

CARRIER LIGHT COMMERCIAL PRODUCTS 2013

Pioneer in sustainability ____

Over 100 years ago Carrier helped pioneer a new industry, and in the last two decades we have pioneered environmentally sensitive products with a reduced impact on the environment. We recognize that there must be a responsible balance between the technology we provide today and the world we will live in tomorrow.

Preservation of the environment and protecting our finite natural resources is a central tenet of our business. We have consistently demonstrated our adherence to these values by creating environmentally sound products that consume less energy and incorporate innovative materials.

Carrier is committed to reducing the greenhouse gas impact of our products through energy efficiency advancements and the refrigerants we use. Carrier is leading the industry in the phase-out of ozone-depleting refrigerants and has introduced many of the world's most energy-efficient heating, air conditioning, and refrigeration systems.

Today Carrier continues to improve the environmental performance of products, services, operations and culture to help achieve a sustainable society and protect the natural environment for generations to come.



Seasonal Efficiency Performance

Toshiba units has always been designed to minimize the impact on the environment.

This is reflected in the material used and most important in the efficiency of their units.

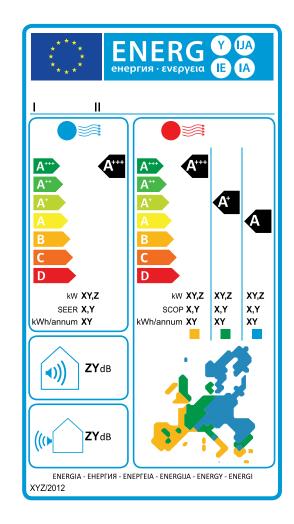
Whatever method is used to measure the performance, Toshiba units has always been able to fulfill the requirements of different governments and authorities around the world.

In Europe a new energy efficiency law has become effective form 2013.

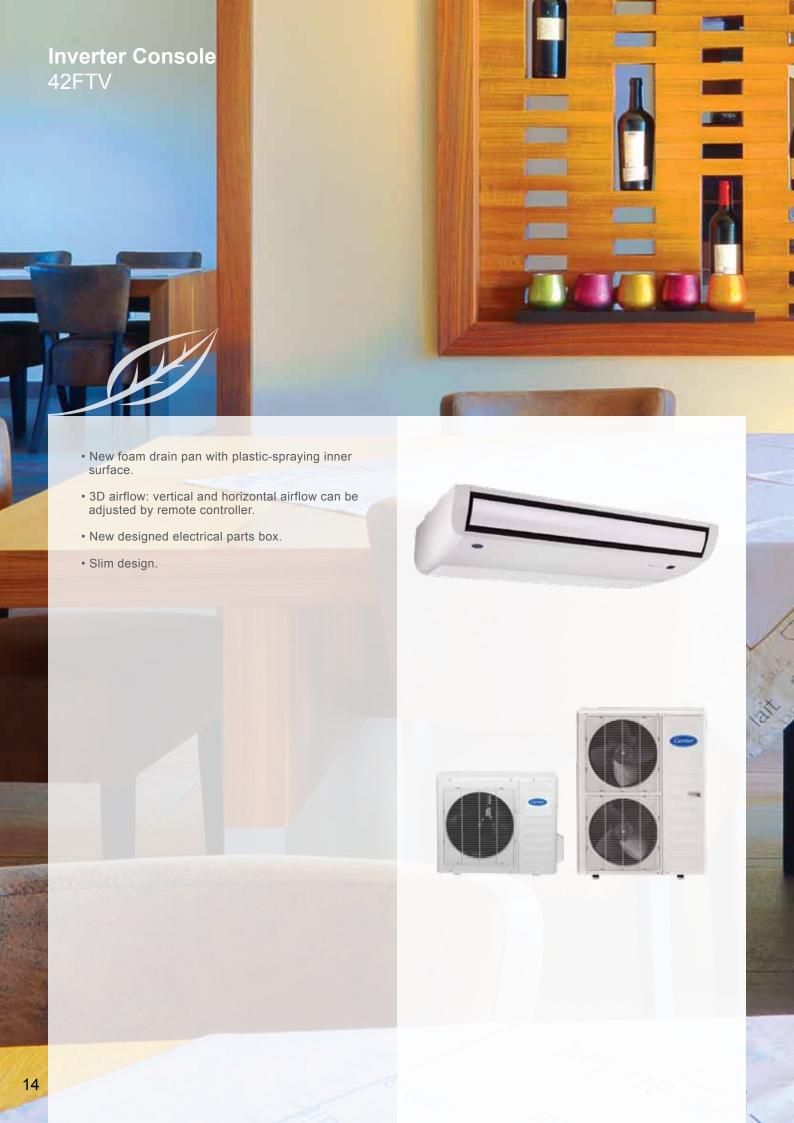
The fundamental change from today's situation comes from the fact that seasonal efficiencies become the main focus of attention.

In doing so low performing products cannot be introduced in the market from January 2013 and with more restrictive limits from January 2014.

Seasonal Energy efficiency values (SEER/SCOP), together with the sound levels of the units, will be reflected in the new Energy label of air conditioner systems below 12 kW, to allow end-customers to do better and environmentally sensible choice.



Energy Efficiency Class	SEER	SCOP
A+++	SEER ≥ 8.50	SCOP ≥ 5.10
A++	6.10 ≤ SEER < 8.50	4.60 ≤ SCOP < 5.10
A+	5.60 ≤ SEER < 6.10	4.00 ≤ SCOP < 4.60
A	5.10 ≤ SEER < 5.60	3.40 ≤ SCOP < 4.00
В	4.60 ≤ SEER < 5.10	3.10 ≤ SCOP < 3.40
С	4.10 ≤ SEER < 4.60	2.80 <u><</u> SCOP < 3.10
D	3.60 ≤ SEER < 4.10	2.50 <u><</u> SCOP < 2.80
E	3.10 ≤ SEER < 3.60	2.20 ≤ SCOP < 2.50
F	2.60 ≤ SEER < 3.10	1.90 ≤ SCOP < 2.20
G	SEER < 2.60	SCOP < 1.90





Wireless (Standard)

- Temp. Range 17°C to 30°C
 Mode: Auto, Cool, Dry, Heat, Fan only
 Daily Timer setting: 0-24 hours
 Louver Auto Swing (Vertical and Horizontal)



Wired (Optional)

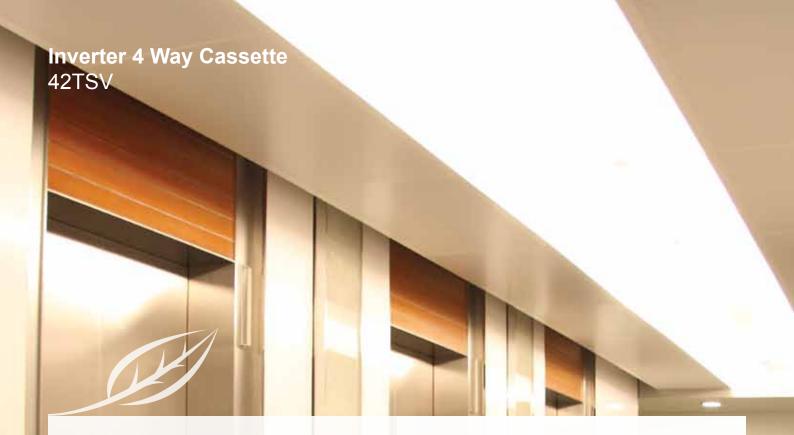
- On / Off Operation
 Economical Mode
 Temp. Range 17°C to 30°C
 Mode: Auto, Cool, Dry, Heat, Fan only

Technical Specifications _

Indoor unit		42FTV1181001231	42FTV1241001231	42FTV1361001231	42FTV2481001231	42FTV2601001931
Outdoor unit		38VN1181123A	38VN1241123A	38VN1361123A	38VN2481123A	38VN2601193A
Size		18K	24K	36K	48K	60K
Cooling (Min-Max)	kW	5.3 (2.5~6.0)	7.1 (3.4~8.6)	10.5 (5.3~12.0)	12.1 (7.0~14.0)	14.0 (8.0~16)
SEER	W/W	5.61	5.61	5.11	-	-
EER	W/W	-	-	-	3.01	2.61
Energy Efficiency Class (SEER/EER)		A+	A+	А	В	D
Heating (Min-Max)	kW	5.3 (2.7~6.4)	7.6 (4.4~10.2)	10.5 (5.7~14)	12.1 (8.0~16.0)	14.0 (9.0~20.0)
SCOP	W/W	3.41	3.41	3.41	-	-
COP	W/W	-	-	-	3.61	3.41
Energy Efficiency Class (SCOP/COP)		А	А	А	А	В
Compressor Type		Rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary
Indoor air flow (Hi/Mi/Lo)	m3/h	900/750/600	1300/1100/950	1850/1650/1450	2300/1900/1700	2300/1900/1700
ndoor sound pressure level (Hi/Mi/Lo)	dB(A)	43/38/34	53/48/41	55/51/47	57/54/52	57/54/52
ndoor sound power level (Hi)	dB(A)	56	62	63	-	-
Outdoor air flow	m3/h	2500	3500	5500	7200	7500
Outdoor sound pressure level	dB(A)	61	64	65	63	64
Outdoor sound power level	dB(A)	65	67	69	-	-
Indoor unit Dimensions (WxDxH)	mm	1068x675x235	1068x675x235	1285x675x235	1650x675x235	1650x675x235
ndoor Weight (Net)	kg	25	25	30	40	40
Refrigerant piping (liquid/gas)		1/4"/1/2"	3/8"/5/8"	3/8"/5/8"	3/8"/5/8"	3/8"/5/8"
Operation temperature						
Cooling	°C	≥17	≥17	≥17	≥17	≥17
Heating	°C	≤30	≤30	≤30	≤30	≤30
Ambient temperature						
Cooling	°C	-15~50	-15~50	-15~50	-15~50	-15~50
Heating	°C	-15~24	-15~24	-15~24	-15~24	-15~24
Refrigerant Type		R410A	R410A	R410A	R410A	R410A
Max. pipe lenght	m	30	50	65	65	65
Max. difference in level	m	20	25	30	30	30
Power supply	V-ph-Hz	220~240-1-50	220~240-1-50	220~240-1-50	220~240-1-50	380~415-3-50

Preliminary Data





- Compact design, slim body.
- 360o Air flow : Surrounded air outlet design for uniform airflow distribution.
- Fresh Air In-take: a ventilation motor (no more than 200W) can be installed in fresh air duct and works with indoor fan to increase the volume of fresh air.
- Easy maintained Drain Pump.
- Buit in Drain Pump for condensate water lift up to 750 mm.
- External Air Duct.







- Temp. Range 17°C to 30°C
- Daily Timer setting: 0-24 hours
- Louver Auto Swing (Vertical and Horizontal)
- Fan Speed Control (H/M/L/Auto)
- Effective transmitting distance of remote is 8m



- Economical Mode
- Temp. Range 17°C to 30°C
- Mode: Auto, Cool, Dry, Heat, Fan only
- Time setting: 0-24 hours
- Swing OperationFAN Speed Control

Technical Specifications

Indoor unit		42TSV1181001231	42TSV1241001231	42TSV1361001231	42TSV2481001231	42TSV2601001931
Outdoor unit		38VN1181123A	38VN1241123A	38VN1361123A	38VN2481123A	38VN2601193A
Size		18K	24K	36K	48K	60K
Cooling (Min-Max)	kW	5.3 (2.5~6.0)	7.1 (3.4~8.6)	10.5 (5.3~12.0)	12.1 (7.0~14.0)	14.0 (8.0~16)
SEER	W/W	5.61	5,61	5.11	-	-
EER	W/W		-	-	3.01	2.61
Energy Efficiency Class (SEER/EER)		A+	A+	A	В	D
Heating (Min-Max)	kW	5.3 (2.7~6.4)	7.6 (4.4~10.2)	10.5 (5.7~14)	12.1 (8.0~16.0)	14.0 (9.0~20.0)
SCOP	W/W	3.41	3,41	3,41	-	-
COP	W/W		-	-	3.61	3.41
Energy Efficiency Class (SCOP/COP)		А	A	A	А	В
Compressor Type		Rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary
Indoor air flow (Hi/Mi/Lo)	m3/h	1250/950/800	1250/1050/900	1950/1650/1400	2200/1800/1600	2200/1800/1600
Indoor sound pressure level (Hi/Mi/Lo)	dB(A)	49/45/37	50/46/41	53/49/46	54/49/46	54/49/46
Indoor sound power level	dB(A)	57	59	64	-	-
Outdoor air flow	m3/h	2500	3500	5500	7200	7500
Outdoor sound pressure level	dB(A)	61	64	65	63	64
Outdoor sound power level	dB(A)	65	67	69	-	-
Dimensions (WxDxH) - body	mm	840x840x205	840x840x205	840x840x245	840x840x287	840x840x287
Dimensions (WxDxH) - panel	mm	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55
Weight - body (Net)	kg	22	22	25	29	29
Weight - panel (Net)	kg	5	5	5	5	5
Refrigerant piping (liquid/gas)	mm	1/4"/1/2"	3/8"/5/8"	3/8"/5/8"	3/8"/5/8"	3/8"/5/8"
Operation temperature						
Cooling	°C	≥17	≥17	≥17	≥17	≥17
Heating	°C	≤30	≤30	≤30	≤30	≤30
Ambient temperature						
Cooling	°C	-15~50	-15~50	-15~50	-15~50	-15~50
Heating	°C	-15~24	-15~24	-15~24	-15~24	-15~24
Refrigerant Type		R410A	R410A	R410A	R410A	R410A
Max. pipe length	m	30	50	65	65	65
Max. difference in level	m	20	25	30	30	30
Power supply	V-ph-Hz	220~240-1-50	220~240-1-50	220~240-1-50	220~240-1-50	380~415-3-50

Preliminary Data





- Twins function. The units can be installed as twins systems: one outdoor unit can connect with two same size indoor units. The indoor units can be combined in any of the different available ratings.
- Easy installation : two air inlet styles
- · Easy maintenance.







Wireless (Standard)

- Temp. Range 17°C to 30°C
 Mode: Auto, Cool, Dry, Heat, Fan only
 Daily Timer setting: 0-24 hours
 Louver Auto Swing (Vertical and Horizontal)



Wired (Optional)

- On / Off Operation
 Economical Mode
 Temp. Range 17°C to 30°C
 Mode: Auto, Cool, Dry, Heat, Fan only
- Weekly timer (optional)
 Swing Operation
 FAN Speed Control

Technical Specifications _

Indoor unit		42SMV1181001231	42SMV1241001231	42SMV1361001231	42SMV2481001231	42SMV2601001931
Outdoor unit		38VN1181123A	38VN1241123A	38VN1361123A	38VN2481123A	38VN2601193A
Size		18K	24K	36K	48K	60K
Cooling (Min-Max)	kW	5.3 (2.5~6.0)	7.1 (3.4~8.6)	10.5 (5.3~12.0)	12.1 (7.0~14.0)	14.0 (8.0~16)
SEER	W/W	5.61	5.61	5.11	-	-
EER	W/W	-	-	-	3.01	2.61
Energy Efficiency Class (SEER/EER)		A+	A+	А	В	D
Heating (Min-Max)	kW	5.3 (2.7~6.4)	7.6 (4.4~10.2)	10.5 (5.7~14)	12.1 (8.0~16.0)	14.0 (9.0~20.0)
SCOP	W/W	3.41	3.41	3.41	-	-
COP	W/W	-	-	-	3.61	3.41
Energy Efficiency Class (SCOP/COP)		А	А	А	А	В
Compressor Type		Rotary	Twin-rotary	Twin-rotary	Twin-rotary	Twin-rotary
ndoor air flow (Hi/Mi/Lo)	m3/h	850/700/550	1150/1000/850	1850/1550/1200	3010/2410/1940	3010/2410/1940
ndoor sound pressure level (Hi/Mi/Lo)	dB(A)	46/43/40	43/38/37	51/46/42	46/43/41	46/43/41
ndoor sound power level	dB(A)	59	58	64	-	-
Outdoor air flow	m3/h	2500	3500	5500	7200	7500
Outdoor sound pressure level	dB(A)	61	64	65	63	64
Outdoor sound power level	dB(A)	65	67	69	-	-
ndoor Dimensions (WxDxH)	mm	920x635x210	920x635x270	1140x775x270	1200x865x300	1200x865x300
Weight (Net)	kg	22	26	35	44	44
Refrigerant piping (liquid/gas)		1/4"/1/2"	3/8"/5/8"	3/8"/5/8"	3/8"/5/8"	3/8"/5/8"
Operation temperature						
Cooling	°C	≥17	≥17	≥17	≥17	≥17
Heating	°C	≤30	≤30	≤30	≤30	≤30
Ambient temperature						
Cooling	°C	-15~50	-15~50	-15~50	-15~50	-15~50
Heating	°C	-15~24	-15~24	-15~24	-15~24	-15~24
Refrigerant Type		R410A	R410A	R410A	R410A	R410A
Vlax. pipe length	m	30	50	65	65	65
Vlax. difference in level	m	20	25	30	30	30
Power supply	V-ph-Hz	220~240-1-50	220~240-1-50	220~240-1-50	220~240-1-50	380~415-3-50

Preliminary Data



NOTES





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