|               |  | 52       | 1  | EA              | 1000349069 | ASSY HARNESS                 | HD-1000, KOMBO                      |
|               |  | 53       | 1  | EA              | 1000349237 | ASSY WELDMENT                | CONTROL                             |
|               |  | 54       | 1  | EA              | 1000349240 | ASSY WELDMENT                | TRANSFER CHAMBER                    |
|               |  | 55       | 1  | EA              | 1000349242 | ASSY WELDMENT                | COVER                               |
|               |  | 56       | 1  | EA              | 1000349243 | ASSY HOSE                    | ASSY - CONDENSER TO DRYER           |
|               |  | 57       | 1  | EA              | 1000349244 | ASSY HOSE ASSY               | COMP. TO COND.                      |
|               |  | 58       | 1  | EA              | 1000349245 | ASSY HOSE ASSY               | RECEIVER DRYER TO TXV               |
|               |  | 59       | 1  | EA              | 1000352926 | PART CABLE                   | WATER VALVE ACTUATOR                |
|               |  | 60       | 1  | EA              | 1000355447 | PART FILTER                  | COIL CONDENSATE                     |
| SP            |  | 61       | 1  | EA              | 1000359209 | ASSY COIL                    | CONDENSER                           |
|               |  | 62       | 1  | EA              | 1000359240 | ASSY KIT                     | HD-1000 INSTALLATION (NOT SHOWN)    |
|               |  | 63       | 2  | EA              | 1000360522 | PART NUT                     | M6 WING                             |
| SP            |  | 64       | 1  | EA              | B173089    | PART VALVE                   | WATER                               |
|               |  | 65       | 2  | EA              | B200219    | PART SCREW                   | #8 PLASTITE HX HD WSHR              |
|               |  | 66       | 6  | EA              | B200306    | PART SCREW                   | #10 X 1/2 HEX W/WASHER              |
|               |  | 67       | 2  | EA              | B201859    | PART SCREW                   | M6 X 1.0, HX                        |
|               |  | 68       | 2  | EA              | B202210    | PART WASHER                  | EXTERNAL LOCK TOOTH                 |
|               |  | 69       | 6  | EA              | B202771    | PART WASHER                  | FLAT METRIC SIZE 4                  |
|               |  | 70       | 3  | EA              | B203819    | PART NUT                     | 7/16-28 HEX SWITCH                  |
|               |  | 71       | 8  | EA              | B203868    | PART NUT                     | M6 X 1.0, PITCH HEX GR 8.8          |
| SP            |  | 72       | 1  | EA              | B221164    | PART SWITCH                  | TIPPETTE (AC ON-OFF SWITCH)         |
| SP            |  | 73       | 1  | EA              | B265600    | PART FAN                     | BLADE 10"                           |
|               |  | 74       | 12 | EA              | B290215    | PART CLIP                    |                                     |
|               |  | 75       | 1  | EA              | B300242    | PART INSULATOR               | MOTOR                               |
|               |  | 76       | 1  | EA              | B300551    | PART BOOT                    | RUBBER                              |
|               |  | 77       | 1  | EA              | B342310    | PART DECAL                   | CONTROL HD-1000 KOMBO               |
|               |  | 78       | 2  | EA              | B342625    | PART DECAL                   | KYSOR                               |
|               |  | 79       | 1  | EA              | B354195    | PART GASKET                  | ROOF TOP MOUNT                      |
|               |  | 80       | 1  | EA              | B354892    | PART GASKET                  | CHAMBER SEAL                        |
|               |  | 81       | 1  | EA              | B355032    | PART SEAL                    | COVER                               |
|               |  | 82       | 2  | EA              | B355034    | PART GASKET                  | DRAIN SEAL                          |
|               |  | 83       | 1  | EA              | B355097    | PART FOAM                    |                                     |
|               |  | 84       | 1  | EA              | B355180    | PART GASKET                  | FRESH AIR COVER                     |
| SP            |  | 85       | 2  | EA              | B360157    | PART LOUVER                  | OUTLET                              |
|               |  | 86       | 1  | EA              | B360313    | PART PLUG                    | 1.0" PLASTIC                        |

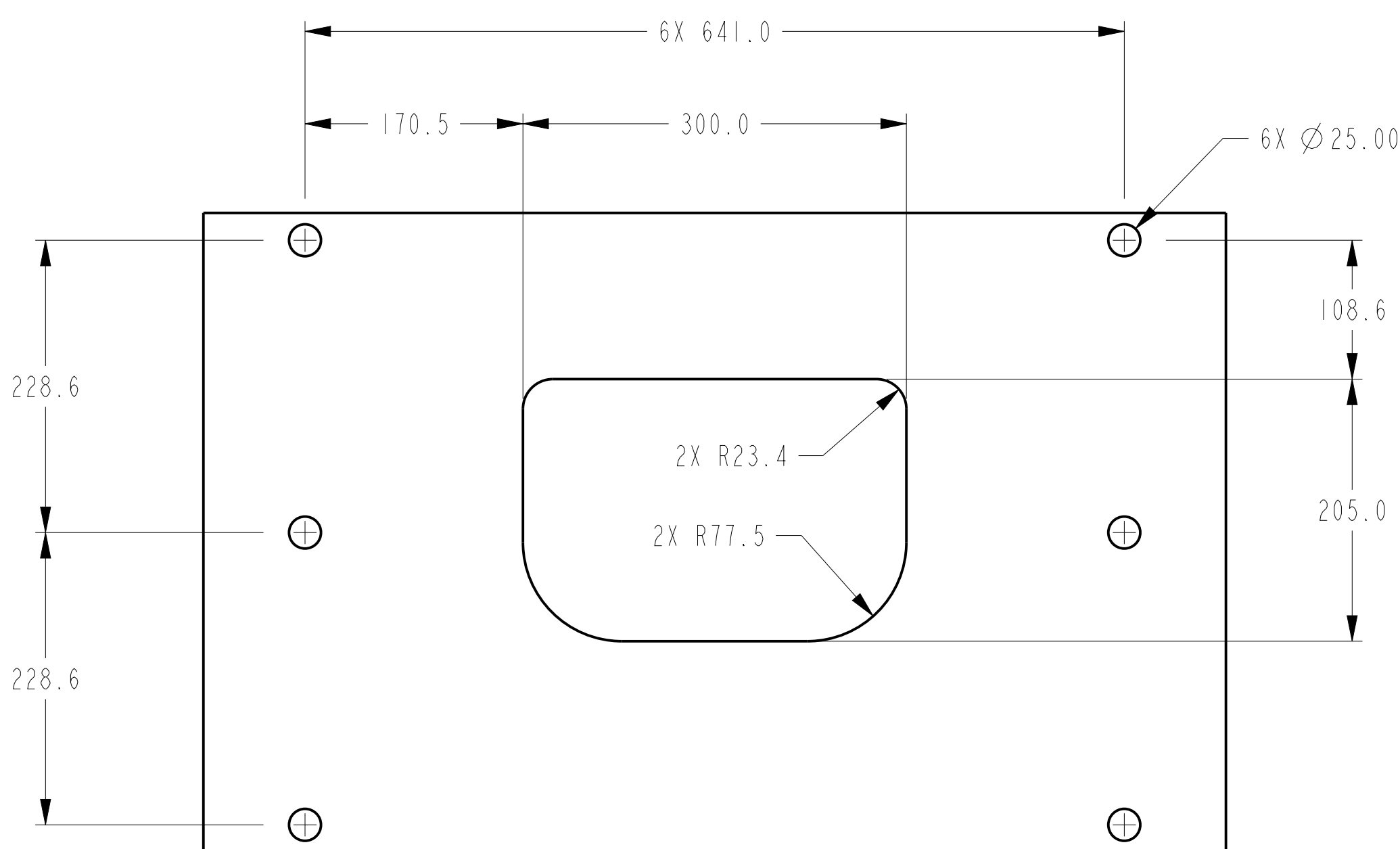
| SERVICE        |  | CUSTOMER REV |  |
|----------------|--|--------------|--|
|                |  | N/A          |  |
| Released       |  |              |  |
| CAD TYPE       |  | Pro/E        |  |
| PROJECT NUMBER |  | 103278       |  |
| CUSTOMER       |  | N/A          |  |
| DRAWING MODEL  |  | 1000303855   |  |
| DRAWING SCALE  |  | 1:4          |  |
| REVISION       |  | 2 OF 3       |  |
| PART NUMBER    |  | 1000303855   |  |

| AC PERFORMANCE TABLE                                                                            |                    |               |
|-------------------------------------------------------------------------------------------------|--------------------|---------------|
| CAPACITY (IMACA 200)<br>32.2°C-DB / 23.9°C-WB<br>(90°F-DB / 75°F-WB)                            | 5.1 kW             | 17,240 BTU/hr |
| CAPACITY (80°F / 36°F)<br>26.7°C-WB/2.2°C EVAP REF.OUT.TEMP.<br>80°F-WB/36°F EVAP REF.OUT.TEMP. | 5.3 kW             | 18,140 BTU/hr |
| AIR FLOW                                                                                        | 535 SCMH           | 315 SCFM      |
| MAX. POWER REQUIRED                                                                             | 32 AMPS @ 13.8 VDC |               |

| HEATER PERFORMANCE TABLE (SAE J 638)          |                    |               |
|-----------------------------------------------|--------------------|---------------|
| CAPACITY @ 82.2°C (180°F)<br>INLET $\Delta T$ | 9.1 kW             | 31,145 BTU/hr |
| CAPACITY @ 37.8°C (100°F)<br>INLET $\Delta T$ | 5.1 kW             | 17,300 BTU/hr |
| AIR FLOW                                      | 527 SCMH           | 310 SCFM      |
| MAX. POWER REQUIRED                           | 22 AMPS @ 13.8 VDC |               |

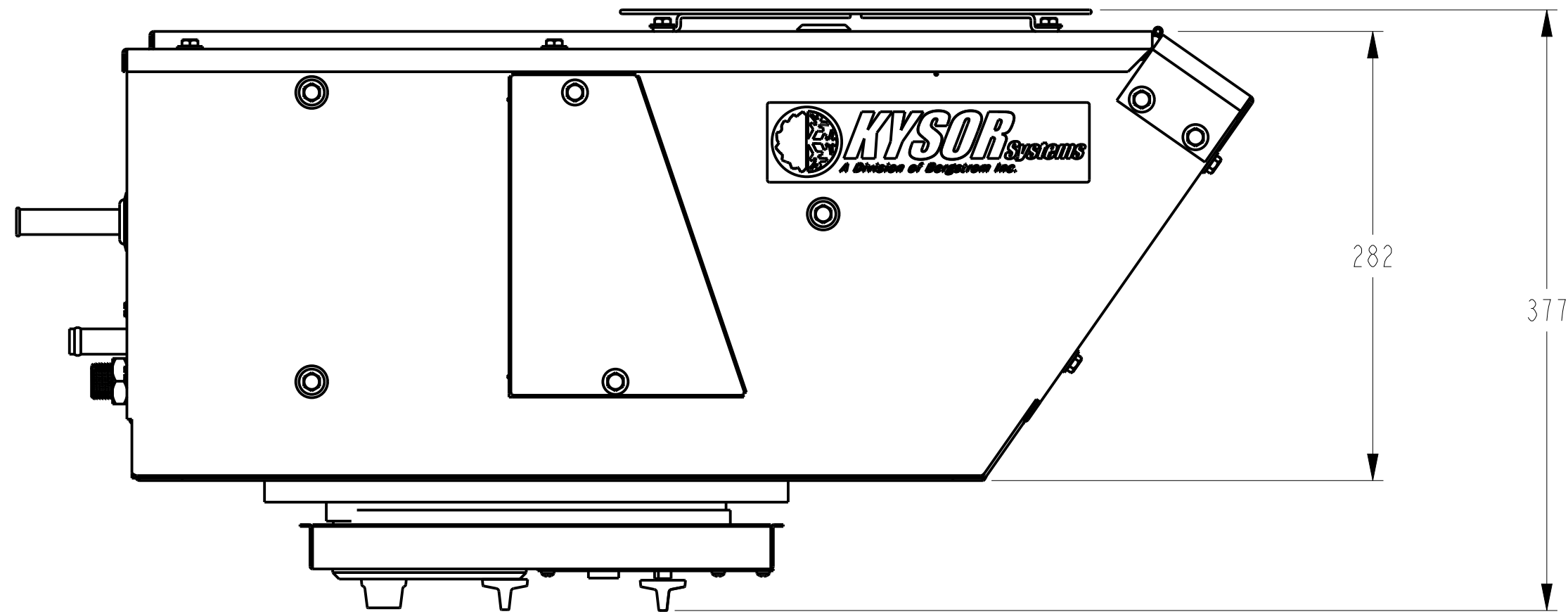
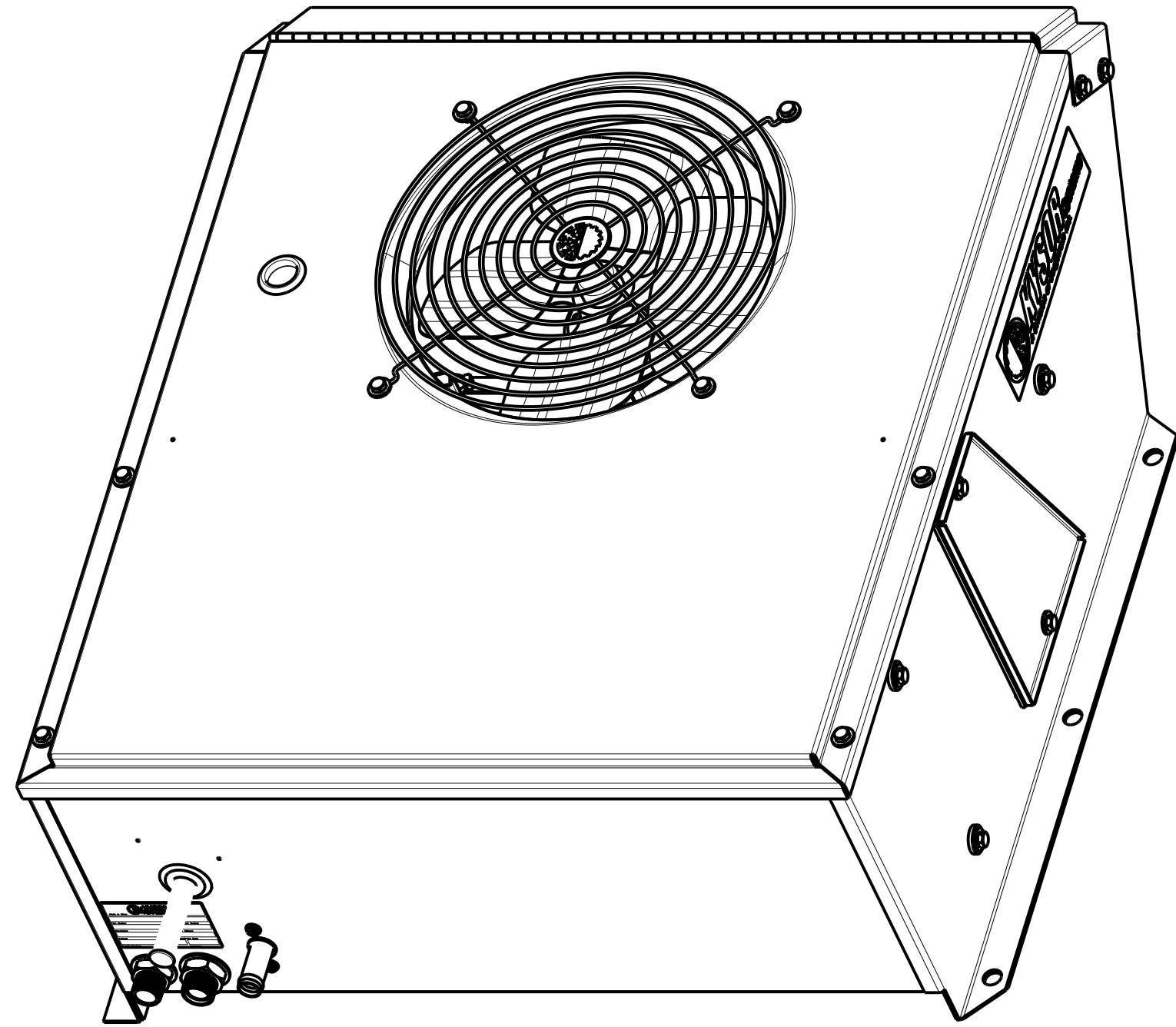
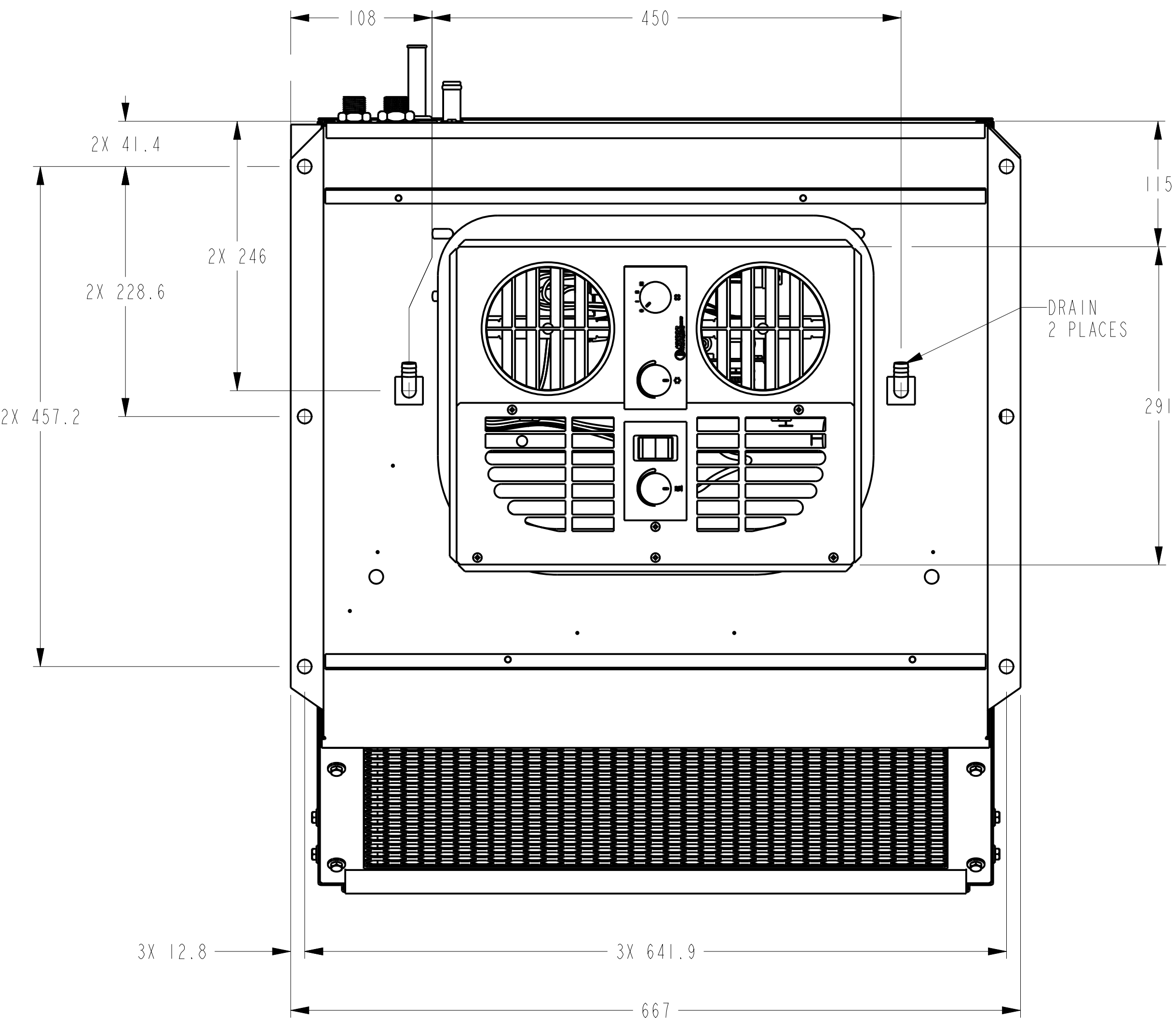
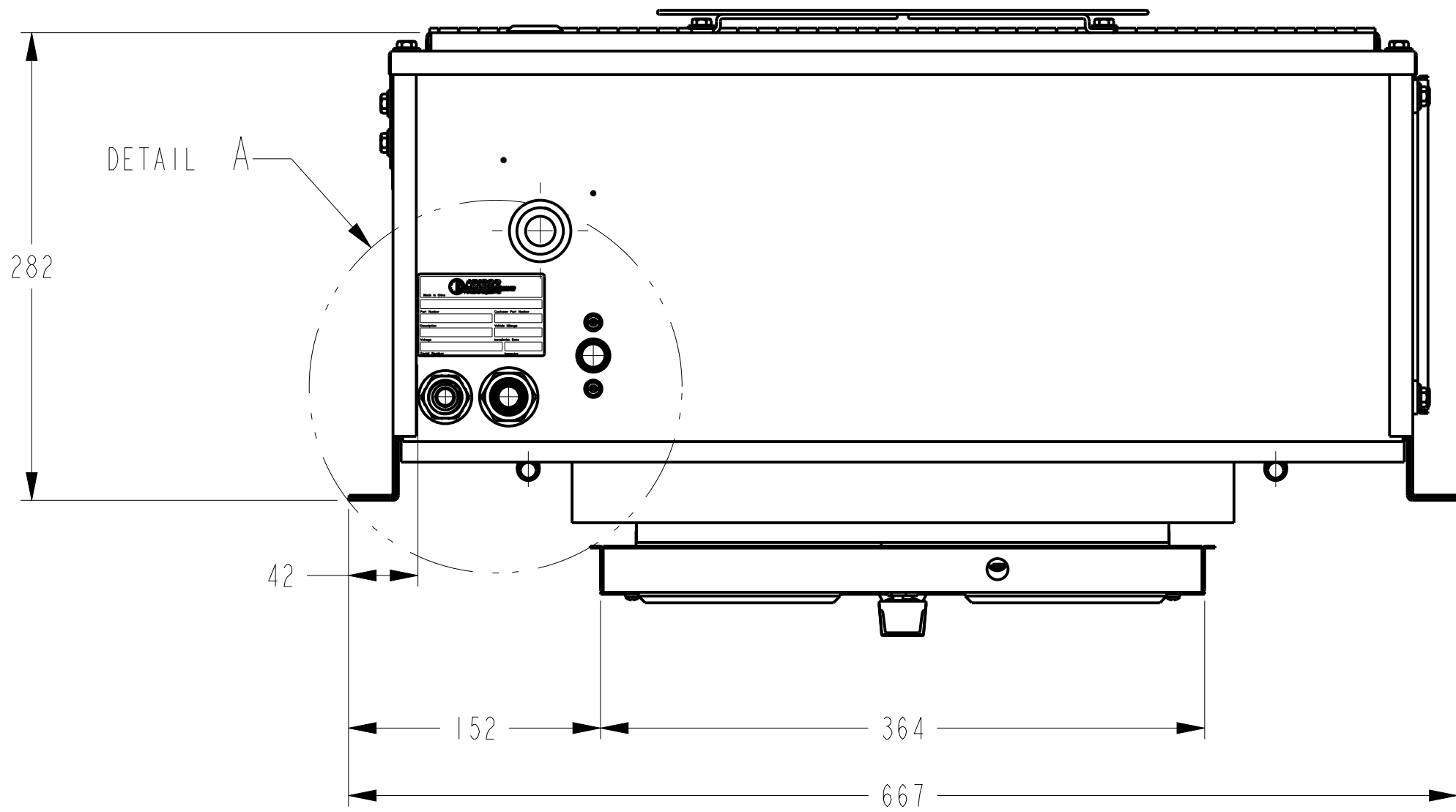
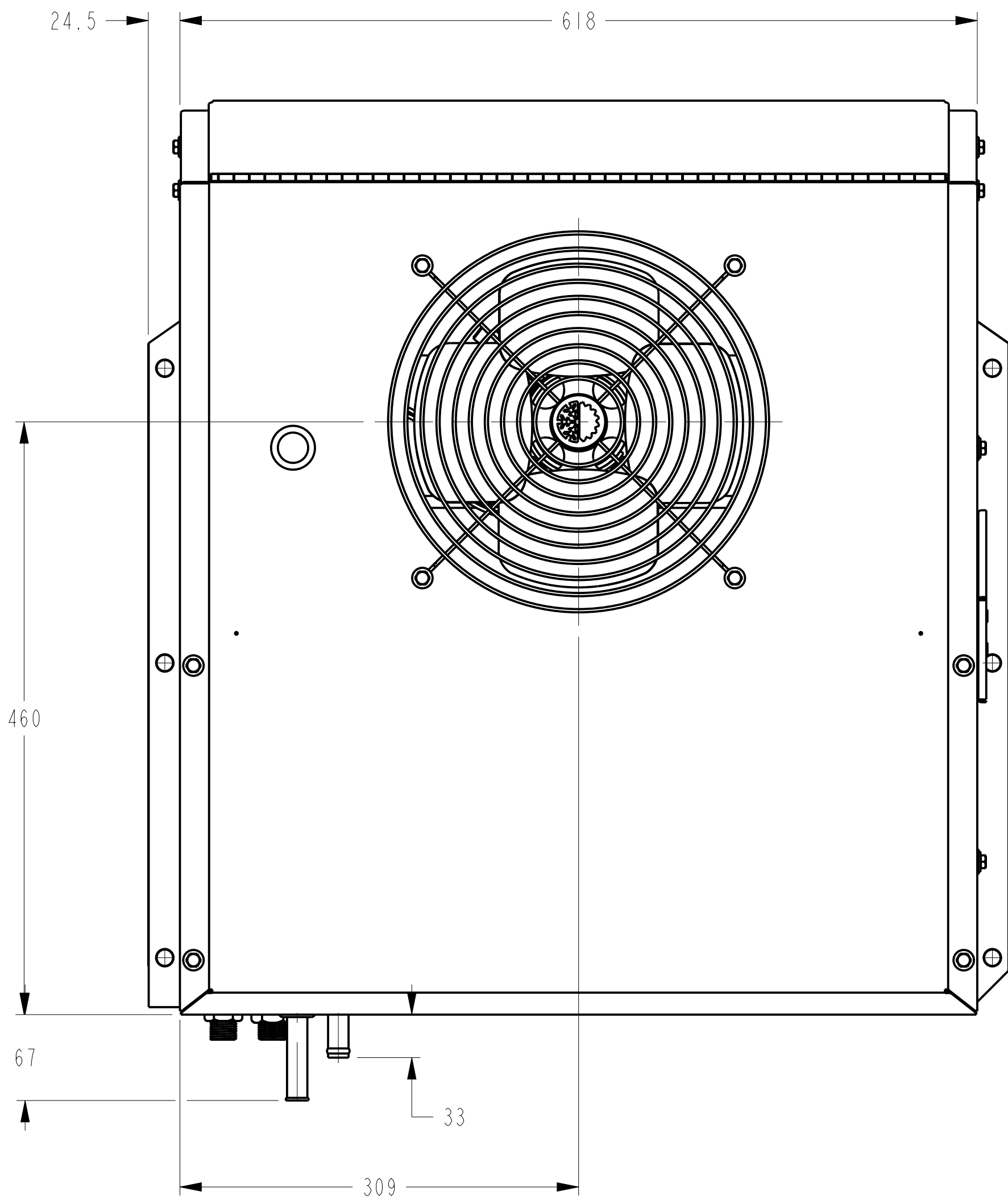


DETAIL A

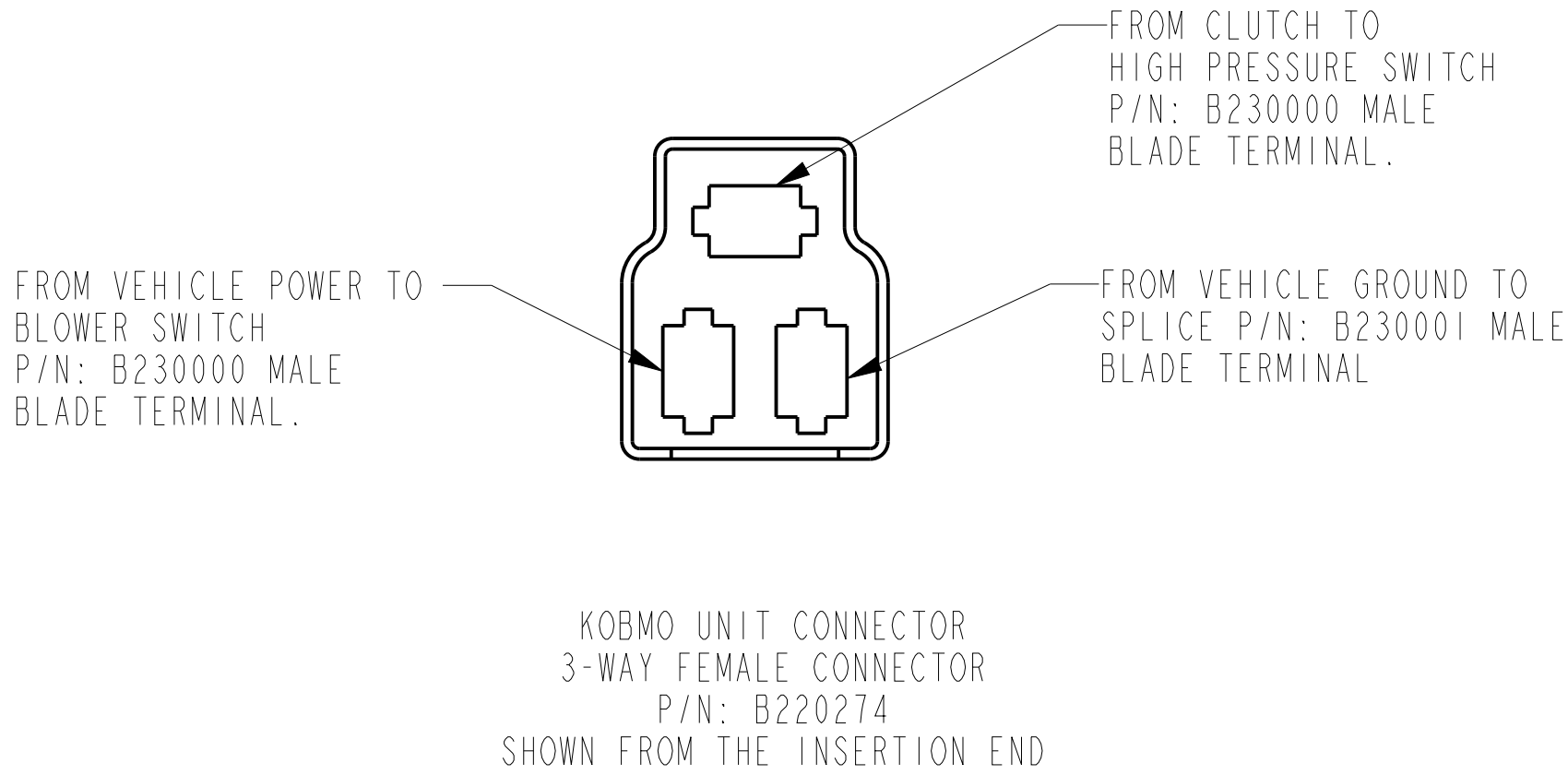


MOUNTING TEMPLATE #342125  
ROOF CUT OUT DIMENSIONS

NOTE:  
1. FULL SIZE PRINT OUT SUPPLIED WITH INSTALLATION KIT.



DETAIL INSTALLATION INSTRUCTIONS



| INSTALLATION   |  | CUSTOMER REV    |  |
|----------------|--|-----------------|--|
| N/A            |  | N/A             |  |
| Released       |  | Released        |  |
| CAD TYPE       |  | CAD CONTROL     |  |
| Pro/E          |  | PDMLink         |  |
| PROJECT NUMBER |  | PEN NUMBER      |  |
| 103278         |  | 103278S         |  |
| CUSTOMER       |  | CUSTOMER REF NO |  |
| N/A            |  | N/A             |  |
| DRAWING MODEL  |  | MODEL TYPE      |  |
| 1000303855     |  | ASSEM           |  |
| DRAWING SCALE  |  | SHEET           |  |
| 3:10           |  | 3 OF 3          |  |
| REVISION       |  | PART NUMBER     |  |
| 1              |  | 1000303855      |  |