

# HEAT TRANSFER COMPACT UNIT



# IES HEAT TRANSFER COMPACT UNIT

With over 10 years of experience in design, manufacture and installation of high quality Heat Transfer Compact Unit, we provide quality and reliable service.

**IES** is committed to provide high quality systems, comprehensive service and continuous improvement of products to meet total customer satisfaction worldwide.

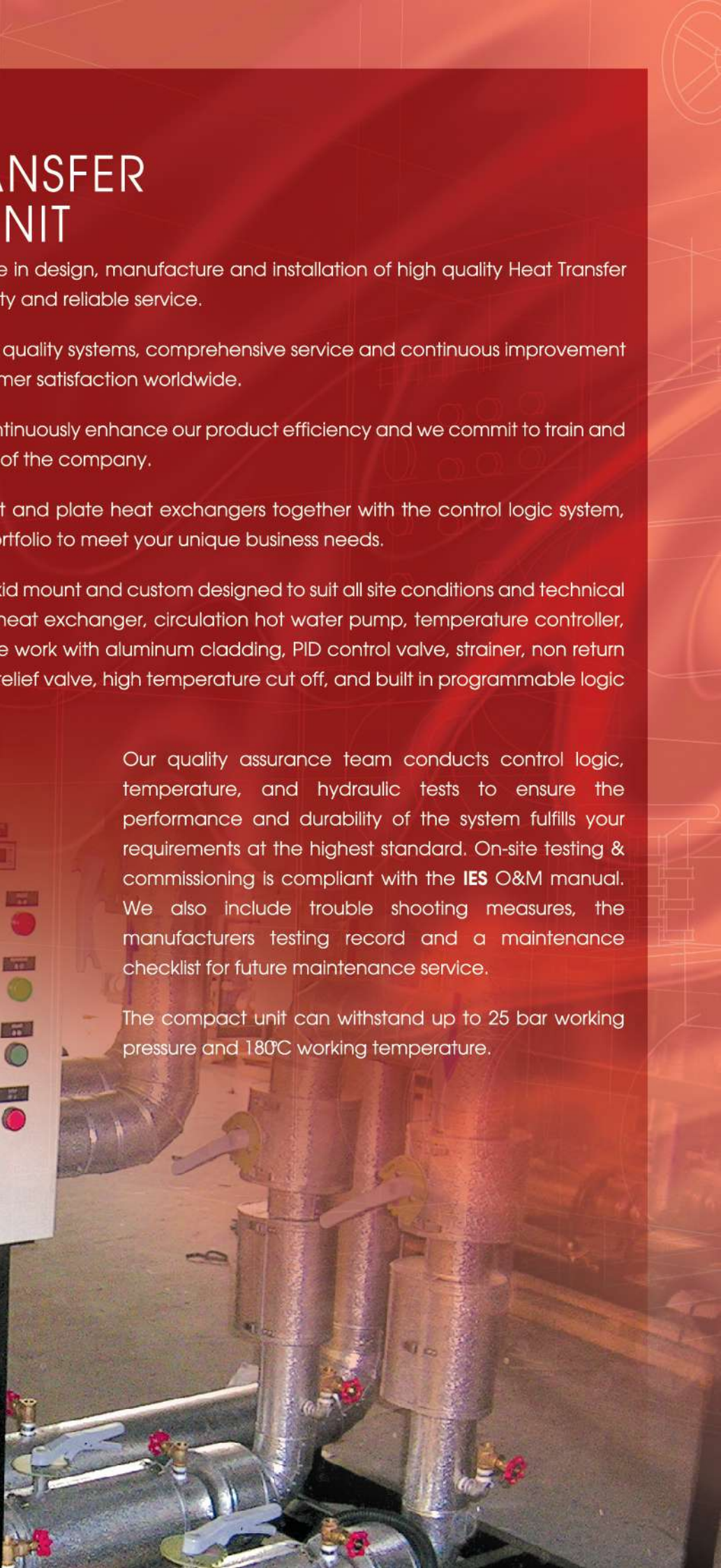
We deploy R&D resources to continuously enhance our product efficiency and we commit to train and develop our people at all levels of the company.

We offer a full suite of pump set and plate heat exchangers together with the control logic system, which enhances our product portfolio to meet your unique business needs.

**IES** Compact Unit is supplied in skid mount and custom designed to suit all site conditions and technical requirements. The unit includes heat exchanger, circulation hot water pump, temperature controller, energy meter, pre-insulated pipe work with aluminum cladding, PID control valve, strainer, non return valve, pneumatic vessel, safety relief valve, high temperature cut off, and built in programmable logic controller.

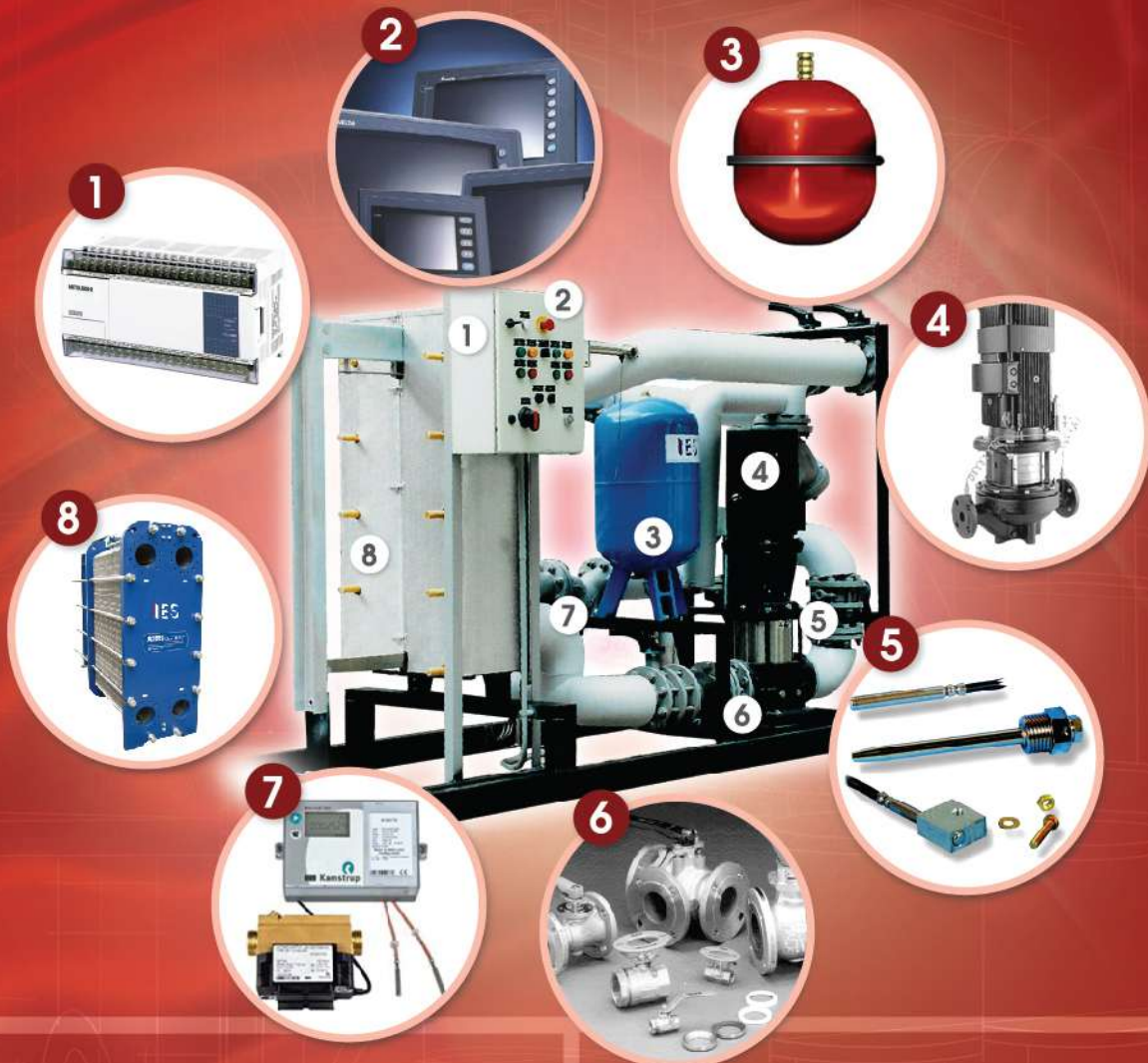
Our quality assurance team conducts control logic, temperature, and hydraulic tests to ensure the performance and durability of the system fulfills your requirements at the highest standard. On-site testing & commissioning is compliant with the **IES** O&M manual. We also include trouble shooting measures, the manufacturers testing record and a maintenance checklist for future maintenance service.

The compact unit can withstand up to 25 bar working pressure and 180°C working temperature.





# BENEFITS OF IES HEAT TRANSFER COMPACT UNIT



## Compact Design

makes it possible to save up to 50% of the space occupied by loose components.

## Consistently High Performance

all components are tested and complied with the latest code of practice.

## Economy

all Compact Units are designed with careful and specific calculations and operated on dynamic reality of hot water demand.

## Tailor Made Design

with the various types of hot water system to meet your unique and specific requirements.

## Energy Auditing

allows you to monitor energy expenses and maintain high efficiency of the hot water system.

## Remote Control

with the PLC controller of Heat Transfer Compact Unit, temperature, flow rate and pressure can be modulated due to low demand. This means energy saving and reduced environmental impact.





## WHY IES HEAT TRANSFER COMPACT UNIT?

Our comprehensive package provides you a hassle-free solution. We ensure a one-stop-shop solution from the full compatibility of components to the professional project management of the entire project. The package option delivered to site offers wide benefits – from compatibility of components, to the simplification of on-site project management.

## THE CONCEPT DESIGN

From the basic information on flow rate, temperature, heat load, components to the space consumption, our skillful design team can offer a swift mechanical, thermal and electrical and package solution.

In the selection of equipment, we endeavor to offer most energy efficient design by ensuring synergy between all the package components. As a provider of package systems, we have in depth knowledge of the entire system requirement.

We engage in the early stages of design, planning and work closely with consultants, contractors and your team, to ensure that the entire site design integrity is carefully assessed and successfully implemented.

## THE CONTRACT

**IES** designs and will produce the project documentation, which detailed the scope and critical dimensions of the package.

Our team is professional with attention to all details of the project and will liaise closely with you, to ensure that the best solution is being offered for your project.

Once the project plan is finalized, we dedicate a project engineer to oversee the whole project and provide timely and updated, information to you.



# ON-SITE TIME

Off-site fabrication of a package simplifies the Project Management tasks:

- No missing or forgotten components
- Minimal and simple site connection
- Only approved supplier to provide guaranteed "performance" for the complete hot water system
- Minimize the usage of expensive site labor and effectively manage resources
- Complete in-factory tested package unit delivered to a pre-agreed schedule
- Customized system design with built-in serviceability

# THE SERVICE

**IES** Engineers have years of experience and fully understand the unique requirement of different types of building or hot water applications.

We offer you comprehensive solutions throughout the contract, from initial concept until implementation of the project. The package and all individual components bear the standard **IES** warranty period of 12 months. Extended warranty period can also be arranged to suit your specific contract requirements.

Optionally, **IES** can offer comprehensive testing & commissioning, overhaul service and regular maintenance throughout the lifetime of the package.

At **IES**, service excellence and available resources are important to us. Whether you have a technical issue or an after-sales service question, our representatives are available to provide prompt answers and solutions.



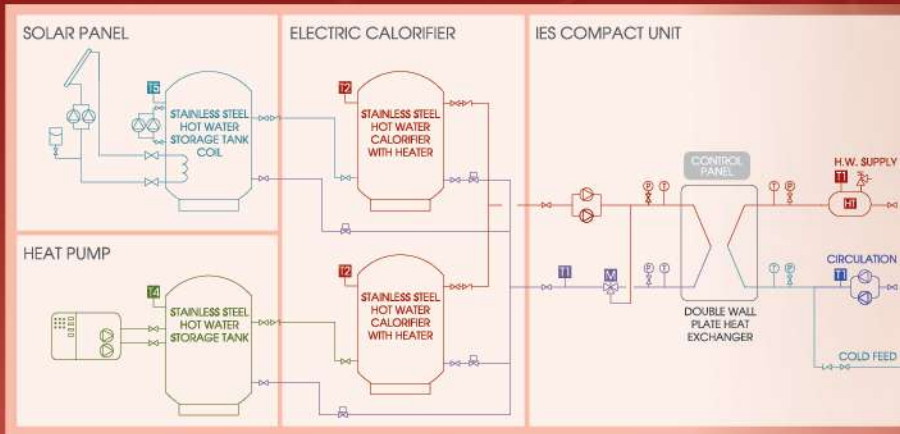
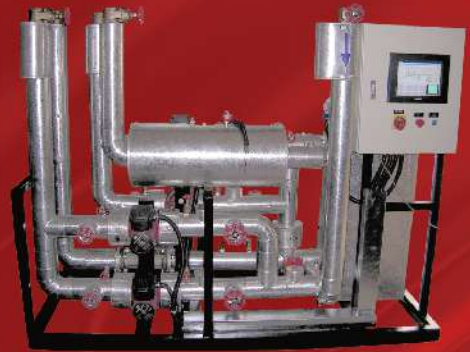


# APPLICATION FOR COMPACT UNIT

## DIRECT HEATING

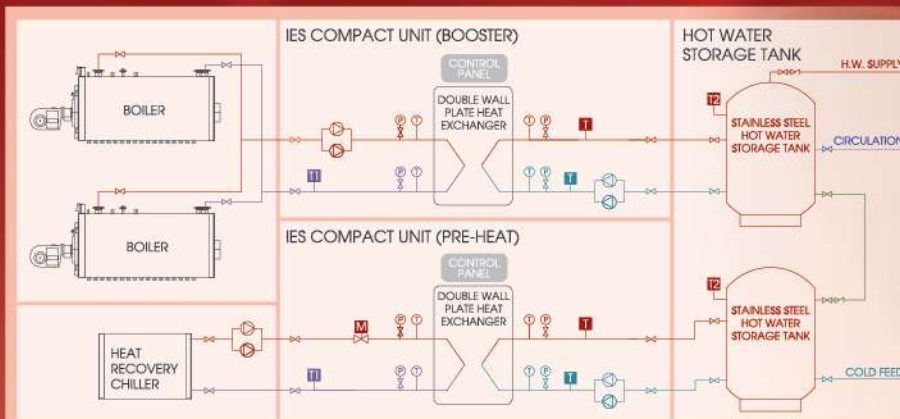
The direct hot water supply system consists various of environmental friendly products such as solar collector panel, heat pump and high efficient plate type heat transfer compact unit.

The primary circuit of hot water shall maintain (70°C) at all the time. Solar collector panel shall firstly produce hot water (70°C) of primary circuit with heat pump and electric hot water calorifier for booster and back up. The secondary circuit of cold water (15°C) shall be heated up to 60°C~65°C via IES Heat Transfer Compact Unit for the supply of central hot water system.



## INDIRECT HEATING

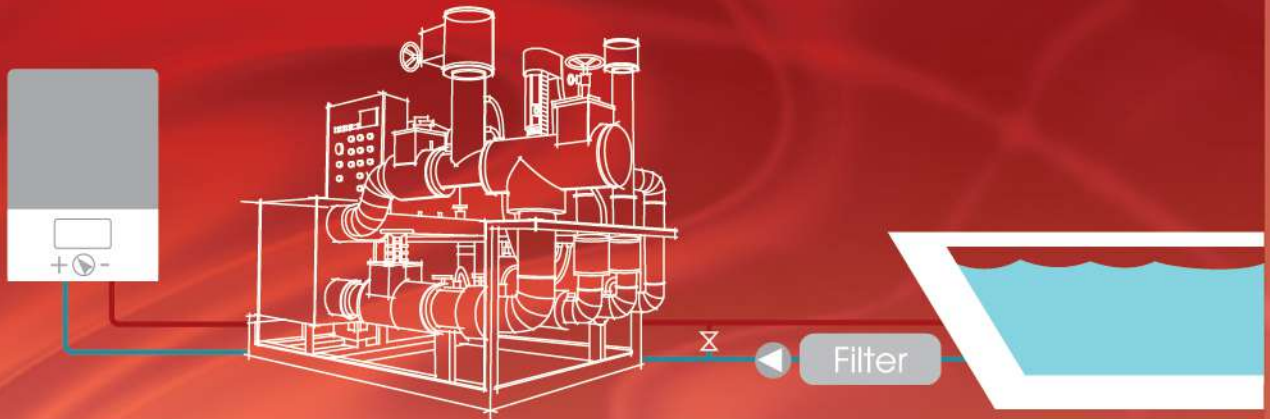
The indirect hot water supply system consists of heat up in two stages. In the first stage, cold water is fed into IES Preheat Heat Transfer Compact Unit and to be heated up from 15°C to 43°C by means of A/C Heat Recovery Chiller. The warmed water (43°C) is then fed into IES Booster Heat Transfer Compact Unit and to be heated up to 60°C~65°C by means of high efficiency hot water condensing boiler. The hot water is then fed into hot water storage tank for the supply of central hot water system.





## SWIMMING POOL HEATING

IES compact unit is widely used in swimming pool heating and cooling application. As the swimming pool water temperature is monitored and controlled continuously, it is now possible to enjoy full-year indoor or outdoor swimming season.



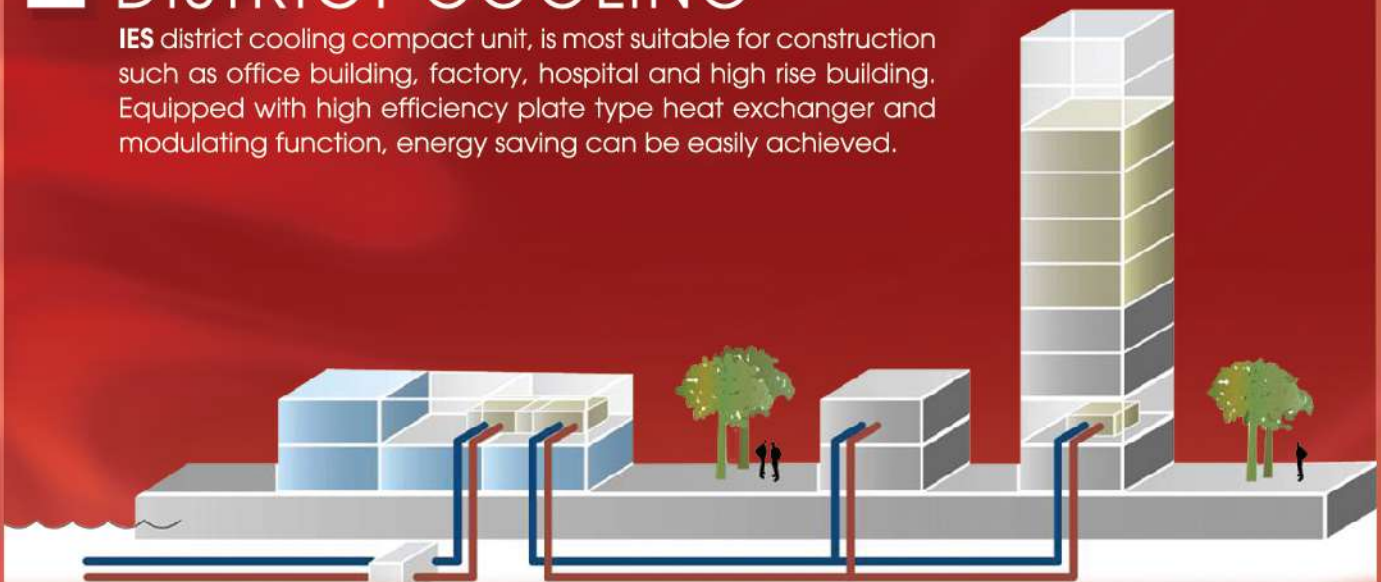
## SPACE HEATING

Some commercial building, hospital and hotel required heating and the purpose of space heating is to keep the space warm. High efficient IES's Compact Unit can be designed for process space heating applications by the heat source of boiler, heat pump or heat recovery chiller, etc. IES's Compact Unit with built-in plate type heat exchanger built for efficient heat transfer from one medium to another by indirect heating.



## DISTRICT COOLING

IES district cooling compact unit, is most suitable for construction such as office building, factory, hospital and high rise building. Equipped with high efficiency plate type heat exchanger and modulating function, energy saving can be easily achieved.





## VSD PUMP SET

VSD pump set, equipped with proportional integral (PI) controller, adjusts and controls the rotation speed of pump, is the best way to keep the water supply pressure at a stable and desired level even at the highest and the lowest water demand.



## SOLAR SYSTEM PUMP SET

In domestic hot water circuits, hot water circulation pump set is employed for the circulation of liquids in heating system. It regulates the constant supply and return of hot water at a desired temperature. All IES hot water circulation pump sets are equipped with programmable logic controller (PLC) to fulfill the unique operation requirement.



## MODEL REFERENCE

### IPU-01kW-BP-210V-DP

IES Pump Set ●

Motor Power ●

BP - Booster ●  
CR - Circulation  
SL - Solar  
VD - VSD

● Pump Brand

● Supply Input  
210-220V / 1 phase  
330-380V / 3 phase  
430-400V / 3 phase



# PUMP SET APPLICATION

**IES** pump set station is specially designed for water pressure booster, solar system and hot water circulation. All calculation, design and selection are performed by our professional and experienced engineers to meet different applications & requirements, taking into account of different parameters such as flow rate, pressure head, working temperature and etc.

## BOOSTER PUMP SET

Booster pump set provides a constant and stable pressure level for water supply. Fully automatic control system with manual over-ride function, failure change-over function, low water level and high pressure alarm is the fundamental standard of our booster pump set.



## HOT WATER CIRCULATION PUMP SET

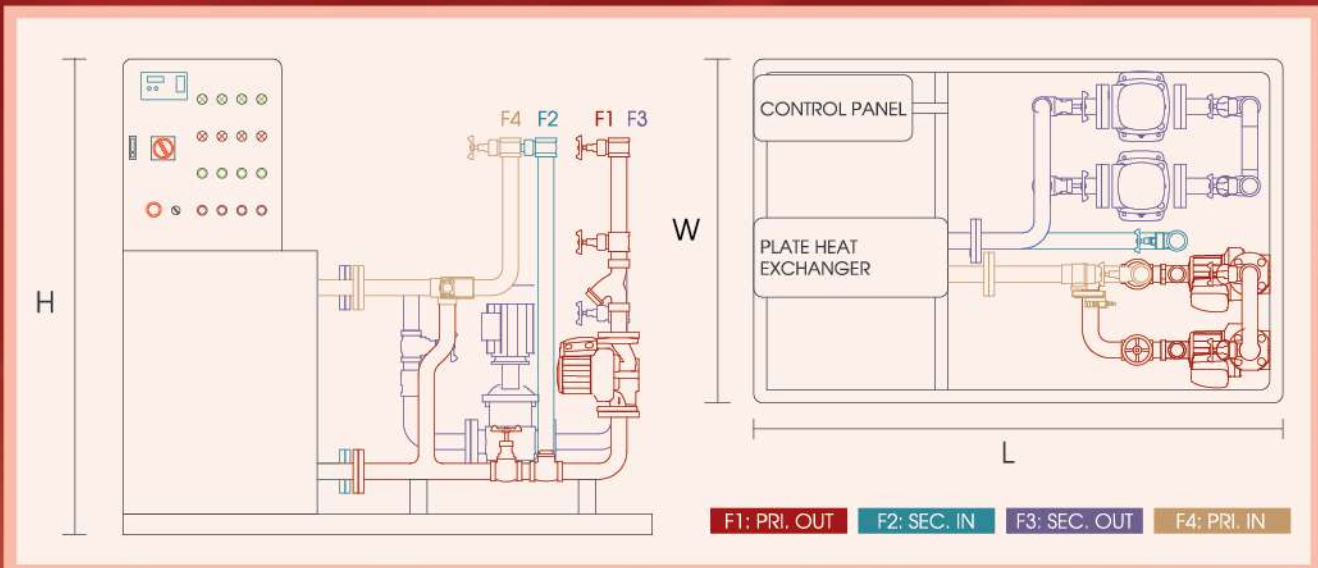
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# COMPACT UNIT

## DIMENSION RANGE



## MODEL REFERENCE

### ICU-0500-S 14 S W

Compact Unit

Power capacity (kW)

B - Brazed type  
D - Double wall  
S - Single wall PHE

Heat Exchanger Model

W - Water to water  
S - Steam to water

HW - Hot water system  
PL - Pool Heating  
DT - District Cooling  
SH - Space Heating  
SL - Solar

## NORMATIVE DIMENSION

70-50 °C / 15-60 °C	Connection Size		Dimensions (mm)			Weight (Kg)	
	Capacity (Kw)	Primary Side F1/F4	Secondary Side F2/F3	L	W		H
	200	32	32	1400	750	1500	250
	400	50	40	1400	800	1500	400
	800	80	50	1600	1000	1500	750
	1200	100	65	1600	1000	1600	850
	1500	100	80	1800	1200	1600	900
	2000	100	80	1800	1200	1600	1200
	2500	150	100	2000	1400	1800	1500
	3000	150	100	2000	1400	1800	1800
	4000	200	150	2200	1600	1800	2100
	5000	200	150	3000	2200	2000	2400



# JOB REFERENCE



**Kerry Hotel, Hong Kong**



**Galaxy Hotel, Macau**



**MGM Cotai, Macau**



**Marina Bay Sands, Singapore**

## HONG KONG

- K11 Musea
- Skycity Hotel
- Kerry Hotel
- Sheraton Hong Kong Tung Chung Hotel
- Headland Hotel
- Hong Kong Ocean Park Marriott Hotel
- Disneyland Hollywood Hotel
- Jockey Club Clubhouse
- HSBC Data Centre
- Hong Kong Children's Hospital
- Hong Kong Adventist Hospital
- Prince of Wales Hospital
- Prince Margaret Hospital
- Queen Mary Hospital
- New World Centre
- HK Science Park
- Kowloon East Police Headquarters
- Hong Kong Sports Institute
- Tin Shui Wai Sports Centre
- Kennedy Town Swimming Pool

## MACAU

- SJM Cotai
- MGM Cotai
- Wynn Palace
- Galaxy Resort
- City of Dreams
- MFW Palace Hotel
- The Venetian Macao
- Grand Lisboa Macau
- Sands Hotel and Casino

## SINGAPORE

- Singapore Marina Bay Sands
- The South Beach
- Yishun Community Hospital
- German European School Singapore
- Tanjong Pagar Center

## SOUTH EAST ASIA

- Vietnam National Assembly
- Vietnam Time Square
- Vietnam Condo Hotel
- Resorts on Huruelhi Island, Maldives





# CONTACT

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