

Part load Heating Performance
MSZ-AY15VGK(P)/MUZ-AY15VG

	Ambient temperature	Indoor DB									
		5		10		15		20		25	
		Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP
Max frequency	20	4.56	4.23	4.39	3.90	4.22	3.60	3.98	3.32	3.67	3.04
	15	4.16	4.09	4.00	3.78	3.84	3.49	3.70	3.22	3.51	2.94
	12	3.91	4.00	3.76	3.70	3.62	3.41	3.48	3.15	3.32	2.88
	7	3.51	3.84	3.37	3.54	3.24	3.27	3.11	3.02	2.97	2.76
	2	3.10	3.65	2.98	3.37	2.87	3.11	2.76	2.87	2.63	2.63
	-7	2.37	3.22	2.28	2.98	2.19	2.75	2.11	2.54	2.01	2.32
	-10	2.12	3.05	2.04	2.82	1.96	2.60	1.89	2.40	1.80	2.20
	-15	1.72	2.72	1.65	2.51	1.59	2.32	1.53	2.14	1.46	1.96
	-20	1.31	2.31	1.26	2.13	1.21	1.97	1.17	1.81	1.11	1.66
Rated frequency	20	2.97	6.11	2.86	5.64	2.75	5.20	2.64	4.80	2.57	4.52
	15	2.70	5.65	2.59	5.22	2.49	4.82	2.40	4.45	2.31	4.19
	12	2.54	5.42	2.44	5.01	2.35	4.62	2.26	4.27	2.17	3.99
	7	2.26	5.10	2.18	4.71	2.09	4.35	2.01	4.01	1.91	3.67
	2	1.98	4.81	1.91	4.44	1.83	4.10	1.76	3.78	1.66	3.40
	-7	1.48	4.56	1.42	4.21	1.36	3.89	1.31	3.59	1.21	3.04
	-10	1.31	4.54	1.26	4.19	1.21	3.87	1.16	3.57	1.05	2.96
	-15	1.03	4.50	0.99	4.16	0.95	3.84	0.92	3.54	0.79	2.82
	-20	0.77	4.44	0.74	4.10	0.71	3.78	0.68	3.49	0.54	2.56
Minimum frequency	20	0.69	5.65	0.66	5.22	0.64	4.82	0.61	4.45	0.59	4.18
	15	0.62	5.24	0.60	4.83	0.58	4.46	0.55	4.12	0.54	3.88
	12	0.59	5.02	0.57	4.63	0.54	4.28	0.52	3.95	0.50	3.70
	7	0.52	4.72	0.50	4.36	0.48	4.03	0.47	3.72	0.44	3.40
	2	0.46	4.45	0.44	4.11	0.42	3.79	0.41	3.50	0.38	3.14
	-7	0.34	4.22	0.33	3.90	0.32	3.60	0.30	3.32	0.28	2.82
	-10	0.30	4.21	0.29	3.88	0.28	3.58	0.27	3.31	0.24	2.74
	-15	0.24	4.17	0.23	3.85	0.22	3.55	0.21	3.28	0.18	2.61
	-20	0.18	4.11	0.17	3.79	0.16	3.50	0.16	3.23	0.13	2.37
-25	0.11	4.00	0.11	3.70	0.10	3.41	0.10	3.15	0.07	1.97	

※The changes in capacity and efficiency due to the defrosting operation are not considered.

※Ambient temperature condition is DB 20°C/WB 19°C, DB 15°C/WB 14°C, DB 12°C/WB 11°C, DB 7°C/WB 6°C, DB 2°C/WB 1°C, DB -7°C/WB -8°C, DB -10°C/WB -11°C, DB -20°C/WB -21°C, DB -25°C/WB -26°C,

Part load Cooling Performance
MSZ-AY15VGK(P)/MUZ-AY15VG

		INDOOR									
		Ambient temperature	DB	21		27			32		
			WB	15	19	15	19	23	15	19	23
Max frequency	46	Capacity	1.87	2.19	1.87	2.19	2.51	1.87	2.19	2.51	
		SHF	0.72	0.48	0.96	0.72	0.48	1.00	0.92	0.68	
		EER	2.22	2.39	2.22	2.39	2.57	2.22	2.39	2.57	
	40	Capacity	2.06	2.37	2.06	2.37	2.67	2.06	2.37	2.67	
		SHF	0.72	0.48	0.96	0.72	0.48	1.00	0.92	0.68	
		EER	2.58	2.71	2.58	2.71	2.84	2.58	2.71	2.84	
	35	Capacity	2.27	2.56	2.27	2.56	2.85	2.27	2.56	2.85	
		SHF	0.72	0.48	0.96	0.72	0.48	1.00	0.92	0.68	
		EER	2.99	3.09	2.99	3.09	3.19	2.99	3.09	3.19	
	30	Capacity	2.43	2.72	2.43	2.72	3.02	2.43	2.72	3.02	
		SHF	0.72	0.48	0.96	0.72	0.48	1.00	0.92	0.68	
		EER	3.45	3.52	3.45	3.52	3.59	3.45	3.52	3.59	
	25	Capacity	2.65	2.93	2.65	2.93	3.21	2.65	2.93	3.21	
		SHF	0.72	0.48	0.96	0.72	0.48	1.00	0.92	0.68	
		EER	4.07	4.09	4.07	4.09	4.11	4.07	4.09	4.11	
	20	Capacity	2.86	3.13	2.86	3.13	3.40	2.86	3.13	3.40	
		SHF	0.72	0.48	0.96	0.72	0.48	1.00	0.92	0.68	
		EER	4.69	4.66	4.69	4.66	4.63	4.69	4.66	4.63	
Rated frequency	46	Capacity	1.10	1.29	1.10	1.29	1.48	1.10	1.29	1.48	
		SHF	0.86	0.62	1.00	0.86	0.62	1.00	1.00	0.82	
		EER	2.93	3.15	2.93	3.15	3.38	2.93	3.15	3.38	
	40	Capacity	1.22	1.40	1.22	1.40	1.58	1.22	1.40	1.58	
		SHF	0.86	0.62	1.00	0.86	0.62	1.00	1.00	0.82	
		EER	3.40	3.57	3.40	3.57	3.75	3.40	3.57	3.75	
	35	Capacity	1.34	1.51	1.34	1.51	1.68	1.34	1.51	1.68	
		SHF	0.86	0.62	1.00	0.86	0.62	1.00	1.00	0.82	
		EER	3.94	4.07	3.94	4.07	4.20	3.94	4.07	4.20	
	30	Capacity	1.43	1.61	1.43	1.61	1.78	1.43	1.61	1.78	
		SHF	0.86	0.62	1.00	0.86	0.62	1.00	1.00	0.82	
		EER	4.54	4.64	4.54	4.64	4.73	4.54	4.64	4.73	
	25	Capacity	1.56	1.73	1.56	1.73	1.89	1.56	1.73	1.89	
		SHF	0.86	0.62	1.00	0.86	0.62	1.00	1.00	0.82	
		EER	5.36	5.39	5.36	5.39	5.42	5.36	5.39	5.42	
	20	Capacity	1.69	1.85	1.69	1.85	2.00	1.69	1.85	2.00	
		SHF	0.86	0.62	1.00	0.86	0.62	1.00	1.00	0.82	
		EER	6.18	6.14	6.18	6.14	6.11	6.18	6.14	6.11	
Minimum Frequency	46	Capacity	0.15	0.18	0.15	0.18	0.20	0.15	0.18	0.20	
		EER	1.24	1.34	1.24	1.34	1.44	1.24	1.34	1.44	
	40	Capacity	0.17	0.19	0.17	0.19	0.22	0.17	0.19	0.22	
		EER	1.44	1.52	1.44	1.52	1.60	1.44	1.52	1.60	
	35	Capacity	0.18	0.21	0.18	0.21	0.23	0.18	0.21	0.23	
		EER	1.68	1.73	1.68	1.73	1.79	1.68	1.73	1.79	
	30	Capacity	0.20	0.22	0.20	0.22	0.25	0.20	0.22	0.25	
		EER	1.93	1.97	1.93	1.97	2.01	1.93	1.97	2.01	
	25	Capacity	0.22	0.24	0.22	0.24	0.26	0.22	0.24	0.26	
		EER	2.28	2.29	2.28	2.29	2.31	2.28	2.29	2.31	
	20	Capacity	0.23	0.25	0.23	0.25	0.28	0.23	0.25	0.28	
		EER	2.63	2.61	2.63	2.61	2.60	2.63	2.61	2.60	

Part load Cooling performance (Low ambient Condition)

		INDOOR (°C)									
		Ambient temperature(DB	21		27			32		
			WB	15	19	15	19	23	15	19	23
Max Frequency	15	Capacity	1.34	1.51	1.34	1.51	1.68	1.34	1.51	1.68	
	-10	SHF	0.86	0.62	1.00	0.86	0.62	1.00	1.00	0.82	
		EER	3.94	4.07	3.94	4.07	4.20	3.94	4.07	4.20	

※The low ambient condition requires a special control and all the performance is equal to or less than the rated operation.

Part load Heating Performance
MSZ-AY20VGK(P)/MUZ-AY20VG

	Ambient temperature	Indoor DB									
		5		10		15		20		25	
		Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP
Max frequency	20	5.60	3.63	5.19	3.35	4.79	3.10	4.43	2.86	4.05	2.61
	15	5.31	3.55	5.02	3.27	4.67	3.02	4.32	2.79	3.95	2.55
	12	5.02	3.49	4.80	3.22	4.58	2.97	4.25	2.74	3.88	2.51
	7	4.53	3.38	4.36	3.12	4.19	2.88	4.02	2.66	3.76	2.43
	2	4.05	3.25	3.90	3.00	3.75	2.77	3.60	2.56	3.43	2.34
	-7	3.18	2.97	3.06	2.74	2.94	2.53	2.83	2.34	2.70	2.14
	-10	2.89	2.85	2.78	2.64	2.68	2.43	2.57	2.25	2.45	2.05
	-15	2.41	2.63	2.32	2.43	2.23	2.24	2.14	2.07	2.04	1.89
	-20	1.93	2.35	1.85	2.17	1.78	2.00	1.71	1.85	1.64	1.69
	-25	1.45	2.01	1.39	1.86	1.34	1.71	1.29	1.58	1.23	1.45
Rated frequency	20	3.72	6.36	3.57	5.87	3.44	5.42	3.30	5.00	3.21	4.71
	15	3.37	5.89	3.24	5.44	3.12	5.02	3.00	4.63	2.89	4.36
	12	3.17	5.65	3.05	5.21	2.94	4.81	2.82	4.44	2.71	4.16
	7	2.83	5.31	2.72	4.90	2.62	4.53	2.51	4.18	2.39	3.83
	2	2.48	5.01	2.38	4.62	2.29	4.27	2.20	3.94	2.07	3.54
	-7	1.84	4.75	1.77	4.38	1.71	4.05	1.64	3.74	1.51	3.17
	-10	1.63	4.73	1.57	4.37	1.51	4.03	1.45	3.72	1.32	3.08
	-15	1.29	4.69	1.24	4.33	1.19	4.00	1.14	3.69	0.99	2.94
	-20	0.96	4.62	0.92	4.27	0.89	3.94	0.85	3.64	0.68	2.67
	-25	0.61	4.50	0.58	4.16	0.56	3.84	0.54	3.54	0.38	2.22
Minimum frequency	20	0.51	5.37	0.49	4.96	0.47	4.58	0.46	4.23	0.44	3.98
	15	0.46	4.98	0.45	4.59	0.43	4.24	0.41	3.91	0.40	3.68
	12	0.44	4.77	0.42	4.41	0.41	4.07	0.39	3.75	0.37	3.51
	7	0.39	4.49	0.38	4.14	0.36	3.83	0.35	3.53	0.33	3.23
	2	0.34	4.23	0.33	3.90	0.32	3.60	0.30	3.33	0.29	2.99
	-7	0.25	4.01	0.24	3.70	0.24	3.42	0.23	3.16	0.21	2.68
	-10	0.23	4.00	0.22	3.69	0.21	3.41	0.20	3.14	0.18	2.60
	-15	0.18	3.96	0.17	3.66	0.16	3.38	0.16	3.12	0.14	2.48
	-20	0.13	3.90	0.13	3.60	0.12	3.33	0.12	3.07	0.09	2.26
	-25	0.08	3.81	0.08	3.51	0.08	3.24	0.07	2.99	0.05	1.87

※The changes in capacity and efficiency due to the defrosting operation are not considered.

※Ambient temperature condition is DB 20°C/WB 19°C, DB 15°C/WB 14°C, DB 12°C/WB 11°C, DB 7°C/WB 6°C, DB 2°C/WB 1°C, DB -7°C/WB -8°C, DB -10°C/WB -11°C, DB -20°C/WB -21°C, DB -25°C/WB -26°C,

Part load Cooling Performance
MSZ-AY20VGK(P)/MUZ-AY20VG

		INDOOR									
		Ambient temperature	DB	21		27			32		
			WB	15	19	15	19	23	15	19	23
Max frequency	46	Capacity	2.00	2.34	2.00	2.34	2.68	2.00	2.34	2.68	
		SHF	0.75	0.51	0.99	0.75	0.51	1.00	0.95	0.71	
		EER	2.51	2.71	2.51	2.71	2.91	2.51	2.71	2.91	
	40	Capacity	2.20	2.53	2.20	2.53	2.85	2.20	2.53	2.85	
		SHF	0.75	0.51	0.99	0.75	0.51	1.00	0.95	0.71	
		EER	2.92	3.07	2.92	3.07	3.22	2.92	3.07	3.22	
	35	Capacity	2.42	2.73	2.42	2.73	3.04	2.42	2.73	3.04	
		SHF	0.75	0.51	0.99	0.75	0.51	1.00	0.95	0.71	
		EER	3.39	3.50	3.39	3.50	3.61	3.39	3.50	3.61	
	30	Capacity	2.59	2.91	2.59	2.91	3.22	2.59	2.91	3.22	
		SHF	0.75	0.51	0.99	0.75	0.51	1.00	0.95	0.71	
		EER	3.90	3.99	3.90	3.99	4.07	3.90	3.99	4.07	
	25	Capacity	2.83	3.12	2.83	3.12	3.42	2.83	3.12	3.42	
		SHF	0.75	0.51	0.99	0.75	0.51	1.00	0.95	0.71	
		EER	4.61	4.63	4.61	4.63	4.66	4.61	4.63	4.66	
	20	Capacity	3.06	3.34	3.06	3.34	3.63	3.06	3.34	3.63	
		SHF	0.75	0.51	0.99	0.75	0.51	1.00	0.95	0.71	
		EER	5.31	5.28	5.31	5.28	5.25	5.31	5.28	5.25	
	Rated frequency	46	Capacity	1.47	1.72	1.47	1.72	1.97	1.47	1.72	1.97
			SHF	0.80	0.56	1.00	0.80	0.56	1.00	0.97	0.76
			EER	3.14	3.38	3.14	3.38	3.63	3.14	3.38	3.63
		40	Capacity	1.62	1.86	1.62	1.86	2.10	1.62	1.86	2.10
			SHF	0.80	0.56	1.00	0.80	0.56	1.00	0.97	0.76
			EER	3.64	3.83	3.64	3.83	4.02	3.64	3.83	4.02
35		Capacity	1.78	2.01	1.78	2.01	2.24	1.78	2.01	2.24	
		SHF	0.80	0.56	1.00	0.80	0.56	1.00	0.97	0.76	
		EER	4.23	4.37	4.23	4.37	4.51	4.23	4.37	4.51	
30		Capacity	1.91	2.14	1.91	2.14	2.37	1.91	2.14	2.37	
		SHF	0.80	0.56	1.00	0.80	0.56	1.00	0.97	0.76	
		EER	4.87	4.97	4.87	4.97	5.08	4.87	4.97	5.08	
25		Capacity	2.08	2.30	2.08	2.30	2.52	2.08	2.30	2.52	
		SHF	0.80	0.56	1.00	0.80	0.56	1.00	0.97	0.76	
		EER	5.75	5.78	5.75	5.78	5.81	5.75	5.78	5.81	
20		Capacity	2.25	2.46	2.25	2.46	2.67	2.25	2.46	2.67	
		SHF	0.80	0.56	1.00	0.80	0.56	1.00	0.97	0.76	
		EER	6.63	6.59	6.63	6.59	6.55	6.63	6.59	6.55	
Minimum Frequency		46	Capacity	0.28	0.33	0.28	0.33	0.38	0.28	0.33	0.38
			EER	1.94	2.09	1.94	2.09	2.25	1.94	2.09	2.25
		40	Capacity	0.31	0.36	0.31	0.36	0.40	0.31	0.36	0.40
			EER	2.25	2.37	2.25	2.37	2.49	2.25	2.37	2.49
		35	Capacity	0.34	0.39	0.34	0.39	0.43	0.34	0.39	0.43
			EER	2.62	2.70	2.62	2.70	2.79	2.62	2.70	2.79
	30	Capacity	0.37	0.41	0.37	0.41	0.46	0.37	0.41	0.46	
		EER	3.02	3.08	3.02	3.08	3.14	3.02	3.08	3.14	
	25	Capacity	0.40	0.44	0.40	0.44	0.48	0.40	0.44	0.48	
		EER	3.56	3.58	3.56	3.58	3.60	3.56	3.58	3.60	
	20	Capacity	0.43	0.47	0.43	0.47	0.51	0.43	0.47	0.51	
		EER	4.10	4.08	4.10	4.08	4.05	4.10	4.08	4.05	

Part load Cooling performance (Low ambient Condition)

		INDOOR (°C)									
		Ambient temperature	DB	21		27			32		
			WB	15	19	15	19	23	15	19	23
Max Frequency	15	Capacity	1.78	2.01	1.78	2.01	2.24	1.78	2.01	2.24	
	-10	SHF	0.80	0.56	1.00	0.80	0.56	1.00	0.97	0.76	
		EER	4.23	4.37	4.23	4.37	4.51	4.23	4.37	4.51	

※The low ambient condition requires a special control and all the performance is equal to or less than the rated operation.