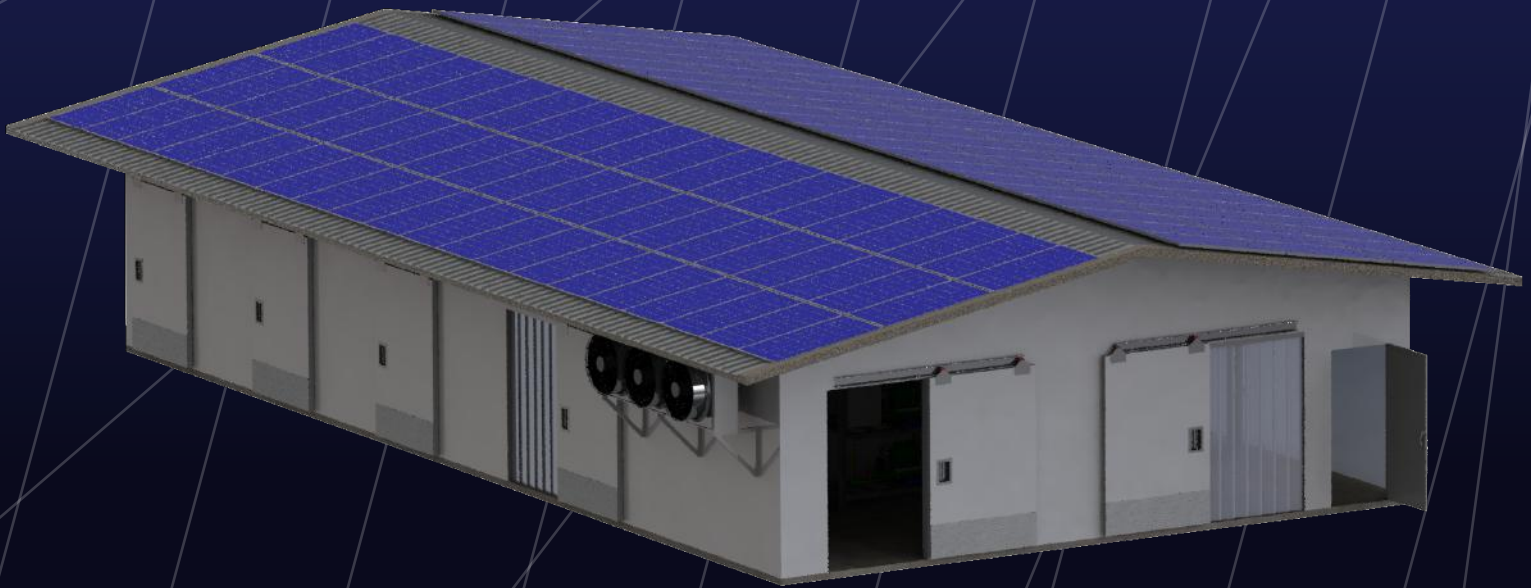


HEUCH

Solar Cold Chain Solutions Cold Storage



INSTANT RETURN + PROFIT IMPROVEMENT

100% ENERGY INDEPENDENT

- NO GENERATORS OR GRID CONNECTIONS
- NO FUEL COST, LOGISTIC OR QUALITY ISSUES
- OPERATES 24 HOURS A DAY

QUIET, CLEAN + GREEN

- SUSTAINABLE POWER SOURCE
- OPERATE ANYWHERE
- NO NOISE OR EXHAUST POLLUTION

CUSTOM COLD STORAGE

- COOL ROOMS
- REFRIGERATED MARKET SPACES
- COLD STORAGE

AUSTRALIAN DESIGNED + MADE

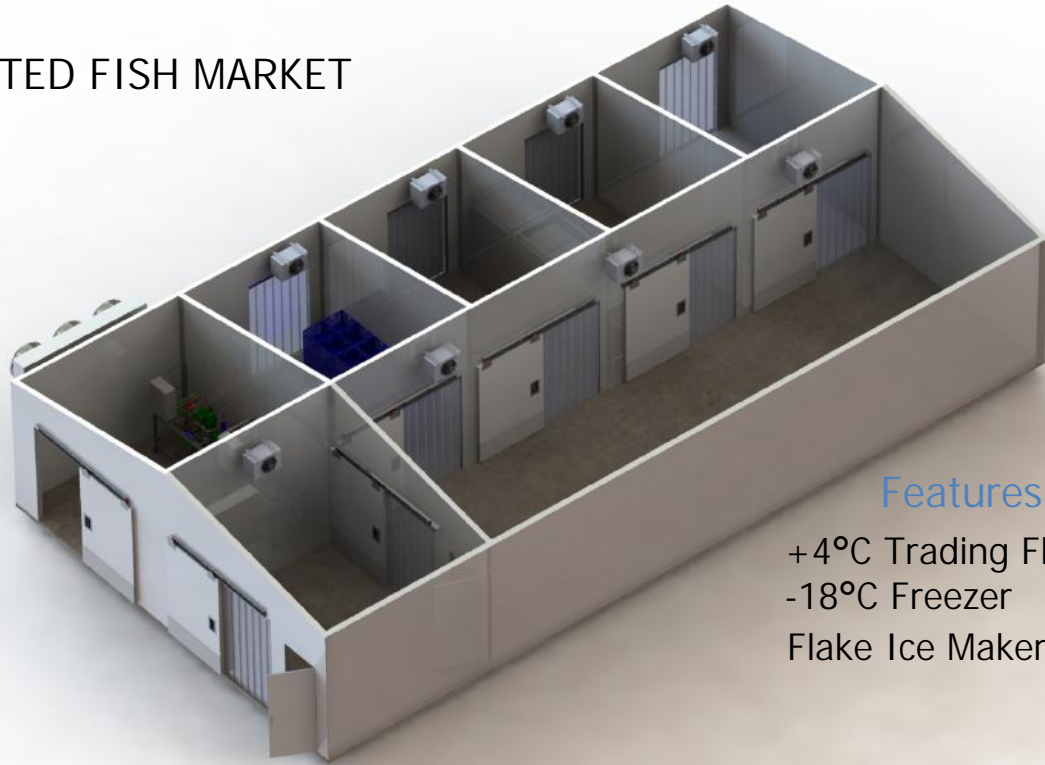
- HEAVY DUTY DESIGN
- QUALITY COMPONENTS
- WORLD WIDE SUPPORT+ MAINTENANCE

heuch.com.au | napalima.com



Tailored engineering of renewable energy solutions for remote cooling, drying + power production.

REFRIGERATED FISH MARKET



Features

- +4°C Trading Floor+ Stalls
- 18°C Freezer
- Flake Ice Maker

Delivered containerized or "flat packed" for site assembly, Heuch Solar Powered Refrigeration equipment is scalable in capacity and tailored to your specific needs.

Features include

- 100% Off Grid
- No Diesel Generators
- No Fuel Quality or Logistic Problems
- Zero Operating Costs
- Low Maintenance
- Simple Operation
- Rugged + Reliable design
- Green, Quiet + Clean
- Excess Power Available For Lighting, Mobile Phone Charging, etc



<p>NAPALIMA.COM INFO@NAPALIMA.COM TELEPON: +62 214 585 6675 JAKARTA</p>	<p>HEUCH.COM.AU COOL@HEUCH.COM.AU PHONE +61-3-9793 6088 FAX +61-3-9792 2660</p>
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HEUCH PTY LTD

A.B.N. 92 085 200 380

Engineered Refrigeration and Process Cooling Equipment

35 NISSAN DRIVE, DANDENONG SOUTH, VICTORIA 3175

PHONE : 61-3-9793 6088 FAX : 61-3-9792 2660

EMAIL : cool@heuch.com.au WEBSITE : www.heuch.com.au



Quality
ISO 9001



Model	Napalima-Heuch Refrigerated Market Hub						
Manufacturer	Heuch (Australia)Napalima(Indonesia) Heuch (Australia)Napalima(Indonesia)						
Power	Solar only						
Mains Power	Not Required						
External Colour	White						
Dimensions for Transport LxWxH (External)	Flat Packed for Site Installation						
Dimensions for Deployment LxWxH (External)	Flat Packed for Site Installation						
	Room 1 Plant RoomRoom 1 Plant Room	Room 2 Entry (Ante Room)Room 2 Entry (Ante Room)	Room 3 Trading FloorRoom 3 Trading Floor	Room 4 Ice MakingRoom 4 Ice Making	Room 5 Freezer RoomRoom 5 Freezer Room	Room 6 Freezer RoomRoom 6 Freezer Room	Room 7 Blast FreezerRoom 7 Blast Freezer
Temperature Style	<i>Ambient, ventilated</i>	<i>Single Zone</i>	<i>Single Zone</i>	<i>Single Zone</i>	<i>Single Zone</i>	<i>Single Zone</i>	<i>Single Zone</i>
Common Options:							
Automatic Control	NA	Yes	Yes	Yes	Yes	Yes	Yes
Door Curtains/No. off	NA	Yes/2	Yes/2	Yes/2	Yes/2	Yes/2	Yes/2
Room Type							
Operating times	24 hour	24 hour	24 hour	24 hour	24 hour	24 hour	24 hour
Duty Style High/Medium/Low		High	High	High	High	High	High
Operational Description		Air Cond	Cooler	Cooler	Freezer	Freezer	Freezer
Operating times		24 Hours	24 Hours	24 Hours	24 Hours	24 Hours	24 Hours
Max Storage Weight per day (av. kg)				800 to 1000	2000	2000	800 to 1000
No. Of Compartments	1	1	1	1	1	1	1
Dimensions for Produce Compartment LxWxH (Internal)	4.5 x 4.2 x 3.0	4.5 x 4.2 x 3.0	14.0 x 3.2 x 3.0	4.5 x 3.2 x 3.0	4.5 x 3.2 x 3.0	4.5 x 3.2 x 3.0	1.8 x 1.8 x 1.5
Dimensions for Deployment minimum LxWxH (External)				1,030m2			
Entering Temperature		+8°C	+4°C	+4°C	-18°C	-18°C	-40°C
No of Entry Doors	1	2	2	2	2	2	2
Solar Power System							
Panel Type	Photo Voltaic						
No Off	400						
Voltage Control	Yes						
Wiring System	Heuch						
Electrical Wiring Standards	AUSNZ:3000						
Over-Current Protection	Fuse						
Disconnect Switch/Type	Per String/Manual						

Australian Refrigeration Council Ltd National Refrigeration Authorisation Number AU05486

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ENGINEERED COOLING SYSTEMS * INDUSTRIAL REFRIGERATION * HAZARDOUS AREA EQUIPMENT
SPECIALISED AIR CONDITIONING * ENVIRONMENTAL TEST CHAMBERS * FREEZER ROOMS * COOL ROOMS



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Battery System							
Battery Type	Industrial Quality AGM GELL CELL (VRLA)						
Maintenance type	Maintenance Free						
Design Life	15 Years						
Cell type/No Off	Single / 12 @ 2V	Single / 12 @ 2V	Nil	Single / 12 @ 2V	Single / 12 @ 2V	Single / 12 @ 2V	Single / 12 @ 2V
Chassis	Heuch Type 1	Heuch Type 2		Heuch Type 2	Heuch Type 2	Heuch Type 2	Heuch Type 2
Voltage Controller	MPPT	MPPT	MPPT	MPPT	MPPT	MPPT	MPPT
Transportable	No	No		No	No	No	No
Standard	IATA DGR Clause A67	IATA DGR Clause A67		IATA DGR Clause A67	IATA DGR Clause A67	IATA DGR Clause A67	IATA DGR Clause A67
Recyclable	Yes	Yes		Yes	Yes	Yes	Yes
Deep Discharge Protection	DIN 43 539 T5	DIN 43 539 T5		DIN 43 539 T5	DIN 43 539 T5	DIN 43 539 T5	DIN 43 539 T5
Temperature Monitored	Yes	Yes		Yes	Yes	Yes	Yes
Electrical Wiring Standards	AUSNZ:3000	AUSNZ:3000	AUSNZ:3000	AUSNZ:3000	AUSNZ:3000	AUSNZ:3000	AUSNZ:3000
Over-Current Protection	Fuse	Fuse	Fuse	Fuse	Fuse	Fuse	Fuse
Disconnect Switch/Type	Per String/Manual	Per String/Manual	Per String/Manual	Per String/Manual	Per String/Manual	Per String/Manual	Per String/Manual
Cooling System							
Type	Refrigerated	Refrigerated	Refrigerated	Refrigerated	Refrigerated	Refrigerated	Refrigerated
No. of Cooling Zones	1	1	1	1	1	1	1
Environmental Style	Fully Sealed	Fully Sealed	Fully Sealed	Fully Sealed	Fully Sealed	Fully Sealed	Fully Sealed
Condenser	Air-Cooled	Air-Cooled	Air-Cooled	Air-Cooled	Air-Cooled	Air-Cooled	Air-Cooled
Condenser Fans	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed
Compressor	Hermetic	Hermetic	Hermetic	Hermetic	Hermetic	Hermetic	Hermetic
Compressor Motor	AC/DC	AC/DC	AC/DC	AC/DC	AC/DC	AC/DC	AC/DC
Cooler	Induced Draft Air	Induced Draft Air	Induced Draft Air	Induced Draft Air	Induced Draft Air	Induced Draft Air	Induced Draft Air
Cooler Fan	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed	Variable Speed
Control System	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display
Defrost/Type	Automatic/Off Cycle	Automatic/Off Cycle	None	Automatic/Reverse Cycle	Automatic/Reverse Cycle	Automatic/Reverse Cycle	Automatic/End of Cycle

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ISO 9001



Building & Insulation									
Construction Type						Site Installation			
Insulation/minimum Thickness		Yes/100mm	Yes/150mm	Yes/150mm	Yes/150mm	Yes/150mm	Yes/150mm	Yes/150mm	Yes/200mm
Floor type		Insulated Concrete Slab with Concrete wearing surface							
Doors/Type		Yes/Sliding							
Door Curtains		Yes							
Condensate Drain		External							
LED internal Lighting		Yes							
LED Entry Lighting		Yes							
Superstructure (Tropical Colorbond roof)		Yes							
Concrete slab (double freezer slab)		Yes							
Drainage including Six (6) of- FWG and Six (6) lineal metres of food grade channel drain		Yes							
Grease & Interceptor Trap to Australian Standards		Yes							
Epoxy flooring & internal coving (food grade)		Yes							
Insulated panel core – minimum 150mm thickness walls and ceilings; (Microban® finish)		Yes							
Ceiling suspension units		Yes							
Colorbond steel extrusions		Yes							
Associated fixings and sealants		Yes							
'BRADY' insulated sliding and hinged doors		Yes							
Low temp and medium temperature strip curtains		Yes							
Sub floor heating/ventilation system		Yes							
Freezer door threshold/Door Heat Trace		Yes							
Concrete/Footings works		Yes							
Superstructure		Yes							
Drainage system		Yes							
Plumbing works		Yes							
Fire services		Yes							
All electrical works		Yes							
Floor finishes and epoxy coving		Yes							
Vermin proof flashings; (perimeter of building)		Yes							
Not included									
Planning permits and/or fees;		No							
Building permits and/or fees;		No							
Any fees associated works		No							
Architectural and service drawings		No							
Authority approvals		No							
Land									

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