



Zhuhai Tianke Energy-Saving Equipment Manufactory Co., Ltd.









TES Professional Manufacturer Of Environment Friendly Equipment



FROM EUROPE TO CHINA

Zhuhai Tianke Energy Saving Equipment Manufactory Co., Ltd. was invested by an experienced European businessman, who had owned over 25 years successful business activity in Europe. In 2004, he came to China and set up a series of new factories.

COMPANY PROFILE

TES currently operates 2 factories, occupying an area of more than 40,000m², with more than 200 employees and a Research & Development department center of more than 20 engineers. TES factory have many series of stamping, welding, surface painting and assembly producing lines. **TES** have complete control of product's design and construction to guaranty the quality of every product. TES operates according to the ISO9001:2008 international standard quality control system. All TES products comply with CE & RoHS directive, the solar thermal collector water heaters have passed the EN 12975-2 & ISO 9806-1 directive standard tests. More than 80% of **TES** green energy product & energy saving products are exported to Europe & Australasia countries, with OEM/ODM or **TES** brand. **TES** does not only utilize the European advanced technology and management system but is also concerned in the human factor. We provide the most excellent conditions of living and working so as to ensure our products will be of the highest quality. We are able to provide the best quality and service in order to keep our customers fully satisfied.

TES intends to provide Environment Friendly products for our users to save energy and protect our earth together.











TES COMPANY PRINCIPLES







The TES company principles have been, and continue to be very important guidelines for our success. The TES principles provide the guide to our daily endeavors – within our company and in our servicing of our esteemed customers.

TOP QUALITY

Products quality is our first principle, product's quality is also the base that grows our company & gained reputation from our buyers.

We set up a full line of quality control system to inspect every part of our products before departing from our factory.

INNOVATION

We are the technological trend setter for our users. TES has a leading research & development team to practice new technologies.

RESPONSIBILITY

We ensure all our processes are environmentally compatible and encourage the use of renewable forms of energy. We are committed to fulfilling our economical, ecological and social responsibilities.

RELIABILITY

We were and will always be a reliable business partner. Our products are energy-efficient and easy to operate and install. They

offer a high class standard & a long service life. They are designed with an eye to the future.

INTERNATIONAL ORIENTATION

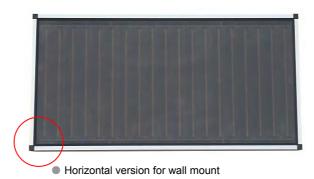
We think and act globally. Our products are designed to comply with international standards & meet the environment friendly guidelines. We intend to be the best environment friendly equipment products manufacturer in the world.





TES™ Flat Plate Solar Thermal Collectors

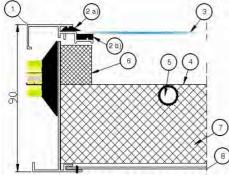




Zhuhai Tianke Energy-saving Equipment Manufacture Co., Ltd

Vertical version for roof mount

Features & Advantages



- (1) Aluminum Frame
- (3) Tempered Glass Cover
- (5) Absorber Tubes
- (7) Backside Insulation
- (2) Rubber Sealing
 - (4) Absorber Wing
 - (6) Side Insulation
 - (8) Back Housing

- Copper fin absorbers with Black Chrome finish
- Ø10mm full copper riser tube pipes
- Ø22mm full copper heater tube pipes
- 50mm glass wool back insulation & 30mm side insulation
- Anodized aluminum frame profile, corrosion resistant
- 4mm Tempered Glass cover with EPDM rubber sealing
- 0.3mm galvanized steel sheet backside housing
- 1.4Mpa test pressure & 1.0Mpa max working pressure
- 97%±2% total thermal efficiency
- 5%±3% total thermal loss
- EN 12975-2 & ISO 9806-1 directive test approved
- Comply with CE & RoHS directives & certified
- IP65 protection degree against frost, storm, heavy rain
- Over 30 years lasting and reliable life design

















Model Numbers & Dimensions

Model	Version	Dimensions (mm)	Riser Tubes	Headers	Absorber Fins	Heated Area	G.W.
1.5 m²	Vertical	1500x1000x90	9 pcs	2 pcs	9 pcs	1.5 m²	33 Kg
2.0 m ²	Vertical	1000x2000x90	9 pcs	2 pcs	9 pcs	2.0 m ²	45 Kg
2.5 m ²	Vertical	1250xx2000x90	11 pcs	2 pcs	11 pcs	2.5 m ²	55 Kg
3.0 m ²	Vertical	1500x2000x90	14 pcs	2 pcs	14 pcs	3.0 m ²	66 Kg
1.5 m²	Horizontal	1500x1000x90	14 pcs	2 pcs	14 pcs	1.5 m²	33 Kg
2.0 m ²	Horizontal	2000x1000x90	19 pcs	2 pcs	19 pcs	2.0 m ²	45 Kg
2.5 m²	Horizontal	2000x1250x90	19 pcs	2 pcs	19 pcs	2.5 m ²	55 Kg
3.0 m ²	Horizontal	2000x1500x90	19 pcs	2 pcs	19 pcs	3.0 m ²	66 Kg



TES™ Atlas™ Wall-Mount Solar Collector





Features & Advantages

- Super small external size & low profile design, suitable for balcony & wall mount
- Best friend to small families that live in apartment buildings & have no roofs to install solar collectors
- The panel's length can be extended according to different mounting place
- It's not only a solar collector but also a canopy roof above the door or windows
- Supply with easy install supporting fixtures
- 97%±2% total thermal efficiency, 5%±3% total thermal loss
- Copper header, black chrome copper riser tube & absorber fins
- Anodized aluminum frame profile, corrosion resistant
- Tempered glass cover with EPDM rubber sealing, High Temp., UV, storm resistance
- IP65 protection degree & over 30 years lasting and reliable life design
- Comply with CE & RoHS directive & EN-12975 standards





Model Numbers & Dimensions

Model	Dimensions (mm)	Riser Tubes	Heated Area	
TSS-050M2	500x1000mm	4 PCS	0.5m²	
TSS-075M2	500x1500mm	4 PCS	0.75m²	
TSS-100M2	500x2000mm	4 PCS	1.0m²	
TSS-125M2	500x2500mm	4 PCS	1.25m²	
TSS-155M2	500x3000mm	4 PCS	1.5m²	





TES™ Solar Thermal Boiler & Storage Water Tanks (Closed Loop System)

- ★ Patented Double Jacket Design Ensure High Efficient Heat Exchange
- ★ Insulated & Pressurized to ensure Minimum Heat Loss & Long Lifespan

Horizontal version for wall mount:











Vertical version for stand mount:











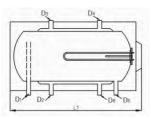
Al. housing

S/S housing

Features & Advantages:

- Easy installation design with handles
- Stainless Steel, Anodized Aluminum or Painted housing available
- 50mm High Density Polyurethane Foam water tank insulation assure minimum heat loss
- 2.5mm low carbon steel cylinder assure high efficient heat exchange
- TINANO™ painted internal protection ensure extreme long life inner tank
- Magnesium rod anti-scaling system
- Stainless steel or copper auxiliary electric heating elements
- 0.8KW to 4KW auxiliary electric heating power available
- 1.9Mpa test pressure, 1.0Mpa working pressure
- Cold/tap water inlet, hot water outlet, solar fluid inlet & outlet
- Bipolar of four contacts thermostat temperature control from 20°C to 80°C
- Comply with CE & RoHS directives
- IP65 protection degree ensure operation in any climate
- Over 30 years lasting and reliable life design

Horizontal Boiler Water Tank Model Numbers & Dimensions



Mode Numbers:	120H1	160H1	200H1	300H1	
Capacity of Water:	120Liter	160Liter	200Liter	300Liter	
External Diameter:	500mm	500mm	500mm	500mm	
Length /Al. Housing:	1015mm	1265mm	1460mm	2245mm	
Length /S/S Housing:	1000mm	1270mm	1470mm	2245mm	

D1: 3/4" - Hot Water Outlet D2: 3/4" - Hot Fluid Inlet from Collector D3, D4: 1/2" - Safety Element Point

D5: 1/2" - Cold/Tap Water Inlet D6: 3/4" - Cold Fluid Outlet to Collector



Vertical Solar Boiler/Storage Water Tanks

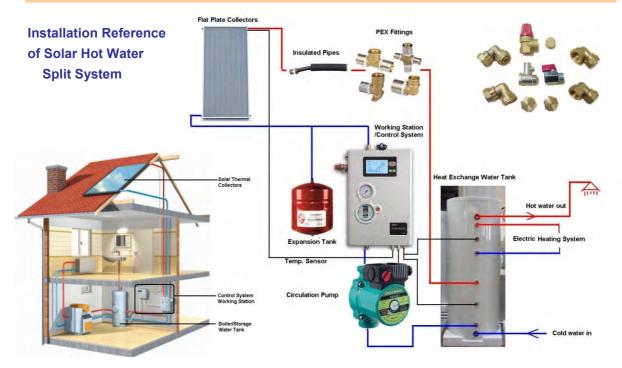


Vertical Storage Water Tanks Model Numbers & Dimensions - 2 Jackets

 TINANO™ protection inner tank coating 	Model:	120V2	160V2	200V2	300V2
 50mm High Density Polyurethane insulation 	Capacity:	120Liter	160Liter	200Liter	300Liter
 Magnesium rod antiscaling system 	Diameter:	500mm	500mm	500mm	500mm
Electric heating element of 1.5Kw4Kw	Height:	975mm	1225mm	1430mm	2205mm

Vertical Storage Water Tanks Model Numbers & Dimensions - 1 Jacket

Model:	120V1	160V1	200V1	300V1	400V1	500V1	700V1	1000V1
Capacity:	120Liter	160Liter	200Liter	300Liter	400Liter	500Liter	700Liter	1000Liter
Diameter:	500mm	500mm	500mm	500mm	700mm	700mm	800mm	900mm
Height:	975mm	1225mm	1430mm	2205mm	1487mm	1875mm	2100mm	2100mm





Zhuhai Tianke Energy-saving Equipment Manufacture Co., Ltd

TES™ Compact Solar Water Heaters (Closed Loop Thermosyphon System)

Combine the solar collector & water tank together, low profile and easy to install







Features & Advantages

The Solar Thermal Collectors:	The Boiler Water Tank:
 Anodized aluminum frame profile, corrosion resistant 	Anodized aluminum or s/s external housing
 4mm tempered glass cover with EPDM rubber sealing 	50mm Polyurethane foam water tank insulations
 Galvanized steel or aluminum backside sheet 	2.5mm steel or copper cylinders
 Copper or aluminum unified sheet absorbers 	1.5mm steel or copper jackets
 30mm glass wool side insulation 	TINANO coating cylinder internal finish
 50mm glass wool backside insulation 	Anti-scaling magnesium rod system
97%±2% total thermal efficiency	1.4Mpa test pressure & 1.0Mpa working pressure
5%±3% total thermal loss	Electric resistance heater 0.8Kw4Kw available
 Pressurized closed loop system, no pumps needed 	Bipolar of four contacts(20°C to 80°C) Thermostat
 EN 12975-2 & ISO 9806-1, EN 12975-2 and ISO 9806-2 	directive standard test approved
Comply with CE & RoHS directives & certified	
 Stable operation in extremely low temperatures of -40°C 	
 IP65 protection degree, workable in any climate 	
 Over 30 years lasting and reliable life design 	

Supply with support fixtures for Inclined-Roof or Flat-Roof installation



Model Numbers & Water Tank Capacity

Model:	TES-120L	TES-160L	TES-160L	TES-200L	TES-200L	TES-200L	TES-300L	TES-300L
Tank Capacity:	120Liter	160Liter	160Liter	200Liter	200Liter	200Liter	300Liter	300Liter
Collectors:	1x1.5m²	1x2.0m²	1x2.5m²	1x2.5m²	1x3.0m²	2x2.0m ²	1x3.0m²	2x2.0m²



New TES™ Hyperion™ Series Compact Solar Water Heaters

The Hyperion Series solar water heater systems are compact boilers, easy to install, more aesthetic with no visible piping between the collector and the water storage tank. These systems utilize the high quality and technology integrated in the rest of TES solar water heater systems but also offer higher efficiency than the previous solar collectors integrating a new absorber design.









Concealed pipe design

Hyperion LE™ Series

The Hyperion LE series is made of Anodized Aluminum External cover and Black selective paint aluminum fin, copper pipe solar collector absorber. This is the most cost effective series but at no expense of quality, The black selective paint absorber offers exact same absorbing capability as the Higher-End Black Selective Chrome copper absorber but has a slightly higher amount of thermal losses.

Hyperion HE™ Series

• The HE stands for High Efficiency. This series utilizes the same water tank as Hyperion LE series but uses a Black Selective Chrome copper fin, copper pipe solar collector absorber. This is the top range of solar collectors offering staggering efficiency, minimal thermal losses, and highest absorption capability than any other type of solar absorber coating. The Hyperion HE series is the series with the longest lifetime and highest efficiency but at the expense of

Hyperion ST™ Series

The ST stands for Stainless Steel as this series utilizes a Mirror Stainless steel covered water storage tank. For the solar collector it utilizes the same Black Selective paint aluminum fin, copper pipe absorber as the Hyperion LE series.

Hyperion STi™ Series

■ The Hyperion STi series is the top range! Superb beauty and efficiency in one compact, easy to install package. This stunning solar water heater utilizes the Mirror Stainless steel outside cover water storage tank, and the highest efficiency Black Selective Chrome all-copper collector. This is the true "god of light" and son of sky!

Available Model Numbers of Hyperion Series

Model No.	Capacity	Collectors	Total Collector Area
Hyperion LE, HE, ST, STi 120	120 liters	1 x 1.62m²	1.62m²
Hyperion LE, HE, ST, STi 160	160 liters	1 x 1.98m²	1.98m²
Hyperion LE, HE, ST, STi 200	200 liters	1 x 2.70m ²	2.70m²
Hyperion LE, HE, ST, STi 250	250 liters	2 x 1.62m ²	3.24m²
Hyperion LE, HE, ST, STi 300	300 liters	2 x 1.98m ²	3.96m²

External Dimensions of Hyperion Series Solar Collectors

Dimensions	Heated Area (m²)	Max Working Pressure	Test Pressure	Total Therma Efficiency	l Total Thermal Loss	
1800 x 900 x 90	1.62m²	1.0Mpa	1.4Mpa	97%±2%	5%±3%	
1800 x 1100 x 90	1.98m²	1.0Mpa	1.4Mpa	97%±2%	5%±3%	
1800 x 1500 x 90	2.70m²	1.0Mpa	1.4Mpa	97%±2%	5%±3%	





Large Scale Solar Hot Water System

TES large scale Commercial Solar Hot Water System
Suitable for Hotels, Apartments, School Dormitories & Public Buildings etc.
Need customized project study and circulation system design
Please contact us to design & build your Commercial Solar Hot Water System

TES™ Solar Hot Water System Other Installation & Commercial Use

Reference Photos



Solar Pool Heating System

TES Solar Pool Heating System
Suitable for Swimming Pools, Hotel Pools, Public or Private Pools etc.
Need customized project study and circulation system design according to user's demands Please contact us to design & build your private Solar Pool Heating System

Reference Photos



You are welcome to visit our website at: www.teswin.com (China) www.tessolarwater.com (Worldwide)

For More TES Products & Services Information

Downloads Of Certificates, Test Reports, Catalog & Installation Manual



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(China) www.teswin.com (Worldwide) www.tessolarwater.com



TES™ Energy Saving Heating Boilers

- ★ Low Profile & Energy Saving Design
- ★ Gas or Oil Fired Burner Applicable



TES Heating Boiler in Different Housing Design

Features & Advantages

COMPACT LOW PROFILE DESIGN

TES energy saving Steel Boiler is designed compact small and have low profile, Ideal for household use or use on boats, farms and small commercial applications.

ENERGY SAVING FOR OIL GAS ENERGY

It has high back pressure, tubular three-way exhaust gases and horizontal operation. It's examined regarding its dimensions of the combustion chamber, the cross-section of tubes, fully exploit heat during combustion with minimum loss.

QUIET & NOISELESS OPERATION

Boiler operates a new special turbulating exhaust gas flow, increasing performance & decreasing back pressure.

The special coating insulation & covers ensure the most noiseless operation.

ELECTRONIC CONTROL PANEL

The control panel is modern design in operation including a burner thermostat, circulation pump thermostat, safety thermostat, main switch, indicators and water temperature indication element. The control panel, according to the client's preference, can be either mechanic or electronic with digital indication and microprocessor.

GOOD INSULATION MINMUM HEAT LOSS

The insulation is made of 50 mm thickness glass wool, assures the smooth operation without losses and a steady temperature.

EASY MAINTENANCE

TES steel boiler maintenance is simple with easy access to all parts as it has a door with hinges that opens either direction so that the access in the burning body and the front tube plate is immediate. There is a cleaning access to residues of combustion at the rear end of the smoke collector.

HIGH EFFICIENCY FOR GAS OIL ENERGY

Perfect oil or gas combustion is ensured due to the ultra modern combustion chamber design, the exhaust gases turbulators made of steel and the ergonomic construction and these result to a product with the most modern specifications. The 91% - 93% efficiency assures energy saving with the least possible exhaust gases to the environment.





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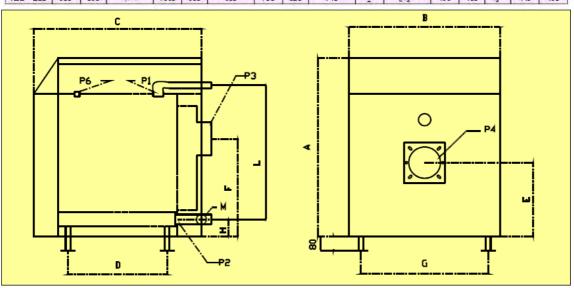


Model Numbers & Specifications

Model	0.00	ominal pacity	Operating Range	Combustion Chamber volume	Heated Surface	Internal Pressure Drop	Content or Water	Max Working Pressure	Pressurise	
	kW	Mcal/h	Mcal/h	Lt	M ²	(△T=15°C)mmH₂O	H₂O Lt	bar	mmH₂O	
TES-20	23.5	20,21	15-20.2	20.5	0.85	20	35.5	4	2-4	
TES-30	35	30.1	20-30.1	24.5	1.05	20	40.9	4	2-4	
TES-40	46.7	40.16	30-40.1	32.5	1.45	20	50.8	4	2-4	
TES-50	58.3	50.13	40-50.1	40.5	1.65	30	61.7	4	2-4	
TES-60	68	58.48	50-58.5	48.5	2.05	30	71.8	4	4-6	
TES-70	81.6	70.17	60-70.1	52.5	2.25	40	102.5	4	4-6	
TES-80	93.2	80.15	70-80.1	65.5	2.65	50	112.5	4	4-6	
TES-100	116.5	100.29	90-100.2	78.5	3.15	60	122.5	4	6-10	
TES-120	139.7	120.14	100-120.1	91.5	3.65	70	134.5	4	6-10	
TES-140	163	140.18	120-140.1	144.5	4.15	80	214.5	4	8-15	
TES-160	186.2	160.13	140-160.1	161.5	4.65	90	246.5	4	8-15	
TES-180	209.6	180.17	160-180.1	174.5	5.15	100	266.5	4	10-20	
TES-200	233.3	200.63	180-200.6	205.5	6.05	120	284.5	4	10-20	

Product Measurements & Sizes

Туре	A (mm)	B _(mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	L (mm)	M (ineh)	PI.P2	P3	P4 (mm)	P6	KG	KG
TES 20	720	660	630	360	425	410	530	180	540	1/2"	14"	140	100	15"	116	135
TES 30	720	660	660	412	425	410	530	180	540	1/2"	14"	140	100	15"	122	139
TES 40	720	660	760	512	425	410	530	180	540	1/2"	11/4"	140	100	1/3"	140	158
TES 50	720	660	860	612	425	410	530	180	540	1/2"	14"	140	100	1/3"	152	170
TES 60	720	660	960	712	425	410	530	210	540	1/2"	1%"	140	100	1/3"	168	186
TES -70	800	760	910	662	495	480	590	210	650	1/2"	1%"	160	100	15"	200	225
TES 80	800	760	990	762	495	480	590	210	650	1/3"	13"	160	100	1/3"	215	240
TES - 100	800	760	1,120	862	495	480	590	280	650	1/2"	2"	160	125	1/3"	223	248
TES - 120	800	760	1,190	962	495	480	590	280	650	1/2"	2"	160	125	1/3"	256	281
TES-140	900	890	960	1340	500	530	700	280	710	1/2"	2"	193	130	15"	360	410
TES 160	900	890	1,060	1440	500	530	700	320	710	1/2"	2"	193	130	15"	390	440
TES 180	900	890	1,160	1550	500	530	700	320	710	1/2"	21/3"	193	130	1/3"	415	465
TES-200	900	890	1,310	1650	500	530	700	320	710	1/2"	21/3"	193	130	15"	440	490

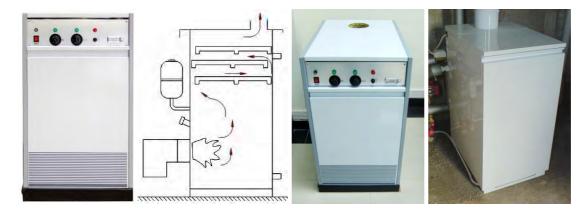




TES™ Compact Steel Heating Boiler

Key Features:

- ★ Made of Steel 37-2/DIN 17100, Ideal Material for Boilers
- ★ Three-Way Exhaust During Interlayer, Fully Exploit Heating with Minimum Loss



Features & Advantages

- COMPACT LOW PROFILE DESIGN
- ENERGY SAVING FOR OIL GAS ENERGY
- NOISELESS OPERATION
- CONTROL PANEL WITH ON/OFF SWITCH AND TEMPERATURE INDICATOR
- GOOD INSULATION MINIMUM HEAT LOSS
- EASY MAINTENANCE
- HIGH EFFICIENCY FOR GAS/OIL ENERGY

Model Numbers & Specifications

Model No.	C-20	C-30	C-40
Output Power (Kcal/H.):	20.000 Kcal/h	30.000 Kcal/h	40.000 Kcal/h
Test Pressure (Bar):	6 Bar	6 Bar	6 Bar
Max Working Pressure (Bar):	4 Bar	4 Bar	4 Bar
Max Working Temperature (°C):	90°C	90°C	90°C
Diameter (mm):	98 mm	118 mm	138 mm
Housing Width (mm):	680	770	830
Housing Depth (mm):	450	510	560
Housing Height (mm):	990	990	990





Zhuhai Tianke Energy-saving Equipment Manufacture Co., Ltd

TES™ Heat Pump Water Heater





Product Introduction:

WHY USE A HEAT PUMP

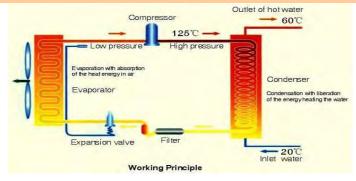
Heat Pump Water Heaters are revolutionizing the way we heat water. TES Heat Pump is a new generation, clear new energy heat exchanger water heater energy saving equipment for household usage water heating or swimming pool heating. TES commercial heating pump also suitable for commercial heating usage.

The heat pump only need very small energy to transfer large amount of free heat energy from the atmosphere into domestic water to heat up water for our use. It can save more than 60% energy than a full electric water heater.

So, it's the revolutionary energy saving heating equipment.

HEAT PUMP STRUCTURE

We use an Expansion Valve to control heat exchange, an Evaporator to absorb the heat energy in environment air a Compressor to change low pressure to high pressure, a Condenser to transfer heat energy into inlet cold water, Heat it up and make outlet hot water, an air filter may be built in to clean the air.



Model Numbers & Specifications

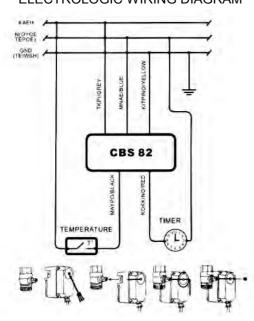
model italibere & opcomoditions			
Model No.	HH-15	HH-24	HH-40
Heating Power (W)	8000	11000	19000
Coefficient of Performance (COP)	4	4	4
Storage Capacity (L/H)	180	240	400
Output Water Temperature (°C)	38°C-60°C	38°C-60°C	38°C-60°C
Rated Input Power (W)	1900	2750	4750
Maximum Input Power (W)	2300	3000	5500
Rated Input Current (A)	9	4,5	8,5
Maximum Input Current (A)	11	5,4	9,8
Noise DB (A)	48	58	60
Input/Output Pipe	DN15	DN25	DN32
External Dimensions (mm)	740x520x690	728x728x762	826x826x968
Product Gross Weight (Kg)	65Kg	91Kg	136Kg
Application Environment (°C)	0°C-40°C	0°C-40°C	0°C-40°C





AC230V On-off 16Nm(1/2" To 1 1/4")and 25Nm(1 1/2" & 2") 1 min IP.54 50°C V. 02. H 2...120°C

TES CBS 82 ELECTRIC VALVE ELECTROLOGIC WIRING DIAGRAM



SERVOMOTOR 90" B 230/240V~50Hz ACTUATOR 4W/P44 "

CBS82+ 3-WAY BALL VALVE	3/4"
CBS82+ 3-WAY BALL VALVE	1"
CBS82+ 3-WAY BALL VALVE	1" -1/4
CBS82+ 2-WAY BALL VALVE	1/2"
CBS82+ 2-WAY BALL VALVE	3/4"
CBS82+ 2-WAY BALL VALVE	1"
CBS82+ 2-WAY BALL VALVE	1" -1/4
CBS82+ 2-WAY BALL VALVE	1" -1/2
 CBS82+ 2-WAY BALL VALVE 	2"



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Certifi. EN 12975 - 2 ISO 9806 -1, ISO 9806 -2









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