

STILL COOL. STAY GREEN.

CATALOGUE

2015





R410A ECO-FRIENDLY

SINCE THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER ENTERED INTO FORCE, WE ALL AGREE TO LOWER THE PRODUCTION AND CONSUMPTION OF OZONE DEPLETING SUBSTANCES IN ORDER TO REDUCE THEIR ABUNDANCE IN THE ATMOSPHERE. WE ALL REALIZE THE EFFECTS OF THE GLOBAL WARMING ON OUR LIVING ENVIRONMENT.

TO MAKE THE WORLD A BETTER PLACE, WE TAKE PART IN ENABLING IMPLEMENTATION OF THE PROTOCOL ACCORDINGLY. WE INTEND TO INTRODUCE R410A REFRIGERANT IN OUR AIR CONDITIONING UNITS.

BETTER PERFORMANCE

HIGHER HEAT TRANSFER COEFFICIENT THAN R-22, R410A IS MORE EFFICIENT AND ENERGY SAVING.



EMPLOYMENT OF (R410A)

All inverter model use refrigerant R410A characterized by the ozone depletion coefficient being 0

HIGH EFFICIENCY

EXCELLENT ENERGY SAVING

New "MITSUBISHI HEAVY INDUSTRIES, LTD." Air-conditioner realized high efficiency and high performance by new advanced technology. It brings Excellent Energy Saving!!

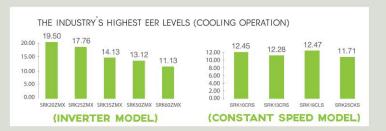
DC PAM INVERTER QUICK & HIGH EFFICIENCY CONTROL

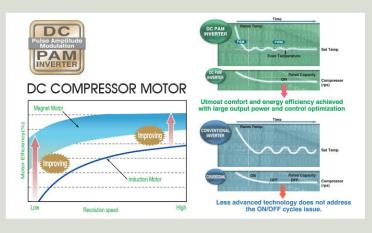
An inverter driven system has a number of performance advantages over a constant speed system. For example, its variable compressor outputs can ensure quick heating after a start up and attain a set temperature more quickly. Then, the air conditioner can slow down its compressor speed to save energy, keeping comfortable conditions. Moreover, the compressor is DC driven, so it provides higher performance.

NEW INVERTER CONTROL (VECTOR CONTROL)

New Inverter Control has applied new advanced technology of Vector control and has realized high efficiency.

- Smooth operation from low speed to high speed
- Smooth Sine Voltage Wave form are attained
- · Energy efficiency is further improved in low speed range





OUR LATEST TECHNOLOGIES

NEW PROPELLER FAN

Matching a new propeller fan with a fan motor has been optimized in order to keep the same capacity as that of previous models with less electrical consumption. Synergy effect with leaf grill has increased efficiency by 5% and quietened the sound. (SRC40/50/60ZMX-S)



Serration fan

HIGHT EFFICIENCY DC TWIN ROTARY COMPRESSOR

The newly developed DC twin rotary compressor performs highly efficient operation under the wide range conditions from low speed to high speed. Besides low vibration, low sound level and high efficiency can be also achieved by the optimization of mechanical parts dimension and by the application of high power Neodymium motor. (SRC40/50/60ZMX-S, SCM series)



ENERGY SAVING LEAF SHAPE GRILL

The radial shape grill has been developed in order to resend airflow efficiently out the unit along the grill. Decreasing the



load for motor and propeller fan leads to greater energy efficiency and contributes to quieter sound.

INDOOR UNIT

Superior corrosion resistance hot dipping steel sheet is applied at the base of outdoor units. It has superior corrosion resistance and scratch resistance properties compared to conventional materials.





SUPERIOR CORROSION RESISTANCE HOT DIPPING STEEL SHEET

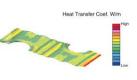
Our optimal combination of fin configuration and copper tube has maximized airflow volume without expanding indoor unit's size in width. The heat exchanger efficiency rate has been drastically improved by 33% compared with that of previous models. New fin can maximize airflow volume and save energy simultaneously.



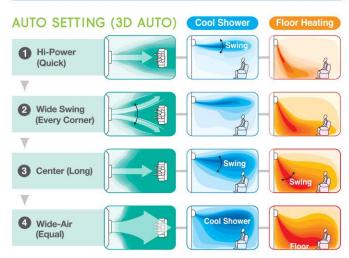
OUTDOOR UNIT

Thanks to changing fin configuration from flat sheet to new M shape fin, efficiency has increased by 10%. This high dimensional structure provides optimum balance of heat transfer and air flow.









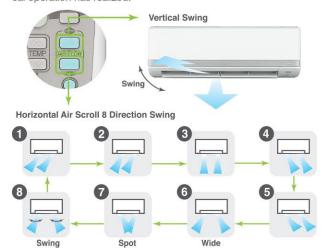
Thanks to automatic control of air flow volume and air flow direction, comfortable air conditioning of the entire room can be done effectively.

In cooling operation cooled air flows directly to the ceiling. The cooled air does not flow directly to the occupants of the room and the comfort cooled air flow comes from the ceiling like a soft shower.

In heating operation warm air flows to the floor directly and spreads along the floor. Due to concentration of the warm air on the floor level, optimum comfort can be achieved.

MANUAL SETTING

By individual control of right and left part of louver, air flow direction from the right part and the left part are controlled individually. Setting the most preferable air flow direction and determining whether direct air flow is required or not at the same time minimizing of energy loss and economical operation has realized.





3D AUTO is one touch programmed and three motors (one vertical working motor + two horizontal working motors) make three independent air flow controls.

The air flow is uniform and quiet and reaches at long distance points from the blower.

JET FLOW **POWERFUL** & SILENT AIR FLOW



SRK50/60 ZMX

SRK24CR-S SRK19CLS/25CKS

JET ENGINE TECHNOLOGY

CFD (computational fluid dynamics), used in blade shape design of jet engines, has been applied to the design of air channels in air conditioners to develop the ideal air channel system (air circulation). The air flow of the jets created in this system enable a large volume of air to be blown with minimum power consumption, yet the air flow is uniform, quiet and reaches points a long distance from the blower.





Colors in the figure show the air speed

POSITIONING OF INSTALLATION

You can set the left-right air flow directions when you install the air conditioner near the side wall by remote controller operation.





NEW LOUVER

Due to redesigned size and shape, the new louver has been increased in surface area by 80%. In addition to increase of air flow volume, it has improved controllability of swinging to right and left.



80% INCREASED

CLEAN AIR





GENERATES THE SAME AMOUNT OF NEGATIVE IONS AS A FOREST ENVIRONMENT

24-Hour ION

The air conditioner main body employs a tourmaline-coated sheet. The sheet generates negative ions around the clock. Even when the air conditioner is not running, it generates as many negative ions (2,500-3,000/cc) as in a forest, stream or fall does, allowing you to experience them without incurring any electrical charges.

ALWAYS KEEPING THE INDOOR UNIT CLEAN

Self Clean Operation

"Self Clean Operation" is operated for 2 hours after the unit has stopped its normal operation. The indoor unit is dried up and the growth of mold is restrained. Users can select whether this mode is utilized or not.



Situation of mold after one week
When you don't execute "Self Clean Operation"

Fungal mycelia expand.



When you execute "Self Clean Operation"



ANTI-MICROBIAL SPECIFICATIONS AND DESIGN WILL DELIVER CLEANLINESS AND SAFETY

ANTI-MICROBIAL BLOWER FAN

The blower fan has undergone anti-microbial treatment to resist mold and germs, making the system clean and safe. Foul odors and molds, etc. which can occur when an air conditioning system is not in operation are prevented.

- · Intestinal bacteria (Escherichia coli IFO 3972)
- Staphylococcus aureus subsp. aureus IFO 12732

Testing Authority: Japan Food Analysis Center

Test Results Issued: 2004-4-7. Test Report No.: 104034022-001

Tests were conducted with reference to the antimicrobial strength tests in JIS Z 2801 2000 "Antimicrobial Products-Antimicrobial Test Method" -5.2 Antimicrobial Effects: Test Methods for Plastic Products, etc.

· Apergillus niger IFO 6341

Testing Authority: Japan Food Analysis Center

Test Results Issued: 2004-4-23.
Test Report No.: 104034022-002

Tests were conducted with reference to the antimicrobial strength tests in JIS Z 2801 2000 "Antimicrobial Products-Antimicrobial Test Method" –5.2 Antimicrobial Effects: Test Methods for

Plastic Products, etc.





Comparison of growth of bacteria and mold on fan surfaces (microscopic image)



without with Anti-microbial Anti-microbial

Aspergillus niger IFO 6341

Escherichia coli IFO 3972

In tests conducted at the Mitsubishi Heavy Industries Nagoya Research Lab, 24 hrs after contact with bacteria, cultured on agar media.

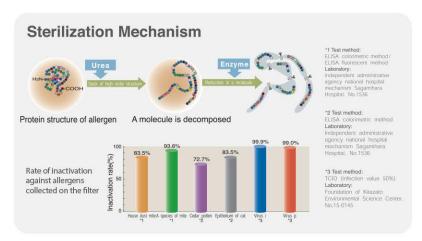
THIS IS THE ORIGINAL AND ONLY TECHNOLOGY TO CONTROL THE TEMPERATURE AND HUMIDITY FOR INACTIVATING ALLERGENS

Allergen Clear Filter

Enzyme + Urea deactivates allergens and kills bacteria.



The allergen clear filter breaks down the pollen, lice, and allergens that live on cat skins, etc. and deactivates them. The secret of deactivation is the Enzyme-Urea compound. It deactivates not only allergens but also all kinds of bacteria, molds and viruses. Even if allergens and bacteria, etc. fly off of the filter, they are deactivated, so the air in your room is kept fresh.



THE AIR IN YOUR ROOM IS KEPT FRESH

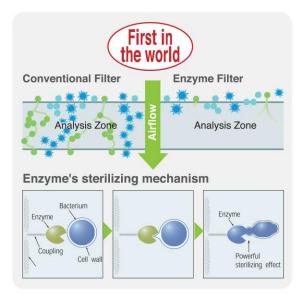
Allergen Clear System

First in the world

"Allergen Clear System" is equipped to suppress the influence of the allergen caught by the filter by controlling the temperature and humidity.







SURE TO DESTROY FUNGI AND BACTERIA, ALSO EFFECTIVE ON VIRUSES AND ALLERGENIC COMPOUNDS (CAT HAIR, DUST MITE, POLLEN ETC.)

Natural Enzyme Filter

The first release in this range of the enzyme-sterilizing filter



Enzymes used in these filters are naturally occurring lytic enzymes. The lytic enzymes attack cell walls of microorganisms trapped on a filter and destroy them and doing so, have a powerful sterilizing which will effectively decrease the number of molds and bacteria. Natural Enzyme Filter will clean and sanitize air passing through it to keep air in the room clean and safe.

THE DEODORIZING ABILITY OF THIS FILTER CAN BE EASILY RESTORED SIMPLY BY CLEANING AND EXPOSING TO THE SUNLIGHT

Natural Solar Filter

It will keep the air fresh by deodorizing the molecules causing odor. Its deodorizing power can be restored by washing with water and drying under the sun, as such it is capable of repeat use.





INVERTER SINGLE SPLIT PREMIUM (COOLING & HEATING)



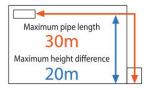
ZMX SERIES

ZM SERIES





REFRIGERANT PIPE LENGTH



SRK60ZMX-S4 SRK63ZM-S4 SRK71ZM-S4 SRK80ZM-S4



SRC60ZMX-S



SRC63ZM-S SRC71ZM-S SRC80ZM-S

FUNCTIONS

















































SPECIFICATIONS

SPECIFICATIONS			ZMX series		ZM series			
Model	Model Indoor unit Outdoor unit		SRK60ZMX-S4	SRK63ZM-S4	SRK71ZM-S4	SRK80ZM-S4		
Item			SRC60ZMX-S	SRC63ZM-S	SRC71ZM-S	SRC80ZM-S		
Power Source			1Phase, 220-240V: 50Hz	1Phase, 230V: 50Hz				
Capacity	Cooling	kW	5.95	6.11	6.99	8.00		
		BTU/h	20813	21496	24225	27296		
capacity	Heating	kW	6.80	7.10	8.00	9.00		
		BTU/h	23202	24225	27296	30708		
nput	Cooling	kW	1.87 (0.2-2.5)	1.76 (0.54-2.30)	2.16 (0.54-2.80)	2.65 (0.54-3.00)		
nput	Heating	kW	1.67 (0.2-2.7)	1.79 (0.37-3.30)	2.14 (0.37-3.40)	2.55 (0.37-3.65)		
ER	in Cooling	BTU/hW	14.16	14.74	14.74	10.30		
COP	in Heating	W/W	4.07	3.97	3.74	3.53		
Current	Cooling	Α	8.2	8.0	9.7	11.9		
Turrent	Heating	Α	7.3	8.1	9.7	11.4		
xterior	Indoor unit	mm	309 × 890 × 220	318×1098×248				
dimensions ($H \times W \times D$)	Outdoor unit	mm	640 × 800 (+71) × 290	750 × 880 (+88) × 340				
let weight	Indoor unit	kg	13.5	15				
vet weight	Outdoor unit	kg	45	57				
Air Flow (Cooling)	Indoor unit	m³/min	14.5 (Hi)	17.5 (Hi)	18.5 (Hi)	21.0 (Hi)		
di Flow (Cooling)	Outdoor unit	m³/min	41.5	48.5	55.0	63.0		
Refrigerant			R410A					
Refrigerant piping	Liquid line	mm	Ø6.35 (1/4")	Ø6.35 (1/4")				
9-,	Gas line	mm	Ø12.7 (1/2")	Ø15.88 (5/8")				
Connecting wiring			1.5mm² × 4cores (Including earth cable)					
Connecting method			Terminal block (Screw fixing type)					
Star rating			5 STAR	5 STAR	5 STAR	5 STAR		
Electric cost per year			3314kW X RM0.218 = RM722.45	3142kW X RM0.218 = RM684.95	3668kW X RM0.218 = RM799.60	0000kW X RM0.218 = RM000.00		
Electric cost per hour			RM722.45 / 365 days / 8 hours = RM0.25	RM684.95 / 365 days / 8 hours = RM0.23	RM799.60 / 365 days / 8 hours = RM0.27	RM000.00 / 365 days / 8 hou = RM0.00		

INVERTER SINGLE SPLIT PREMIUM (COOLING)

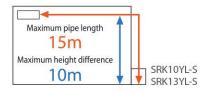


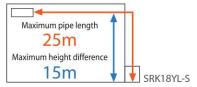
YL SERIES

Inverter



REFRIGERANT PIPE LENGTH









SRC10YL-S SRC13YL-S

FUNCTIONS





















































SPECIFICATIONS

of ECH TCATTONO			YL series			
Model	Indoo	r unit	SRK10YL-S4	SRK13YL-S4	SRK18YL-S4	
Item	Outdo	or unit	SRC10YL-S4	SRC13YL-S	SRC18YL-S4	
Power Source	7		1 Phase, 230V : 50Hz			
Capacity		kW	2.56	3.52	5.03	
Capacity		BTU/h	8530	11942	17060	
Input		kW	0.67	0.98	1.56	
EER		BTU/hW	16.00	16.20	14.67	
Current		Α	3.3	4.5	7.1	
Exterior	Indoor unit	mm	268 × 790 × 224			
dimensions ($H \times W \times D$)	Outdoor unit	mm	540 × 780 (+62) × 290		595 × 780 (+62) × 290	
	Indoor unit	kg	8.5		9.5	
Net weight	Outdoor unit	kg	29	32	35	
	Indoor unit	m³/min	8.0	10.0	12.0	
Air Flow	Outdoor unit	m³/min	29.5	27.8	37.7	
Refrigerant		kW	R410A			
Define and allele a	Liquid line	mm	Ø6.35 (1/4")			
Refrigerant piping	Gas line	mm	Ø9.52 (3/8")	Ø9.52 (3/8")	Ø12.7 (1/2")	
Connecting wiring	•		1.5mm ² × 4cores (Including earth cable)			
Connecting method			Terminal block (Screw fixing type)			
Star rating			5 STAR	5 STAR	5 STAR	
Electric cost per year			1242kW X RM0.218 = RM270.75	1695kW X RM0.218 = RM369.50	2801kW X RM0.218 = RM610.62	
Electric cost per hour			RM270.75 / 365 days / 8 hours = RM0.09	RM369.50 / 365 days / 8 hours = RM0.13	RM610.62 / 365 days / 8 hou = RM0.21	

INVERTER SINGLE SPLIT DELUXE (COOLING)



YN SERIES

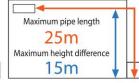
Inverter





REFRIGERANT PIPE LENGTH





SRK10YN-S4 SRK13YN-S4

SRK18YN-S4



SRC10YN-S4 SRC13YN-S4



SRC18YN-S4

FUNCTIONS















Convenient & Economy Functions





















SPECIFICATIO	NS	11	YN series				
Model	Indoor unit Outdoor unit		SRK10YN-S4	SRK13YN-S4	SRK18YN-S4		
Item			SRC10YN-S4 SRC13YN-S4		SRC18YN-S4		
Power Source			1 Phase, 230V : 50Hz				
Capacity		kW	2.35	3.23	4.80		
Сарасну		BTU/h	8530	10918	17060		
Input		kW	0.77 1.00		1.64		
EER		BTU/hW	12.42	13.92	13.34		
Current		Α	3.7	4.7	7.4		
Exterior	Indoor unit	mm	262 × 769 × 210				
dimensions $(H \times W \times D)$	Outdoor unit	mm	540 × 645 (+57) × 275		595 × 780 (+62) × 290		
	Indoor unit	kg	7.0		7.5		
Net weight	Outdoor unit	kg	25	27	39.5		
=	Indoor unit	m ³ /min	10.1	10.5	10.1		
Air Flow (Cooling)	Outdoor unit	m ³ /min	24.4	26.0	36.0		
Compressor motor		kW	0.75 0.90		1.10		
Refrigerant			R410A				
Refrigerant piping	Liquid line	mm	6.35				
heirigerarit pipirig	Gas line	mm	9.52		12.7		
Connecting wiring		1.5mm ² × 4cores (Including earth cable)					
Connecting method			Terminal block (Screw fixing type)				
Star rating Star rating			5 STAR	5 STAR	5 STAR		
Electric cost per year			1416kW X RM0.218 = RM308.70	1781kW X RM0.218 = RM389.60	2821kW X RM0.218 = RM614.98		
Electric cost per hour			RM308.70 / 365 days / 8 hours = RM0.11	RM389.60 / 365 days / 8 hours = RM0.13	RM614.98 / 365 days / 8 hours = RM0.21		

SINGLE SPLIT **DELUXE (COOLING)**



CNS SERIES



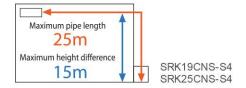




SRK19CNS-S4

SRK25CNS-S4

REFRIGERANT PIPE LENGTH







SRC19CNS-S4

FUNCTIONS

























































SPECIFICATIONS

SPECIFICATIONS			CNS series				
Model	Indoor unit Outdoor unit		SRK19CNS-S4	SRK25CNS-S4			
Item			SRC19CNS-S4	SRC25CNS-S4			
Power Source			1 Phase,220/230v 50Hz				
Canacity		kW	5.30	7.40			
Capacity		BTU/h	18084	25249			
Input		kW	1.44	2.065			
EER		BTU/hW	12.56	12.23			
Current		Α	6.6/6.4	9.6/9.2			
Exterior	Indoor unit	mm	309 × 890 × 251	318 × 1098 × 248			
dimensions $(H \times W \times D)$	Outdoor unit	mm	640 × 850 (+65) × 290	750 × 880(+88) × 340			
	Indoor unit	kg	15.0	17.0			
Net weight	Outdoor unit	kg	43.0	56.0			
4: FL (O E)	Indoor unit	m³/min	15.0	20.4			
Air Flow (Cooling)	Outdoor unit	m³/min	38.0	60.0			
Compressor motor kW		kW	1.27 1.825				
Refrigerant			R410A				
Refrigerant piping	Liquid line	mm	6.35				
rteingerant piping	Gas line	mm	15	.88			
Connecting wiring			1.5mm² × 4cores (Including earth cable)				
Connecting method			Terminal block (Screw fixing type)				
Star rating			5 STAR 5 STAR				
Electric cost per year			4278kW X RM0.218 6129kW X RM0.218 = RM932.60 = RM1336.12				
Electric cost per hour			RM932.60 / 365 days / 8 hours RM1336.12/ 365 days / 8 h				

SINGLE SPLIT **DELUXE (COOLING)**



CRS SERIES



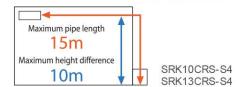
SRK10CRS-S1, S2 SRK13CRS-S1, S2



SRK10CRS-S4, SRK13CRS-S4

=

REFRIGERANT PIPE LENGTH





FUNCTIONS













































*only for SRK10, 13CRS-S1, S2 **SPECIFICATIONS**

of Left Text Text			CRS Series				
Model			SRK10CRS-S4	SRK13CRS-S4			
Item			SRC10CRS-S4	SRC13CRS-S4			
Power Source			1 Phase,220/230v 50Hz				
Capacity		kW	2.76	3.62			
		BTU/h	9,213	12,283			
Input		kW	740	1,000			
EER		BTU/hW	12.66	12.01			
Current		Α	3.5 / 3.3	4.7 / 4.5			
Exterior	Indoor unit	mm	268 × 790 × 213	3 (224 (S1, S2))			
dimensions $(H \times W \times D)$	Outdoor unit	mm	540 × 780 (+62) × 290	595 × 780 (+62) × 290			
	Indoor unit	kg	9.				
Net weight	Outdoor unit	kg	30.0	34.0			
	Indoor unit	m ³ /min	10	10			
Air Flow (Cooling)	Outdoor unit	m³/min	26.5	32			
Compressor motor		kW	0.660	1.090			
Refrigerant			R410A				
Dofrigorant nining	Liquid line	mm	6.:	.35			
Refrigerant piping	Gas line	mm	9.52	12.70			
Connecting wiring			1.5mm² × 4cores (Including earth cable)				
Connecting method			Terminal block (Screw fixing type)				
Star rating Star rating			5 STAR	5 STAR			
Electric cost per year			2181kW X RM0.218 = RM475.45	3008kW X RM0.218 = RM655.74			
Electric cost per hour			RM475.45 / 365 days / 8 hours	RM655.74 / 365 days / 8 hours			

SINGLE SPLIT STANDARD (COOLING)







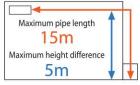
SRK09CRR-S4, SRK12CR-S4

CR SERIES

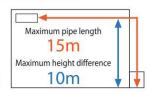


SRK24CR-S4

REFRIGERANT PIPE LENGTH







SRK19CR-S4 SRK24CR-S4



SRC09CRR-S4



SRC12CR-S4



SRC24CR-S4

FUNCTIONS

Comfortable Functions















Maintenance & Prevention Functions











Convenient & Economy Functions





SPECIFICATIONS













* only for SRK09CRR-S4, SRK12CR-S4

SI LEII ICAITONO			CRR	series	CR series		
Model	Indoor	unit	SRK09CRR-S4	SRK12CR-S4	SRK19CR-S4	SRK24CR-S4	
Item	Outdoor	unit	SRC09CRR-S4	SRC12CR-S4	SRC19CR-S4	SRC24CR-S4	
Power Source			1Phase, 220/230V, 50Hz				
Canacity		kW	2.61	3.42	5.23	7.12	
Сарасну	Capacity		9,000	11,771	18,015	24,566	
Input		kW	868	1,150	1,630	2,210	
EER		BTU/hW	10.85	10.41	11.05	11.02	
Current		Α	4.0 / 3.8	5.4 / 5.2	7.6/7.3	10.2/9.7	
Exterior	Exterior Indoor unit		262 × 769 × 210		309 × 890 × 251	318 × 1098 × 248	
dimensions $(H \times W \times D)$	Outdoor unit	mm	435 × 645 (+50) × 275	595 x 780 (+62) x 290	640 × 850 ((+65) × 290	
NI	Indoor unit	kg	15.0	15.0	12.0	14.5	
Net weight	Outdoor unit	kg	23.5	30.5	39.5	47.0	
Air Flanc (On alina)	Indoor unit	m³/min	10.2	10.2	12.5	19.1	
Air Flow (Cooling)	Outdoor unit	m³/min	23	35	38.0	38.0	
Compressor motor kW		kW	0.795	1.096	1.270	1.825	
Refrigerant			R410A				
Refrigerant piping	Liquid line	mm	6.35				
	Gas line	mm	9.52	12.7	15	.88	
Connecting wiring			1.5mm ² × 3cores (Including earth cable)				
Connecting method			Terminal block (Screw fixing type)				
Star rating			3 STAR	3 STAR	5 STAR	5 STAR	
Electric cost per year			2403kW X RM0.218 = RM523.85	3276kW X RM0.218 = RM714.17	4275kW X RM0.218 = RM931.95	6439kW X RM0.218 = RM1403.70	
Electric cost per hour			RM523.85 / 365 days / 8 hours - RMO 18	RM714.17/365 days / 8 hours - RM0 24	RM931.95 / 365 days / 8 hours - RM0.32	RM1403.70 / 365 days / 8 hour - RMO 48	



TOWARDS A BETTER FUTURE TOGETHER

-Malaysia Sole Distributor:

TRIO Electric & AUTOMATION (M) SDN.BHD.

Main Sales Office: 4, Jalan BP 4/2, Bandar Bukit Puchong, 47100 Puchong, Selangor, Malaysia.

Tel: +603-8062 3030 / +603-8060 9557 Fax: +603-8060 7991

Mitsubishi Heavy Industries, Ltd.

Japan Head Office: 16-5 2-Chome Kounan Minato-ku Tokyo 108-8215, Japan www.mhi.co.jp

Mitsubishi Heavy Industries-Mahajak Air Conditioners Co., Ltd.

220 Soi Chalongkrung 31, Lamplatiew, Lad Krabang, Bangkok 10520, Thailand www.maco.co.th

ISO9001

Our Air Conditioning & Refrigeration Systems Headquarters is an ISO9001 approved factory for residential air conditioners and commercial-use air conditioners (including heat pumps).





ISO14001

Our Air Conditioning & Refrigeration Systems Headquarters has been assessed and found to comply with the requirements of ISO14001.





Because of our policy of continuous improvement, we reserve right to make changes in all specifications without notice.