

## Plant Specification

|              |               |
|--------------|---------------|
| Quote Number | 3825          |
| Customer     | ADA           |
| End User     | WMS           |
| Site         | WMS Gravesend |
| Date         | 04/08/2021    |

|                   |                             |
|-------------------|-----------------------------|
| Type of Equipment | Multi-Source Heat Pump      |
| Model Code        | MRHP4KU-70/120-637-DT-H-INV |
| Quantity          | 1                           |

| Design Parameters        |          |          |
|--------------------------|----------|----------|
|                          | Source 1 | Source 2 |
| Design Heating Duty (kW) | ~250     |          |
| Refrigerant              | R450A    |          |
| Maximum Condensing (°C)  | 55       |          |
| Ambient (°C)             | 32       |          |
| Super Heat (K)           | 7        | 3        |
| Useful Super Heat (K)    | 4        | 3        |
| Sub Cooling (K)          | 20       | 20       |

### Compressors

| Compressor Manufacturer | Bock           |     |         |             |                 |     |         |             |  |
|-------------------------|----------------|-----|---------|-------------|-----------------|-----|---------|-------------|--|
|                         | Source 1       | Inv | Digital | Sound Shell | Source 2        | Inv | Digital | Sound Shell |  |
| Comp 1                  | HG56e/1155-4 S | ✓   |         |             | HGX66e/2070-4 S | ✓   |         |             |  |
| Comp 2                  | HG56e/1155-4 S | ✓   |         |             | HGX66e/2070-4 S |     |         |             |  |
| Comp 3                  |                |     |         |             |                 |     |         |             |  |
| Comp 4                  |                |     |         |             |                 |     |         |             |  |
| Comp 5                  |                |     |         |             |                 |     |         |             |  |
| Comp 6                  |                |     |         |             |                 |     |         |             |  |
| Comp 7                  |                |     |         |             |                 |     |         |             |  |
| Comp 8                  |                |     |         |             |                 |     |         |             |  |
| Comp 9                  |                |     |         |             |                 |     |         |             |  |
| Comp 10                 |                |     |         |             |                 |     |         |             |  |

### Performance

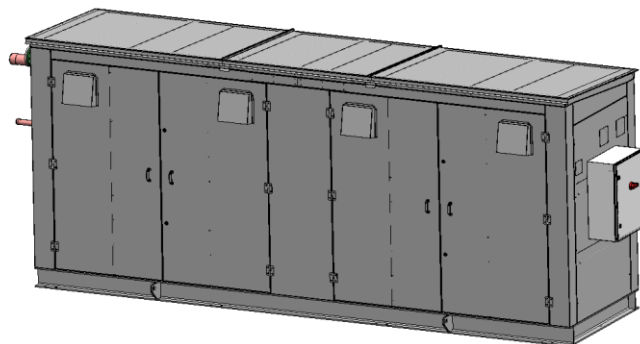
|               |      |       |
|---------------|------|-------|
| FLA 3Ø        | Amps | 287   |
| DRA 3Ø        | Amps | 343   |
| LRA           | Amps | 361   |
| Heat Capacity | kW   | 333   |
| Mass Flow     | kg/s | 1.685 |

### Physical

|                                 |                                       |
|---------------------------------|---------------------------------------|
| Intended Location               | External                              |
| Dimensions                      | (L) x (D) x (H) mm 6000 x 1400 x 2300 |
| Weight                          | kg 5300                               |
| Sound Pressure Level Free Field | dB(A) @ 10m 45                        |
| Sound Power Level Free Field    | dB(A) -                               |
| Colour (RAL)                    | 7038                                  |
| Access                          | Front                                 |
| Services                        | Left/Right                            |
| Primary Control                 | JTL                                   |
| Back Up Control                 |                                       |
| AV Mounts                       | Supplied                              |
| Liquid Receiver Capacity        | Litres (L) 125                        |
| Liquid Receiver Location        | Packaged                              |
| Liquid Receiver Orientation     | Horizontal                            |
| Oil Type                        | BOCKlub E55                           |

### Air Source

| Air Source           | Quantity = 3       | Per Air Source              |
|----------------------|--------------------|-----------------------------|
| Air Source Supplied  |                    | Supplied Loose              |
| Location             |                    | External                    |
| Manufacturer         |                    | Kelvion                     |
| Model                |                    | RF-MA104E4H-091M430-8FPI-EV |
| Fin Type             |                    | CU/CU                       |
| Capacity             | kW                 | 54.88                       |
| Dimensions (Max)     | (L) x (D) x (H) mm | 5123 x 1130 x 1333          |
| Weight               | kg                 | 557                         |
| Sound Pressure Level | dB(A) @ 10m        | 39                          |
| Sound Power Level    | dB(A)              | 71                          |



\*For Illustration Purposes Only

### Notes

Source 1 is a cascade R744 PHX connected to gas cooler outlet of transcritical plant  
Source 2 is 3x air source evaporators