

CM Refrigeration Component Selection

JOB # Test 01-07-1993
JOB NAME: Test 02:36:53
SN# Test
UNIT TAG: Test

V1.00

UNIT SPECIFICATIONS & CAPACITY

Supply air flow= 15000 CFM @ 0 ft Total capacity required= 240000 BTUH
New TOTAL/SENS cap. (BTUH|TONS)= 275034.5 / 248970.8 | 22.92 / 20.75
Dry/wet air temps. (°F)= [80 / 67 ent] [64.63 / 61.57 lvng]
Comp. Spec: (2) 3DB3-1000-TFC/TFD DISCUS COMPRESSOR
13.3 A @ 575 volts ea. CEHR= .789635

EVAPORATOR SPECIFICATIONS 12fpi

(2) E-2-CF-G2@3C/6TH.A-102-??-2@5.6-9
Total single coil height = 19.125 in.
3 circuits 4 tubes/circuit P= 4.583996 psi

Evap temperature= 41.81 °F Cap tube lngth ~ 1.89 ft
Face velocity= 553.6 FPM AFL= .2621 in. wg wet Bypass air= 0 CFM

CONDENSER SPECIFICATIONS 14fpi

(2) C-4-DF-G1@6C/24TH-74-??-7-5
Total single coil height = 38.25 in.
6 circuits 16 tubes/circuit P= 5.380033 psi

Ambient temperature= 95 °F Condensing temperature= 114.23 °F
Total coil(s) air = 25257 CFM Face velocity = 642.5 FPM
Air flow per fan = 4459 CFM Total fan flow = 26757 CFM Fans: 6 @ 32 °

CONTROLS AND PIPE SIZES (per refig system)

SL:9 DL:7 LL:5 Expansion pressure drop = 130.8218 psi
TXV = ALCO TCLE 10HW- X6346-16 I/O sizes=5/5 Nominal capacity= 10.03 tons
Liquid solenoid valve = ALCO 200RB 5T5T PD = 5.872 psi
Liquid line filter drier = ALCO EK-165S Sight glass = ALCO AMI-1TT5

NOTES & WARNINGS

Comp. saturation operation = 37.67 °F / 116.31 °F
NOTE: 10 % relief air = 1500 CFM of the S/A vented by cond fans!
NOTE: Condensers arranged in 2 side mounted banks.
NOTE: Width of 2 suction headers > 80% of evap coil width !
Use headers that are smaller than the suction line !
NOTE: DL flow @ 1/3 loading = 714.9 fpm < 1000fpm upward oil moving limit !
END