## ITE

## INDIRECT <br> CALORIFIER-SOLAR

## ITE - 400/500/600/750/1000



Indirect water heater (calorifier) for solar applications.

- Single-wall spiral heat exchanger
- PermaGlas Ultra Coat second-generation glass coating technology prevents corrosion
- Insulated ring base: $70-100 \mathrm{~mm}$ NEODUL insulation with ABS cover, compliant with Ecodesign regulations
- Insulated access cover for comprehensive waterside maintenance
- Replaceable magnesium anode
- Temperature and pressure valve with stainless steel spring set to $95^{\circ} \mathrm{C}$ and a maximum water pressure of (10 bar) 1000 kPa
- Options:
- Analogue temperature gauge $\left(0-120^{\circ} \mathrm{C}\right)$
- Electric element heat packs ( $\max 2 \times 7,5 \mathrm{~kW}$ ) flange mounted


## SAMPLE SPECIFICATION

The tanks shall be A. O. Smith ITE series industrial Indirect hot water storage calorifier, model number _ITE_xxxx (400-1000L) or an approved equal. The tank shall be for vertical installation. Vessel shall be constructed to European Pressure Directive for minimum 10 bar working pressure. Vessel shall be glass-lined, have sacrificial magnesium anode for additional corrosion protection. Entire vessel shall be insulated with 70-100 MM NEODUL insulation with ABS cladding. Heat loss will meet ErP standards. A combined temperature and pressure relieve valve will be factory supplied. A factory installed boiler water/solar heat exchanger will meet or exceed the heating requirement. The heat exchanger will be able to handle up to $110^{\circ} \mathrm{C}$ heating fluid (boiler water or glycol). The tank will have the option to install one or two back-up electric element with automatic temperature control and high temperature cut-off.

|  |  | ITE 400 | ITE 500 | ITE 600 | ITE 750 | ITE 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General |  |  |  |  |  |  |
| Volume | litres | 389 | 478 | 652 | 734 | 1024 |
| Empty weight | kg | 131 | 179 | 229 | 237 | 314 |
| Max. floor load | kg | 520 | 657 | 881 | 971 | 1338 |
| Shipping weigth | kg | 145 | 193 | 243 | 251 | 328 |
| Energy Efficiency Class (Energy |  | C | C | - | - | - |
| Heat Loss | W | 100 | 104 | 126 | 126 | 146 |
| Max. operating pressure tank | kPa (bar) |  |  | 1000 (10) |  |  |
| Test pressure tank | kPa (bar) |  |  | 1500 (15) |  |  |
| Max. operating pressure heat exchanger | kPa (bar) |  |  | 1600 (16) |  |  |
| test pressure heatexchanger | kPa (bar) |  |  | 2400 (24) |  |  |
| Max. water temperature tank | ${ }^{\circ} \mathrm{C}$ |  |  | 95 |  |  |
| Max. water temperature heat exchanger | ${ }^{\circ} \mathrm{C}$ |  |  | 110 |  |  |
| Anodes |  |  |  | 1 |  |  |
| Capacity heat exchanger | kW | 52 | 68 | 72 | 80 | 87 |
| Primary flow $80 / 60^{\circ} \mathrm{C}$ | 1/h | 2.236 | 2.924 | 3.096 | 3.440 | 3.741 |
| Pressure loss | mbar | 78 | 166 | 37 | 50 | 61 |
| Heat exchange surface | m2 | 1,64 | 2,13 | 2,39 | 2,66 | 2,89 |
| Draw-off capacity |  |  |  |  |  |  |
| Performance with heat exchanger, heating medium $80^{\circ} \mathrm{C}$ |  |  |  |  |  |  |
| Draw-off capacity: cold water temperature $15^{\circ} \mathrm{C}$; tank temperature $60^{\circ} \mathrm{C}$ |  |  |  |  |  |  |
| Liters in 30 min @ $40^{\circ} \mathrm{C}$ | litres | 1.051 | 1.362 | 1.501 | 1.671 | 1.908 |
| Liters in 60 min @ $40^{\circ} \mathrm{C}$ | litres | 2.102 | 2.724 | 3.001 | 3.342 | 3.815 |
| Liters in 90 min @ $40^{\circ} \mathrm{C}$ | litres | 3.153 | 4.086 | 4.502 | 5.014 | 5.723 |
| Liters in $120 \mathrm{~min} @ 40^{\circ} \mathrm{C}$ | litres | 4.204 | 5.449 | 6.003 | 6.685 | 7.631 |

## OPTIONAL ELECTRIC BACK UP HEATING

| Heating capacity in kW | Recovery capacity in litres per hour at temperature rise: |  |
| :--- | :--- | :--- |
|  | $15-40^{\circ} \mathrm{C}$ | $15-60^{\circ} \mathrm{C}$ |
|  |  |  |
| Single element back up kW (upper) | 72 |  |
| 3.75 | 129 | 96 |
| 5 | 172 | 115 |
| 6 | 206 | 143 |
| 7.5 | 258 | 191 |
| Double element total kW back-up |  | 229 |
| 10 | 344 | 287 |
| 12 | 413 |  |
| 15 | 516 |  |


|  |  | ITE 400 | ITE 500 | ITE 600 | ITE 750 | ITE 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total height | 1710 | 2045 | 1840 | 2035 | 2005 |
|  | Diameter (without insulation) | 600 | 600 | 750 | 750 | 900 |
| G | Diameter (with insulation) | 740 | 760 | 910 | 930 | 1100 |
| H | Height heat exchanger outlet | 260 | 260 | 310 | 310 | 350 |
| M | Height heat exchanger inlet | 775 | 915 | 910 | 970 | 945 |
| N | Height cold water inlet | 70 | 70 | 85 | 85 | 95 |
| Pa | Height warm water outlet | 1655 | 1995 | 1805 | 2000 | 1965 |
| Pb | Height inspec. opening/elec. element | 330 | 330 | 420 | 420 | 450 |
| R | Height inspec. opening/elec. element | 900 | 1030 | 1070 | 1120 | 1090 |
| S | Height recirculation connection | 1100 | 1290 | 1240 | 1300 | 1400 |
| T | Height immersion well/temp. sensor | 500 | 500 | 655 | 655 | 705 |
| U | Height T\&P connection | 1365 | 1700 | 1480 | 1675 | 1605 |
| 1 | Height temp. sensor top tank | 1365 | 1700 | 1480 | 1675 | 1605 |
|  | Connection cold water inlet | R $11 / 2{ }^{\prime \prime}$ | R $11 / 2{ }^{\prime \prime}$ | R $11 / 2{ }^{\prime \prime}$ | R 11/2" | R $11 / 2{ }^{\prime \prime}$ |
| 3 | Connection warm water outlet | R 11/2" | R $11 / 2{ }^{\prime \prime}$ | R $11 / 2{ }^{\prime \prime}$ | R $11 / 2{ }^{\prime \prime}$ | R 11/2" |
|  | Connection heat exchanger outlet | Rp 1 " | Rp 1 " | Rp 11⁄4" | Rp 11⁄4" | Rp 11/4" |
| 5 | Connection heat exchanger inlet | Rp 1 " | Rp 1 " | Rp 11/4" | Rp 1114" | Rp 11/4" |
| 6 | Connection circulation | Rp 3/4" | Rp 3/4" | Rp 3/4" | Rp 3/4" | Rp 3/4" |
| 7 | Diameter inspec. opening/elec. element | 115 | 115 | 180 | 180 | 180 |
|  | Connection T\&P | 1"-11.5 NPT | 1 "-11.5 NPT | 1"-11.5 NPT | 1 "-11.5 NPT | 1 "-11.5 NPT |
| 9 | Connection immersion well/temp. sensor | Rp 3/4" | Rp 3/4" | Rp 3/4" | Rp 3/4" | Rp 3/4" |
|  | Connection temp. sensor top tank | Rp 3/4" | Rp 3/4" | Rp 3/4" | Rp 3/4" | Rp 3/4" |
| All dimensions are in mm |  |  |  |  |  |  |


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2 Inletcombination
3 T\&P valve
4 Stop valve
5 Non-return valve
6 Circulation pump
A Cold water supply
B Hot water outlet
C Circulation pipe
F Primary flow
G Primary return
In the instruction manual you will find all the necessary information regarding connection, installation and maintenance of the product; including information on the electrical connections.

Information regarding the recycling or disposal of the product can also be found in the manual. This manual is delivered with the appliance and can also be found on our website; www.aosmithme.com


