

MITSUBISHI ELECTRIC TRANE HVAC US

SPLIT-TYPE AIR CONDITIONERS

December 2021

TECHNICAL DATA **R410A**

No. OCDT636
REVISED EDITION-A

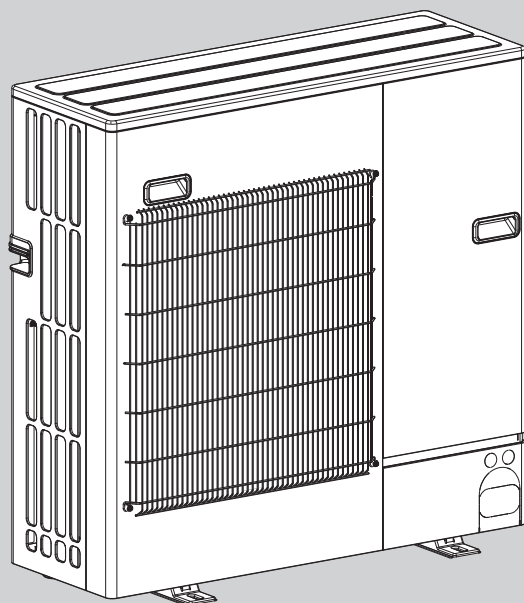
Outdoor unit
[Model Name]

TRUZA0121KA70NA
TRUZA0181KA70NA
TRUYA0121KA70NA
TRUYA0181KA70NA
TRUZA0241HA70NA
TRUZA0301HA70NA
TRUYA0241HA70NA
TRUYA0301HA70NA
TRUZA0361KA70NA
TRUZA0421KA70NA
TRUYA0361KA70NA
TRUYA0421KA70NA

Revision:

- Corporate logo has been changed in REVISED EDITION-A.

OCDT636 is void.



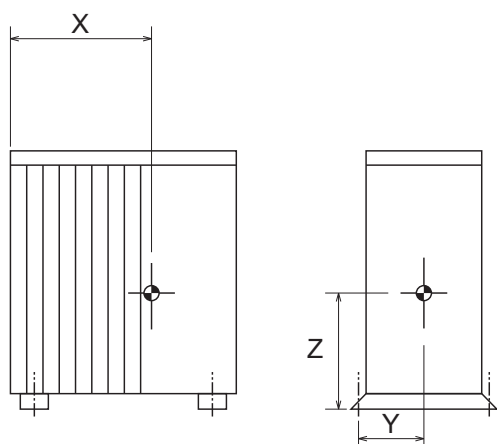
TRUZA0241/0301HA70NA
TRUYA0241/0301HA70NA

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POSITION OF THE CENTER OF GRAVITY

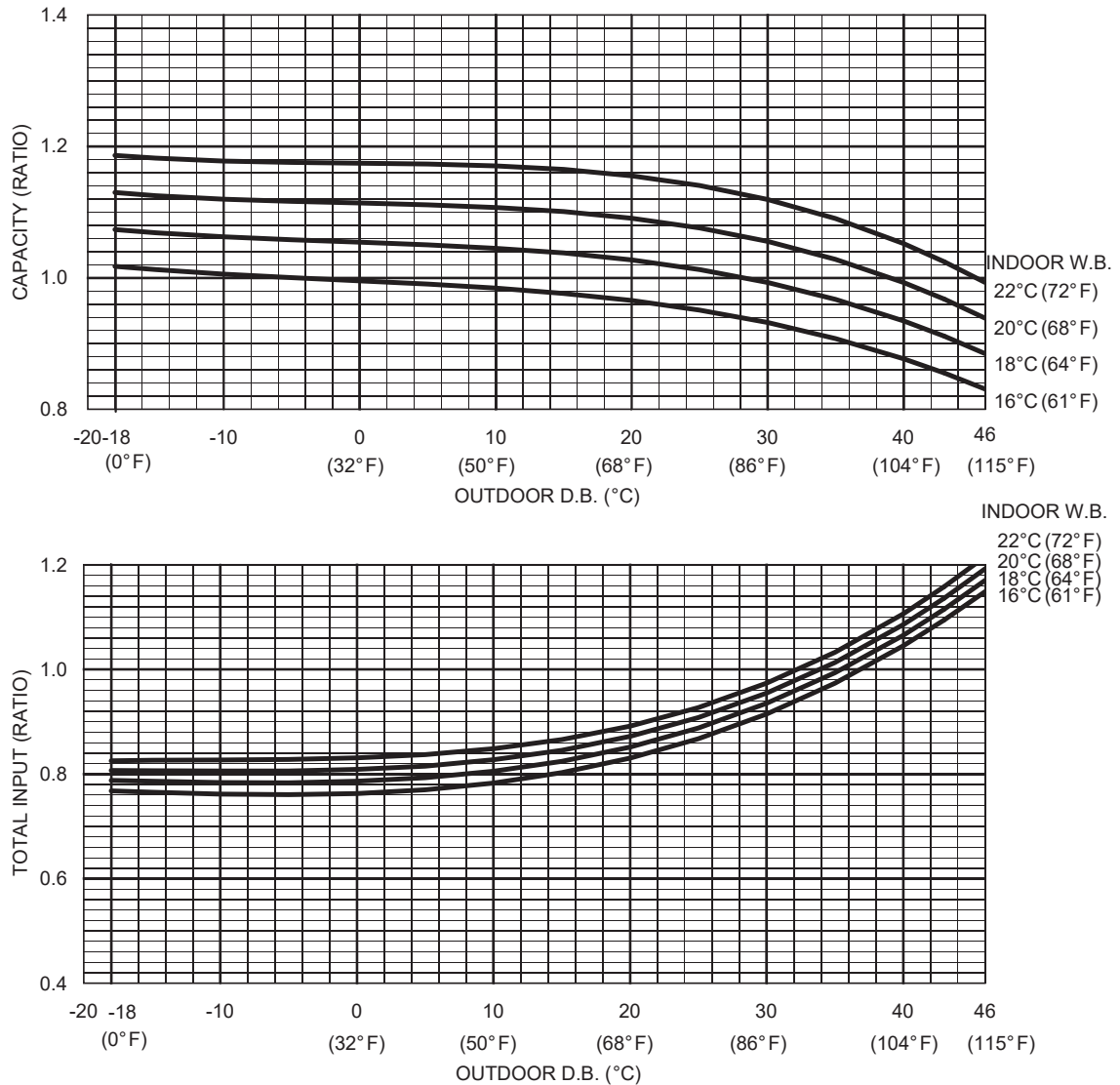


Unit: inch (mm)

Model name	X	Y	Z
TRUZA012/0181KA70 TRUYA012/0181KA70	20-3/8 (518)	5-1/2 (140)	12-3/4 (300)
TRUZA024/0301HA70 TRUYA024/0301HA70	21-5/8 (549)	7 (180)	17-5/8 (450)
TRUZA036/0421KA70 TRUYA036/0421KA70	24-3/8 (619)	5-7/8 (150)	22-3/4 (580)

FOR THE COMBINATION OF OUTDOOR UNIT

Cooling performance curve



Note: This diagram shows the case where the operation frequency of a compressor is fixed.

CAPACITY (RATIO)

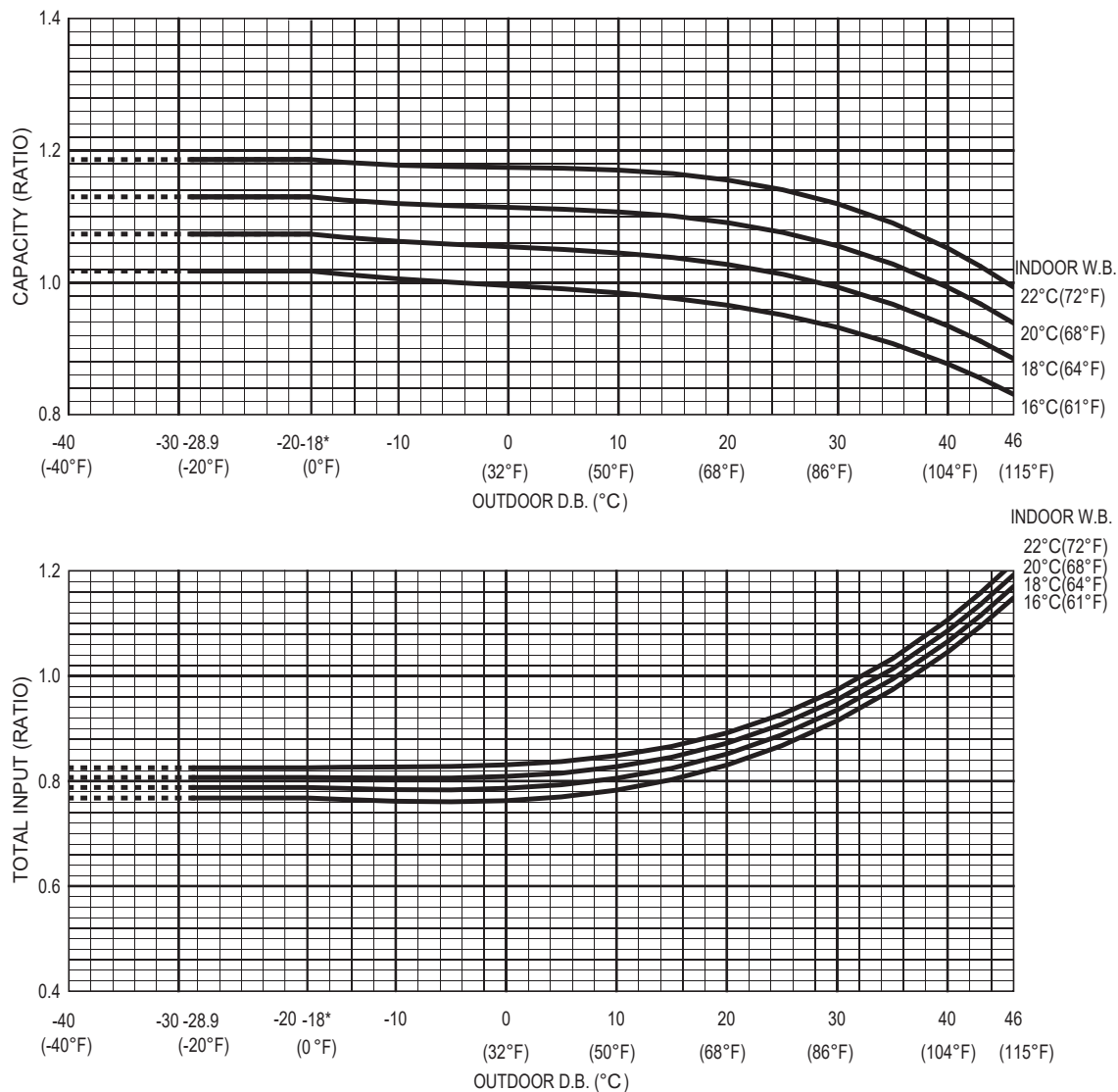
Outdoor D.B. [°C]	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B. [°F]	0	-	-	23	32	-	50	-	68	-	86	-	104	-	115
Indoor W.B. 22°C (72°F)	1.186	1.182	1.178	1.175	1.174	1.173	1.170	1.165	1.155	1.141	1.119	1.090	1.052	1.024	0.993
Indoor W.B. 20°C (68°F)	1.130	1.125	1.120	1.116	1.114	1.111	1.107	1.101	1.091	1.076	1.056	1.028	0.993	0.968	0.939
Indoor W.B. 18°C (64°F)	1.073	1.068	1.062	1.058	1.054	1.050	1.045	1.038	1.027	1.013	0.993	0.967	0.934	0.911	0.885
Indoor W.B. 16°C (61°F)	1.018	1.012	1.006	1.000	0.995	0.990	0.984	0.976	0.965	0.951	0.932	0.908	0.877	0.855	0.831

TOTAL INPUT (RATIO)

Outdoor D.B. [°C]	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B. [°F]	0	-	-	23	-	-	50	-	68	-	86	-	104	-	115
Indoor W.B. 22°C (72°F)	0.825	0.826	0.827	0.828	0.831	0.837	0.848	0.866	0.892	0.927	0.973	1.033	1.106	1.158	1.216
Indoor W.B. 20°C (68°F)	0.807	0.806	0.805	0.806	0.809	0.815	0.827	0.845	0.872	0.908	0.954	1.013	1.086	1.136	1.192
Indoor W.B. 18°C (64°F)	0.788	0.786	0.784	0.783	0.786	0.793	0.805	0.824	0.852	0.888	0.935	0.994	1.065	1.115	1.170
Indoor W.B. 16°C (61°F)	0.768	0.765	0.761	0.760	0.763	0.770	0.783	0.802	0.830	0.867	0.915	0.974	1.045	1.094	1.149

FOR THE COMBINATION OF OUTDOOR UNIT

Cooling performance curve



Note: This diagram shows the case where the operation frequency of a compressor is fixed.

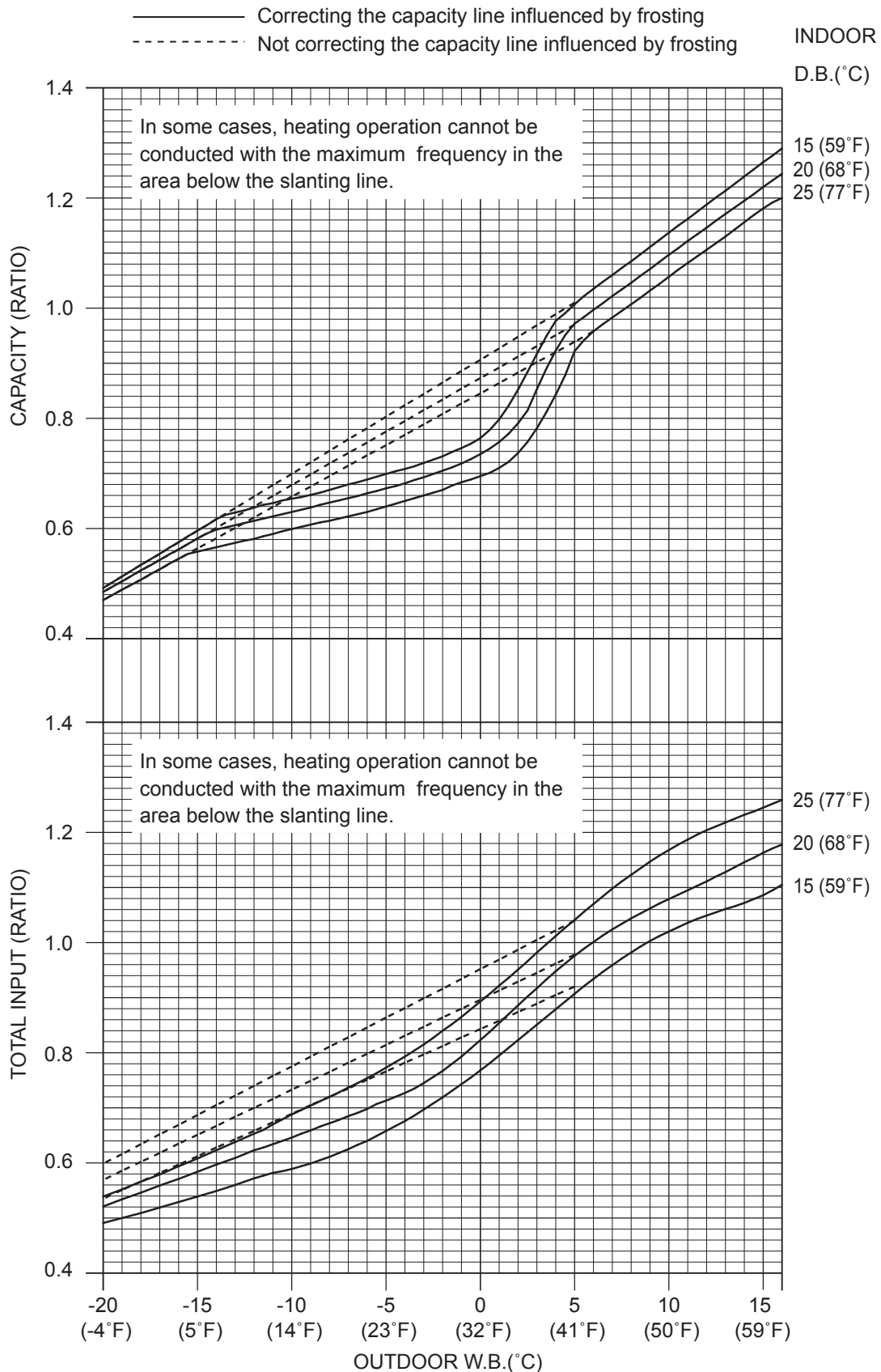
CAPACITY (RATIO)

Outdoor D.B. [°C]	-28.9	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B. [°F]	-20	0	-	-	23	32	-	50	-	68	-	86	-	104	-	115
Indoor W.B. 22°C (72°F)	1.186	1.186	1.182	1.178	1.175	1.174	1.173	1.170	1.165	1.155	1.141	1.119	1.090	1.052	1.024	0.993
Indoor W.B. 20°C (68°F)	1.130	1.130	1.125	1.120	1.116	1.114	1.111	1.107	1.101	1.091	1.076	1.056	1.028	0.993	0.968	0.939
Indoor W.B. 18°C (64°F)	1.073	1.073	1.068	1.062	1.058	1.054	1.050	1.045	1.038	1.027	1.013	0.993	0.967	0.934	0.911	0.885
Indoor W.B. 16°C (61°F)	1.018	1.018	1.012	1.006	1.000	0.995	0.990	0.984	0.976	0.965	0.951	0.932	0.908	0.877	0.855	0.831

TOTAL INPUT (RATIO)

Outdoor D.B. [°C]	-28.9	-18	-15	-10	-5	0	5	10	15	20	25	30	35	40	43	46
Outdoor D.B. [°F]	-20	0	-	-	23	-	-	50	-	68	-	86	-	104	-	115
Indoor W.B. 22°C (72°F)	0.825	0.825	0.826	0.827	0.828	0.831	0.837	0.848	0.866	0.892	0.927	0.973	1.033	1.106	1.158	1.216
Indoor W.B. 20°C (68°F)	0.807	0.807	0.806	0.805	0.806	0.809	0.815	0.827	0.845	0.872	0.908	0.954	1.013	1.086	1.136	1.192
Indoor W.B. 18°C (64°F)	0.788	0.788	0.786	0.784	0.783	0.786	0.793	0.805	0.824	0.852	0.888	0.935	0.994	1.065	1.115	1.170
Indoor W.B. 16°C (61°F)	0.768	0.768	0.765	0.761	0.760	0.763	0.770	0.783	0.802	0.830	0.867	0.915	0.974	1.045	1.094	1.149

Heating performance curve



Note : This diagram shows the case where the operation frequency of a compressor is fixed.

3-1. TRUZA series

■ COOLING CAPACITY CORRECTION FACTORS

Outdoor unit	Refrigerant piping length (one way)					
	5m (16ft)	10m (33ft)	20m (70ft)	30m (100ft)	40m (130ft)	50m (165ft)
TRUZA012/018	1.00	0.985	0.948	0.916	—	—
TRUZA024/030	1.00	0.988	0.964	0.938	0.915	0.893
TRUZA036/042	1.00	0.985	0.948	0.916	0.886	0.859

■ HEATING CAPACITY CORRECTION FACTORS

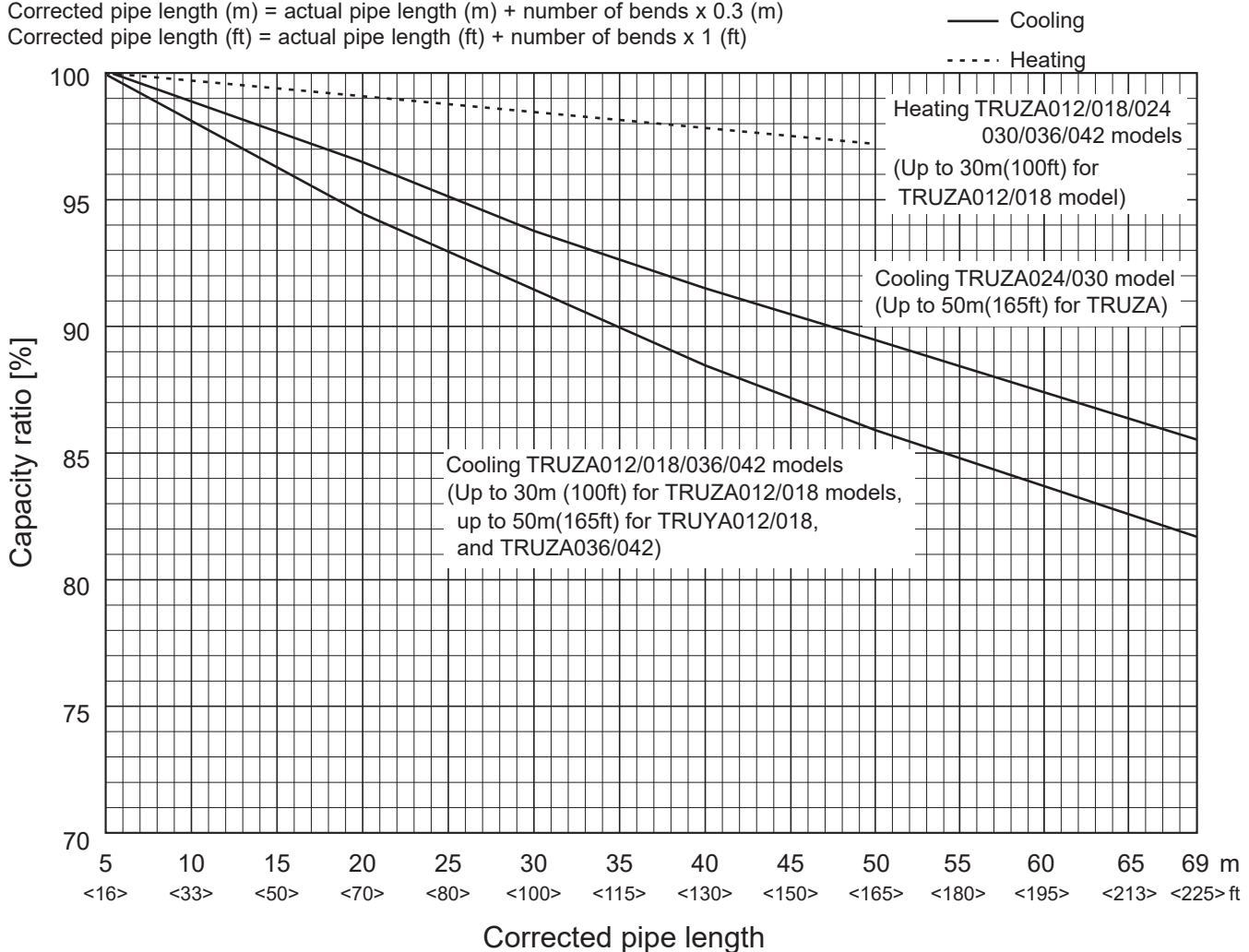
Outdoor unit	Refrigerant piping length (one way)					
	5m (16ft)	10m (33ft)	20m (70ft)	30m (100ft)	40m (130ft)	50m (165ft)
TRUZA012/018	1.00	0.997	0.991	0.985	—	—
TRUZA024/030	1.00	0.997	0.991	0.985	0.979	0.973
TRUZA036/042	1.00	0.997	0.991	0.985	0.979	0.973

■ CAPACITY CORRECTION

Cooling and heating capacity is lowered according to pipe length. Capacity can be obtained by referring to the capacity curves below.

Corrected pipe length (m) = actual pipe length (m) + number of bends x 0.3 (m)

Corrected pipe length (ft) = actual pipe length (ft) + number of bends x 1 (ft)



3-2. TRUYA series

■ COOLING CAPACITY CORRECTION FACTORS

Outdoor unit	Refrigerant piping length (one way)							
	5m (16ft)	10m (33ft)	20m (70ft)	30m (100ft)	40m (130ft)	50m (165ft)	60m (195ft)	69m (225ft)
TRUYA012/018	1.00	0.985	0.948	0.916	0.886	0.859	—	—
TRUYA024/030	1.00	0.988	0.964	0.938	0.915	0.893	0.872	0.855
TRUYA036/042	1.00	0.985	0.948	0.916	0.886	0.859	0.838	0.818

3-3. ADDITION OF REFRIGERANT

- Additional charging is not necessary if the pipe length does not exceed 21 m (70 ft) for TRUYA012-030, TRUYA012-030, or 30 m (100 ft) for TRUYA036/042, TRUYA036/042.
- If the pipe length exceeds the specified length above, charge the unit with additional R410A refrigerant according to the permitted pipe lengths in the chart below.
 - * When the unit is stopped, charge the unit with the additional refrigerant through the liquid stop valve after the pipe extensions and indoor unit have been vacuumized.
 - * When the unit is operating, add refrigerant to the gas check valve using a safety charger. Do not add liquid refrigerant directly to the check valve.
 - * After charging the unit with refrigerant, note the added refrigerant amount on the service label (attached to the unit).
- Be careful when installing multiple units. Connecting to an incorrect indoor unit can lead to abnormally high pressure and have a serious effect on operation performance.

■ TRUYA series

Model	Max. pipe length	Max. height difference	Additional refrigerant charging amount (kg/oz)										
			21 m 70 ft	24 m 80 ft	27 m 90 ft	30 m 100 ft	34 m 110 ft	37 m 120 ft	40 m 130 ft	43 m 140 ft	46 m 150 ft	49 m 160 ft	50 m 165 ft
TRUYA012/018	30 m, 100 ft	30 m, 100 ft	0	0.06 kg 2 oz	0.11 kg 4 oz	0.17 kg 6 oz	-	-	-	-	-	-	-
TRUYA024/030	50 m, 165 ft	30 m, 100 ft	0	0.2 kg 7 oz	0.4 kg 14 oz	0.6 kg 21 oz	0.79 kg 28 oz	0.99 kg 35 oz	1.19 kg 42 oz	1.39 kg 49 oz	1.59 kg 56 oz	1.79 kg 63 oz	1.89 kg 66.5 oz
TRUYA036/042	50 m, 165 ft	30 m, 100 ft	0	0	0	0	0.2 kg 7 oz	0.4 kg 14 oz	0.6 kg 21 oz	0.79 kg 28 oz	0.99 kg 35 oz	1.19 kg 42 oz	1.29 kg 45.5 oz

■ TRUYA series

Model	Max. pipe length	Max. height difference	Additional refrigerant charging amount (kg/oz)																	
			21 m 70 ft	24 m 80 ft	27 m 90 ft	30 m 100 ft	34 m 110 ft	37 m 120 ft	40 m 130 ft	43 m 140 ft	46 m 150 ft	49 m 160 ft	50 m 165 ft	52 m 170 ft	55 m 180 ft	58 m 190 ft	61 m 200 ft	64 m 210 ft	67 m 220 ft	69 m 225 ft
TRUYA012/018	50 m, 165 ft	30 m, 100 ft	0	0.03 kg 1 oz	0.06 kg 2 oz	0.09 kg 3 oz	0.11 kg 4 oz	0.14 kg 5 oz	0.17 kg 6 oz	0.20 kg 7 oz	0.23 kg 8 oz	0.26 kg 9 oz	0.27 kg 9.5 oz	-	-	-	-	-	-	-
TRUYA024/030	69 m, 225 ft	30 m, 100 ft	0	0.09 kg 3 oz	0.17 kg 6 oz	0.26 kg 9 oz	0.34 kg 12 oz	0.43 kg 15 oz	0.51 kg 18 oz	0.60 kg 21 oz	0.68 kg 24 oz	0.77 kg 27 oz	0.81 kg 28.5 oz	0.85 kg 30 oz	0.94 kg 33 oz	1.02 kg 36 oz	1.11 kg 39 oz	1.19 kg 42 oz	1.28 kg 45 oz	1.32 kg 46.5 oz
TRUYA036/042	69 m, 225 ft	30 m, 100 ft	0	0	0	0	0.09 kg 3 oz	0.17 kg 6 oz	0.26 kg 9 oz	0.34 kg 12 oz	0.43 kg 15 oz	0.51 kg 18 oz	0.55 kg 20 oz	0.60 kg 21 oz	0.68 kg 24 oz	0.77 kg 27 oz	0.85 kg 30 oz	0.94 kg 33 oz	1.02 kg 36 oz	1.06 kg 37.5 oz

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