

VRF INDOOR UNIT SCHEDULE

System Tag		10-CU-1	10-CU-1	10-CU-1	10-CU-1	10-CU-1	10-CU-1	10-CU-1	10-CU-1	10-CU-1	10-CU-1
Tag Reference		10-FCU-01	10-FCU-02	10-FCU-03	10-FCU-04	10-FCU-05	10-FCU-06	10-FCU-07	10-FCU-08	10-FCU-09	10-FCU-10
Nominal Data	Room Name	Electrical	SCADA	I&C	Multi Purpose	Supervisor	Process	Certified	Locker	Hall	Process
	M-NET Address	1	2	3	4	5	6	7	8	9	10
	Manufacturer	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal	Mitsubishi or Equal
	Model	TPKFYP030KM142B	TPKFYP030KM142B	TPKFYP012LM140B	TPKFYP024KM142B	TPKFYP006LM140B	TPKFYP030KM142B	TPKFYP030KM142B	TPKFYP006LM140B	TPKFYP008LM140B	TPKFYP012LM140B
	Type	Wall -Mounted	Wall -Mounted	Wall -Mounted	Wall -Mounted	Wall -Mounted	Wall -Mounted	Wall -Mounted	Wall -Mounted	Wall -Mounted	Wall -Mounted
	Nominal Cooling Capacity (BTU/h)	30,000	30,000	12,000	24,000	6,000	30,000	30,000	6,000	8,000	12,000
	Nominal Heating Capacity (BTU/h)	34,000	34,000	13,500	27,000	6,700	34,000	34,000	6,700	9,000	13,500
Design Conditions	Cooling Design Entering Temp DB/WB (°F)	80.0/60.3	80.0/60.3	80.0/60.3	75.0/59.2	75.0/59.2	75.0/59.2	75.0/59.2	75.0/59.2	75.0/59.2	85.0/69.0
	Heating Design Entering Temp DB/WB (°F)	50.0	50.0	65.0	72.0	72.0	72.0	72.0	72.0	72.0	50.0
	Cooling Diversity Full/Partial (See Note 5, 6)	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND
	Heating Diversity Full/Partial (See Note 5, 6)	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND	FULL DEMAND
	Refrig Pipe Dim Liquid/Suction (inch)	3/8 / 5/8	3/8 / 5/8	1/4 / 1/2	3/8 / 5/8	1/4 / 1/2	3/8 / 5/8	3/8 / 5/8	1/4 / 1/2	1/4 / 1/2	1/4 / 1/2
Performance Data	Cooling Total Capacity (BTU/h)	26,671.2	26,671.2	10,668.5	21,157.0	5,289.2	26,446.2	26,446.2	5,289.2	7,052.3	12,343.5
	Cooling Sensible Capacity (BTU/h)	26,671.2	26,671.2	10,171.7	21,157.0	4,817.3	25,130.7	25,130.7	4,817.3	6,288.5	8,875.3
	Heating Capacity (BTU/h)	17,654.8	17,654.8	6,920.0	12,875.2	3,194.9	16,213.2	16,213.2	3,194.9	4,291.7	7,010.0
	Estimated Cooling Coil LAT (°F)	52.6	52.6	47.7	53.4	51.4	49.4	49.4	51.4	50.2	56.5
	Estimated Heating Coil LAT (°F)	67.2	67.2	86.4	85.1	87.6	88.4	88.4	87.6	88.8	71.1
Fan Flow Data	Fan Speed Setting	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
	Peak Fan Airflow (cfm)	918	918	297	918	191	918	918	191	237	297
	Sound Pressure Per Fan Speed 208V/230V (dBA)	43-49	43-49	24-31-37-41	39-49	22-26-29-31	43-49	43-49	22-26-29-31	22-27-31-35	24-31-37-41
Electrical Data	Voltage / Phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase	208/230V/1-phase
	Power Cooling 208V/230V (kW)	0.070	0.070	0.040	0.070	0.020	0.070	0.070	0.020	0.030	0.040
	Power Heating 208V/230V (kW)	0.07	0.07	0.03	0.07	0.01	0.07	0.07	0.01	0.02	0.03
	Electrical MCA/MFS	0.63(208V)/0.63(230V)/15	0.63(208V)/0.63(230V)/15	0.24/0.24/15	0.63(208V)/0.63(230V)/15	0.24/0.24/15	0.63(208V)/0.63(230V)/15	0.63(208V)/0.63(230V)/15	0.24/0.24/15	0.24/0.24/15	0.24/0.24/15
	Condensate Removal Rate (gal/hr)	0.97	0.97	0.59	0.53	0.26	0.97	0.97	0.26	0.38	0.59
Notes / Options											
	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7	1, 2, 3, 4, 5, 6,7

Notes & Options:

- 1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- 2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- 3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities
- 4 See schematic piping diagram for indication of required indoor unit remote controllers, system controllers, and integration devices.
- 5 Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system.
- 6 Base heating corrected capacity on full demand.
- 7 Provide Condensate Pump with Reservoir & Sensor

VRF OUTDOOR UNIT SCHEDULE

System Tag		10-CU-1
Tag Reference		10-CU-1
Nominal Data	M-NET Address	51
	Manufacturer	Mitsubishi or Equal
	Model Number	TURYE1684AN41AN
	Modules	EP168
	Nominal Cooling Capacity (BTU/h)	168,000
	Nominal Heating Capacity (BTU/h)	188,000
	Cooling Efficiency IEER/EER [SEER]	21.4 / 10.05
	Heating COP @ 47°F [HSPF]	3.550
	Nom System Connected Capacity (% of NOM)	111.9 %
Design Conditions	Design Cooling Outdoor Temp DB (°F)	95.0
	Design Heating Outdoor Temp WB (°F)	-1.5
	Max Pipe Length from BC or 1st Joint (feet)	61.6
	Refrig Pipe Dim High/Low Pressure (inch) (See Note 4)	7/8 / 1-1/8
Performance Data	Corrected Cooling Total Capacity (BTU/h)	168,034.8
	Corrected Heating Capacity (BTU/h)	105,222.7
	Sound Pressure (dBA)	81.5/85.5
Compressor Data	Compressor Type	SCROLL
	Compressor Quantity	1
	Preliminary Added Field Charge (See Note 5)	36.7
Electrical Data	Voltage / Phase	460V / 3-phase 3-wire
	MCA 208/230 or [460V]	35
	Recommended Fuse Size (RFS)	40
	MOCP	50
Notes / Options	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Notes & Options:

- 1
- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- 2
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- 3
- Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units.
- 4
- For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module twinning.
- 5
- Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.
- 6
- Factory representatives shall review the project prior to and throughout the installation of CITY MULTI equipment
- 7
- Factory representatives shall startup and commission CITY MULTI equipment upon completion of equipment installations
- 8
- Factory representatives shall provide on-site assistance for the BMS integration of the CITY MULTI equipment
- 9
- Factory representatives shall provide end-user training on the CITY MULTI equipment upon completion of the installation of equipment
- 10
- Provide Panel Heater Kit to Prevent Ice Buildup on Outdoor Drain Pan

VRF HEAT RECOVERY BRANCH
CIRCUIT CONTROLLER

System Tag		10-CU-1
Tag Reference		10-BCC-1
Nominal Data	M-NET Address	52
	Manufacturer	Mitsubishi or Equal
	Model Number	TCMBG1012SJ11N4
	Type (double / Main / Sub)	Single
	Number of Ports	12
	Connected Capacity to BC	188,000.0
Electrical Data	Voltage / Phase	208/230V / 1-phase
	Power Cooling 208V/230V (kW)	0.198/0.255
	Power Heating 208V/230V (kW)	0.106/0.137
	MCA 208/230	1.19/1.39
Notes / Options	Applicable System Notes - See Notes Below	1

Notes & Options:

- 1 Include Diamondback Ball Valves BV-Series, 700PSIG working pressure, full port, 410A rated.
- 2 For sub BC controller CMB-P-NU-GB1 or -GB, the total connectable indoor unit capacity can be 126,000 BTUs or less. If two sub BC controllers are used, the total indoor unit capacity connected to BOTH sub BC controllers also cannot exceed 126,000 BTUs. For sub BC controller CMB-P1016NU-HB1 the total connectable indoor unit capacity can be 126,000 BTUs or less. However, if two sub controllers are used, and one of them is CMB-1016NU-HB1, the total indoor unit capacity connected to BOTH sub controllers must NOT exceed 168,000 BTUs.
- 3 Provide Refrigeration Ball Valve-Braze/Schrader/Insulated - 3/8" size
- 4 Provide Refrigeration Ball Valve-Braze/Schrader/Insulated - 5/8" size

