Solard

PRODUCT CATALOGUE 2026

SOLAR AIR CONDITIONING

Solar-powered comfort. Matched systems for different applications.

AC/DC HYBRID

Solar DC input with grid AC support.

DC OFF-GRID

Direct DC equipment with solar charging and battery storage.

SOLAR THERMAL

Collector-assisted systems with AC power.





MATCHED SYSTEM EQUIPMENT



Complete indoor and outdoor units for the selected system.

PRODUCT CONTENTS

Find the equipment format first

Explore product formats, power options and model specifications.

01 / WALL-MOUNTED SPLIT SYSTEMS

AC/DC hybrid split 05

Direct DC split 06

Collector-assisted split 07

Residential application 08

Remote-room application 09

02 / WINDOW & PORTABLE AC

Window air conditioner / AC/DC hybrid 11

Window air conditioner / direct DC 12

Portable air conditioner / direct DC 13

03 / VRF, FLOOR & CEILING AC

VRF solar air conditioning 15

Floor-standing / AC/DC hybrid 16

Floor-standing / DC off-grid 17

Floor-standing / solar thermal 18

Ceiling cassette / AC/DC hybrid 19

Ceiling cassette / DC off-grid 20

Ceiling cassette / solar thermal 21

Retail application 22

04 / DC REFRIGERATION

Chest freezers 24

Upright refrigerators 25

Ice makers 26

COMPANY PROFILE 03 | POWER OPTIONS 04 | PROJECT CASES 27 | CONTACT & SERVICES 29

SOLARD / COMPANY PROFILE

Solar cooling. Complete system support.

Renewable energy equipment and system matching for distributors, installers and project buyers.

01 Product selection

Compare air-conditioning formats, cooling capacities and power supply options.

02 System matching

Coordinate compatible PV modules, batteries, controllers and installation accessories.

03 Export support

Support technical documentation, packaging requirements and logistics coordination.

BUILT AROUND YOUR APPLICATION

Selection starts with the site, load and required operating hours.

Shandong Solard New Energy Technology Co., Ltd.

Solar air conditioning is part of our wider renewable energy portfolio, including energy storage, inverters and PV system components.



THREE SOLAR COOLING APPROACHES

AC/DC HYBRID

PV input with AC power support.

DC OFF-GRID

Direct DC cooling with solar charging and storage.

SOLAR THERMAL

Collector-assisted equipment with AC supply.

OEM / ODM SERVICES

Product branding, labels and packaging for distributor and project orders.

SOLAR COOLING / POWER OPTIONS

Power options for your application

Three operating modes for AC/DC hybrid models, plus a separate battery-based DC off-grid system.

AC/DC HYBRID MODEL

A Solar only

Daytime operation with sufficient PV power.



B Solar + grid

Solar priority with utility AC support.



C Grid only

Utility operation when PV is unavailable.



D Off-grid DC + storage

A separate DC model with PV charging and battery storage.



DIRECT DC SYSTEM

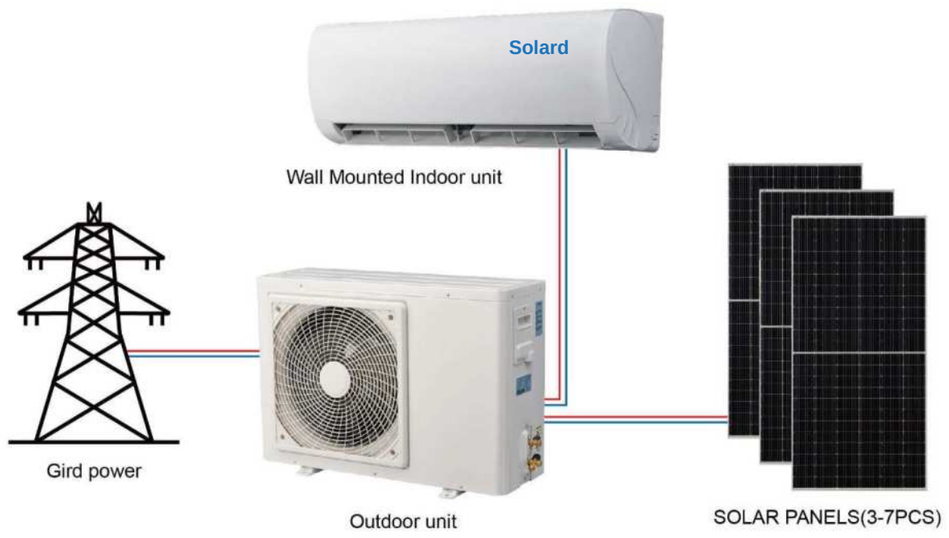
Match the battery voltage to the selected DC model. Size PV and storage for the required operating hours.

AC/DC HYBRID

Wall-mounted split systems

9,000-36,000 BTU/h | Solar DC + grid AC





Technical specifications

MODEL RANGE & PERFORMANCE

Wall Split AC/DC Hybrid Solar Air Conditioner								
Model			TKFR-26GW/OF	TKFR-35GW/OF	TKFR-52GW/OF	TKFR-72GW/OF	TKFR-90GW/OF	TKFR-100GW/OF
Power supply		PH-V-HZ	1Ph, 220-240V~, 50/60Hz	1Ph, 220-240V~, 50/60Hz	1Ph, 220-240V~, 50/60Hz	1Ph, 220-240V~, 50/60Hz	1Ph, 220-240V~, 50/60Hz	1Ph, 220-240V~, 50/60Hz
		V	DC80-380V	DC80-380V	DC80-380V	DC80-380V	DC80-380V	DC80-380V
Cooling	Capacity	Btu/h	9000 (3500-11000)	12000 (3700-14000)	18000 (6200-19500)	24000 (5100-26900)	30000 (6000-32000)	36000 (6500-37500)
	Input	W	590 (100-1200)	865 (110-1500)	1320 (140-1800)	1980 (240-3030)	2450 (320-3210)	2850 (320-3510)
	Rated current	A	2.68 (0.45-5.45)	3.93 (0.5-6.82)	6 (0.6-8.18)	9 (1.0-13.2)	11.13 (1.45-14.59)	12.95 (1.45-15.95)
	EER	W/W	4.18	4.05	3.78	3.53	3.52	3.51
Heating	Capacity	Btu/h	9500 (3800-11500)	13000 (4000-15000)	19000 (4700-20000)	25000 (5500-30000)	31000 (6500-33000)	37500 (7000-39000)
	Input	W	625 (120-1200)	880 (130-1510)	1465 (200-1900)	2050 (260-3140)	2580 (350-3350)	3000 (350-3650)
	Rated current	A	2.84 (0.5-5.45)	4 (0.59-6.86)	6.66 (0.9-8.63)	9.32 (1.1-13.7)	11.72 (1.59-15.22)	13.63 (1.59-16.59)
	COP		4.23	3.62	3.55	3.56	3.53	3.67
Indoor unit	Dimension(W*D*H)	mm	800x185x290	800x185x290	850x200x190	970×220×327	1040×220×327	1040×220×327
	Packing (W*D*H)	mm	860x270x350	860x270x350	920x270x350	1060x300x400	1120x310x405	1120x310x405
	Net/Gross weight	Kg	8.2/10.4	8.2/10.4	9.5/12.5	11.9/15.2	11.9/15.2	11.9/15.2
Outdoor unit	Dimension(W*D*H)	mm	680*320*450	760*320*510	850*350*550	865*310*700	865*310*700	865*310*700
	Packing (W*D*H)	mm	775*375*510	900*360*580	995*390*640	1025*395*780	1025*395*780	1025*395*780
	Net/Gross weight	Kg	33/39	35/40	39/44	56/62	65/73	65/73
Qty'per 20' /40'HQ			130/300	110/270	85/200	70/140	50/135	50/135

Solar

Daytime solar input

Use available PV power for cooling.

Hybrid

AC power support

Grid supply complements solar input.

6 sizes

Capacity choice

Select a size for the room load.

SELECTION NOTES

Power supply

1 phase, 220-240 V AC, 50/60 Hz; DC 80-380 V.

PV array

Match the PV capacity and string design to the selected model.

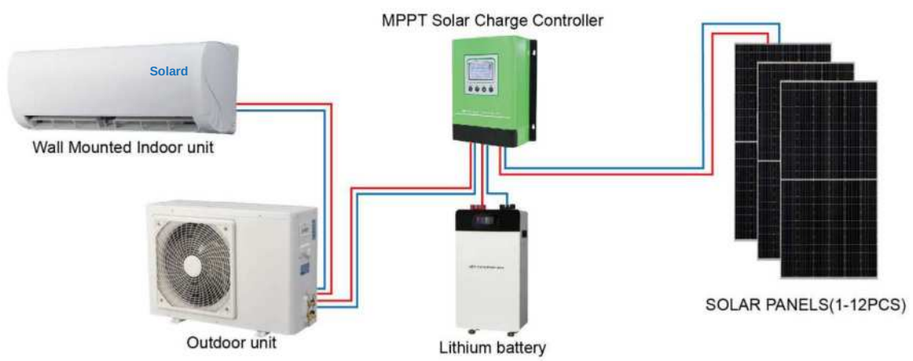
DC OFF-GRID

Wall-mounted split systems

24/48 V DC by model | Solar charging + battery







Technical specifications

MODEL RANGE & PERFORMANCE

Model No.			TKFR-26GW/DC	TKFR-35GW/DC	TKFR-52GW/DC	TKFR-60GW/DC	TKFR-72GW/DC	TKFR-90GW/DC	TKFR-100GW/DC
			1HP	1.5HP	2 HP	2.5HP	3HP	3.5HP	4HP
			0.75ton	1ton	1.5ton	1.8ton	2ton	2.5ton	3ton
Performance									
Capacity	Cooling	Btu/h	9000（3100~10600）	12000（3200~12600）	18000(5100~19500)	20000(5100~21500)	24000(6800~25600)	30000(7200~38000)	36000(7800~41000)
		W	2600(940~3300)	3400(1000~3770)	5100(1250-5910)	6000(1250-6800)	7030(1990~7500)	9000(2500~12500)	10000(2500~12500)
	Heating	Btu/h	10000（3100~10600）	13000（3200~12600）	20000(5100~19500)	22000(5100~21500)	26000(6800~25600)	33000(8000~40100)	40000(8000~42200)
		W	2900(940~3400)	3700(1000~3900)	6000(1250-6100)	6600(1250-7000)	7530(1990~7800)	10000(2300~40000)	11000(2700~43000)
Noise	Indoor	dB(A)	≤40	≤42	≤43	≤45	≤50	≤50	≤52
	Outdoor	dB(A)	≤50	≤52	≤54	≤56	≤58	≤58	≤60
Air Circulation		m^3/h	450	550	650	850	1050	1250	1350
Suitable Area		m^2	10~15	12~25	20~30	26~42	30~48	35~60	40~70
SEER		Btu/w	23.00	22.00	23.00	23.00	21	20	20
HSPF		Btu/w	16,2	15.80	16.10	16.30	16.10	16.20	16.20
Refrigerant			R410A/ R32	R410A/ R32	R410A/ R32	R410A/ R32	R410A/ R32	R410A/ R32	R410A/ R32
Compressor			DC 24/48V	DC 48V	DC 48V	DC 48V	DC 48V	DC 48V	DC 48V
Work Temp		℃	-15~60	-15~60	-15~60	-15~60	-15~60	-15~60	-15~60
Power Consumption									
Power Input		W	500(100~680)	700(120~930)	900(150~1120)	1100(160~1230)	1300(200~1560)	1400(280~1900)	1500(300~2050)
Rated Current		A	22	16	22	24	25	28	30
Input voltage		V	DC 24/48V	DC 48V	DC 48V	DC 48V	DC 48V	DC 48V	DC 48V
Dimension									
Indoor Unit	NET	mm	800*275*195	800*275*195	850*275*195	970×300×220	970×300×220	1080×320×240	1080×320×240
	Shipping	mm	860*370*260	860×370×260	920×370×260	1060×330×300	1060×330×300	1150×420×320	1150×420×320
Outdoor Unit	NET	mm	680*250*450	790*260*540	850* 290* 580	850* 290* 580	865*310*710	865*310*710	865*310*710
	Shipping	mm	710*332*510	910*370*610	995* 390* 650	995* 390* 650	1025*395*790	1025*395*790	1025*395*790
Weight									
Indoor Unit	Net/Gross	Kg	7/10	8/10	11/13	12/14	15/17	18/20	20/22
Outdoor Unit	Net/Gross	Kg	22/25	23/25	26/28	30/33	42/45	45/50	48/52
Container load quantity									
Load Qty	20GP	SET	130	120	90	80	70	40	40
	40HQ	SET	300	270	200	185	150	100	100

DC

Direct DC supply

Match the system voltage to the model.

Solar

MPPT charging

PV charges a compatible battery system.

Storage

Runtime planning

Size the battery for operating hours.

SOLAR THERMAL HYBRID

Wall-mounted split systems

Solar heat assistance | AC-powered equipment





RESIDENTIAL / MATCHED SPLIT SYSTEM



Technical specifications

MODEL RANGE & PERFORMANCE

Model No.			TKF(R)-26GWA	TKF(R)-32GWA	TKF(R)-35GWA	TKF(R)-52GWA	TKF(R)-60GWA	TKF(R)-72GWA	TKF(R)-100GWA
			1HP	1.25HP	1.5HP	2HP	2.5HP	3HP	4HP
			0.75TON	0.9TON	1TON	1.5TON	1.8TON	2TON	3TON
Power Supply: 220-240VAC, 1PH, 50/60Hz									
Performance									
Capacity	Cooling	Btu/h	9000	11500	12000	18000	20000	24000	36000
		W	2600	3200	3500	5200	6000	7200	10000
	Heating	Btu/h	10000	12000	13000	20000	22000	27000	40000
		W	2900	3500	3800	6000	6600	7900	11000
Noise	Indoor	dB(A)	≤40	≤42	≤42	≤44	≤46	≤50	≤52
	Outdoor	dB(A)	≤45	≤52	≤52	≤54	≤56	≤58	≤60
Air Circulation		m^3/h	500	520	550	800	850	1150	1350
Suitable Area		m^2	11~17	13~21	15~23	26~36	25~42	30~48	40~60
EER		W/W	3.6	3.72	3.89	3.83	3.88	3.82	3.82
COP		W/W	4.2	3.72	3.89	3.83	3.88	3.82	3.82
Power Consumption									
Power Input	Cooling	W	650~770	780~940	800~1025	1100~1300	1350~1560	1700~1900	2400~2640
Vacuum Tube	Diameter*Length*Pcs		47mm*520mm*10	47mm*520mm*10	47mm*520mm*10	47mm*620mm*11	47mm*620mm*11	47mm*620mm*11	47mm*620mm*11
Flat plate solar collector	WXDXH		800x500x80mm	800x500x80mm	800x500x80mm	900x500x80mm	900x500x80mm	900x500x80mm	900x500x80mm
Dimensions									
Indoor Unit	Net	mm	775*265*210	775*265*210	775*265*210	985×300×220	985×300×220	985×300×220	1080×320×240
	Shipping	mm	840*325*265	840*325*265	840*325*265	1080×380×300	1080×380×300	1080×380×300	1150×420×320
Outdoor Unit	Net	mm	790*260*540	790*260*540	790*260*540	850* 290* 580	850* 290* 580	865*310*710	865*310*710
	Shipping	mm	910*370*610	910*370*610	910*370*610	995* 390* 680	995* 390* 680	1025*395*790	1025*395*790
Water Tank	Shipping	mm	910*400*330	910*400*330	910*400*330	980*400*370	980*400*370	980*400*370	980*400*370
Vacuum Tube	Shipping	mm							
Flat plate solar collector	Shipping	mm	900x550x90mm	900x550x90mm	900x550x90mm	950x550x90mm	950x550x90mm	950x550x90mm	950x550x90mm
Loading Qty	in 20feet	sets	75	75	75	65	65	55	50
	40HQ	sets	175	175	175	135	135	125	115

SYSTEM BENEFITS

Integrated solar collector

Collector and outdoor unit form one matched system.

Utility AC power

AC supply powers the cooling equipment.

Wall-mounted split

Separate indoor and outdoor units for room cooling.

RESIDENTIAL / AC/DC HYBRID

Solar comfort at home

A residential application combining daytime PV input with AC power support.





APPLICATION SCENE / MATCHED INDOOR + OUTDOOR EQUIPMENT

Residential

Living rooms and bedrooms

Solar + AC

Hybrid supply approach

Room by room

Capacity matched to the load

Why this setup

Use available sunshine

PV input can contribute to cooling while solar energy is available.

Keep the room comfortable

A matched split system provides indoor cooling with the condenser installed outside.

Plan beyond daylight

AC support complements solar input when sunlight is insufficient, subject to the model.

PLAN THE CONFIGURATION

Confirm the room load, local climate, AC supply and available roof area. Match PV strings to the selected model.

REMOTE ACCOMMODATION / DIRECT DC

Comfort beyond the grid

A remote-cabin application with PV charging, battery storage and direct DC air conditioning.





APPLICATION SCENE / MATCHED INDOOR + OUTDOOR EQUIPMENT

Remote rooms

Cabins and small accommodation

PV + storage

Energy for the selected runtime

DC matching

Voltage depends on the model

Why this setup

Direct DC equipment

Match the air conditioner to the selected DC voltage and compatible power components.

Solar charging and storage

PV energy charges the battery through a suitable controller.

Runtime built around the need

Choose storage capacity for the cooling demand and required operating period.

PLAN THE CONFIGURATION

Confirm voltage, cooling load, operating hours, solar conditions and required autonomy. Size PV, controller and storage together.

PRODUCT FORMATS

WINDOW AIR CONDITIONERS

Integrated equipment fitted in a window opening.

AC/DC HYBRID

Solar DC input with compatible AC support.

DIRECT DC

Match the DC voltage, PV and battery system.





Model-specific technical tables and product details follow.

AC/DC HYBRID

Window air conditioners

Integrated window format | Solar DC + grid AC





Technical specifications

MODEL RANGE & PERFORMANCE

Remote control		9000BTU / 0.75Ton-24000BTU /2TON			
BTU		9000 BTU	12000BTU	18000BTU	24000 BTU
Model		TKC-26OG	TKC-35OG	TKC-52OG	TKC-72OG
Power Supply		1-220V/50Hz/60Hz	1-220V/50Hz/60Hz	1-220V/50Hz/60Hz	1-220V/50Hz/60Hz
Refrigerant		R32/R410A	R32/R410A	R32/R410A	R32/R410A
Capacity		2500W/9000BTU	3500W/12000BTU	5200W/18000BTU	7200W/24000BTU
Input Power	Cooling	350W	500W	750W	900W
	Heating	300W	470W	730W	880W
Current (Amp)	Cooling	1.5A	2.6A	3.8A	4.3A
	Heating	1.4A	2.4A	3.6A	4.2A
SEER		4.85	4.88	4.79	4.75
Air flow (m3/hour)		390	450	520	700
Noise(dBA)		52-55	54-58	56-60	58-62
Weight (Net/Gross)		31kg/33kg	42kg/44kg	45kg/47kg	52kg/55kg
Product Dimension		450*540*350mm	610*540*390mm	610*540*390mm	670*660*450mm
Package Dimension		550*620*440mm	650*615*445mm	650*615*445mm	730*780*500mm
MAX SOLAR PANEL(OPTIONAL)		2x550W	3x550W	5x550W/36V	6x550W/36V
Quantity(20ft/40HQ)/pcs		110/265	90/230	90/230	70/160

Compact

Integrated format

Cooling equipment in one window unit.

Hybrid

Dual-source supply

Solar input with AC power support.

4 sizes

Capacity choice

9,000-24,000 BTU/h classes.

SELECTION NOTES

Installation

Fit the unit in a suitable window opening with support, sealed sides and drainage.

PV options

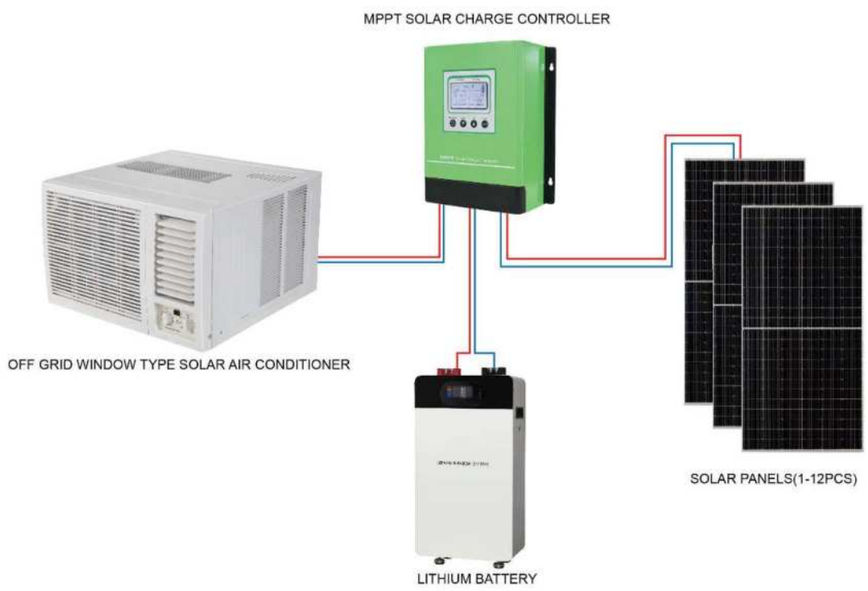
Use the model-specific PV configuration listed in the table.

DC OFF-GRID

Window air conditioners

6,000-24,000 BTU/h classes | DC supply by model





Technical specifications

MODEL RANGE & PERFORMANCE

BTU		6000BTU	9000BTU	12000BTU	15000BTU	18000BTU	20000BTU	24000BTU
TON		0.5TON	0.75TON	1TON	1.25TON	1.5TON	1.8TON	2TON
Model		KC(R)-17Y/DC	KC(R)-25Y/DC	KC(R)-35Y/DC	KC(R)-45Y/DC	KC(R)-52Y/DC	KC(R)-60Y/DC	KC(R)-72Y/DC
Power Supply		DC24V	DC24V/48V	DC48V	DC48V	DC48V	DC48V	DC48V
Refrigerant		R134A/R32	R134A/R32	R134A/R32	R134A/R32	R134A/R32	R134A/R32	R134A/R32
Capacity		1700W/6000BTU	2500W/9000BTU	3500W/12000BTU	4000W/14000BTU	5000W18000BTU	6000W/20000BTU	7200W/24000BTU
Input Power	Cooling	350W	500W	750W	900W	1000W	1050W	1500W
	Heating	300W	470W	730W	800W	1100W	730W	1460W
Current (Amp)	Cooling	7.3A	11.1A	15.6A	18.5A	19.6A	15.6A	31.5A
	Heating	6.5A	10.8A	14.8A	18.3A	19.8A	14.8A	28.3A
EER		4.85	4.88	4.79	4.75	4.79	4.79	4.75
Air flow (m3/hour)		350	390	450	520	520	520	900
Noise(dBA)		52-55	52-55	54-58	56-60	58-65	56-60	60-65
Weight (Net/Gross)		30kg/32kg	31kg/33kg	42kg/44kg	45kg/47kg	48kg/50kg	45kg/47kg	52kg/55kg
Product Dimension		390*410*320mm	450*540*350mm	560*600*400mm	560*600*400mm	660*670*450mm	660*670*450mm	660*670*450mm
Package Dimension		450*520*400mm	550*620*440mm	620*700*445mm	620*700*445mm	795*740*470mm	795*740*470mm	795*740*470mm
Quantity(20ft/40HQ)/pcs		200/500	200/500	110/340	110/340	90/230	90/230	70/160

Window

Integrated format

One unit fitted in a suitable window opening.

DC

Voltage choice

24/48 V options depend on the model.

Storage

Battery operation

Match storage to the required runtime.

SELECTION NOTES

Power matching

Select the exact voltage variant before defining the battery system.

PV and storage

Match the MPPT controller, PV array and battery capacity.

DC OFF-GRID

Portable air conditioners

24 V DC | 7,000-12,000 BTU/h





Technical specifications

MODEL RANGE & PERFORMANCE

Model No.			TKP-17/DC	TKP-26/DC	TKP-35/DC
Performance					
Capacity	Cooling	Btu/h	7000	9000	12000
		W	1800	2600	3500
	Heating	Btu/h	8000	10000	13000
		W	1900	2800	3800
Noise		dB(A)	≤42	≤44	≤46
Air Circulation		m³/h	400	400	500
Suitable Area		m²	6~8	8~10	10~15
EER		W/W	4.50	5.20	5.00
		Btu/h	15.39	15.79	15.79
Refrigerant			R-134A/R32	R-134A/R32	R-134A/R32
Compressor			Toshiba DC 24V		
Power Supply：24VDC (21V to30V)					
Power Consumption					
Rated Power Input		W	400	500	700
Rated Current		A	14.5	22	30
Input Power range		V	DC 21-30	DC 21-30	DC 21-30
Dimension					
Unit	NET	mm	350x350x756	350x350x756	350x350x756
	SHIPPING	mm	550x398x788	550x398x788	550x398x788
Weight					
Unit	Net/Gross	kg	18/22	18/22	22/26

24 V

Direct DC input

Use a compatible DC power system.

Portable

Flexible placement

Compact equipment for small spaces.

3 sizes

Cooling choice

Choose capacity for the room load.

SELECTION NOTES

Installation

Provide suitable exhaust routing and condensate drainage.

Battery system

Size battery storage to support the required operating hours.

Solard

PRODUCT FORMATS

LARGER-SPACE FORMATS

VRF, floor-standing and ceiling cassette equipment.

VRF

Match indoor formats and outdoor equipment.

FLOOR STANDING

A standing indoor format for larger spaces.

CEILING CASSETTE

Ceiling-integrated indoor equipment.









Model-specific technical tables and product details follow.

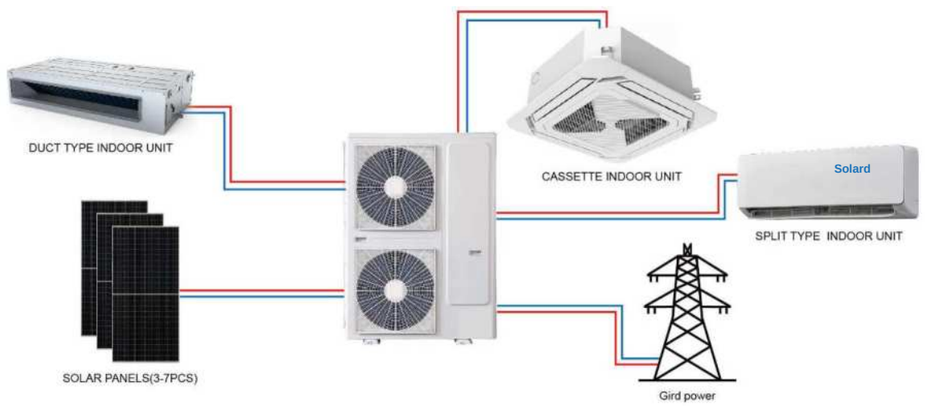
CENTRAL AIR CONDITIONING

VRF solar air conditioning

Multiple indoor formats | Project-specific pairing







Technical specifications

MODEL RANGE & PERFORMANCE

Power Supply: 208~240V,50/60HZ,1PH							380V,50/60HZ,3PH	
Model No.			TKF(R)-52QW/OG	TKF(R)-72QW/OG	TKF(R)-100QW/OG	TKF(R)-120QW/OG	TKF(R)-140QW/OG	TKF(R)-180QW/OG
Ton			1.5ton	2ton	3ton	4ton	4ton	5ton
HP			2HP	3HP	4HP	5HP	6HP	8HP
Performance								
Capacity	Cooling	Btu/h	18000	24000	36000	41000	48000	60000
		W	5000	7200	10000	12000	14000	18000
	Heating	Btu/h	20000	27000	40000	45000	52000	66000
		W	5500	7900	11000	13000	15000	20000
Noise	Indoor	dB(A)	≤45	≤46	≤48	≤50	≤50	≤52
	Outdoor	dB(A)	≤54	≤58	≤62	≤63	≤65	≤68
Air Circulation		m³/h	850	1050	1350	1450	1550	1750
Suitable Area		m²	20~30	25~45	50~65	60~70	60~80	100~130
EER		W/W	4.6	4.4	4.6	4.5	4.4	4.3
SEER		Btu/h/w	35	33	35	33	33	32
cop		W/W	4.9	4.8	4.9	4.8	4.8	4.7
scop		Btu/h/w	38	36	38	36	36	38
HSPF		Btu/h/w	16	14	16	14	14	15
Compressor		TOSHIBA (ROTAY)	TOSHIBA	TOSHIBA	TOSHIBA	TOSHIBA	TOSHIBA	PANASONIC
Power Consumption								
Rated Power Input		W	850	1250	1700	2100	2500	3000
Rated Current		A	4.3	5.68	8.6	9.4	11.55	13.6
Dimension								
Indoor Unit	NET	mm	640*640*280	640*640*280	850*850*280	850*850*280	850*850*280	850*850*280
	Shipping	mm	680*680*320	680*680*320	890*880*320	890*880*320	890*880*320	890*880*320
Outdoor Unit	NET	mm	850*300*700	865*310*710	865*310*710	950*360*1255	950*360*1255	950*360*1255
	Shipping	mm	950*400*750	1025*395*790	1025*395*790	1140*460*1340	1140*460*1340	1140*460*1340

Flexible

Indoor formats

Duct, cassette and wall-mounted options.

Matched

Project selection

Pair indoor and outdoor equipment.

Comfort

Room-load planning

Choose capacity for the building loads.

AC/DC HYBRID

Floor-standing air conditioners

Solar DC input + utility AC support



APPLICATION

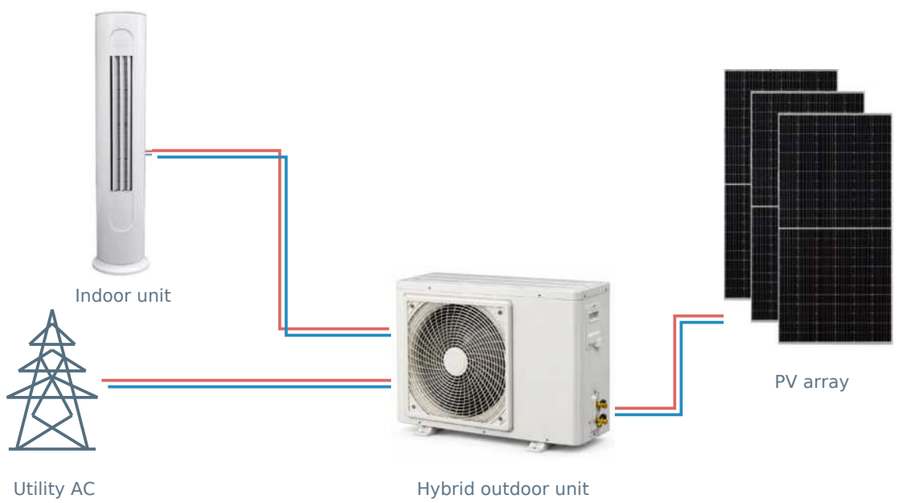
Shops & reception areas

A floor-standing indoor format for open rooms, lobbies and customer areas.

MATCHED SYSTEM

Indoor + outdoor equipment

SYSTEM CONNECTIONS



Make daytime solar count

Solar input and utility AC support in one matched system.

Solar

Daytime contribution

Use available PV power during cooling hours.

Hybrid

Utility support

AC input supports cooling when PV power is low.

Choice

Installation format

Select the indoor format to suit the room layout.

System configuration

Indoor equipment	Floor-standing indoor unit
Outdoor equipment	Matched AC/DC hybrid outdoor unit
Solar input	PV string design matched to the outdoor unit
Utility input	AC voltage, phase and frequency matched to the model
Installation	Matched pipework, drainage and electrical protection

SELECT FOR YOUR PROJECT

Confirm the cooling load, local AC supply and available installation space.

PV voltage and string size follow the selected outdoor unit specifications.

Allow indoor airflow clearance and a suitable outdoor installation position.

DC OFF-GRID

Floor-standing air conditioners

Solar charging + battery storage



APPLICATION

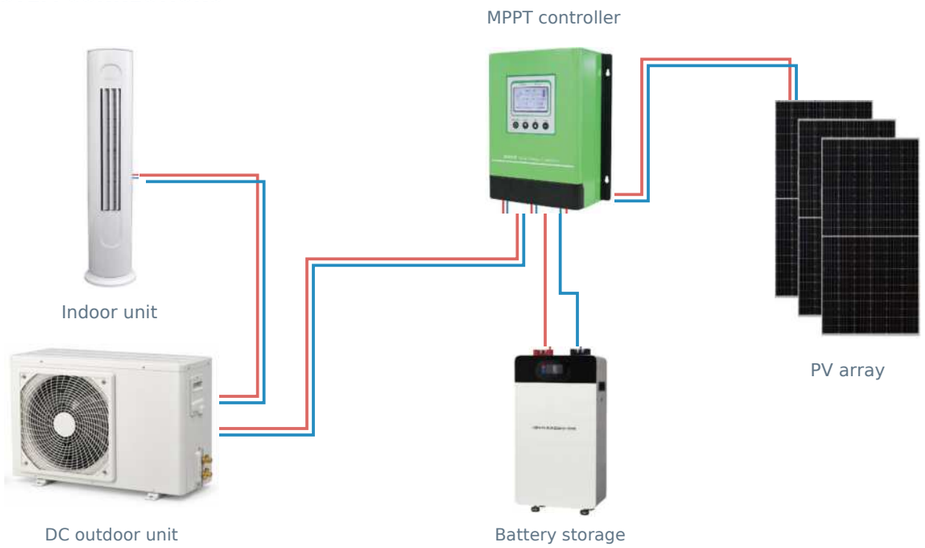
Shops & reception areas

A floor-standing indoor format for open rooms, lobbies and customer areas.

MATCHED SYSTEM

Indoor + outdoor equipment

SYSTEM CONNECTIONS



Cooling beyond the grid

DC cooling with solar charging and planned battery runtime.

Solar

MPPT charging

Use available sunlight to recharge battery storage.

Storage

Runtime planning

Size the battery around daily operating hours.

DC

Off-grid operation

Supply cooling from a matched DC system.

System configuration

Indoor equipment	Floor-standing indoor unit
Outdoor equipment	Matched direct DC outdoor unit
Solar charging	PV array + compatible MPPT charge controller
Energy storage	Battery voltage and capacity matched to the system
DC installation	Sized DC cables, isolation and circuit protection

SELECT FOR YOUR PROJECT

Confirm the cooling load, operating hours and required battery autonomy.

Select PV, MPPT and battery ratings for the chosen DC model.

Allow indoor airflow clearance and a suitable outdoor installation position.

SOLAR THERMAL HYBRID

Floor-standing air conditioners

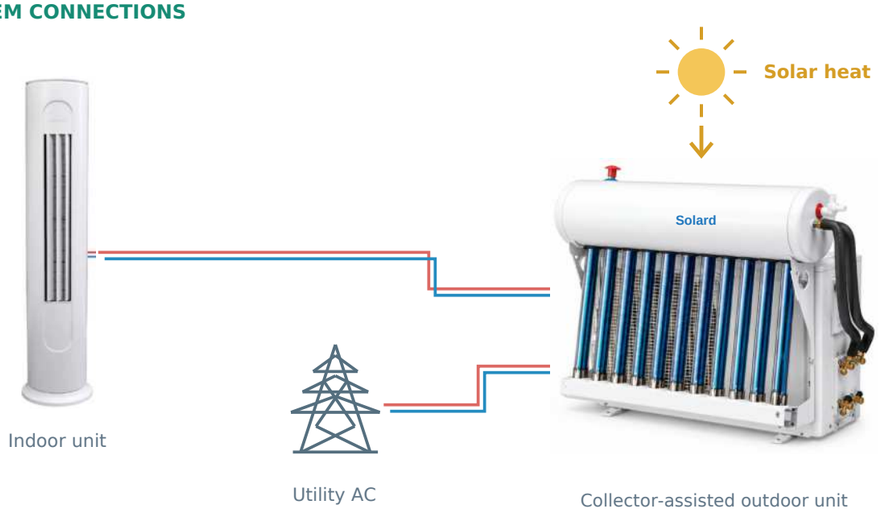
18,000-60,000 BTU/h classes | Solar heat assistance





LOBBY / FLOOR-STANDING SYSTEM

SYSTEM CONNECTIONS



Technical specifications

MODEL RANGE & PERFORMANCE

Model No.			TKF(R)-52LW	TKF(R)-72LW	TKF(R)-100LW	TKF(R)-120LW	TKF(R)-140LW	TKF(R)-180LW
Power Supply: 220-240VAC, 1PH, 50/60Hz								
Performance								
Capacity	Cooling	Btu/h	18000	24000	36000	41000	48000	60000
		W	5000	7200	10000	12000	14000	18000
	Heating	Btu/h	22000	26000	26000	43000	52000	66000
		W	6600	8000	11000	13000	15000	20000
Noise	Indoor	dB(A)	≤47	≤51	≤51	≤53	≤53	≤55
	Outdoor	dB(A)	≤56	≤58	≤58	≤60	≤60	≤62
Air Circulation		m^3/h	800	1250	1700	1800	1900	2500
Suitable Area		m^2	25~42	30~48	42~67	50~80	58~93	75~125
EER		W/W	3.88	3.82	3.87	3.96	3.87	3.87
		Btu/h/w	13.24	13.03	13.2	13.51	13.2	13.2
Power Consumption								
Power Input	Cooling	W	1350~1560	1700~1900	2400~2640	2900~3150	3500~3740	4500~4740
Rated Current	Cooling	A	6.14~7.09	7.73~8.64	10.91~11.95	13.18~14.32	15.91~17	20.5.91~22.5
Vacuum Tube	Diameter*Length*Pcs		47mm*620mm*11	47mm*620mm*11	47mm*700mm*13	47mm*1200mm*13	47mm*1200mm*13	47mm*1200mm*13
Dimensions								
Indoor unit	Net	mm	490*280*1730	550*300*1790	550*300*1790	550*390*1790	550*390*1790	550*390*1790
	Shipping	mm	580*390*1790	630*380*1900	630*380*1900	630*470*1900	630*470*1900	630*470*1900
Outdoor unit	Net	mm	850*300*755	940*300*755	950*355*835	950*355*1255	950*360*1255	950*360*1255
	Shipping	mm	950*400*770	990*400*770	1140*460*910	1140*460*1340	1140*460*1340	1140*460*1340
Water tank	Shipping	mm	980*400*370	980*400*370	1120*400*400	1120*400*400	1120*400*400	1120*400*400
Vacuum tube	Shipping	mm				1270*280*210	1270*280*210	1270*280*210
Load qty	in 20feet	sets	33	31	27	18	18	18
	40HQ	sets	82	76	66	45	45	45

SYSTEM BENEFITS

Solar heat assistance

Solar collector integrated with the outdoor unit.

Utility AC power

AC supply operates the compressor and controls.

Floor-standing format

Suitable for shops and reception areas.

AC/DC HYBRID

Ceiling cassette air conditioners

Solar DC input + utility AC support



APPLICATION

Shops & dining spaces

A ceiling-mounted indoor format that keeps floor and wall space available.

MATCHED SYSTEM

Indoor + outdoor equipment

Make daytime solar count

Solar input and utility AC support in one matched system.

Solar

Daytime contribution

Use available PV power during cooling hours.

Hybrid

Utility support

AC input supports cooling when PV power is low.

Choice

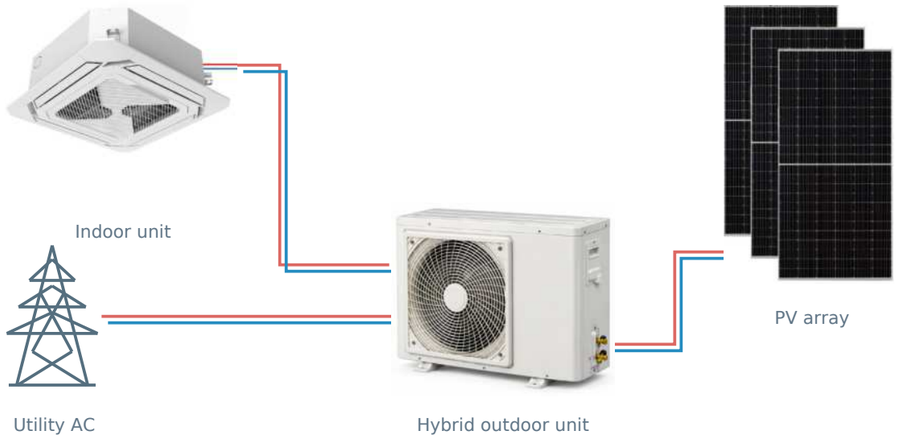
Installation format

Select the indoor format to suit the room layout.

System configuration

Indoor equipment	Ceiling cassette indoor unit
Outdoor equipment	Matched AC/DC hybrid outdoor unit
Solar input	PV string design matched to the outdoor unit
Utility input	AC voltage, phase and frequency matched to the model
Installation	Matched pipework, drainage and electrical protection

SYSTEM CONNECTIONS



SELECT FOR YOUR PROJECT

Confirm the cooling load, local AC supply and available installation space.

PV voltage and string size follow the selected outdoor unit specifications.

Allow ceiling access, condensate drainage and outdoor service clearance.

DC OFF-GRID

Ceiling cassette air conditioners

Solar charging + battery storage



APPLICATION

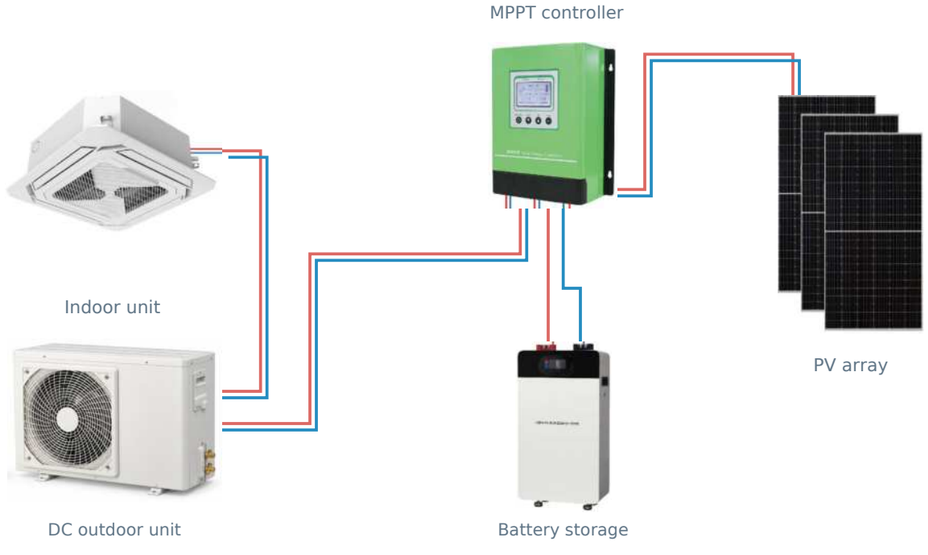
Shops & dining spaces

A ceiling-mounted indoor format that keeps floor and wall space available.

MATCHED SYSTEM

Indoor + outdoor equipment

SYSTEM CONNECTIONS



Cooling beyond the grid

DC cooling with solar charging and planned battery runtime.

Solar

MPPT charging

Use available sunlight to recharge battery storage.

Storage

Runtime planning

Size the battery around daily operating hours.

DC

Off-grid operation

Supply cooling from a matched DC system.

System configuration

Indoor equipment	Ceiling cassette indoor unit
Outdoor equipment	Matched direct DC outdoor unit
Solar charging	PV array + compatible MPPT charge controller
Energy storage	Battery voltage and capacity matched to the system
DC installation	Sized DC cables, isolation and circuit protection

SELECT FOR YOUR PROJECT

Confirm the cooling load, operating hours and required battery autonomy.

Select PV, MPPT and battery ratings for the chosen DC model.

Allow ceiling access, condensate drainage and outdoor service clearance.

SOLAR THERMAL HYBRID

Ceiling cassette air conditioners

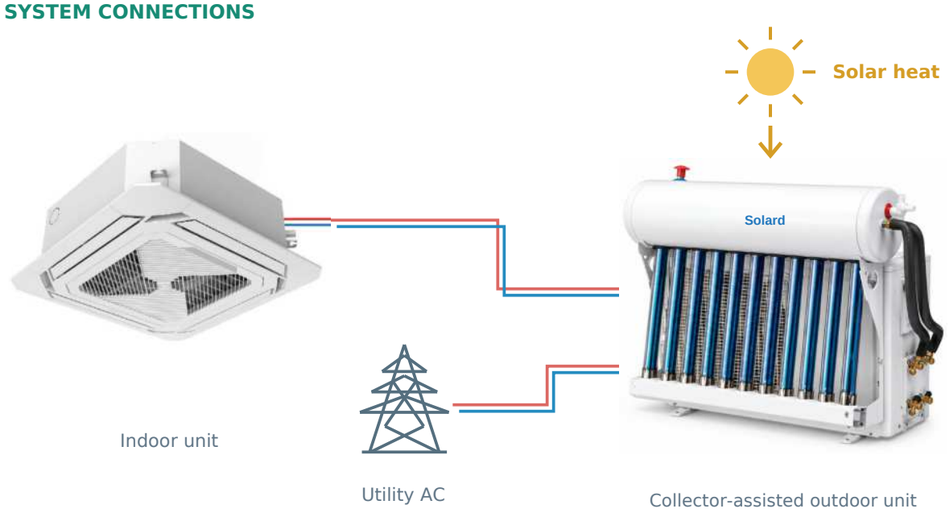
Cassette indoor + collector-assisted outdoor unit





RESTAURANT / CASSETTE SYSTEM

SYSTEM CONNECTIONS



Indoor unit

Utility AC

Collector-assisted outdoor unit

Technical specifications

MODEL RANGE & PERFORMANCE

Model No.			TKF(R)-52QW	TKF(R)-60QW	TKF(R)-72QW	TKF(R)-90QW	TKF(R)-100QW	TKF(R)-120QW	TKF(R)-140QW	TKF(R)-180QW
Power Supply: 220-240VAC, 1PH, 50/60Hz										
Performance										
Capacity	Cooling	Btu/h	18000	20000	24000	30000	36000	41000	48000	60000
		W	5200	6000	7200	9000	10000	12000	14000	18000
	Heating	Btu/h	20000+1700	22000+1700	27000+1700	39000+1700	40000+1700	46000+1700	55000+1700	60000
		W	6000+500	6600+500	7900+500	10000+500	12000+500	14000+500	16000+500	20000
Noise	Indoor	dB(A)	≤42	≤45	≤49	≤49	≤49	≤50	≤50	≤55
	Outdoor	dB(A)	≤55	≤56	≤58	≤58	≤58	≤60	≤60	≤62
Air Circulation		m^3/h	700	800	18000	24000	36000	41000	48000	60000
Suitable Area		m^2	20~36	25~42	30~48	35~52	42~67	50~80	58~93	75~125
EER		W/W	3.84	3.88	3.82	3.85	3.87	3.96	3.87	3.87
		Btu/h/w	13.21	13.24	13.03	13.1	13.2	13.51	13.2	13.2
Power Consumption										
Power Input	Cooling	W	1150~1350	1350~1560	1700~1900	2200~2420	2400~2640	2900~3150	3500~3740	4500~4740
	Heating	W	1150~1390+500	1350~1590+500	1700~1950+500	2270~2340+500	2470~2650+500	2900~3180+500	3500~3760+500	20.5.91~22.5
Rated Current	Cooling	A	5.54~6.22	6.14~7.09	7.73~8.64	9.82~11.95	10.91~11.95	13.18~14.32	15.91~17	20.5.91~22.5
	Heating	A	5.54~6.43+2.2	6.14~7.23+2.2	7.73~8.66+2.2	10.12~11.03+2.2	11.23~12.05+2.2	13.18~14.45+2.2	15.91~17.09+22	20.5.91~22.5+22
Vacuum Tube	Diameter*Length*Pcs		47mm*620mm*11	47mm*620mm*11	47mm*620mm*11	47mm*700mm*13	47mm*700mm*13	47mm*1200mm*13	47mm*1200mm*13	47mm*1200mm*13
Dimensions										
Indoor Unit	Net	mm	640*640*280	640*640*280	850*850*250	850*850*250	850*850*250	850*850*280	850*850*280	850*850*280
	Shipping	mm	680*680*320	680*680*320	890*880*290	890*880*290	890*880*290	890*880*320	890*880*320	890*880*320
Panel	Net	mm	650*650*60	650*650*60	960*960*60	960*960*60	960*960*60	960*960*60	960*960*60	960*960*60
	Shipping	mm	730*750*130	730*750*130	1010*1010*110	1010*1010*110	1010*1010*110	1010*1010*110	1010*1010*110	1010*1010*110
Outdoor Unit	Net	mm	850*300*755	850*300*755	940*300*755	950*355*835	950*355*835	950*355*1255	950*360*1255	950*360*1255
	Shipping	mm	950*400*770	950*400*770	990*400*770	1140*460*910	1140*460*910	1140*460*1340	1140*460*1340	1140*460*1340
Water Tank	Shipping	mm	980*400*370	980*400*370	980*400*370	1120*400*400	1120*400*400	1120*400*400	1120*400*400	1120*400*400
Vacuum Tube	Shipping	mm						1270*280*210	1270*280*210	1270*280*210
Loading Qty	in 20feet	sets	44	44	36	31	31	22	22	22
	40HQ	sets	106	106	88	75	75	53	53	53

SYSTEM BENEFITS

Solar heat assistance

Solar collector integrated with the outdoor unit.

Utility AC power

AC supply operates the compressor and controls.

Ceiling-integrated format

Keeps floor space available; allow drainage and access.

RETAIL / DAYTIME OPERATION

Cooling for business hours

A small-shop application for aligning daytime cooling demand with available solar input.





APPLICATION SCENE / MATCHED INDOOR + OUTDOOR EQUIPMENT

Small retail

Shops and customer areas

Daytime use

PV and operating-hour fit

Model choice

Based on the actual room load

Why this setup

Daytime solar contribution

Use available PV power during sunny opening hours.

A comfortable customer space

Select the indoor format and cooling capacity around the shop layout and occupancy.

AC support when needed

A hybrid model combines solar input with a compatible AC supply.

PLAN THE CONFIGURATION

Include glazing, door openings, people and internal heat gains in the cooling-load assessment. Confirm operating hours.

Solard

DIRECT DC COLLECTION

DC SOLAR REFRIGERATION

Cold storage and ice-making products for DC power systems.

DC FREEZER

Chest storage for frozen products.

DC REFRIGERATOR

Upright storage with fridge and freezer sections.

DC ICE MAKER

Ice-making equipment with solar charging options.



DIRECT DC REFRIGERATION EQUIPMENT







DC FREEZER

DC FRIDGE

DC ICE MAKER

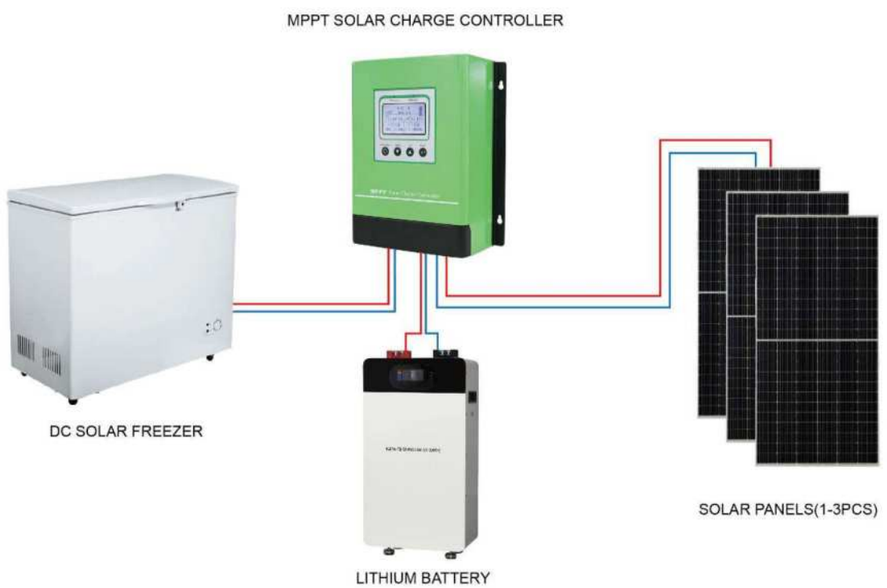
Match PV charging and storage to the selected appliance and runtime.

DC SOLAR REFRIGERATION

DC solar freezers

Chest freezer series | PV charging + battery





Technical specifications

MODEL RANGE & PERFORMANCE

Model	BC/BD-118	BC/BD-168	BC/BD-218	BC/BD-258	BC/BD-308	BC/BD-368	BC/BD-458	BC/BD-558	BC/BD-698
Power consumption	100W	115W	138W	145W	151W	180W	276W	285W	297W
Input voltage (V)	DC12V/24V	DC12V/24V	DC12V/24V	DC12V/24V	DC12V/24V	DC12V/24V	DC12V/24V	DC12V/24V	DC12V/24V
capacity	118 L	168 L	218 L	258 L	308 L	368 L	458 L	558 L	698 L
Product size(mm)	580×555×850	750*555*850	906*555*850	952×633×850	1110×643×850	1110×735×850	1280×735×850	1530×735×850	1800×673×850
Carton size(mm)	617×577×882	787*577*882	943*577*882	989×657×882	1147×670×882	1147×757×882	1317×757×882	1567×757×882	1865×755×882
N.W. /G.W(KG)	24/27	32/36	36/40	38/42	42/46	58/64	66/72	74/81	77/87
Temperature range	<=-18 degree	<=-18 degree	<=-18 degree	<=-18 degree	<=-18 degree	<=-18 degree	<=-18 degree	<=-18 degree	<=-18 degree
Inner glass door	yes	yes	yes	yes	yes	yes	yes	yes	yes
key& lock	yes	yes	yes	yes	yes	yes	yes	yes	yes
Inner' light	yes	yes	yes	yes	yes	yes	yes	yes	yes
Basket/pcs	1	1	1	1	1	1	1	1	1
Thermostat	mechanical	mechanical	mechanical	mechanical	mechanical	mechanical	mechanical	mechanical	mechanical
Colour	white	white	white	white	white	white	white	white	white
Defrost	manual	manual	manual	manual	manual	manual	manual	manual	manual
Compressor/quantities	1	1	1	1	1	1	1	1	1
Doors/quantities	1	1	1	1	1	1OR2	1OR2	1OR2	1OR2
Loading quantity/40HQ	228	179	148	125	104	92	80	66	57

Storage

Chest freezer

A range of volumes for frozen storage.

DC

Battery-compatible

Match the DC supply to the appliance.

Solar

PV charging

Use a compatible MPPT and battery.

SELECTION NOTES

Capacity selection

Match storage volume to the product quantity and loading pattern.

Runtime planning

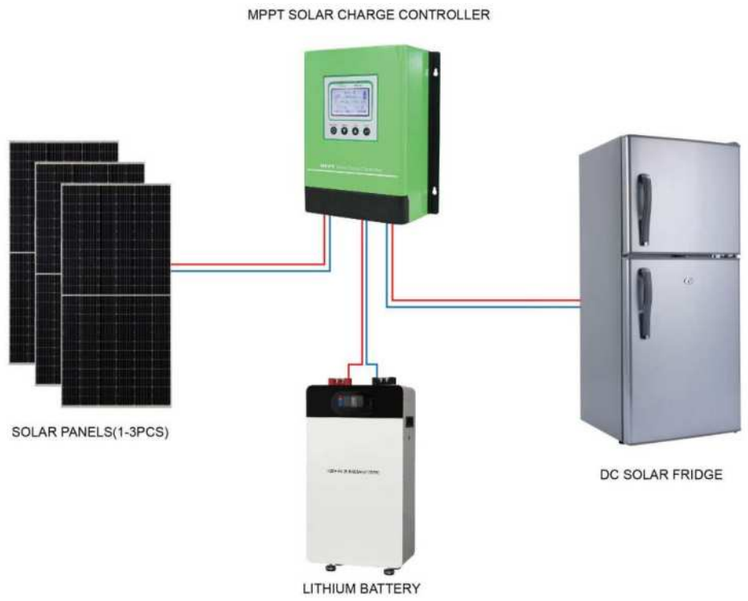
Size the solar array and battery for daily energy demand.

DC SOLAR REFRIGERATION

DC solar refrigerators

Upright refrigerator series | PV charging + battery





Technical specifications

MODEL RANGE & PERFORMANCE

Model	BCD-98	BCD-108	BCD-118	BCD-142	BCD-178	BCD-198	BCD-218	BCD-298	BCD-295	BCD-168	BCD-270
Power Consumption	55W	60w	60w	65w	70w	78w	81w	85w	88w	70w	88w
Capacity	98Liter	108Liter	118Liter	142Liter	178Liter	198Liter	218Liter	268Liter	295Liter	168Liter	270Liter
Freezer Capacity	24Liter	42Liter	39Liter	39Liter	39Liter	80Liter	45Liter	52Liter	130Liter	75Liter	135Liter
Product Size(mm)	480*445*845	450*460*1250	480*490*1105	480*490*1265	500*566*1290	520*550*1515	550*570*1395	550*570*1619	540*620*1733	550*560*1355	563*620*1682
Carton Size(mm)	500*465*870	465*480*1305	500*540*1160	500*540*1320	535*620*1340	560*600*1550	570*600*1455	570*600*1880	575*640*1745	547*590*1415	635*670*1765
N.W./G.W.(KG)	24/26	29/32	28/31	32/35	37/41	42/47	40/45	45/50	60/62	42/45	66/70
Temperature Range	0~10 degree for fridge, <=-18 degree for freezer									0~10 degree for fridge, <=-18 degree for freezer	
Loading Quantity 40HQ	352pcs	240pcs	184pcs	184pcs	160pcs	136pcs	142pcs	108pcs	108pcs	160pcs	73pcs

Upright

Storage format

Fridge and freezer compartments.

Choice

Capacity range

Select volume for the application.

Solar

Battery-supported

Match PV charging and runtime.

SELECT THE RIGHT CONFIGURATION

01 Storage volume

Compare total and freezer capacities for the selected model.
Choose usable volume around product quantity and loading pattern.

02 Installation space

Check product and carton dimensions for installation and shipping.
Allow suitable placement and access for loading and daily use.

03 Power matching

Match the MPPT controller, PV array and battery to daily energy use.
Set battery capacity around the required operating hours.

DC SOLAR REFRIGERATION

DC solar ice makers

DC ice-making equipment | Solar charging options





Technical specifications

MODEL RANGE & PERFORMANCE

FACTORY MODEL		BD-185C(8 Layers)	BD-195C(11 layers)	BD-260C(9 Layers)	BD-280C(11 Layers)
NET CAPACITY	Total	185L(6.5cu.ft.)	195L(6.8cu.ft.)	260L(9.1cu.ft.)	280L(9.7cu.ft.)
	Freezer	185L(6.5cu.ft.)	195L(6.8cu.ft.)	260L(9.1cu.ft.)	280L(9.7cu.ft.)
PERFORMANCE	Climate	ST/T	ST/T	ST/T	ST/T
	Energy Class	A	A	A	A
	Certificate	CB	CB	CB	CB
	Freezing Capacity	30kg/24h	35kg/24h	40kg/24h	45kg/24h
	Valtage	24V	24V	24V	24V
	Compressor	Static	Static	Static	Static
	Noise Level(dB)	Normal	Normal	Normal	Normal
GENERAL FEATURES	Color	White/Silver	White/Silver	White/Silver	White/Silver
	Quantity of Door	1	1	1	1
	Door Finishing	PCM	PCM	PCM	PCM
	Feet	Adjustable+Wheel	Adjustable+Wheel	Adjustable+Wheel	Adjustable+Wheel
	Lock & key	Yes	Yes	Yes	Yes
	Temp. Control	Mechanical	Mechanical	Mechanical	Mechanical
	Defrosting	Manual	Manual	Manual	Manual
	Refrigerant	R290	R290	R290	R290
	Foam Agent	Cyclopentane	Cyclopentane	Cyclopentane	Cyclopentane
	Evaporator	Outside	Outside	Outside	Outside
	Condenser	Double Outside	Double Outside	Double Outside	Double Outside
	Plug	Any Type	Any Type	Any Type	Any Type
	Handle	Recessed	Recessed	Recessed	Recessed
	Flush Back	Yes	Yes	Yes	Yes
	Ice Maker	Simple	Simple	Simple	Simple
	Shelf/Rack Decoration Strip	No	No	No	No
DIMENSION	Width (Net/Packing)	544/575 mm	544/575 mm	594/631 mm	594/631 mm
	Depth (Net/Packing)	565/594 mm	580/609 mm	580/599 mm	600/619 mm
	Height (Net/Packing)	1416/1466 mm	1416/1466 mm	1718/1770 mm	1718/1770 mm
WEIGHT	Net/Gross	42/45 kg	42/45 kg	52/57 kg	52/57 kg
	Condenser Outside	144	144	80	77

Capacity

Storage & freezing

Compare cabinet volume and freezing capacity.

24 V

Direct DC input

Use a compatible DC supply.

Storage

Runtime planning

Match battery storage to daily use.

INSTALLATION GALLERY / PROJECT PHOTOS

Solar cooling installations



Singapore / Wellington Primary School
Hydroponic farm / hybrid solar cooling



Singapore / Liftytech office
Hybrid solar AC / indoor unit

SINGAPORE / INSTALLED SYSTEMS

School & office

Installation views of indoor units,

outdoor equipment and the PV array.

WELLINGTON PRIMARY SCHOOL

LIFTYTECH OFFICE



Singapore / Liftytech office
Hybrid solar AC / outdoor installation



Singapore / Liftytech office
Hybrid solar AC / room installation



Singapore / Liftytech office
Hybrid solar AC / condenser placement



Singapore / Wellington Primary School
Hydroponic farm / rooftop PV array

INSTALLATION GALLERY / PROJECT PHOTOS

Solar cooling installations

02 / 02



Singapore / Goodman Crest residence
Off-grid solar AC / living room



Kingston, Jamaica / Solar thermal AC
Solar thermal system / collector

RESIDENTIAL & SOLAR THERMAL

Rooms, PV and equipment

Installation views from Singapore and Kingston.

GOODMAN CREST / JALAN KELULUT

WELLINGTON SCHOOL / KINGSTON



Singapore / Goodman Crest residence
Off-grid solar AC / PV installation



Singapore / Wellington Primary School
Hydroponic farm / container installation



Singapore / Jalan Kelulut residence
Hybrid solar AC / outdoor units



Kingston, Jamaica / Solar thermal AC
Solar thermal system / indoor unit

Solard

START YOUR PROJECT

Let's plan your cooling system.

Share your application and operating requirements.
We can help match the equipment and supply scope.

CONTACT

ivy@solard.com.cn

ALIBABA STORE

sldxny.en.alibaba.com

Shandong Solard New Energy Technology Co., Ltd.

Solar cooling / energy storage / PV components

From selection to supply

01 Define the application

Review the location, cooling load, electrical supply and daily operating hours.

02 Match the system

Choose the model, PV input and storage requirements for the selected product family.

03 Confirm order options

Discuss quantity, branding, packaging and the agreed equipment scope.

04 Coordinate export preparation

Support order documentation, packing requirements and logistics coordination.

05 Support the handover

Provide product documentation and after-sales technical support.

REQUEST A SYSTEM QUOTATION

Country, city, full delivery address and postal code
Contact name and email
Voltage, frequency and phase; cooling capacity or room size
Quantity and daily operating hours