

MHI

TECHNICAL MANUAL

Manual No. '09-SRK-T-090

WALL MOUNTED TYPE ROOM AIR-CONDITIONERS

(Split system, air to air heat pump type)

SRK20HG-1

SRK28HG-1

SRK40HG-1

SRK52HE-2

SRK63HE-2

SRK71HE-2

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Model SRK20HG-1
 SRK28HG-1
 SRK40HG-1

1. Specifications ----- 1~3^{page}

2. Differences between HG and HG-1

	SRK20HG	SRK20HG-1
Heat Exchanger (outdoor unit)	straight fin φ9.52 Cu Tube	M shape fin φ7.94 Cu Tube
Refrigerant	0.73kg	0.68kg

	SRK28HG	SRK28HG-1
Heat Exchanger (outdoor unit)	straight fin φ9.52 Cu Tube	M shape fin φ7.94 Cu Tube
Refrigerant	0.89kg	0.85kg

	SRK40HG	SRK40HG-1
Compressor	2KS206D3AC04 (Rotary)	RM5515ENE7 (Rotary)

3. Others

Other items are the same as that of SRK20/28/40HG. Refer to Manual No.'07·SRK-T·064.

4. Combination table for HG and HG-1

	HG(indoor)	HG-1(indoor)
HG(outdoor)	yes	yes
HG-1(outdoor)	yes	yes

Model SRK52HE-2
 SRK63HE-2
 SRK71HE-2

1. Specifications ----- 4~6^{page}

2. Differences between HE and HE-2

HE-2 series use the parts which are complied with RoHS standard.

3. Others

Other items are the same as that of SRK52/63/71HE.. Refer to Manual No.'07·SRK-T·046.

4. Combination table for HG and HG-1

	HE(indoor)	HE-2(indoor)
HE(outdoor)	yes	yes
HE-2(outdoor)	yes	yes

Specifications

Model **SRK20HG-1 (Indoor unit)**
SRC20HG-1 (Outdoor unit)

(220/230/240V)

Item		Model	SRK20HG-1	SRC20HG-1	
Cooling capacity ⁽¹⁾		W	2070		
Heating capacity ⁽¹⁾		W	2360		
Power source			1 Phase, 220/230/240V, 50Hz		
Operation data ⁽¹⁾	Cooling input	kW	0.655		
	Running current (Cooling)	A	2.9/3.1/3.3		
	Heating input	kW	0.64		
	Running current (Heating)	A	2.9/3.1/3.3		
	Inrush current	A	15.5		
	COP			Cooling: 3.16 Heating: 3.69	
	Noise level	Cooling	Sound level	Hi: 35, Me: 28, Lo: 26	
Power level			53		
Heating		Sound level	Hi: 34, Me: 31, Lo: 27		
		Power level	53		
Exterior dimensions Height × Width × Depth		mm	268 × 790 × 199	540 × 780 × 290	
Color			Fine snow	Stucco white	
Net weight		kg	8.5	28	
Refrigerant equipment Compressor type & Q'ty			-	2RS127D5AA04 (Rotary type) × 1	
Motor		kW	-	0.6	
Starting method			-	Line starting	
Heat exchanger			Louver fins & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control			Capillary tubes		
Refrigerant ⁽³⁾		kg	R22 0.68 (Pre-Charged up to the piping length of 7m)		
Refrigerant oil		ℓ	0.29 (ATMOS NM56M or SUNISO 4GDID)		
Deice control			Microcomputer control		
Air handling equipment Fan type & Q'ty			Tangential fan × 1	Propeller fan × 1	
Motor		W	14	14	
Air flow (at High)	(Cooling)	CMM	7.5	27	
	(Heating)		7.5	27	
Air filter, Q'ty			Polypropylene net (washable) × 2	-	
Shock & vibration absorber			-	Cushion rubber (for compressor)	
Electric heater			-	-	
Operation control Operation switch			Wireless-Remote control	-	
Room temperature control			Microcomputer thermostat	-	
Pilot lamp			RUN (Green), TIMER (Yellow), HI POWER (Green), ECONO (Orange)		
Safety equipment			Frost protection, Serial signal error protection Fan motor error protection	Compressor overheat protection, High pressure control, Serial signal error protection	
Refrigerant piping	O.D	mm (in)	Liquid line: φ6.35 (1/4") Gas line: φ9.52 (3/8")		
	Connecting method		Flare connecting		
	Attached length of piping		Liquid line: 0.4 m Gas line : 0.33 m	-	
	Insulation		Necessary (Both sides)		
Drain hose			Connectable		
Power source cord			2 m (3 cores with Earth)		
Connection wiring	Size × Core number		1.5 mm ² × 4 cores (Including earth cable)		
	Connecting method		Terminal block (Screw fixing type)		
Accessories (included)			Mounting kit, Clean filter (Natural enzyme filter × 1, Photocatalytic washable deodorizing filter × 1)		
Optional parts			-		

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS C9612
Heating		20°C	-	7°C	6°C	ISO-T1, JIS C9612

The piping length is 7 m.

(2) The operation data are applied to the 220/230/240V districts respectively.

(3) The refrigerant quantity to be charged includes the refrigerant in 7 m connecting piping.

If the piping length is longer, when it is less than 10 m, add 20 g refrigerant per meter and when it is 10 to 15 m, add 30 g refrigerant per meter.

Model SRK28HG-1 (Indoor unit)
SRC28HG-1 (Outdoor unit)

(220/230/240V)

Item		Model	SRK28HG-1	SRC28HG-1	
Cooling capacity ⁽¹⁾		W	2530		
Heating capacity ⁽¹⁾		W	2670		
Power source			1 Phase, 220/230/240V, 50Hz		
Operation data ⁽¹⁾	Cooling input		kW	0.77	
	Running current (Cooling)		A	3.6/3.4/3.2	
	Heating input		kW	0.685	
	Running current (Heating)		A	3.2/3.0/2.8	
	Inrush current		A	16.4	
	COP			Cooling: 3.29 Heating: 3.90	
	Noise level	Cooling	Sound level	dB	Hi: 39, Me: 33, Lo: 30
Power level			55		60
Heating		Sound level	Hi: 39, Me: 33, Lo: 29		44
		Power level	56		60
Exterior dimensions Height × Width × Depth		mm	268 × 790 × 199	540 × 780 × 290	
Color			Fine snow	Stucco white	
Net weight		kg	8.5	31	
Refrigerant equipment Compressor type & Q'ty			-	2PS146D5BC04 (Rotary type) × 1	
Motor		kW	-	0.7	
Starting method			-	Line starting	
Heat exchanger			Louver fins & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control			Capillary tubes		
Refrigerant ⁽³⁾		kg	R22 0.85 (Pre-Charged up to the piping length of 7m)		
Refrigerant oil		ℓ	0.32 (ATMOS NM56M or SUNISO 4GDID)		
Deice control			Microcomputer control		
Air handling equipment Fan type & Q'ty			Tangential fan × 1	Propeller fan × 1	
Motor		W	14	15	
Air flow (at High)	(Cooling)	CMM	8.5	29	
	(Heating)		9.5	29	
Air filter, Q'ty			Polypropylene net (washable) × 2	-	
Shock & vibration absorber			-	Cushion rubber (for compressor)	
Electric heater			-	-	
Operation control			Wireless-Remote control	-	
Operation switch			Microcomputer thermostat	-	
Room temperature control			Microcomputer thermostat	-	
Pilot lamp			RUN (Green), TIMER (Yellow), HI POWER (Green), ECONO (Orange)		
Safety equipment			Frost protection, Serial signal error protection Fan motor error protection	Compressor overheat protection, High pressure control, Serial signal error protection	
Refrigerant piping	O.D	mm (in)	Liquid line: φ6.35 (1/4") Gas line: φ9.52 (3/8")		
	Connecting method		Flare connecting		
	Attached length of piping		Liquid line: 0.4 m Gas line : 0.33 m	-	
	Insulation		Necessary (Both sides)		
Drain hose			Connectable		
Power source cord			2 m (3 cores with Earth)		
Connection wiring	Size × Core number		1.5 mm ² × 4 cores (Including earth cable)		
	Connecting method		Terminal block (Screw fixing type)		
Accessories (included)			Mounting kit, Clean filter (Natural enzyme filter × 1, Photocatalytic washable deodorizing filter × 1)		
Optional parts			-		

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS C9612
Heating		20°C	-	7°C	6°C	ISO-T1, JIS C9612

The piping length is 7 m.

(2) The operation data are applied to the 220/230/240V districts respectively.

(3) The refrigerant quantity to be charged includes the refrigerant in 7.5 m connecting piping.

If the piping length is longer, when it is less than 10 m, add 20 g refrigerant per meter and when it is 10 to 15 m, add 30 g refrigerant per meter.

Model SRK40HG-1 (Indoor unit)
SRC40HG-1 (Outdoor unit)

(220/230/240V)

Item		Model	SRK40HG-1	SRC40HG-1	
Cooling capacity ⁽¹⁾		W	3500		
Heating capacity ⁽¹⁾		W	3700		
Power source			1 Phase, 220/230/240V, 50Hz		
Operation data ⁽¹⁾	Cooling input	kW	1.09		
	Running current (Cooling)	A	5.0/4.8/4.6		
	Heating input	kW	1.09		
	Running current (Heating)	A	5.0/4.8/4.6		
	Inrush current	A	27.0		
	COP			Cooling: 3.21 Heating: 3.39	
	Noise level	Cooling	Sound level	Hi: 40, Me: 38, Lo: 34	
Power level			56		
Heating		Sound level	Hi: 40, Me: 38, Lo: 34		
		Power level	57		
Exterior dimensions Height × Width × Depth		mm	268 × 790 × 199	540 × 780 × 290	
Color			Fine snow	Stucco white	
Net weight		kg	8.5	38	
Refrigerant equipment Compressor type & Q'ty			-	RM5515ENE7	
Motor		kW	-	0.95	
Starting method			-	Line starting	
Heat exchanger			Louver fins & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control			Capillary tubes		
Refrigerant ⁽³⁾		kg	R22 1.12 (Pre-Charged up to the piping length of 7m)		
Refrigerant oil		ℓ	0.45 (B-32SAM)		
Deice control			Microcomputer control		
Air handling equipment Fan type & Q'ty			Tangential fan × 1	Propeller fan × 1	
Motor		W	14	22	
Air flow (at High)	(Cooling)	CMM	9.0	32	
	(Heating)		10.0	32	
Air filter, Q'ty			Polypropylene net (washable) × 2	-	
Shock & vibration absorber			-	Cushion rubber (for compressor)	
Electric heater			-	-	
Operation control Operation switch			Wireless-Remote control	-	
Room temperature control			Microcomputer thermostat	-	
Pilot lamp			RUN (Green), TIMER (Yellow), HI POWER (Green), ECONO (Orange)		
Safety equipment			Frost protection, Serial signal error protection Fan motor error protection	Compressor overheat protection, High pressure control, Serial signal error protection	
Refrigerant piping	O.D	mm (in)	Liquid line: φ6.35 (1/4") Gas line: φ12.7 (1/2")		
	Connecting method		Flare connecting		
	Attached length of piping		Liquid line: 0.4 m Gas line : 0.33 m	-	
	Insulation		Necessary (Both sides)		
Drain hose		Connectable			
Power source cord		2 m (3 cores with Earth)			
Connection wiring	Size × Core number	1.5 mm ² × 4 cores (Including earth cable)			
	Connecting method	Terminal block (Screw fixing type)			
Accessories (included)		Mounting kit, Clean filter (Natural enzyme filter × 1, Photocatalytic washable deodorizing filter × 1)			
Optional parts		-			

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS C9612
Heating		20°C	-	7°C	6°C	ISO-T1, JIS C9612

The piping length is 7 m.

- (2) The operation data are applied to the 220/230/240V districts respectively.
(3) The refrigerant quantity to be charged includes the refrigerant in 7 m connecting piping.
If the piping length is longer than 7m (7m~15m) , add 10g refrigerant per meter.

Specifications

Model **SRK52HE-2 (Indoor unit)**
SRC52HE-2 (Outdoor unit)

(220/230/240V)

Item		Model	SRK52HE-2	SRC52HE-2	
Cooling capacity ⁽¹⁾		W	5400		
Heating capacity ⁽¹⁾		W	5600		
Power source			1 Phase, 220-240V, 50Hz		
Operation data ^{(1) (2)}	Cooling input	kW	1.73		
	Running current (Cooling)	A	8.6/8.3/7.9		
	Heating input	kW	1.49		
	Running current (Heating)	A	7.4/7.1/6.8		
	Inrush current	A	42		
	COP			Cooling: 3.12 Heating: 3.76	
	Noise level	Cooling	Sound level	Hi 43, Me 39, Lo 36	49
			Power level	59	65
Heating		Sound level	Hi 41, Me 39, Lo 37	49	
		Power level	59	65	
Exterior dimensions Height × Width × Depth		mm	318 × 1098 × 248	640 × 850 × 290	
Color			Yellowish white	Stucco white	
Net weight		kg	15	47	
Refrigerant equipment Compressor type & Q'ty			-	RM5522GNE4 (Rotary type) × 1	
Motor		kW	-	1.7	
Starting method			-	Line starting	
Heat exchanger			Slit fins & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control			Capillary tubes + Electric expansion valve		
Refrigerant ⁽³⁾		kg	R22 1.6 (Pre-Charged up to the piping length of 7m)		
Refrigerant oil		ℓ	0.7 (B-32SAM)		
Deice control			Microcomputer control		
Air handling equipment Fan type & Q'ty			Tangential fan × 1	Propeller fan × 1	
Motor		W	46	43	
Air flow (at High)	(Cooling)	CMM	17	42	
	(Heating)		18	42	
Air filter, Q'ty			Polypropylene net (washable) × 2	-	
Shock & vibration absorber			-	Cushion rubber (for compressor)	
Electric heater			-	-	
Operation control Operation switch			Wireless-Remote control	-	
Room temperature control			Microcomputer thermostat	-	
Pilot lamp			RUN (Green), TIMER (Yellow), HI POWER (Green), ECONO (Orange)		
Safety equipment			Compressor: overheat protection, Heating overload protection (High pressure control), Frost protection, Serial signal error protection, Indoor fan motor error protection		
Refrigerant piping	O.D	mm (in)	Liquid line: φ6.35 (1/4") Gas line: φ15.88 (1/2")		
	Connecting method		Flare connecting		
	Attached length of piping		Liquid line: 0.70m	-	
	Insulation		Gas line: 0.63m	Necessary (Both sides)	
Drain hose			Connectable		
Power source supply			Terminal block (Screw fixing type)		
Connection wiring	Size × Core number		1.5 mm ² × 4 cores (Including earth cable)		
	Connecting method		Terminal block (Screw fixing type)		
Accessories (included)			Mounting kit, Clean filter (Natural enzyme filter × 1, Photocatalytic washable deodorizing filter × 1)		
Optional parts			Wired - Remote control		

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS C9612
Heating		20°C	-	7°C	6°C	ISO-T1, JIS C9612

The piping length is 7.5m.

- (2) The operation data are applied to the 220/230/240V districts respectively.
(3) The refrigerant quantity to be charged includes the refrigerant in 7m connecting piping.
(Purging is not required even in the short piping.)
If the piping length is longer, when it is 7 to 15m, add 25g refrigerant per meter.

Model SRK63HE-2 (Indoor unit)
SRC63HE-2 (Outdoor unit)

(220/230/240V)

Item		Model	SRK63HE-2	SRC63HE-2	
Cooling capacity ⁽¹⁾		W	6100		
Heating capacity ⁽¹⁾		W	6300		
Power source			1 Phase, 220-240V, 50Hz		
Operation data ⁽¹⁾⁽²⁾	Cooling input		kW	2.17	
	Running current (Cooling)		A	10.8/10.4/9.9	
	Heating input		kW	1.83	
	Running current (Heating)		A	9.1/8.7/8.4	
	Inrush current		A	48.2	
	COP			Cooling: 2.81 Heating: 3.44	
	Noise level	Cooling	Sound level	Hi 44, Me 40, Lo 37	49
			Power level	59	65
Heating		Sound level	Hi 45, Me 40, Lo 38	49	
		Power level	60	65	
Exterior dimensions Height × Width × Depth		mm	318 × 1098 × 248	640 × 850 × 290	
Color			Yellowish white	Stucco white	
Net weight		kg	15	48	
Refrigerant equipment Compressor type & Q'ty			-	RM5526GNE4 (Rotary type) × 1	
Motor		kW	-	1.9	
Starting method			-	Line starting	
Heat exchanger			Slit fins & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control			Capillary tubes + Electric expansion valve		
Refrigerant ⁽³⁾		kg	R22 1.6 (Pre-Charged up to the piping length of 7m)		
Refrigerant oil		ℓ	0.7 (B-32SAM)		
Deice control			Microcomputer control		
Air handling equipment Fan type & Q'ty			Tangential fan × 1	Propeller fan × 1	
Motor		W	46	43	
Air flow (at High)	(Cooling)	CMM	18	42	
	(Heating)		19	42	
Air filter, Q'ty			Polypropylene net (washable) × 2	-	
Shock & vibration absorber			-	Cushion rubber (for compressor)	
Electric heater			-	-	
Operation control Operation switch			Wireless-Remote control	-	
Room temperature control			Microcomputer thermostat	-	
Pilot lamp			RUN (Green), TIMER (Yellow), HI POWER (Green), ECONO (Orange)		
Safety equipment			Compressor: overheat protection, Heating overload protection (High pressure control), Frost protection, Serial signal error protection, Indoor fan motor error protection		
Refrigerant piping	O.D	mm (in)	Liquid line: φ6.35 (1/4") Gas line: φ15.88 (5/8")		
	Connecting method		Flare connecting		
	Attached length of piping		Liquid line: 0.70m Gas line: 0.63m	-	
	Insulation		Necessary (Both sides)		
Drain hose			Connectable		
Power source supply			Terminal block (Screw fixing type)		
Connection wiring	Size × Core number		1.5 mm ² × 4 cores (Including earth cable)		
	Connecting method		Terminal block (Screw fixing type)		
Accessories (included)			Mounting kit, Clean filter (Natural enzyme filter × 1, Photocatalytic washable deodorizing filter × 1)		
Optional parts			Wired - Remote control		

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS C9612
Heating		20°C	-	7°C	6°C	ISO-T1, JIS C9612

The piping length is 7.5m.

- (2) The operation data are applied to the 220/230/240V districts respectively.
(3) The refrigerant quantity to be charged includes the refrigerant in 7m connecting piping.
(Purging is not required even in the short piping.)
If the piping length is longer, when it is 7 to 15m, add 25g refrigerant per meter.

Model SRK71HE-2 (Indoor unit)
SRC71HE-2 (Outdoor unit)

(220/230/240V)

Item		Model	SRK71HE-2	SRC71HE-2	
Cooling capacity ⁽¹⁾		W	6800		
Heating capacity ⁽¹⁾		W	7200		
Power source			1 Phase, 220-240V, 50Hz		
Operation data ⁽¹⁾⁽²⁾	Cooling input	kW	2.05		
	Running current (Cooling)	A	10.2/9.8/9.4		
	Heating input	kW	1.88		
	Running current (Heating)	A	9.4/9.0/8.6		
	Inrush current	A	48		
	COP			Cooling: 3.32 Heating: 3.83	
	Noise level	Cooling	Sound level	Hi 45, Me 41, Lo 38	54
Power level			59	69	
Heating		Sound level	Hi 44, Me 42, Lo 39	55	
		Power level	59	70	
Exterior dimensions Height × Width × Depth		mm	318 × 1098 × 248	750 × 880 × 340	
Color			Yellowish white	Stucco white	
Net weight		kg	15	63	
Refrigerant equipment Compressor type & Q'ty			-	2JS386D5AB02 (Rotary type) × 1	
Motor		kW	-	1.8	
Starting method			-	Line starting	
Heat exchanger			Slit fins & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control			Capillary tubes + Electric expansion valve		
Refrigerant ⁽³⁾		kg	R22 1.85 (Pre-charged up to the piping length of 7m)		
Refrigerant oil		ℓ	0.7 (ATMOS M60 or SUNISO 4GDID)		
Deice control			Microcomputer control		
Air handling equipment Fan type & Q'ty			Tangential fan × 1	Propeller fan × 1	
Motor		W	46	85	
Air flow (at High)	(Cooling)	CMM	20.5	60	
	(Heating)		20.5	60	
Air filter, Q'ty			Polypropylene net (washable) × 2	-	
Shock & vibration absorber			-	Cushion rubber (for compressor)	
Electric heater			-	-	
Operation control Operation switch			Wireless-Remote control	-	
Room temperature control			Microcomputer thermostat	-	
Pilot lamp			RUN (Green), TIMER (Yellow), HI POWER (Green), ECONO (Orange)		
Safety equipment			Compressor: overheat protection, Heating overload protection (High pressure control), Frost protection, Serial signal error protection, Indoor fan motor error protection		
Refrigerant piping	O.D	mm (in)	Liquid line: φ6.35 (1/4") Gas line: φ15.88 (5/8")		
	Connecting method		Flare connecting		
	Attached length of piping		Liquid line: 0.70m Gas line : 0.63m	-	
	Insulation		Necessary (Both sides)		
Drain hose			Connectable		
Power source supply			Terminal block (Screw fixing type)		
Connection wiring	Size × Core number		1.5 mm ² × 4 cores (Including earth cable)		
	Connecting method		Terminal block (Screw fixing type)		
Accessories (included)			Mounting kit, Clean filter (Natural enzyme filter × 1, Photocatalytic washable deodorizing filter × 1)		
Optional parts			Wired - Remote control		

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS C9612
Heating		20°C	-	7°C	6°C	ISO-T1, JIS C9612

The piping length is 7.5m.

- (2) The operation data are applied to the 220/230/240V districts respectively.
(3) The refrigerant quantity to be charged includes the refrigerant in 7m connecting piping.
(Purging is not required even in the short piping.)
If the piping length is longer, when it is 7 to 15m, add 25g refrigerant per meter.

WALL MOUNTED TYPE
ROOM AIR-CONDITIONERS



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