### **TOSHIBA**

### SPLIT-HEATPUMP FOR HEATING & COOLING

## ESTIA R32 Split Hydrobox 11



Highlights

Energy efficiency A +++

Operating range down to -25°C outdoor temperature Operation without backup heater up to the standard outside temperature



Air to water heat pumps in split design for leaving water temperatures up to +65°C, in the capacity range from 4 to 14 kW, for the preparation of hot or cold water. Combination of outdoor unit and hydrobox to supply all applications such as hot water tanks, fan coils, radiators or underfloor heating.

### $\rightarrow$

### Attractive and economical

- Highest energy efficiency (A +++)
- COP efficiency up to 5.20
- $_{\rm -}$  Low investment, installation and operating costs
- Particularly high efficiency in the partial load range
- Compressor control range from 10 to 100%
- Suitable for monovalent heating
- For heating and domestic hot water preparation
- EHPA and KEYMARK certified performance & quality
- Master / slave control for up to 8 ESTIA systems
- ${\scriptstyle -} \ \ Highest \ "Japan-designed \ \& \ Europe-manufactured" \ quality$

### $\longrightarrow$

#### Resource-saving

- Inverter control minimizes the power requirement
- Low-GWP refrigerant R32 pre-filled
- Air as an energy source in heating mode
- \_ "Night Operation" whisper mode



# Easy selection, installation & commissioning

- "ESTIA Selection Tool" Software supports selection & calculates cost savings
- \_ Compact & lightweight indoor units
- Compact & quiet single-fan outdoor units
- Small amount of refrigerant, below the EN378 minimum limit
- "DynaKit" Startup Tool for easy commissioning via preconfiguration



### Convenient operation

- Control unit integrated in the hydrobox
- Additional (2nd) remote control possible as an option
- Integrated 2-zone temperature control
- Automatic restart after a power failure
- Optional WiFi control via smartphone APP
- Weekly timer
- Frost protection function
- Hot water boost
- \_ Night set-back function
- Screed heating program



### Technical details

- DC hybrid inverter technology
- Twin-rotary compressor
- Liquid-Injection (8, 11, 14 kW)
- Piping length up to 30 m
- Leaving water temperature up to +65°C (8, 11, 14 kW)
- \_ 6-stage A-class water pump
- \_ Digital IN / OUT functions as standard
- Smart Grid Onboard
- \_ Control options: Modbus, KNX, 0-10 Volts, WiFi



## **TOSHIBA**

# **ESTIA R32 Split Hydrobox 11 / SET**

Heating capacity @ A+7/W+35 (nom) Power consumption @ A+7/W+35 (nom)   W/W				
Power consumption @ A+7/W+35 (nom)	Outdoor unit			HWT-1101HW-E
Energy efficiency CDP @ A+7/W+35 (nom.)	Heating capacity @ A+7/W+35 (nom.)	kW		11,00
Processor System	Power consumption @ A+7/W+35 (nom.)	kW		2,39
Power consumption @ A+2/W+35 (max)         kW         \$ 5,24           Energy efficiency (OP @ A+2/W+35 (max))         W/W         \$ 3,54           Energy efficiency (ass)         W/W         \$ 3,54           Energy efficiency (ass)         *         A ++++           Sessonal space hearing efficiency (ns), low temperature (55 °C), average climate         %         179           Cooling capabity @ A+35/W+7 (nom)         kW         \$ 8,00           Power consumption @ A+35/W+7 (nom)         W/W         \$ 2,86           Energy efficiency EER @ A+35/W+7 (nom)         W/W         \$ 2,86           Competsory type         V/Ph+N/Hz         220-230/L50           Running current (max)         A         19,98           Current consumption (nom)         A         10,60           Current consumption (nom)         A         19,98           Storting current         A         19,98           Storting current         A         19,98           Current consumption (nom)         A         19,98           Storting current (max)         A         19,98           Current consumption (nom)         A         19,98           Storting current (max)         A         19,98           Storting current (max)         A	Energy efficiency COP @ A+7/W+35 (nom.)	W/W	*	4,60
Energy efficiency OP @ A-2/W+35 (max)  Energy efficiency class  Seasonal space heating efficiency (m), tow temperature (35 °C), average climate  %  179  Cooling capacity @ A-25/W+7 (mm)  Power consumption @ A+25/W+7 (mm)  Energy efficiency EER @ A+35/W+7 (mm)  Power supply   W/W	Heating capacity @ A+2/W+35 (max.)	kW	*	11,46
Energy efficiency (class	Power consumption @ A+2/W+35 (max.)	kW	*	3,24
Seasonal space heating efficiency (ns), low temperature (35 °C), average climate         %         179           Cooling capacity @ A+55/W+7 (nom.)         kW         \$         8,00           Power consumption @ A+55/W+7 (nom.)         kW         \$         2,86           Energy efficiency EER @ A+35/W+7 (nom.)         W/W         \$         2,86           Compressor type         W/W         \$         2,86           Compressor type         W/W         \$         2,86           Recompany efficiency EER @ A+35/W+7 (nom.)         M         19,98           Compessor type         W/Ph+N/Hz         220-230/I/50           Running current (max)         A         19,98           Current consumption (nom.)         A         10,60           Current consumption (max.)         A         19,98           Search or consumption (max.)         A         19,98           Recommended fusing         A         20           Communication line         H07RNF.8664,0         40           Outdoor temperature operating range (minmax.)         °C	Energy efficiency COP @ A+2/W+35 (max.)	W/W	*	3,54
No.	Energy efficiency class		*	A+++
Power consumption @ A+35/W+7 (nam)	Seasonal space heating efficiency (ns), low temperature (35 °C), average climate	%		179
Energy efficiency EER @ A+35/N+7 (nom.)  Compressor type  Twin-Rotary w/in]  Power supply  V/Ph+N/Hz  220-230/1/50  Running current (max.)  A 19,98  Current consumption (nom.)  A 10,60  Current consumption (max.)  A 19,98  Starting current  A Softstart  Recommended power supply line type  HO7RN-F 364,0  Recommended fusing  A 20  Communication line  HO7RN-F 461,5  Outdoor temperature operating range (min-max.)  ↑ € ↑ 25 /+25  Outdoor temperature operating range (min-max.)  ↑ € ↑ 25 /+25  Utique pipe diameter  mm (inch)  15,9 (5/8)  Pipe Length (min.)  m 5  Pipe Length (min.)  m 30  Sound pressure Level (low/med/high)  Sound pressure Level (low/med/high)  Sound power Level  GB(A)  ♣ 49  Sound power Level  GB(A)  ♣ 49  Sound power Level  GB(A)  ♣ 62  Sound power Level  GB(A)  ♣ 62  Sound power Level (night operation)  GB(A)  ♣ 62  Refrigerant  Refrigerant  Refrigerant  Liquid ploe diameter  Liquid pipe diameter  BB(A)  ♣ 62  Refrigerant  Refrigerant  Recommended fusion  BB(A)  ♣ 62  Refrigerant  Recommended fusion  Recommended fusion  BB(B)  Refrigerant  Recommended fusion  BB(B)  Refrigerant  Recommended fusion  Robert Level (night operation)  Recommended fusion  Recomme	Cooling capacity @ A+35/W+7 (nom.)	kW	*	8,00
Compressor type         Twin-Rotary w/in           Power supply         V/Ph-N/Hz         220-230/1/50           Running current (max)         A         19,98           Current consumption (nom)         A         10,60           Current consumption (max)         A         19,98           Starting current         A         19,98           Section guerent         A         50fstart           Recommended flower supply line type         HO7RN-F 364,0           Recommended flusing         A         20           Communication line         HO7RN-F 461,5           Outdoor temperature operating range (minmax)         °C         ± 125 /+25           Outdoor temperature operating range (minmax)         °C         ± 10 /+43           Liquid pipe diameter         mm (inch)         6,3 (L/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min)         m         30           Pipe length (min)         m         30           Pipe length (max)         m         30           Sound pressure level (low/med/high)         dB(A)         ± 9           Sound prossure level (low/med/high)         dB(A)         ± 64           Sound power level         dB(A)	Power consumption @ A+35/W+7 (nom.)	kW	*	2,86
Power supply         V/Ph+NHz         220-250/1/50           Running current (max)         A         19,98           Current consumption (nom)         A         10,60           Current consumption (max)         A         19,98           Starting current         A         19,98           Starting current         A         50ftstart           Recommended power supply line type         A         20           Recommended fusing         A         20           Communication line         HORNEF 461,5         HORNEF 461,5           Outdoor temperature operating range (min-max)         *°C         *         -25 /+25           Outdoor temperature operating range (min-max)         *°C         *         +10 /+43           Liquid pipe diameter         mm (inch)         6,3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min,)         m         5           Pipe length (min,)         m         30           Height (ifferonce (max)         m         30           Sound pressure level (tow/med/high)         dB(A)         *         51           Sound power level         dB(A)         *         62           Sound power level (injeht operation)	Energy efficiency EER @ A+35/W+7 (nom.)	W/W	*	2,80
Running current (max)         A         19,98           Current consumption (nom.)         A         10,60           Current consumption (max)         A         19,98           Starting numeric (max)         A         19,98           Starting numeric (minx)         A         50fstart           Recommended power supply line type         HORNEY 36(4,0           Recommended fushing         A         20           Communication line         HORNEY 46(1,5)           Outdoor temperature operating range (min-max)         °C         * 125/+25           Outdoor temperature operating range (min-max)         °C         * 110/+43           Liquid pipe diameter         mm (inch)         6,3 (1/4)           Suction gas pipe dameter         mm (inch)         15,9 (5/8)           Pipe length (min.)         m         5           Pipe length (min.)         m         30           Pipe length (min)         m         30           Sound pressure level (low/med/high)         dB(A)         * 11           Sound pressure level (low/med/high)         dB(A)         * 49           Sound power level         dB(A)         * 49           Sound power level (night operation)         dB(A)         * 49           Sound po	Compressor type			Twin-Rotary w/inj
Current consumption (nom.)         A         10,60           Current consumption (max)         A         19,98           Starting current         A         Softstart           Recommended power supply line type         H07RN-F 364,0           Recommended fusing         A         20           Communication line         H07RN-F 461,5         H07RN-F 461,5           Outdoor temperature operating range (minmax)         °C         ± 10,743           Utiquid pipe diameter         mm (inch)         6,3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min)         m         5           Pipe length (max)         m         30           Height difference (max)         m         30           Sound pressure level (low/med/high)         dB(A)         ± 1           Sound pressure level (low/med/high)         dB(A)         ± 64           Sound power level         dB(A)         ± 64           Sound power level         dB(A)         ± 64           Sound power level (injth operation)         dB(A)         ± 62           Sound power level (injth operation)         dB(A)         ± 62           Sound power level (injth operation)         dB(A)         ± 62 <td>Power supply</td> <td>V/Ph+N/Hz</td> <td></td> <td>220-230/1/50</td>	Power supply	V/Ph+N/Hz		220-230/1/50
Current consumption (max)         A         19,98           Starting current         A         Softstart           Recommended power supply line type         HO7RN-F 3G4,0           Recommended fusing         A         20           Communication line         HO7RN-F 4G1,5         HO7RN-F 4G1,5           Outdoor temperature operating range (minmax)         °C         *         -25 / +25           Outdoor temperature operating range (minmax)         °C         *         +10 / +43           Liquid pipe diameter         mm (inch)         6.3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min.)         m         5           Pipe length (max.)         m         30           Height difference (max.)         m         30           Sound pressure level (low/med/high)         dB(A)         *         51           Sound power level (low/med/high)         dB(A)         *         49           Sound power level (low/med/high)         dB(A)         *         62           Sound power level (night operation)         dB(A)         *         62           Sound power level (night operation)         dB(A)         *         62           Sound power level (night oper	Running current (max.)	А		19,98
Starting current         A         Softstart           Recommended power supply line type         H07RN-F 3G4,0           Recommended fusing         A         20           Communication line         H07RN-F 4G1,5           Outdoor temperature operating range (min-max)         °C         *         -25 /+25           Outdoor temperature operating range (min-max)         °C         *         +10 /+43           Liquid pipe diameter         mm (inch)         5,3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min.)         m         5           Pipe length (max)         m         30           Height difference (max)         m         30           Sound pressure level (low/med/high)         dB(A)         *         51           Sound pressure level (low/med/high)         dB(A)         *         64           Sound power level         dB(A)         *         64           Sound power level (low/med/high)         dB(A)         *         62           Sound power level (low/med/high)         dB(A)         *         64           Sound power level (low/med/high)         dB(A)         *         62           Sound power level (might operation)         dB(A	Current consumption (nom.)	А		10,60
Recommended power supply line type         H07RNF 3G4,0           Recommended fusing         A         20           Communication line         H07RNF 4G1,5           Outdoor temperature operating range (min-max)         °C         *         -25/+25           Outdoor temperature operating range (min-max)         °C         *         +10/+43           Liquid pipe diameter         mm (inch)         6,3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min.)         m         30           Height difference (max.)         m         30           Sound pressure level (low/med/high)         dB(A)         *         51           Sound power level         dB(A)         *         64           Sound power level         dB(A)         *         62           Sound power level (night operation)         dB(A)         *         62	Current consumption (max.)	А		19,98
Recommended fusing         A         20           Communication line         HOTRNF 461,5           Outdoor temperature operating range (min-max)         °C         2-25/+25           Outdoor temperature operating range (min-max)         °C         \$ +10/+43           Liquid pipe diameter         mm (inch)         6,3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min.)         m         5           Pipe length (min.)         m         30           Height difference (max.)         m         30           Sound pressure level (low/med/high)         dB(A)         *         51           Sound pressure level (low/med/high)         dB(A)         *         64           Sound power level         dB(A)         *         64           Sound power level (night operation)         dB(A)         *         62           Refrigerant         kg         1,25           CO2 equivalent         t         0,844	Starting current	А		Softstart
Communication line         HO7RN-F 4G1,5           Outdoor temperature operating range (min-max)         °C         ★         -25/+25           Outdoor temperature operating range (min-max)         °C         ★         +10/+43           Liquid pipe diameter         mm (inch)         6,3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min.)         m         5           Pipe length (max.)         m         30           Height difference (max.)         m         30           Sound pressure level (low/med/high)         dB(A)         ★         51           Sound pressure level (low/med/high)         dB(A)         ★         64           Sound power level         dB(A)         ★         62           Sound power level (night operation)         dB(A) <th< td=""><td>Recommended power supply line type</td><td></td><td></td><td>H07RN-F 3G4,0</td></th<>	Recommended power supply line type			H07RN-F 3G4,0
Outdoor temperature operating range (minmax.)  Outdoor temperature operating range (minmax.)  C	Recommended fusing	А		20
Outdoor temperature operating range (min-max.)         °C         \$\frac{1}{4}\text{3}}\$           Liquid pipe diameter         mm (inch)         6,3 (1/4)           Suction gas pipe diameter         mm (inch)         15,9 (5/8)           Pipe length (min.)         m         5           Pipe length (max.)         m         30           Height difference (max.)         m         30           Sound pressure level (low/med/high)         dB(A)         *         51           Sound pressure level (low/med/high)         dB(A)         *         64           Sound power level         dB(A)         *         62           Sound power level (night operation)         dB(A)         *         62           Sound power level (night operation)         dB(A)         *         62           Sound power level (night operation)         dB(A)         *         62           Refrigerant         R52         Refrigerant charge         kg         1,25           CO2 equivalent         t         0,844           Pre-charged up to         m         8           Dimensions (HxWXD)         mm         1050 x 1010 x 370	Communication line			H07RN-F 4G1,5
Liquid pipe diameter       mm (inch)       6,3 (1/4)         Suction gas pipe diameter       mm (inch)       15,9 (5/8)         Pipe length (min.)       m       5         Pipe length (max.)       m       30         Height difference (max.)       m       30         Sound pressure level (low/med/high)       dB(A)       *       51         Sound pressure level (low/med/high)       dB(A)       *       64         Sound power level       dB(A)       *       62         Sound power level (night operation)       dB(A)       *       49         Sound power level (night operation)       dB(A)       *       49         Sound power level (night operation)       dB(A)       *       62         Sound power level (night operation)       dB(A)       *       62         Sound power level (night operation)       dB(A)       *       62         Refrigerant       R32         Refrigerant charge       kg       1,25         CO2 equivalent       t       0,844         Pre-charged up to       m       8         Dimensions (HxWxD)       mm       1050 x 1010 x 370	Outdoor temperature operating range (minmax.)	°C	*	-25 / +25
Suction gas pipe diameter mm (inch) 15,9 (5/8)  Pipe length (min.) m 5  Pipe length (max.) m 30  Height difference (max.) m 30  Sound pressure level (low/med/high) dB(A) 51  Sound pressure level (low/med/high) dB(A) \$ 49  Sound power level dB(A) \$ 62  Sound power level (night operation) dB(A) \$ 62  Refrigerant R32  Refrigerant charge kg 1,25  CO2 equivalent t 0,844  Pre-charged up to m 8  Dimensions (HxWxD) mm 1050 x 1010 x 370	Outdoor temperature operating range (minmax.)	°C	*	+10 / +43
Pipe length (min.)         m         5           Pipe length (max.)         m         30           Height difference (max.)         m         30           Sound pressure level (low/med/high)         dB(A)         \$         51           Sound pressure level (low/med/high)         dB(A)         \$         49           Sound power level         dB(A)         \$         64           Sound power level (night operation)         dB(A)         \$         49           Sound power level (night operation)         dB(A)         \$         49           Sound power level (night operation)         dB(A)         \$         62           Sound power level (night operation)         dB(A)         \$         62           Refrigerant         R32         Refrigerant charge         kg         1,25           CO2 equivalent         t         0,844         Pre-charged up to         m         8           Dimensions (HxWxD)         mm         1050 x 1010 x 370	Liquid pipe diameter	mm (inch)		6,3 (1/4)
Pipe length (max.)  Height difference (max.)  Sound pressure level (low/med/high)  Sound pressure level (low/med/high)  Sound power level  dB(A)  Sound pressure level (night operation)  dB(A)  Sound power level (night operation)  BB(A)	Suction gas pipe diameter	mm (inch)		15,9 (5/8)
Height difference (max.)  Sound pressure level (low/med/high)  Sound pressure level (low/med/high)  Sound power level  Gound power level (night operation)	Pipe length (min.)	m		5
Sound pressure level (low/med/high)  Sound pressure level (low/med/high)  Sound power level  dB(A)  dB(A)  dB(A)  49  Sound power level  dB(A)  Sound power level  dB(A)  62  Sound pressure level (night operation)  dB(A)  dB(A)	Pipe length (max.)	m		30
Sound pressure level (low/med/high)  Sound power level  Sound power level  Sound power level  Sound power level  Sound power level (night operation)  Bay 62  Refrigerant  R32  Refrigerant charge  R43  CO2 equivalent  T 0,844  Pre-charged up to  m 8  Dimensions (HxWxD)  mm 1050 x 1010 x 370	Height difference (max.)	m		30
Sound power level  Sound power level  Sound pressure level (night operation)  Sound power level (night operation)  BEAN  BE	Sound pressure level (low/med/high)	dB(A)	*	51
Sound power level  Sound pressure level (night operation)  Sound power level (night operation)  Sound power level (night operation)  Sound power level (night operation)  Befrigerant  R32  Refrigerant charge  R49  Befrigerant  R32  Refrigerant charge  R50  CO2 equivalent  T 0,844  Pre-charged up to  T 8  Dimensions (HxWxD)  T 1050 x 1010 x 370	Sound pressure level (low/med/high)	dB(A)	*	49
Sound pressure level (night operation)  Sound power level (night operation)  Sound power level (night operation)  Begin and power level (night operation)  Refrigerant  Refrigerant charge  Refrigerant charge  Refrigerant tharge  CO2 equivalent  The state of the stat	Sound power level	dB(A)	*	64
Sound pressure level (night operation)  Sound power level (night operation)  Begin and power level (night operation)  B	Sound power level	dB(A)	*	62
Sound power level (night operation)         dB(A)         \$ 62           Refrigerant         R32         R32           Refrigerant charge         kg         1,25           CO2 equivalent         t         0,844           Pre-charged up to         m         8           Dimensions (HxWxD)         mm         1050 x 1010 x 370	Sound pressure level (night operation)	dB(A)	*	49
Sound power level (night operation)  Refrigerant  Refrigerant charge  kg  1,25  CO2 equivalent  t  0,844  Pre-charged up to  m  8  Dimensions (HxWxD)  mm  1050 x 1010 x 370	Sound power level (night operation)		*	62
Refrigerant         R32           Refrigerant charge         kg         1,25           CO2 equivalent         t         0,844           Pre-charged up to         m         8           Dimensions (HxWxD)         mm         1050 x 1010 x 370	Sound power level (night operation)		*	62
Refrigerant charge         kg         1,25           CO2 equivalent         t         0,844           Pre-charged up to         m         8           Dimensions (HxWxD)         mm         1050 x 1010 x 370	Refrigerant			
CO2 equivalent         t         0,844           Pre-charged up to         m         8           Dimensions (HxWxD)         mm         1050 x 1010 x 370	Refrigerant charge	kg		
Pre-charged up to         m         8           Dimensions (HxWxD)         mm         1050 x 1010 x 370	CO2 equivalent			· · · · · · · · · · · · · · · · · · ·
Dimensions (HxWxD) mm 1050 x 1010 x 370	Pre-charged up to			
	Weight	kg		75

\* Cooling Heating



## **TOSHIBA**

# ESTIA R32 Split Hydrobox 11 / SET

Indoor unit			HWT-1101XWHT6W-E
Supply water temperature (minmax.)	°C	*	20/65
Supply water temperature (minmax.)	°C	*	7/25
Compatible outdoor units			801/1101
Backup heater, capacity	kW		6
Backup heater, connection	Ph+N		380-400/3+N/50
Backup heater, recommend fusing	А		2x 16
Water pump			Variable speed centrifugal pump
Water flow rate (min.)	m³/h		0,78
Water pump, power consumption (max.)	kW		0,060
Water pump, energy efficiency class			EEI
Water pump, discharge head (max.)	m		7,2
Expansion vessel	l		8
Water connection (inlet/outlet)	Inch		1
Sound pressure level (low/med/high)	dB(A)	*	28
Sound pressure level (low/med/high)	dB(A)	*	28
Sound power level	dB(A)	*	40
Sound power level	dB(A)	*	40
Dimensions (HxWxD)	mm		725 x 450 x 235
Weight	kg		27

<sup>\*</sup> Cooling Heating

 $The \ measuring \ conditions \ for \ this \ product \ can \ be \ found \ at \ https://www.toshiba-aircondition.com/en/measuring-conditions.html$ 

