

TOSHIBA Leading Innovation >>>

Price list Airconditioning

Keeping temperatures stable. **TOSHIBA**.



2011/2012

TERMS OF BUSINESS

■ General

As far as nothing else has been declared, the general terms of business and the agreed purchase conditions including the sales discounts are valid. Arrangements that differ from our terms are only valid on condition that we confirm this explicit and in writing.

■ Jurisdiction

Exclusive jurisdiction for both partners is the „Landes- als Handelsgericht“ Graz. For the contractual relations Austrian law is valid.

■ Quotation

Our prices are quoted inclusively normal packaging ex loading platform of the forwarding agency Gebrüder Weiss Vienna, without loading. Costs incurred due to special requests are met by the purchaser. Incoterms are valid in the version of 2010. Separate agreements for pricing are noted on the purchase conditions.

■ Passing of the risk

The risk goes over to the purchaser as soon as the goods have left the loading platform on which they had been prepared for collection. The risk of loading is taken by the purchaser.

■ Dispatch

Orders for dispatches abroad cannot be carried out by us.

■ Take-over of the goods

When taking over the goods, the forwarding agency organised by the purchaser or the collector has the duty to check the delivery according to the order. Any damages noticed on the carton box or on the unit itself have to be noted on the dispatch note and the forwarding agency has to be informed immediately. Latent defects have to be notified in Austria within 7 days and in export countries 10 days from date of collection, otherwise claims will not be accepted by the insurance company. In case of transport damages a written reclamation for visible damages is necessary immediately, at the latest within 7 days.

■ Wrong deliveries

Costs and follow-up costs that result from wrong deliveries cannot be asserted.

■ Material warranty

Claims for material warranty can be asserted from the purchaser within 36 months from date of delivery and date of invoice using our provided form for material warranty claims and against returning the faulty part if we ask for this. The material warranty only contains the replacing of spare parts ex our warehouse. We clearly mention that the material warranty does not include the refund of costs for wages, travel costs etc. Condition for accepting the material warranty claim is the proper installation by a specialist according to the Toshiba installation rules, permitted operating conditions and the periodical service following the Toshiba maintenance guidelines. In case of an improper installation or non-compliance of the permitted operation conditions and maintenance guidelines resp. wrong dimensioning, claims for material warranty will be refused.

■ Reservation of ownership

We reserve the ownership of the delivered goods until all outstanding receivables against the purchaser out of the business relation are settled inclusively debts that will arise from simultaneous or later concluded contracts.

■ Cancellation fee

For the cancellation of orders we allow us to charge in general the amount of € 60,-. When receiving the cancellation after the preparation of the goods and invoice or after issuing export documents we charge the amount of € 120,-.

■ Delay in payment / Default interests

In case of a delay in payment by the principal, we reserve the right to retain all future services till full settlement of the delayed payment. As far as this delay is not limited to a small amount Air-Cond is entitled for all subsequent orders, which already have been confirmed, to demand payment in advance. On delay the client has to pay on the amount due interests to the extent of 8% points on top of the base rate annually.

Any rights of Air-Cond to request additional delay damages shall remain unaffected.

■ Export declaration (valid for Non-EU member states)

The purchaser commits himself to send us the export declaration (customs' confirmation that the goods left the EU) within 14 days after the collection under registered mail. In case of omission we charge 20 % VAT, customs duty and a fine of the customs authorities.

Measuring conditions for Toshiba air-conditioners

Cooling:

Indoor air temperature 27°C TK / 19°C FK, outdoor air temperature 35 °C TK

Heating:

Indoor air temperature 20 °C TK / outdoor air temperature 7°C TK, 6 °C FK

Refrigeration pipes:

7,5 m length – no height difference between indoor and outdoor unit

Sound pressure level:

measured in about 1,5 m distance * to the indoor unit and 1 m distance to the outdoor unit

Energy class, annual power consumption:

according to 2002/31/EC European Commission

For detailed specification please see the service manual!

Validity of the price list: 1st April 2011 until 31st March 2012

The price list is subject to the general terms of business of company Air-Cond Klimaanlagen-Handelsgesellschaft m.b.H.

Subject to changes without notice! All specifications, model names and figures are subject to typing and printing errors.



Distribution office Austria – Central Europe

Head Office: A-8054 Graz-Seiersberg, Haushamer Straße 2

Telefon: +43/316/8089, Fax: +43/316/826371, E-mail: office@air-cond.com, www.air-cond.com

www.toshiba-aircondition.at

Content

■ RESIDENTIAL

AvAnt Inverter	.....	4
Suzumi Plus	.....	4
Super Daiseikai 6	.....	4
Console	.....	5
Super Daiseikai V	.....	5
Fix Speed Hi-wall	.....	5
Fix Speed Flexi	.....	6
Accessories RAS	.....	6
Inverter Multi heat pump	.....	7
Overview of basic features RAS	.....	8
Additional information RAS/RAV	.....	9-10
Installation in IT-rooms	.....	11

■ LIGHT COMMERCIAL

Digital Inverter Hi-wall	.....	12
Super Digital Inverter Hi-wall	.....	12
Digital Inverter Flexi	.....	12
Digital Inverter Ceiling	.....	13
Super Digital Inverter Ceiling	.....	13
Accessories Ceiling models	.....	13
Digital Inverter Duct	.....	14
Super Digital Inverter Duct	.....	14
Digital Inverter Ultra-slim Duct	.....	15
Super Digital Inverter Ultra-slim Duct	.....	15
High-pressure Duct for DI BIG	.....	15
Valve kit for Digital and Super Digital Inverter	.....	15
Digital Inverter 4-way-cassette	.....	16
Super Digital Inverter 4-way-cassette	.....	16
Digital Inverter 60x60 Cassette	.....	17
Super Digital Inverter 60x60 Cassette	.....	17
Super Digital Inverter outdoor units 3-phase	.....	17
Digital Inverter BIG – multi solutions	.....	18

■ COMMERCIAL

VRF systems overview	.....	19
SMMSi outdoor units heat pump	.....	20
SMMSi outdoor units high-efficiency models	.....	21
MiNi S-MMS outdoor units	.....	21
S-HRM outdoor units	.....	22
S-HRM flow selectors	.....	22
VRF Hi-wall	.....	23
VRF Ceiling	.....	23
VRF Duct	.....	24-25
VRF Cassette	.....	25-26
VRF Chassis/Console/Floor	.....	27
VRF Valve kit	.....	28
Air-to-air heat exchanger	.....	28
Special accessories RAV / VRF	.....	28
Control options	.....	29-32
Toshiba service programs	.....	32
Joints and headers	.....	33

■ AIR-TO-WATER HEAT PUMP

ESTIA air-to-water heat pump	34-35
------------------------------	-------	-------

AvAnt Inverter



- Modern, compact design, good energy efficiency
 - Very quiet operation
 - 3:1 filter system

Type	Capacity [kW]		Energy label C. / H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
AvAnt Inverter (Infrared remote control included)									
RAS-107SKV-E3	2,5 (1,1-3,0)	3,2 (0,9-4,1)	A/A	250/740/195 530/660/240	0,26-0,97	0,20-1,20	53	270,--	890,--
RAS-107SAV-E3							63	620,--	
RAS-137SKV-E3	3,5 (1,1-4,0)	4,2 (0,9-5,0)	A/A	250/790/205 550/780/290	0,25-1,33	0,17-1,48	53	280,--	1.025,--
RAS-137SAV-E3							63	745,--	
RAS-167SKV-E3	4,4 (1,1-5,0)	5,2 (1,0-6,2)	C/B	250/790/205 550/780/290	0,26-1,90	0,19-1,81	58	300,--	1.235,--
RAS-167SAV-E3							63	935,--	

Suzumi Plus



- Excellent price-quality ratio
 - Optimal combination of energy efficiency and air purification management
 - IAQ filter system

Super Daiseikai 6 - NEW!



- Efficient cooling and heating with top COP-values
 - Modern, attractive design
 - IAQ filter & plasma filter & air ioniser for the best air quality

Console



- Bi-flow console with variable possibilities of air outlet
 - Floor-heating-effect
 - Big radial ventilators for an extra quiet operation

Super Daiseikai V



- Top efficiency ratio – an inverter for higher demands
 - Individual design
 - High efficient filter system with electrical air purifier

Fix Speed Hi-wall



- Beautiful design
 - Fixed-speed unit
 - IAQ filter system



Fix Speed Flexi

- High performance, very precisely working model
- Flexible installation
- IAQ filter system

Type	Capacity [kW]		Energy label C. / H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
FLEXI (Infrared remote control included)									
RAS-18GFHP-ES2	5,0	5,7	E/D	633/1093/208 550/780/290	2,01	1,88	56 67	510,-- 620,--	1.130,--
RAS-18GAH-ES2									
RAS-24GFHP-ES2	6,2	7,0	E/D	633/1093/208 715/780/290	2,57	2,53	59 71	560,-- 815,--	1.375,--
RAS-24GAH-ES2									

Phase-out model: deliverable while stock last!

Accessories: RAS Residential

Type	Suitable for	Contents	Single price excl. VAT [EUR]
Filter accessories			
RB-A602SE	RAS-10/13UKV-E, RAS-07/10/13/18/24UKP-ES, RAS-18/24UKHP-ES, RAS-18/24UF(H)P-ES	2 x Electrostatic filter	8,--
RB-A604SE2	RAS-xxUKV-ES3 (single) and RAS-MxxUK(C)V-E3 (multi)	2 x Bio-enzyme filter	14,--
RB-A607DE	Daiseikai (RAS-**JKVP-E)	1 x Zeolite filter (blue)	45,--
RB-A608DE	Daiseikai (RAS-**JKVP-E)	1 x Zeolite 3 G filter (black)	30,--
RB-A610DE	RAS-xx-ES4 (Single) and RAS-Mxx-ES4 (multi)	1 x Sasa-zeolite filter (blue)	14,--
RB-A612DE	RAS-xxGK(H)P-ES2, RAS-(M)xxGK(C)V-E2 and RAS-xxGF(H)P-ES2 models	2 x Bio-enzyme gingko filter	25,--
RB-A613DE	RAS-xxGK(H)P-ES2, RAS-(M)xx GK(C)V-E2 and RAS-xxGF(H)P-ES2 models	2 x Sasa-zeolite-vitamine C filter	20,--
RB-A614DE	RAS-xx7SKV-E3	2 x Active-carbon-catechine filter	8,--
RB-A615DE	RAS-xxGK(H)P-ES2, RAS-xxSKV(R)-E, RAS-MxxSK(C)V-E2, RAS-xx GF(H)P-ES2, RAV-SMxx2KRT-E and RAV-SMxx2XT-E models	2 x Super-oxi-deo filter (blue – orange)	14,--
RB-A616DE	RAS-xxGK(H)P-ES2, RAS-xxSKV-E, RAS-MxxSK(C)V-E, RAS-xxGF(H)P-ES2, RAV-SMxx2KRT-E and RAV-SMxx2XT-E models	2 x Super-sterilizer filter (green – yellow)	14,--
RB-A620DE	RAS-xxSKHP-ES, RAS-xxGFHP-ES2 RAS-xxSKV2-E, RAS-xxUFV-E RAS-MxxSK(C)V-E RAV-SMxx2KRT-E and RAV-SMxx2XT-E models	2 x IAQ filter (green-blue)	14,--
LA5	Low ambient kit for fix speed outdoor units		270,--

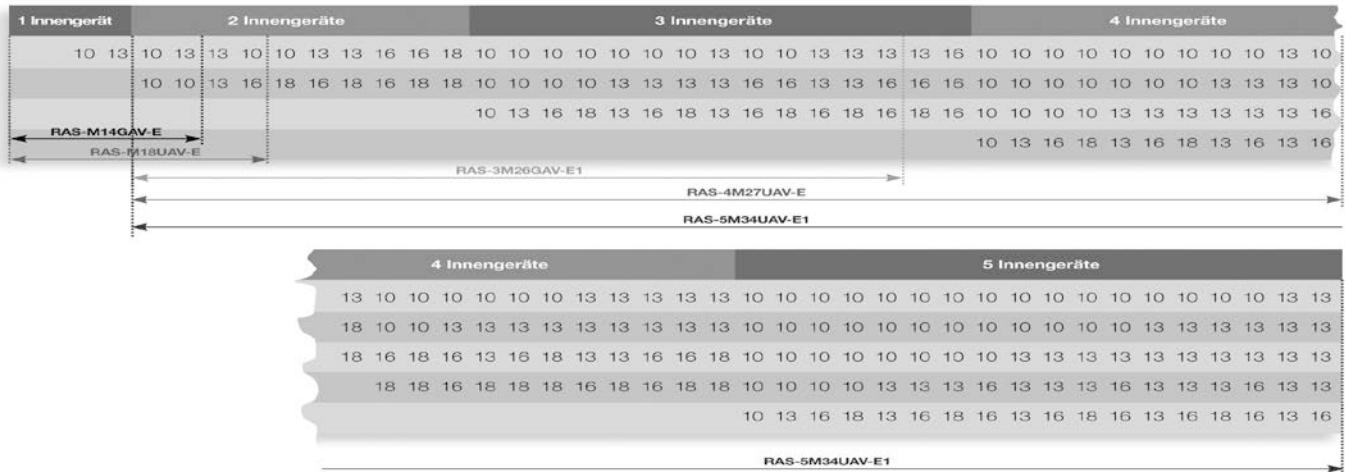
Accessories: RAS Inverter duct type units

Type	Single price excl. VAT [EUR]
RB-F81E2	420,--
RBC-SH-A1LE2	420,--

RAS Inverter Multi >>HEAT PUMP<<

Type	Capacity [kW]		Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling	Heating		Cooling	Heating		
Super Daiseikai III Hi-wall unit (Infrared remote control included)							
RAS-B10SKVP-E	2,5 (1,1-3,2)	3,2 (0,7-5,2)	250/790/208	0,03	0,03	58	480,--
RAS-B13SKVP-E	3,5 (1,1-4,4)	4,2 (0,7-6,5)	250/790/208	0,03	0,03	59	540,--
RAS B16SKVP-E	4,5 (1,4-4,9)	5,5 (0,8-6,9)	250/790/208	0,03	0,03	60	640,--
Suzumi Hi-wall unit (Infrared remote control included)							
RAS-M10SKV-E	2,5 (1,1-3,2)	3,2 (0,7-5,2)	275/790/205	0,02	0,02	54	360,--
RAS-M13SKV-E	3,5 (1,1-4,4)	4,2 (0,7-6,5)	275/790/205	0,02	0,02	55	390,--
RAS-M16SKV-E	4,5 (1,4-4,9)	5,5 (0,8-6,9)	275/790/205	0,02	0,02	60	430,--
Console (Infrared remote control included)							
RAS-B10UFV-E	2,5 (1,1-3,2)	3,2 (0,7-4,8)	600/700/220	0,03	0,03	52	815,--
RAS-B13UFV-E	3,5 (1,1-4,4)	4,2 (0,7-6,5)	600/700/220	0,03	0,03	53	895,--
RAS-B18UFV-E	5,0 (1,4-4,9)	5,5 (0,8-6,9)	600/700/220	0,03	0,03	59	1.075,--
60x60 4-way-cassette (Infrared remote control included)							
RAS-M10SMUV-E	2,5 (1,1-3,2)	3,2 (0,7-5,2)	268/575/575	0,06	0,06	52	900,--
RAS-M13SMUV-E	3,5 (1,1-4,4)	4,2 (0,7-6,5)	268/575/575	0,06	0,06	53	950,--
RAS-M16SMUV-E	4,5 (1,4-4,9)	5,5 (0,8-6,9)	268/575/575	0,06	0,06	55	990,--
RB-B11MC(W)-E, panel	--	--	27/700/700	--	--	--	200,--
Duct type (Infrared remote control included)							
RAS-M10GDV-E	2,5 (1,1-3,2)	3,2 (0,7-5,2)	230/750/440	0,11	0,11	44	700,--
RAS-M13GDV-E	3,5 (1,1-4,4)	4,2 (0,7-6,5)	230/750/440	0,11	0,11	45	750,--
RAS-M16GDV-E	4,5 (1,4-4,9)	5,5 (0,8-6,9)	230/750/440	0,11	0,11	46	800,--
Hybrid Inverter multi – outdoor units							
RAS-M14GAV-E	4,0 (1,4-4,5)	4,4 (0,9-5,2)	550/780/290	1,02	1,01	59	1.250,--
RAS-M18GAV-E	5,2 (1,4-6,2)	6,7 (0,9-8,5)	550/780/290	1,54	1,79	62	1.300,--
RAS-M18UAV-E *	5,2 (1,4-6,2)	5,6 (0,9-8,3)	550/780/290	1,44	1,19	64	1.325,--
RAS-3M26GAV-E1	7,5 (1,4-8,9)	9,0 (0,8-10,8)	795/900/320	2,25	2,55	61	2.120,--
RAS-4M27GAV-E1	8,0 (1,4-9,2)	9,0 (0,8-11,0)	795/900/320	2,50	2,25	61	2.400,--
RAS-4M27UAV-E *	8,0 (3,2-9,3)	9,0 (3,0-11,7)	890/900/320	2,29	1,93	63	2.450,--
RAS-5M34UAV-E1	10,0 (3,7-11,0)	12,0 (3,4-14,0)	890/900/380	2,92	2,83	66	2.840,--

* Deliverable from April / May 2011



Residential – Overview of basic function

ADDITIONAL INFORMATION

	Type	Cooling/ Heating	Length of pipes [m]			Dimensions of pipes [mm / '"]		Refrigerant weight [kg]	Additional- charge [g/m]
			[kW]	Total	Height difference	Pre-charged R410A	Gas side	Liquid side	
RAS Fix Speed	RAS-10S2AH-ES	2,7/2,9	10	5	10	9,5(5/8)	6,4(1/4)	0,78	-
	RAS-13S2AH-ES2	3,7/4,2	15	6	15	12,7(1/2)	6,4(1/4)	0,95	-
	RAS-18S2AH-ES	5,0/5,5	20	8	15	12,7(1/2)	6,4(1/4)	1,53	20
	RAS-24S2AH-ES2	6,4/6,8	25	10	15	12,7(1/2)	6,4(1/4)	1,62	20
RAS Inverter	RAS-107SAV-E3	2,5/3,2	10	8	10	9,5(3/8)	6,4(1/4)	0,63	-
	RAS-137SAV-E3	3,5/4,2	20	10	15	9,5(3/8)	6,4(1/4)	0,80	20
	RAS-167SAV-E3	4,4/5,2	20	10	15	12,7(1/2)	6,4(1/4)	0,85	20
	RAS-10SAV2-E	2,5/3,2	20	10	15	9,5(3/8)	6,4(1/4)	0,63	20
	RAS-13SAV2-E	3,5/4,2	20	10	15	9,5(3/8)	6,4(1/4)	0,80	20
	RAS-16SAV2-E	4,5/5,5	20	10	15	12,7(1/2)	6,4(1/4)	0,85	20
	RAS-18SAV2-E	5,0/5,8	20	10	15	12,7(1/2)	6,4(1/4)	1,40	20
	RAS-22SAV2-E	6,0/7,0	20	10	15	12,7(1/2)	6,4(1/4)	1,40	20
	RAS-10PAVP-E	2,5/3,0	20	10	15	9,5(3/8)	6,4(1/4)	1,12	20
	RAS-13PAVP-E	3,5/4,0	20	10	15	9,5(3/8)	6,4(1/4)	1,15	20
	RAS-16PAVP-E	4,5/5,5	20	10	15	12,7(1/2)	6,4(1/4)	1,15	20
	RAS-10SAVP2-E	2,5/3,2	25	10	15	9,5(3/8)	6,4(1/4)	1,05	20
RAS Multi Inverter	RAS-13SAVP2-E	3,5/4,2	25	10	15	9,5(3/8)	6,4(1/4)	1,05	20
	RAS-16SAVP2-E	4,5/5,5	25	10	15	12,7(1/2)	6,4(1/4)	1,50	20
	RAS-M14GAV-E	4,0/4,4	20m per indoor unit / total 30m	10	20	9,5(3/8)*	6,4(1/4)	0,90	20
	RAS-M18UAV-E	5,2/6,7		10	20	9,5(3/8)* 12,7(1/2)**	6,4(1/4)	1,20	20
	RAS-3M26GAV-E1	7,5/9,0	25m per indoor unit / total 50m	15	50	9,5(3/8)* 12,7(1/2)**	6,4(1/4)	2,40	-
Digital Inverter	RAS-4M27UAV-E	8,0/9,0	25m per indoor unit / total 70m	15	70	9,5(3/8)* 12,7(1/2)**	6,4(1/4)	2,40	-
	RAS-5M34UAV-E1	10,0/12,0	25m per indoor unit / total 80m	15	40	9,5(3/8)* 12,7(1/2)**	6,4(1/4)	2,99	20
	RAV-SM563AT-E	5,0/5,6	30	30	20	12,7(1/2)	6,4(1/4)	1,00	20
	RAV-SM803AT-E	7,1/8,0	30	30	20	15,9(5/8)	9,5(3/8)	1,70	40
	RAV-SM1103AT-E	10,0/11,2	50	30	30	15,9(5/8)	9,5(3/8)	2,80	40
DI BIG	RAV-SM1403AT-E	12,5/14,0	50	30	30	15,9(5/8)	9,5(3/8)	2,80	40
	RAV-SM1603AT-E	14,0/16,0	50	30	30	15,9(5/8)	9,5(3/8)	3,10	40
S-DI	RAV-SM2244AT8-E	20,0/22,4	70	30	30	28,6(11/8)	12,7(1/2)	5,9	40
	RAV-SM2804AT8-E	23,0/27,0	70	30	30	28,6(11/8)	12,7(1/2)	5,9	40
S-DI 3-phasig	RAV-SP564AT-E	5,0/5,6	50	30	20	12,7(1/2)	6,4(1/4)	1,4	20
	RAV-SP804AT-E	7,1/8,0	50	30	30	15,9(5/8)	9,5(3/8)	2,1	40
	RAV-SP1104AT-E	10,0/11,2	75	30	30	15,9(5/8)	9,5(3/8)	3,1	40
	RAV-SP1404AT-E	12,5/14,0	75	30	30	15,9(5/8)	9,5(3/8)	3,1	40
S-DI 3-phasig	RAV-SP1104AT8-E	10,0/11,2	75	30	30	15,9(5/8)	9,5(3/8)	3,1	40
	RAV-SP1404AT8-E	12,5/14,0	75	30	30	15,9(5/8)	9,5(3/8)	3,1	40
	RAV-SP1604AT8-E	14,0/16,0	75	30	30	15,9(5/8)	9,5(3/8)	3,1	40

* When connecting RAS-M10 or RAS-M13 indoor units

** when connecting RAS-M16 or RAS-M18 indoor units

ADDITIONAL INFORMATION

	Type	Cooling/ Heating [kW]	Power supply		Electr. wire indoor / outdoor [mm ²]	Remote control IR/ [mm ²]
			Power supply	Fuse (tr.) [V/A]		
RAS Fix Speed	RAS-10S2AH-ES	2,7/2,9	Indoor unit	230/10	5x1,5	IR
	RAS-13S2AH-ES2	3,7/4,2	Indoor unit	230/10	5x1,5	IR
	RAS-18S2AH-ES	5,0/5,5	Outdoor unit	230/16	4x1,5	IR
	RAS-24S2AH-ES2	6,4/6,8	Outdoor unit	230/20	4x1,5	IR
RAS Inverter	RAS-107SAV-E3	2,5/3,2	Outdoor unit	230/10	4x1,5	IR
	RAS-137SAV-E3	3,5/4,2	Outdoor unit	230/10	4x1,5	IR
	RAS-167SAV-E3	4,4/5,2	Outdoor unit	230/16	4x1,5	IR
	RAS-10SAV2-E	2,5/3,2	Outdoor unit	230/10	4x1,5	IR
	RAS-13SAV2-E	3,5/4,2	Outdoor unit	230/10	4x1,5	IR
	RAS-16SAV2-E	4,5/5,5	Outdoor unit	230/16	4x1,5	IR
	RAS-18SAV2-E	5,0/5,8	Outdoor unit	230/16	4x1,5	IR
	RAS-22SAV2-E	6,0/7,0	Outdoor unit	230/16	4x1,5	IR
	RAS-10PAVP-E	2,5/3,0	Outdoor unit	230/10	4x1,5	IR
	RAS-13PAVP-E	3,5/4,0	Outdoor unit	230/10	4x1,5	IR
	RAS-16PAVP-E	4,5/5,5	Outdoor unit	230/16	4x1,5	IR
	RAS-10SAVP2-E	2,5/3,2	Outdoor unit	230/10	4x1,5	IR
RAS Multi Inverter	RAS-13SAVP2-E	3,5/4,2	Outdoor unit	230/10	4x1,5	IR
	RAS-16SAVP2-E	4,5/5,5	Outdoor unit	230/16	4x1,5	IR
	RAS-M14GAV-E	4,0/4,4	Outdoor unit	230/10	per 4x1,5	IR
	RAS-M18UAV-E	5,2/6,7	Outdoor unit	230/10	per 4x1,5	IR
	RAS-3M26GAV-E1	7,5/9,0	Outdoor unit	230/16	per 4x1,5	IR
Digital Inverter	RAS-4M27UAV-E	8,0/9,0	Outdoor unit	230/16	per 4x1,5	IR
	RAS-5M34UAV-E1	10,0/12,0	Outdoor unit	230/20	per 4x1,5	IR
	RAV-SM563AT-E	5,3/5,6	Outdoor unit	230 / 10	4x1,5	2x0,75/IR
	RAV-SM803AT-E	7,1/8,0	Outdoor unit	230 / 16	4x1,5	2x0,75/IR
	RAV-SM1103AT-E	10,0/11,2	Outdoor unit	230 / 20	4x1,5	2x0,75/IR
DI Big	RAV-SM1403AT-E	12,3/14,0	Outdoor unit	230 / 25	4x1,5	2x0,75/IR
	RAV-SM1603AT-E	14,0/16,0	Outdoor unit	230 / 32	4x1,5	2x0,75/IR
S-DI	RAV-SM2244AT8-E	20,0/22,4	Outdoor unit	400/3x20	4x1,5	2x0,75/IR
	RAV-SM2804AT8-E	23,0/27,0	Outdoor unit	400/3x25	4x1,5	2x0,75/IR
S-DI 3-phase	RAV-SP564AT-E	5,3/5,6	Outdoor unit	230 / 10	4x1,5	2x0,75/IR
	RAV-SP804AT-E	7,1/8,0	Outdoor unit	230 / 16	4x1,5	2x0,75/IR
	RAV-SP1104AT-E	10,0/11,2	Outdoor unit	230 / 20	4x1,5	2x0,75/IR
	RAV-SP1404AT-E	12,5/14,0	Outdoor unit	230 / 25	4x1,5	2x0,75/IR
S-DI 3-phase	RAV-SP1104AT8-E	10,0/11,2	Outdoor unit	400/3x20	4x1,5	2x0,75/IR
	RAV-SP1404AT8-E	12,5/14,0	Outdoor unit	400/3x20	4x1,5	2x0,75/IR
	RAV-SP1604AT8-E	14,0/16,0	Outdoor unit	400/3x20	4x1,5	2x0,75/IR

INFORMATION FOR THE INSTALLATION IN IT-ROOMS

	Models	Official outdoor temperatures range limit (accor. Toshiba specifications)	Low ambient operation	Automatic restart function after power failure
Digital Inverter & Super Digital Inverter & Di BIG	RAV-SM563AT-E RAV-SM803AT-E RAV-SM1103AT-E RAV-SM1403AT-E RAV-SM1603AT-E RAV-SM2244AT8-E RAV-SM2804AT8-E RAV-SP564AT-E RAV-SP804AT-E RAV-SP1104AT-E RAV-SP1404AT-E RAV-SP1104AT8-E RAV-SP1404AT8-E RAV-SP1604AT8-E	Outdoor temperature range Cooling mode: -15°C till +43°C Digital Inverter: Outdoor temperature range Heating mode: -15°C till +15°C Super Digital Inverter und Digital Inverter Big: Outdoor temperature range Heating mode: -20°C till +15°C	Perfect for a cooling operation at low outdoor temperature, as: <ul style="list-style-type: none"> • Low ambient kit is included • Oil heater is included Cooling is also possible with an outside temperature of below -15 °C and unit doesn't switch off! Take care for wind protection! For the room inside air humidification might be necessary!	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>To activate:</p> <ul style="list-style-type: none"> - Hi-wall, cassette, duct, ceiling: Change in the DN Code menu of the remote control the value of line 28 from „0“ to „1“ - Flexi: Press the „Temporary“-button at the indoor unit for 3 seconds (in front beside the LED's)
RAS Fix Speed Heat pump 10/13	RAS-10SKHP-ES/S2AH-ES RAS-13SKHP-ES2/S2AH-ES2	Outdoor temperature range Cooling mode: +15°C till +43°C Outdoor temperature range Heating mode: -10°C till +24°C	The following measures/modules are necessary to enable a cooling operation at low outdoor temperatures: <ul style="list-style-type: none"> • Installation of the low ambient kit (LA5) • Installation of an oil heater For the room inside air humidification might be necessary!	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>To activate press the „Reset“- button at the indoor unit for 3 seconds (behind the inlet grill assy)</p>
RAS Fix Speed Heat pump 18/24	RAS-18SKHP-ES/S2AH-ES RAS-24SKHP-ES2/S2AH-ES2 RAS-18GFHP-ES2/GAH-ES2 RAS-24GFHP-ES2/GAH-ES2	Outdoor temperature range Cooling mode: +15°C till +43°C Outdoor temperature range Heating mode: -10°C till +24°C	Unsuitable for a cooling mode at low outside temperatures (The low ambient kit LA5 cannot be used due to the special outdoor unit ventilation control)	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>To activate press the „Reset“- button at the indoor unit for 3 seconds (behind the inlet grill assy or in front beside the LED's)</p>
RAS Inverter Single	RAS-107SKV-E3/SAV-E3	Outdoor temperature range Cooling mode: +15°C till +43°C Outdoor temperature range Heating mode: -10°C till +24°C	Unsuitable for a cooling mode at low outside temperatures (The low ambient kit LA5 cannot be used due to the special outdoor unit ventilation control)	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>To activate press the „Reset“- button at the indoor unit for 3 seconds (behind the inlet grill assy)</p>
RAS Inverter Single	RAS-137SKV-E3/SAV-E3 RAS-167SKV-E3/SAV-E3 RAS-10SKV2-E/SAV2-E RAS-13SKV2-E/SAV2-E RAS-16SKV2-E/SAV2-E RAS-18SKV2-E/SAV2-E RAS-22SKV2-E/SAV2-E RAS-B10UFV-E/SAV2-E RAS-B13UFV-E/SAV2-E RAS-B18UFV-E/SAV2-E	Outdoor temperature range Cooling mode: -10°C till +46°C Outdoor temperature range Heating mode: -15°C till +24°C	Unsuitable for a cooling mode at low outside temperatures as the unit will be switched-off at an outside temperature of -10°C! But: <ul style="list-style-type: none"> • Cooling possible until -10°C (The low ambient kit LA5 is not compatible) • Oil heater included 	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>Hi wall unit: - To activate press the „Reset“- button at the indoor unit for 3 seconds (behind the inlet grill assy) Console: To activate press the „On/Off“- button at the indoor unit for 3 to 10 seconds</p>
RAS Inverter Single Daiseikai	RAS-10SKVP2-E/SAVP2-E RAS-13SKVP2-E/SAVP2-E RAS-16SKVP2-E/SAVP2-E RAS-10PKVP-E/PAVP-E RAS-13PKVP-E/PAVP-E RAS-16PKVP-E/PAVP-E	Outdoor temperature range Cooling mode: -10°C till +46°C Outdoor temperature range Heating mode: -15°C till +24°C	Unsuitable for a cooling mode at low outside temperatures But: <ul style="list-style-type: none"> • Cooling possible until -10°C (The low ambient kit LA5 is not compatible) • Oil heater included 	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>To activate press the „Reset“- button at the indoor unit for 3 seconds (behind the inlet grill assy)</p>
RAS Inverter Multi	RAS-M14GAV-E RAS-M18UAV-E	Outdoor temperature range Cooling mode: +5°C till +43°C Outdoor temperature range Heating mode: -10°C till +24°C	Unsuitable for a cooling mode at low outside temperatures as the unit will be switched-off at an outside temperature of -5°C! But: <ul style="list-style-type: none"> • Cooling possible until -5°C (The low ambient kit LA5 is not compatible) • Oil heater included 	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>To activate press the „Temporary“-button at the indoor unit for 3 seconds (behind the inlet grill assy)</p>
RAS Inverter Multi	RAS-3M26GAV-E1 RAS-4M27UAV-E RAS-5M34UAV-E1	Outdoor temperature range Cooling mode: +10°C till +43°C Outdoor temperature range Heating mode: -10°C till +24°C	Unsuitable for a cooling mode at low outside temperatures as the unit will be switched-off at an outside temperature of -5°C! But: <ul style="list-style-type: none"> • Cooling possible until -5°C (The low ambient kit LA5 is not compatible) • Oil heater included 	<ul style="list-style-type: none"> • Included – selective type (not activated by the factory) <p>To activate press the „Temporary“-button at the indoor unit for 3 seconds (behind the inlet grill assy)</p>

Digital Inverter Hi-wall



- Attractive design
- Active air purification (Super-oxi-deo and super-sterilizer filter)
- Low noise level, 3-stage fan
- Automatic restart function after power failure

Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Digital Inverter Hi-wall (Infrared remote control included, TCC-link remote control optional)									
RAV-SM562(4)KRT-E	5,1 (1,5-5,6)	5,6 (1,5-6,3)	C/C	298/998/221 550/780/290	1,74	1,70	54 65	495,-- 1.275,--	1.770,--
RAV-SM802(4)KRT-E	6,7 (1,5-8,0)	8,0 (1,5-9,0)	E/D	298/998/221 550/780/290	2,72	2,67	60 67	510,-- 1.635,--	2.145,--

Model change to series 4 coming autumn 2011

Super Digital Inverter Hi-wall



- Attractive design
- Active air purification (Super-oxi-deo and super-sterilizer filter)
- Low noise level, 3-stage fan
- Automatic restart function after power failure

Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Super Digital Inverter Hi-wall (Infrared remote control included, TCC-link remote control optional)									
RAV-SM562(4)KRT-E	5,0 (1,2-5,6)	5,6 (0,9-7,3)	A/A	298/998/221 550/780/290	1,56	1,55	54 64	495,-- 1.570,--	2.065,--
RAV-SM802(4)KRT-E	6,9 (1,9-8,0)	8,0 (1,3-10,6)	C/C	298/998/221 890/900/290	2,88	2,40	60 65	510,-- 2.015,--	2.525,--

Model change to series 4 coming autumn 2011



Digital Inverter Flexi

- Unobtrusive installation
- Wide application range: installation as ceiling or hi-wall unit possible

Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Digital Inverter Flexi (Infrared remote control included)									
RAV-SM562XT-E	5,0 (1,5-5,6)	5,6 (1,5-6,3)	D/C	208/1093/633 550/780/290	1,87	1,70	58 65	645,-- 1.275,--	1.920,--
RAV-SM802XT-E	6,7 (1,5-7,0)	8,0 (1,5-9,0)	E/D	208/1093/633 550/780/290	2,72	2,67	61 67	686,-- 1.635,--	2.321,--



Digital Inverter Ceiling

- Compact design – height of only 210 mm
- Low sound level
- Fresh air intake possible

Type	Capacity [kW]		Energy label C. / H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Digital Inverter Ceiling									
RAV-SM562(4)CT-E	5,0 (1,5-5,6)	5,6 (1,5-6,3)	D/B	210/910/680 550/780/290 -	1,82	1,64	51 65 -	970,-- 1.275,-- 90,--	2.335,--
RAV-SM563AT-E									
RBC-AMT32E									
RAV-SM802(4)CT-E	7,0 (1,5-7,4)	8,0 (1,5-9,0)	D/C	210/1180/680 550/780/290 -	2,53	2,47	53 67 -	1.085,-- 1.635,-- 90,--	2.810,--
RAV-SM803AT-E									
RBC-AMT32E									
RAV-SM1102(4)CT-E	10,0 (3,0-11,2)	11,2 (3,0-12,5)	C/B	210/1595/680 795/900/320 -	3,51	3,20	56 71 -	1.205,-- 2.090,-- 90,--	3.385,--
RAV-SM1103AT-E									
RBC-AMT32E									
RAV-SM1402(4)CT-E	12,3 (3,0-13,2)	14,0 (3,0-16,0)	D/C	210/1595/680 795/900/320 -	4,52	4,14	58 71 -	1.440,-- 2.310,-- 90,--	3.840,--
RAV-SM1403AT-E									
RBC-AMT32E									

Model change to series 4 coming autumn 2011

Super Digital Inverter Ceiling



- Compact design – height of only 210 mm
- Low sound level
- Fresh air intake possible

Type	Capacity [kW]		Energy label C. / H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Super Digital Inverter Ceiling									
RAV-SM562(4)CT-E	5,0 (1,2-5,6)	5,6 (0,9-7,4)	A/A	210/910/680 550/780/290 -	1,56	1,47	51 64 -	970,-- 1.570,-- 90,--	2.630,--
RAV-SP564AT-E									
RBC-AMT32E									
RAV-SM802(4)CT-E	7,1 (1,9-8,0)	8,0 (1,3 -10,6)	A/A	210/1180/680 890/900/290 -	2,10	2,16	53 65 -	1.085,-- 2.015,-- 90,--	3.190,--
RAV-SP804AT-E									
RBC-AMT32E									
RAV-SM1102(4)CT-E	10,0 (3,0-12,0)	11,2 (3,0-13,0)	A/A	210/1595/680 1340/900/320 -	2,67	2,62	56 66 -	1.205,-- 2.550,-- 90,--	3.845,--
RAV-SP1104AT-E									
RBC-AMT32E									
RAV-SM1402(4)CT-E	12,5 (3,0-14,0)	14,0 (3,0-16,5)	A/A	210/1595/680 1340/900/320 -	3,73	3,65	58 68 -	1.440,-- 2.850,-- 90,--	4.380,--
RAV-SP1404AT-E									
RBC-AMT32E									

Model change to series 4 coming autumn 2011

Accessories: RAV Ceiling models

Type	Single price excl. VAT [EUR]
TCB-DP22CE2	250,--
TCB-KP12CE2	80,--
TCB-KP22CE2	95,--

Digital Inverter Duct

- Wide application range
- Suitable for an installation in any suspended ceiling
- Combination with a ventilation system possible
- Fresh air intake possible
- Drain pump with a lift height of 290 mm integrated
- Automatic restart after power failure



Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Digital Inverter Duct									
RAV-SM562(4)BT-E	5,0 (1,5-5,6)	5,6 (1,5-6,3)	C/C	320/700/800 550/780/290 -	1,78	1,71	55 65 -	1.015,-- 1.275,-- 90,--	2.380,--
RAV-SM563AT-E									
RBC-AMT32E									
RAV-SM802(4)BT-E	7,1 (1,5-7,4)	8,0 (1,5-9,0)	C/C	320/1000/800 550/780/290 -	2,53	2,41	55 67 -	1.160,-- 1.635,-- 90,--	2.885,--
RAV-SM803AT-E									
RBC-AMT32E									
RAV-SM1102(4)BT-E	10,0 (3,0-11,2)	11,2 (3,0-12,5)	C/B	320/1350/800 795/900/320 -	3,56	3,14	57 71 -	1.430,-- 2.090,-- 90,--	3.610,--
RAV-SM1103AT-E									
RBC-AMT32E									
RAV-SM1402(4)BT-E	12,5 (3,0-13,2)	14,0 (3,0-16,0)	C/B	320/1350/800 795/900/320 -	4,42	4,03	59 71 -	1.480,-- 2.310,-- 90,--	3.880,--
RAV-SM1403AT-E									
RBC-AMT32E									

Model change to series 4 coming autumn 2011

Super Digital Inverter Duct

- Wide application range
- Suitable for an installation in any suspended ceiling
- Combination with a ventilation system possible
- Fresh air intake possible
- Drain pump with a lift height of 290 mm integrated
- Automatic restart after power failure



Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Super Digital Inverter Duct									
RAV-SM562(4)BT-E	5,0 (1,2-5,6)	5,6 (0,9-7,4)	A/A	320/700/800 550/780/290 -	1,56	1,55	55 64 -	1.015,-- 1.570,-- 90,--	2.675,--
RAV-SP564AT-E									
RBC-AMT32E									
RAV-SM802(4)BT-E	7,1 (1,9-8,0)	8,0 (1,3-10,6)	A/A	320/1000/800 890/900/290 -	2,21	2,21	55 65 -	1.160,-- 2.015,-- 90,--	3.265,--
RAV-SP804AT-E									
RBC-AMT32E									
RAV-SM1102(4)BT-E	10,0 (3,0-12,0)	11,2 (3,0-13,0)	A/A	320/1350/800 1340/900/320 -	2,94	2,77	57 66 -	1.430,-- 2.550,-- 90,--	4.070,--
RAV-SP1104AT-E									
RBC-AMT32E									
RAV-SM1402(4)BT-E	12,5 (3,0-14,0)	14,0 (3,0-16,5)	A/A	320/1350/800 1340/900/320 -	3,83	3,41	59 68 -	1.480,-- 2.850,-- 90,--	4.420,--
RAV-SP1404AT-E									
RBC-AMT32E									

Model change to series 4 coming autumn 2011

Digital Inverter Ultra-slim Duct

- Height of only 210 mm
- Suitable for an installation in any suspended ceiling
- Energy-saving mode possible
- Drain pump with a lift height of 850 mm integrated



Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Digital Inverter Ultra-slim Duct									
RAV-SM564SDT-E	5,0 (1,5-5,6)	5,6 (1,5-6,3)	B/B	210/845/645 550/780/290	1,66	1,59	60 63	1.030,-- 1.275,-- 90,--	2.395,--
RBC-AMT32E									

Super Digital Inverter Ultra-slim Duct

- Height of only 210 mm
- Suitable for an installation in any suspended ceiling
- Energy-saving mode possible
- Drain pump with a lift height of 850 mm integrated



Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Super Digital Inverter Ultra-slim Duct									
RAV-SM564SDT-E	5,0 (1,2-5,6)	5,6 (0,9-7,4)	A/A	210/845/645 550/780/290	1,56	1,44	60 64	1.030,-- 1.570,-- 90,--	2.690,--
RBC-AMT32E									

High-pressure Duct especially for DI BIG

- High-pressure model for single application
- Combination with Digital Inverter BIG
- External static pressure up to 196 Pa



Type	Capacity [kW]			Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
High-pressure Duct – Combination only with DI BIG									
RAV-SM2242DT-E	20,0 (9,8-22,4)	22,4 (9,8-25,0)		470/1380/1250 540/900/320	7,59	6,62	69 74	4.700,-- 4.800,-- 90,--	9.590,--
RAV-SM2244AT8-E									
RBC-AMT32E									
RAV-SM2802DT-E	23,0 (9,8-27,0)	27,0 (9,8-31,5)		470/1380/1250 540/900/320	9,55	7,92	70 75	5.100,-- 5.300,-- 90,--	10.490,--
RAV-SM2804AT8-E									
RBC-AMT32E									

Valve Kit – Digital Inverter, Super Digital Inverter, Digital Inverter Big

- Plug-in ready kit with PC Board, transformer, terminal strip and installation manual
- Remote control RBC-AMT32E has to be ordered separately

Type	Single price excl. VAT [EUR]
DI-Valve kit	1.500,--



Digital Inverter 4-way-cassette

- Choice of 2 panels
- Fresh air intake possible, drain pump included

- Deodorising Ag+ ion capsule
- Automatic restart

Type	Capacity [kW]		Energy label C./H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
Digital Inverter Cassette									
RAV-SM564UT-E				256/840/840 30/950/950 550/780/290			47	920,--	2.565,--
RBC-U31PG(W)-E	5,3 (1,5-5,6)	5,6 (1,5-6,3)	A/A		1,65	1,44	- 65	280,-- 1.275,--	
RAV-SM563AT-E				-			-	90,--	
RBC-AMT32E									
RAV-SM804UT-E				256/840/840 30/950/950 550/780/290			50	1.050,--	3.055,--
RBC-U31PG(W)-E	6,7 (1,5-7,4)	8,0 (1,5-9,0)	A/A		2,09	2,21	- 67	280,-- 1.635,--	
RAV-SM803AT-E				-			-	90,--	
RBC-AMT32E									
RAV-SM1104UT-E				319/840/840 30/950/950 795/900/320			58	1.280,--	3.740,--
RBC-U31PG(W)-E	10,0 (3,0-11,2)	11,2 (3,0-13,0)	A/A		3,11	2,93	- 71	280,-- 2.090,--	
RAV-SM1103AT-E				-			-	90,--	
RBC-AMT32E									
RAV-SM1404UT-E				319/840/840 30/950/950 795/900/320			59	1.440,--	4.120,--
RBC-U31PG(W)-E	12,3 (3,0-13,2)	14,0 (3,0-16,0)	A/A		3,74	3,80	- 71	280,-- 2.310,--	
RAV-SM1403AT-E				-			-	90,--	
RBC-AMT32E									
RAV-SM1604UT-E				319/840/840 30/950/950 1340/500/320			60	1.640,--	4.780,--
RBC-U31PG(W)-E	14,0 (3,0-16,0)	16,0 (3,0-18,0)	B/A		4,49	4,69	- 70	280,-- 2.770,--	
RAV-SM1603AT-E				-			-	90,--	
RBC-AMT32E									

Super Digital Inverter 4-way-cassette

Super Digital Inverter Cassette									
RAV-SM564UT-E				256/840/840 30/950/950 550/780/290			47	920,--	2.860,--
RBC-U31PG(W)-E	5,3 (1,2-5,6)	5,6 (0,9-8,1)	A/A		1,47	1,21	- 64	280,-- 1.570,--	
RAV-SP564AT-E				-			-	90,--	
RBC-AMT32E									
RAV-SM804UT-E				256/840/840 30/950/950 890/900/290			50	1.050,--	3.435,--
RBC-U31PG(W)-E	7,1 (1,9-8,0)	8,0 (1,3-11,3)	A/A		1,86	1,91	- 65	280,-- 2.015,--	
RAV-SP804AT-E				-			-	90,--	
RBC-AMT32E									
RAV-SM1104UT-E				319/840/840 30/950/950 1340/900/320			58	1.280,--	4.200,--
RBC-U31PG(W)-E	10,0 (3,0-12,0)	11,2 (3,0-13,0)	A/A		2,21	2,34	- 66	280,-- 2.550,--	
RAV-SP1104AT-E				-			-	90,--	
RBC-AMT32E									
RAV-SM1404UT-E				319/840/840 30/950/950 1340/900/320			59	1.440,--	4.660,--
RBC-U31PG(W)-E	12,5 (3,0-14,0)	14,0 (3,0-16,5)	A/A		3,16	3,21	- 68	280,-- 2.850,--	
RAV-SP1404AT-E				-			-	90,--	
RBC-AMT32E									
RBC-U31PG(W)-E	Panel for wide air flow							280,--	
RBC-U31PGS(W)-E	Panel for straight air flow							310,--	

Digital Inverter 60x60 Cassette

- Compact design: suitable for all euro-grid ceilings
- Height of only 268 mm
- 4 air louvers for an optimal air distribution
- Fresh air intake possible
- Drain pump included
- Automatic restart after power failure



Type	Capacity [kW]		Energy label C. / H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
60 x 60 euro-grid 4-way-cassette									
RAV-SM562(4)MUT-E							58	890,-	2.555,-
RBC-UM11PG(W)-E	5,0 (1,5-5,6)	5,6 (1,5-6,3)	B/B	268/575/575 27/700/700 550/780/290	1,61	1,61	-	300,-	
RAV-SP564AT-E							65	1.275,-	
RBC-AMT32E							-	90,-	

Super Digital Inverter 60x60 Cassette

- Compact design: suitable for all euro-grid ceilings
- Height of only 268 mm
- 4 air louvers for an optimal air distribution
- Fresh air intake possible
- Drain pump included
- Automatic restart after power failure



Type	Capacity [kW]		Energy label C. / H.	Dimensions [mm] [H/W/D]	Power consumption [kW]		Sound power level [dB(A)]	Single price excl. VAT [EUR]	Set price
	Cooling	Heating			Cooling	Heating			
60 x 60 euro-grid 4-way-cassette									
RAV-SM562(4)MUT-E							58	890,-	2.850,-
RBC-UM11PG(W)-E	5,0 (1,2-5,6)	5,6 (0,9-7,4)	A/A	268/575/575 27/700/700 550/780/290	1,56	1,54	-	300,-	
RAV-SP564AT-E							64	1.570,-	
RBC-AMT32E							-	90,-	

Super Digital Inverter – 3-phase

- 3-phase electrical supply
- High-performance outdoor unit for combination with 4-way-cassette or TWIN/TRIPLE-application

Type	Capacity [kW]			Dimensions [mm] [H/W/D]	Power consumption [kw]		Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling	Heating			Cooling	Heating		
3-phase Super Digital Inverter (outdoor unit)								
RAV-SP1104AT8-E	10,0	11,2		1340/900/320	2,37	2,42	67	2.970,-
RAV-SP1404AT8-E	12,5	14,0		1340/900/320	3,46	3,42	69	3.100,-
RAV-SP1604AT8-E	14,0	16,0		1340/900/320	4,49	4,30	70	3.550,-

Digital Inverter BIG – multi solutions

- Reasonable multi outdoor unit for one temperature zone
- Compact outdoor unit with an air outlet to the front
- Piping up to 70 m length
- Heating up to -20 °C
- Twin, triple and W-twin combination possible



Type	Capacity [kW]		HP	Dimensions [mm] [H/W/D]	Power consumption [kw]		Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling	Heating			Cooling	Heating		
DI – Big outdoor unit								
RAV-SM2244AT8-E	20,0	22,4	8	1540/900/320	7,59	6,62	72/74	4.800,--
RAV-SM2804AT8-E	23,0	27,0	10	1540/900/320	9,55	7,92	74/75	5.300,--

Joints for multi installations

Type	Description	Single price excl. VAT [EUR]
Digital Inverter BIG		
RBC-TWP101E	Twin kit 22,4 and 28,0 kW	170,--
RBC-TRP100E	Triple kit 22,4 and 28,0 kW	260,--
RBC-DTWP101E	Double twin kit 22,4 and 28,0 kW	230,--
Digital Inverter / Super Digital Inverter		
RBC-TWP30E2	Twin kit 11,2 kW	85,--
RBC-TWP50E2	Twin kit 14,0 kW	90,--
RBC-TRP100E	Triple kit 16,0 kW	260,--

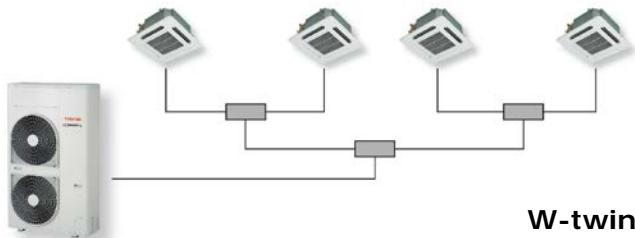


Table of combinations – Digital Inverter BIG

System	Indoor units (kW) **		
	Twin	Triple	W-twin
22,4 kW	11,2 + 11,2 (kW)	8,0 + 8,0 + 8,0 (kW)	5,6 + 5,6 + 5,6 + 5,6 (kW)
28,0 kW	14,0 + 14,0 (kW)	8,0 + 8,0 + 8,0 (kW)	8,0 + 8,0 + 8,0 + 8,0 (kW)

Table of combinations – Digital Inverter, Super Digital Inverter

System	Indoor units (kW) **	
	Twin	Triple
11,0 kW	5,6 + 5,6 (kW)	--
14,0 kW	8,0 + 8,0 (kW)	--
16,0 kW	8,0 + 8,0 (kW)	5,6 + 5,6 + 5,6 (kW)

** Indoor unit types have to be identical

VRF SYSTEMS

MiNi-Super Multi System (MiNi S-MMS)

- 2-pipe heat pump system with very high COPs of up to 4,29
 - 3 compact outdoor units are available from 12,1 to 15,5 kW
 - Depending on the capacity of the outdoor and indoor units 6, 8 or 9 indoor units can be connected

Super Heat Recovery System (S-HRM)

- 3-pipe system which enables simultaneous and independent cooling and heating
 - Very high energy efficiency (EER up to 3,7 / COP up to 4,0)
 - Capacity range: 8 to 30 HP

Super Modular Multi System i (SMMSi)

- 2-pipe system in heat pump version
 - Capacity range: 22,4 kW (8 HP) up to 135 kW (48 HP); outdoor units with 8, 10, 12, 14 and 16 HP
 - Up to 48 indoor units can be connected





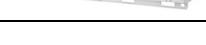
Super Modular Multi System i Outdoor units – heat pump

Type	Capacity			Dimensions (H/W/D) [mm]	Weight [kg]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Outdoor unit „heat pump“							
MMY-MAP0804HT8-E	22,4	25,0	8	1830/990/755	241	55/56	8.700,--
MMY-MAP1004HT8-E	28,0	31,5	10	1830/990/755	241	57/58	9.400,--
MMY-MAP1204HT8-E	33,5	37,5	12	1830/990/755	241	59/62	11.200,--
MMY-MAP1404HT8-E	40,0	45,0	14	1830/1210/755	329	60/62	13.000,--
MMY-MAP1604HT8-E	45,0	50,0	16	1830/1210/755	329	62/64	14.700,--

Outdoor unit - series „heat pump“

Cooling capacity kW	Heating capacity kW	Model name	Quantity of outdoor units	Max. number of indoor units		Price excl. VAT [EUR]
22,4	25,0	MMY-MAP0804HT8-E	1	13		8.700,--
	31,5	MMY-MAP1004HT8-E	1	16		9.400,--
	37,5	MMY-MAP1204HT8-E	1	20		11.200,--
	45,0	MMY-MAP1404HT8-E	1	23		13.000,--
	50,0	MMY-MAP1604HT8-E	1	27		14.700,--
50,4	56,5	MMY-AP1814HT8-E	2	30		18.100,--
	63,0	MMY-AP2014HT8-E	2	33		18.800,--
	60,0	MMY-AP2214HT8-E	2	37		20.600,--
	76,5	MMY-AP2414HT8-E	2	40		22.400,--
	81,5	MMY-AP2614HT8-E	2	43		24.100,--
	88,0	MMY-AP2814HT8-E	2	47		25.900,--
	95,0	MMY-AP3014HT8-E	2	48		27.700,--
	100,0	MMY-AP3214HT8-E	2	48		29.400,--
96,0	108,0	MMY-AP3414HT8-E	3	48		31.800,--
	113,0	MMY-AP3614HT8-E	3	48		33.600,--
	119,5	MMY-AP3814HT8-E	3	48		35.300,--
	127,0	MMY-AP4014HT8-E	3	48		37.100,--
	132,0	MMY-AP4214HT8-E	3	48		38.900,--
	138,0	MMY-AP4414HT8-E	3	48		40.600,--
	145,0	MMY-AP4614HT8-E	3	48		42.400,--
	150,0	MMY-AP4814HT8-E	3	48		44.100,--

SMMSi outdoor unit - series „heat pump“ „High-efficiency models“

Cooling capacity kW	Heating capacity kW	Model name	Quantity of outdoor units	Max. number of indoor units		Price excl. VAT [EUR]
45,0	50,0	MMY-AP1624HT8-E	2	27		17.400,--
68,0	76,5	MMY-AP2424HT8-E	3	40		26.100,--
73,0	81,5	MMY-AP2624HT8-E	3	43		26.800,--
78,5	88,0	MMY-AP2824HT8-E	3	47		27.500,--
85,0	95,0	MMY-AP3024HT8-E	3	48		28.200,--
90,0	100,0	MMY-AP3224HT8-E	4	48		34.800,--
96,0	108,0	MMY-AP3424HT8-E	4	48		35.500,--
101,0	113,0	MMY-AP3624HT8-E	4	48		36.200,--
106,5	119,5	MMY-AP3824HT8-E	4	48		36.900,--
112,0	127,0	MMY-AP4024HT8-E	4	48		37.600,--
118,0	132,0	MMY-AP4224HT8-E	4	48		39.400,--
123,5	138,0	MMY-AP4424HT8-E	4	48		41.200,--
130,0	145,0	MMY-AP4624HT8-E	4	48		43.000,--
135,0	150,0	MMY-AP4824HT8-E	4	48		44.800,--

MiNi S-MMS

- Compact inverter operated outdoor units
- Low sound level
- 230 V power supply
- Diversity 80 – 130 %
- PMV-kit optional for bedrooms



Type	Capacity			Dimensions (H/W/D) [mm]	Weight [kg]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling	Heating	HP Code				
Outdoor units MiNi S-MMS							
MCY-MAP0401HT ¹⁾	12,1	12,5	4	1340/900/320	117	67	4.600,--
MCY-MAP0501HT ²⁾	14,0	16,0	5	1340/900/320	117	69	4.700,--
MCY-MAP0601HT ³⁾	15,5	18,0	6	1340/900/320	117	70	5.200,--

¹⁾ Max. 6 indoor units ²⁾ max. 8 indoor units ³⁾ max. 9 indoor units

ACCESSORIES optional: PMV-KIT



RBM-PMV0361E	Optional valve kit for a special quiet operation; indoor unit types: 007, 009, 012	240,--
RBM-PMV0901E	Optional valve kit for a special quiet operation; indoor unit types: 015, 018, 024	270,--

Super-Heat Recovery Multi System (S-HRM)

Outdoor units



- 3-pipe heat recovery system
- Simultaneous heating and cooling
- Indoor units and control systems for S-HRM are the same as for S-MMSi systems

Type	Capacity			Dimensions (H/W/D) [mm]	Weight [kg]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Outdoor units S-HRM							
MMY-MAP0802FT8-E *	22,4	25,0	8	1800/990/750	263	78	11.000,--
MMY-MAP1002FT8-E *	28,0	31,5	10	1800/990/750	263	79	12.300,--
MMY-MAP1202FT8-E *	33,5	37,5	12	1800/990/750	263	80	14.800,--

* No stock article; delivery time on request

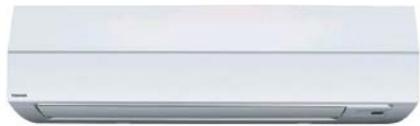
S-HRM Flow selectors



Type	Connectable indoor units:	Dimensions (H/W/D) [mm]	Weight [kg]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
RBM-Y1122FE *	007 to 030	190/250/160	5	-	650,--
RBM-Y1802FE *	036 to 056	190/250/160	5	-	700,--
RBM-Y2802FE *	072 to 096	200/377/200	8	-	1.150,--

* No stock article; delivery time on request

VRF Compact Hi-wall – series 3



- New, modern Design with a flat panel
- Same dimensions for all types
- New infrared remote control included

Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Hi-wall							
MMK-AP0073H	2,2	2,5	0,8	320/1050/228	108/125/158	50/46/43	830,--
MMK-AP0093H	2,8	3,2	1	320/1050/228	108/133/167	52/47/43	840,--
MMK-AP0123H	3,6	4,0	1,25	320/1050/228	108/133/167	52/47/43	850,--
MMK-AP0153H	4,5	5,0	1,7	320/1050/228	150/183/233	56/51/48	950,--
MMK-AP0183H	5,6	6,3	2,0	320/1050/228	150/183/233	56/51/48	970,--
MMK-AP0243H	7,1	8,0	2,5	320/1050/228	158/208/283	61/54/49	980,--

VRF Compact Hi-wall– series 2 (4)



- Modern Design
- Very compact dimensions
- Infrared remote control with a 24-hours timer included (WH-H2UE)

Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Compact Hi-wall							
MMK-AP0072H (74MH-E)	2,2	2,5	0,8	275/790/208	100/117/133	50/47/44	830,--
MMK-AP0092H (94MH-E)	2,8	3,2	1	275/790/208	100/125/142	51/48/44	840,--
MMK-AP0122H (124MH-E)	3,6	4,0	1,25	275/790/208	100/125/150	52/48/44	850,--

Model change to series 4 coming autumn 2011

VRF Ceiling



- Low construction height, easy installation
- Refrigerant pipes can be inserted from the rear, right or the top side of the unit
- Drain pipes can be conducted in two different directions

Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Ceiling							
MMC-AP0151H (0154H-E)	4,5	5,0	1,7	210/910/680	150/167/200	50/47/45	1.430,--
MMC-AP0181H (0184H-E)	5,6	6,3	2	210/910/680	150/183/217	51/48/45	1.490,--
MMC-AP0241H (0244H-E)	7,1	8,0	2,5	210/1180/680	233/250/308	53/51/48	1.570,--
MMC-AP0271H (0274H-E)	8,0	9,0	3	210/1180/680	233/250/308	53/51/48	1.680,--
MMC-AP0361H (0364H-E)	11,2	12,5	4	210/1595/680	333/383/458	56/53/50	1.860,--
MMC-AP0481H (0484H-E)	14,0	16,0	5	210/1595/680	367/433/500	58/55/52	2.080,--

Model change to series 4 coming autumn 2011

TCB-DP22CE2 Drain pump	Lift 600 mm, measured from the bottom edge of the unit	250,--
TCB-KP12CE2 Elbow piping kit	MMC-AP0151-0181H (0154-184H-E)	80,--
TCB-KP22CE2 Elbow piping kit	MMC-AP0241-0481H (0244-0484H-E)	95,--

VRF Slim Duct



- Height of only 230 mm
- Drain pump with a lift height of 850 mm integrated (measured from the bottom edge of the unit)
- Air supply from below or behind possible, filter for a rear air supply included

Type	Capacity			(H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Slim Duct							
MMD-AP0071SPH (0074SPH-E)	2,2	2,5	0,8	210/845/645	150	51/48/45	1.270,--
MMD-AP0091SPH (0094SPH-E)	2,8	3,2	1	210/845/645	150	51/48/45	1.300,--
MMD-AP0121SPH (0124SPH-E)	3,6	4,0	1,25	210/845/645	175	53/50/47	1.370,--
MMD-AP0151SPH (0154SPH-E)	4,5	5,0	1,7	210/845/645	192	54/51/48	1.430,--
MMD-AP0181SPH (0184SPH-E)	5,6	6,3	2	210/845/645	217	55/53/51	1.500,--

Model change to series 4 coming autumn 2011

VRF Standard Duct



- Easy installation in suspended ceiling through the low height of only 320 mm
- Connection to fresh air intake possible, filter for a rear air supply included
- Drain pump with a lift height of 550 mm integrated (measured from the bottom edge of the unit)

Standard Duct							
MMD-AP0071BH (0074BH-E)	2,2	2,5	0,8	320/550/800	94/117/133	52/49/46	1.320,--
MMD-AP0091BH (0094BH-E)	2,8	3,2	1	320/550/800	94/117/133	52/49/46	1.350,--
MMD-AP0121BH (0124BH-E)	3,6	4,0	1,25	320/550/800	111/136/158	53/50/47	1.360,--
MMD-AP0151BH (0154BH-E)	4,5	5,0	1,7	320/700/800	133/150/181	54/51/47	1.400,--
MMD-AP0181BH (0184BH-E)	5,6	6,3	2	320/700/800	150/183/217	55/52/48	1.450,--
MMD-AP0241BH (0244BH-E)	7,1	8,0	2,5	320/1000/800	242/275/317	55/52/49	1.610,--
MMD-AP0271BH (0274BH-E)	8,0	9,0	3	320/1000/800	242/275/317	55/52/49	1.680,--
MMD-AP0301BH (0304BH-E)	9,0	10,0	3,2	320/1000/800	242/300/350	56/53/50	1.820,--
MMD-AP0361BH (0364BH-E)	11,2	12,5	4	320/1350/800	333/392/450	57/54/51	1.980,--
MMD-AP0481BH (0484BH-E)	14,0	16,0	5	320/1350/800	414/475/550	59/56/53	2.150,--
MMD-AP0561BH (0564BH-E)	16,0	18,0	6	320/1350/800	414/475/550	59/56/53	2.350,--

Model change to series 4 coming autumn 2011

VRF High Static Pressure Duct



- External static pressure of up to 196 Pa
- Inspection hole for an easier maintenance

High Static Pressure Duct							
MMD-AP0181H (0184H-E)	5,6	6,3	2	380/850/660	200/250/300	57	1.880,--
MMD-AP0241H (0244H-E)	7,1	8,0	2,5	380/850/660	295/367/439	60	2.060,--
MMD-AP0271H (0274H-E)	8,0	9,0	3	380/850/660	295/367/439	60	2.150,--
MMD-AP0361H (0364H-E)	11,2	12,5	4	380/850/660	356/444/533	60	2.250,--
MMD-AP0481H (0484H-E)	14,0	16,0	5	380/1200/660	467/583/700	60	2.350,--
MMD-AP0721H (0724H-E)	22,4	25,0	8	470/1380/1250	800/1000/1200	69	4.800,--
MMD-AP0961H (0964 H-E)	28,0	31,5	10	470/1380/1250	933/1167/1400	70	5.000,--

Model change to series 4 coming autumn 2011

VRF Duct with fresh air intake



- Preheat and precool function; only usable in combination with other VRF-master indoor units

Duct with fresh air intake							
MMD-AP0481HFE	14,0	16,0	5	492/892/1262	300	60/58/56	2.500,--
MMD-AP0721HFE	22,4	25,0	8	492/1392/1262	467	61/60/59	5.000,--
MMD-AP0961HFE	28,0	31,5	10	492/1392/1262	583	61/60/59	5.400,--

VRF Compact 4-way-cassette (60x60)



- Fits into any euro-grid suspended ceiling
- Drain pump with a lift height of 850 mm included
- Height of only 270 mm

Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
4-way-cassette 60x60							
MMU-AP0071MH (0074MH-E)	2,2	2,5	0,8	268/575/575	153/128/105	51/47/43	1.250,--
MMU-AP0091MH (0094MH-E)	2,8	3,2	1	268/575/575	158/130/105	52/48/43	1.350,--
MMU-AP0121MH (0124MH-E)	3,6	4,0	1,25	268/575/575	165/140/112	52/48/44	1.400,--
MMU-AP0151MH (0154MH-E)	4,5	5,0	1,7	268/575/575	183/153/130	55/50/45	1.480,--
MMU-AP0181MH (0184MH-E)	5,6	6,3	2	268/575/575	212/178/145	59/54/49	1.560,--

Model change to series 4 coming autumn 2011

Panel

RBC-UM11PG(W)-E	--	--	--	27/700/700	--	--	300,--
-----------------	----	----	----	------------	----	----	--------

VRF 4-way-cassette – standard



- Quadratic design (840x840 mm) with the choice of 2 different panels
- Drain pump with a lift height of 850 mm included (measured from the bottom edge of the panel)
- Fresh air intake possible
- Infrared remote control kit optional

Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
4-way-cassette							
MMU-AP0092H	2,8	3,2	1	256/840/840	189/203/222	45/44/42	1.260,--
MMU-AP0122H	3,6	4,0	1,25	256/840/840	189/203/222	45/44/42	1.300,--
MMU-AP0152H	4,5	5,0	1,7	256/840/840	219/231/258	46/44/42	1.360,--
MMU-AP0182H	5,6	6,3	2	256/840/840	222/256/292	47/44/42	1.400,--
MMU-AP0242H	7,1	8,0	2,5	256/840/840	228/256/333	50/46/43	1.470,--
MMU-AP0272H	8,0	9,0	3	256/840/840	228/256/333	50/46/43	1.550,--
MMU-AP0302H	9,0	10,0	3,2	256/840/840	236/308/367	53/48/45	1.640,--
MMU-AP0362H	11,2	12,5	4	319/840/840	297/361/467	58/53/47	1.910,--
MMU-AP0482H	14,0	16,0	5	319/840/840	314/397/567	61/53/48	2.100,--
MMU-AP0562H	16,0	18,0	6	319/840/840	342/422/581	61/55/48	2.200,--

Panels

RBC-U31PG(W)-E	for wide air flow	35/950/950	--	--	280,--
RBC-U31PGS(W)-E	for straight air flow	35/950/950	--	--	310,--

VRF 2-way-cassette

- Small sizes available (from 2,2 kW upwards)
- Fresh air intake
- Quiet operation
- Drain pump with a lift height of 510 mm included (measured from the bottom edge of the panel)



Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s] [l-m-h]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
2-way-cassette							
MMU-AP0072WH	2,2	2,5	0,8	295/815/570	125/138/155	t.b.a.	1.270,--
MMU-AP0092WH	2,8	3,2	1,0	295/815/570	125/138/155	t.b.a.	1.320,--
MMU-AP0122WH	3,6	4,0	1,25	295/815/570	125/138/155	t.b.a.	1.350,--
MMU-AP0152WH	4,5	5,0	1,7	295/815/570	125/148/167	t.b.a.	1.390,--
MMU-AP0182WH	5,6	6,3	2,0	345/1180/570	172/208/250	t.b.a.	1.430,--
MMU-AP0242WH	7,1	8,0	2,5	345/1180/570	205/233/292	t.b.a.	1.520,--
MMU-AP0272WH	8,0	9,0	3,0	345/1180/570	205/233/292	t.b.a.	1.570,--
MMU-AP0302WH	9,0	10,0	3,2	345/1180/570	217/250/350	t.b.a.	1.690,--
MMU-AP0362WH	11,2	12,5	4,0	345/1600/570	328/398/483	t.b.a.	2.040,--
MMU-AP0482WH	14,0	16,0	5,0	345/1600/570	350/412/500	t.b.a.	2.220,--
MMU-AP0562WH	16,0	18,0	6,0	345/1600/570	367/438/567	t.b.a.	2.450,--

Panels

RBC-UW283PG(W)-E	MMU-AP0072 to 0152WH	20/1050/680	--	--	380,--
RBC-UW803PG(W)-E	MMU-AP0182 to 0302WH	20/1415/680	--	--	500,--
RBC-UW1403PG(W)-E	MMU-AP0362 to 0562WH	20/1835/680	--	--	580,--

VRF 1-way-cassette

- Small sizes available (from 2,2 kW upwards)
- Fresh air intake
- Quiet operation
- Drain pump with a lift height of 350 mm (YH) or 510 mm (SH) included (measured from the bottom edge of the panel)



Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
1-way-cassette							
MMU-AP0071YH (0074YH-E)	2,2	2,5	0,8	235/850/400	117/133/150	57/54/49	1.450,--
MMU-AP0091YH (0094YH-E)	2,8	3,2	1	235/850/400	117/133/150	57/54/49	1.470,--
MMU-AP0121YH (0124YH-E)	3,6	4,0	1,25	235/850/400	117/133/150	57/54/49	1.500,--
MMU-AP0152SH (0154 SH-E)	4,5	5,0	1,7	200/1000/710	175/192/208	57/54/51	1.390,--
MMU-AP0182SH (0184SH-E)	5,6	6,3	2	200/1000/710	183/200/216	57/54/51	1.550,--
MMU-AP0242SH (0244SH-E)	7,1	8,0	2,5	200/1000/710	225/266/316	58/56/52	1.640,--

Model change to series 4 coming autumn 2011

Panels

RBC-UY136PG	MMU-AP0071/0091/0121YH	18/1050/470	--	--	350,--
RBC-US21PGE	MMU-AP0152/0182/0242SH	20/1230/800	--	--	520,--



VRF Chassis

- Perfect for offices and other commercial buildings
- No interfering with the interior due to total fitment

Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Chassis							
MML-AP0071BH (0074BH-E)	2,2	2,5	0,8	600/745/220	83/111/128	54/52/50	1.400,--
MML-AP0091BH (0094BH-E)	2,8	3,2	1	600/745/220	83/111/128	54/52/50	1.420,--
MML-AP0121BH (0124BH-E)	3,6	4,0	1,25	600/745/220	83/111/128	54/52/50	1.470,--
MML-AP0151BH (0154BH-E)	4,5	5,0	1,7	600/1045/220	136/167/206	54/52/50	1.500,--
MML-AP0181BH (0184BH-E)	5,6	6,3	2	600/1045/220	136/167/206	54/52/50	1.520,--
MML-AP0241BH (0244BH-E)	7,1	8,0	2,5	600/1045/220	178/220/264	60/55/51	1.550,--

Model change to series 4 coming autumn 2011

VRF Console

- Bi-flow console with air outlet at the top and/or at the bottom
- Floor heating function with little air flow
- Infrared remote control included



Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s] [l/m/h]	Sound power level [dB(A)] [h/m/n]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Console							
MML-AP0074NH-E	2,2	2,5	0,8	600/700/220	78/102/142	53/47/41	1.180,--
MML-AP0094NH-E	2,8	3,2	1	600/700/220	78/102/142	53/47/41	1.250,--
MML-AP0124NH-E	3,6	4,0	1,25	600/700/220	90/113/153	55/49/44	1.320,--
MML-AP0154NH-E	4,5	5,0	1,7	600/700/220	107/134/173	58/52/46	1.410,--
MML-AP0184NH-E	5,6	6,3	2	600/700/220	118/147/202	62/55/49	1.470,--



VRF Floor

- Easy installation because of flexible connection variations
- Air outlet from the front or the rear

Type	Capacity			Dimensions (H/W/D) [mm]	Air flow volume [l/s]	Sound power level [dB(A)]	Single price excl. VAT [EUR]
	Cooling [kW]	Heating [kW]	HP Code				
Floor							
MMF-AP0151H (0154H-E)	4,5	5,0	1,7	1750/600/210	183/217/250	64/61/56	2.070,--
MMF-AP0181H (0184H-E)	5,6	6,3	2	1750/600/210	183/217/250	64/61/56	2.100,--
MMF-AP0241H (0244H-E)	7,1	8,0	2,5	1750/600/210	233/283/333	67/63/58	2.190,--
MMF-AP0271H (0274H-E)	8,0	9,0	3	1750/600/210	233/283/333	67/63/58	2.200,--
MMF-AP0361H (0364H-E)	11,2	12,5	4	1750/600/390	383/467/533	69/66/62	2.350,--
MMF-AP0481H (0484H-E)	14,0	16,0	5	1750/600/390	433/517/600	72/68/64	2.380,--
MMF-AP0561H (0564H-E)	16,0	18,0	6	1750/600/390	433/517/600	72/68/64	2.400,--

Note: no stock article - delivery time on request! Model change to series 4 coming autumn 2011!

VRF Valve kit

- Plug-in ready, wired kit consisting of electronic control box, PC board, transformer, remote control RBC-AMT32E, PMV-motor, all necessary sensors and an installation manual

Type	Single price excl. VAT [EUR]
MM-DXC010	1.100,--
MM-DXV080	250,--
MM-DXV140	265,--
MM-DXV280	280,--

Air-to-Air Heat Exchanger

- Ventilation with heat recovery
- High-efficient fresh air supply
- Up to 75 % of the energy can be recovered
- TCC-link-connection (for central control) possible



Type	Air flow volume [m³/h] high	Dimensions (H/W/D) [mm]	Single price excl. VAT [EUR]
Air-to-Air Heat Exchanger			
VN-M150HE	150	900/900/290	1.490,--
VN-M250HE	250	900/900/290	1.520,--
VN-M350HE	350	900/900/290	1.650,--
VN-M500HE	500	1140/1140/350	2.100,--
VN-M650HE	650	1140/1140/350	2.500,--
VN-M800HE	800	1189/1189/400	2.900,--
VN-M1000HE	1000	1189/1189/400	3.300,--
Air-to-Air Heat Exchanger with DX coil			
MMD-VN502HEXE	500	430/1140/1690	4.300,--
MMD-VN802HEXE	800	430/1189/1739	5.150,--
MMD-VN1002HEXE	950	430/1189/1739	6.000,--
Air-to-Air Heat Exchanger with DX coil and Humidifier			
MMD-VNK502HEXE	500	430/1140/1690	5.700,--
MMD-VNK802HEXE	800	430/1189/1739	7.650,--
MMD-VN1002KHEXE	350	430/1189/1739	8.900,--
Remote control			
NRC-01HE			100,--

Special accessories RAV / VRF

Type	Description	Packing unit	Price per packing unit excl. VAT [EUR]
Connector with cable: Connecting cable (50 cm) plus connector for the control of external equipment			
TCB-KBCN32VEE	Connector with cable for CN32	50 pcs.	180,--
TCB-KBCN60OPE	Connector with cable for CN60	50 pcs.	360,--
TCB-KPCN61HAE	Connector with cable for CN61	50 pcs.	360,--
TCB-KBCN70OAE	Connector with cable for CN70	50 pcs.	180,--
TCB-KBCN73DEE	Connector with cable for CN73	50 pcs.	180,--
TCB-KBCN80EXE	Connector with cable for CN80	50 pcs.	180,--

TCC-link Remote Controls / Control Options

Type / Description		Single price excl. VAT [EUR]
	RBC-AMT32E – Remote control LCD display, temperature setting, mode selection, fan speed control, 168 hours on/off timer, louver control, room temperature sensor, up to 8 units controllable simultaneously, fault diagnosis system, filter warning lamp	90,--
	RBC-AMS41E – Remote control with integrated weekly timer Same functions as remote control RBC-AMT32E but with an integrated weekly timer, in doing so 8 occasion per day can be programmed	105,--
	RBC-AMS51E-ES – Comfort remote control New remote control with weekly timer and multilingual menu navigation (D,E,...), modern design, backlight, hot keys for easy operation, remote TA-sensor integrated	140,--
	RBC-AS21E2 – Easy remote control Same functions as remote control RBC-AMT32E but without an integrated weekly timer; compatible with TCB-SC642TLE2 (central remote control) but not with TCB-EXS21TLE (7-day-timer)	100,--
	TCB-EXS21TLE – 7-day-timer LCD display, 3 different on-/off-time settings (programs) can be programmed per day, each weekday (Mo-Su) can be individually programmed with these 3 programs, holiday function, combination with TCB-SC642TLE2 (central remote control) or alone directly to the TCC-link bus	370,--
	RBC-AX31U(W)-E – Infrared remote control + receiver kit for the new 4-way-cassette (DI/S-DI series 4 or SMMSi series 2) like RBC-AMT32E, but wireless, not compatible with weekly timer; address setting as well as the setting for the automatic restart function are not possible via the infrared remote control	215,--
	RBC-AX22CE2 – Infrared remote control + receiver kit for ceiling types and 1-way-cassette (series SH) like RBC-AMT32E, but wireless, not compatible with weekly timer; receiver kit can be installed easily on the unit; address setting as well as the setting for the automatic restart function are not possible via the infrared remote control	240,--
	RBC-AX23UW(W)-E Infrared remote control + receiver for 2-way-cassette (series 2) like RBC-AMT32E, but wireless, not compatible with weekly timer; receiver kit can be installed easily on the unit; address setting as well as the setting for the automatic restart function are not possible via the infrared remote control	240,--
	TCB-AX21E2 – Infrared remote control with external receiver kit Infrared remote control kit suitable for all DI/S-DI and SMMSi indoor units (exception: SMMSi duct type units with high static pressure); address setting as well as the setting for the automatic restart function are not possible via the infrared remote control	360,--
	TCB-SC642TLE2 – Central remote control Individual control of up to 64 units or groups of unit (per zone 8 units can be controlled simultaneously), SMMSi indoor units can be controlled directly, DI and S-DI indoor units need the adapter TCB-PCNT30TLE2	950,--
	TCB-CC163TLE2 – On-/Off control for 16 indoor units 16 indoor units can be switched on or off individually or simultaneously within a SMMSi/S-HRM system	990,--

TCC-link Remote Controls / Control Option

Type/ Description	Single price excl. VAT [EUR]
TCB-IFCB-4E2 Fault, indication and remote on/off module Provides fault and indication contacts; connections for external on/off	310,--
TCB-IFCB-5PE Window switch & on/off Control board for remote on/off and window switch control	t.b.a
TCB-TC21LE2 – Remote temperature sensor Chassis with external room temperature sensor	90,--
TCB-PCNT30TLE2 – TCC-link adapter Adapter of DI & S-DI TCC-link to SMMSi TCC-link	110,--
TCB-PX30MUE Installation box for TCB-PCNT30TLE (necessary only for 60x60 cassette RAV-SM562MUT-E)	85,--
TCB-PCOS1E2 – Application control kit for DI outdoor units series 1, 2 and 3 Inputs for reduction of capacity and sound, output for compressor „on“	200,--
TCB-KBOS1E – CDU control for S-DI outdoor units series 4 (sizes 11 + 14) and DI Big	35,--

VRF Control Options / Software

Type / Description	Single price excl. VAT [EUR]
 BMS-TP0641ACE Touch screen and controller 12" TFT display with 600x800 pixel and input by touch screen; 240 MHz processor with windows CE; <ul style="list-style-type: none"> * Individual control of up to 64 indoor units * Record of operation data logging / failure diagnosis * Display of device status, operation mode, room temperature * On/off * Temperature setting * Operation mode setting * Individual and group control * Timer * Failure diagnosis system 	8.200,--
BMS-TP5121ACE Touch screen and controller Like BMS-TP0641ACE but for the individual control of up to 512 indoor units	9.500,--
BMS-TP0641PWE Touch screen and controller - with electrical bill calculation Like BMS-TP0641ACE but with an electrical bill calculation	9.000,--
BMS-TP5121PWE Touch screen and controller - with electrical bill calculation Like BMS-TP0641ACE but for the individual control of up to 512 indoor units and with an electrical bill calculation	9.990,--
BMS-IFLSV4E TCS-net relay interface Interface between touch screen control and BACnet server or TCC-link; for max. 64 indoor units or max. 16 systems	960,--
BMS-IFWH5E Energy monitoring relay interface Electrical bill calculation with daily or monthly calculation; kWh-meter must be installed on site (10-99 pulse per kWh) / for max. 8 kWh-meter	1.090,--
BMS-IFDD03E Digital input/output relay interface 3 inputs / 1 output	1.090,--

VRF Control Options / Software

Type / Description		Single price excl. VAT [EUR]
	TCB-IFLN642TLE LonWorks gateway for TCC-link for controlling up to 64 indoor units	1.600,--
	RBC-WP1-PE Software „Interactive Intelligence II“ for controlling of SMMSi/S-HRM via computer (optional LonWorks interface TCB-IFLN642TLE necessary)	6.000,--
	BMS-LSV6E BACnet server Adapter for connection of TCC-link network to an BACnet-system	4.600,--
	BMS-STBN08E BACnet server software Software for BMS-LSV6E	4.400,--
	BMS-CM1280TLE - Compliant Manager Standard Central remote control for up to 128 indoor unit; is connected directly to the TCC-link bus of the outdoor unit	1.900,--
	BMS-SM1280HTLE - Smart Manager Central remote control for up to 128 indoor units; Computer control via network, 7-day-timer and electrical bill calculation (for electrical bill calculation the BMS-IFWH5E energy monitoring relay interface + kWh-meter + computer with excel is necessary); connected directly to TCC-link bus of the outdoor unit	2.200,--
	BMS-WB2561PWE - Web based controller Internet server for up to 256 indoor units; connection to TCC-link bus of the outdoor unit via one or several TCS-net relay interface BMS-IFLSV4E	5.000,--
	BMS-WB01GTE - Web based controller Internet server for up to 2048 indoor units; connection of up to 8 BMS-WB2561PWE web based controller via Ethernet	5.000,--
	TCB-IFMB640TLE - ModBus interface Adapter for connecting TCC-link network to a modbus system	2.000,--
	TCB-IFGSM1E - GSM control interface Module for control of DI/S-DI and SMMSi indoor units or Super Daiseikai units via GSM-modem	630,--

VRF Control Options / Software

Type/ Description		Single price excl. VAT [EUR]
	TCB-IFCG1TLE – General purpose interface	2.000,--
	TCB-IFCB640TLE – Central, analogue interface	2.000,--
	DI, S-DI Redundancy module: TC-SMP-UNI Toshiba fault indication module (2 pcs. for a redundancy switch necessary) TC-SMP-CTRL Toshiba redundancy switch box 33NT900062M Toshiba thermostat	290,-- 1.450,-- 110,--
	RBC-FDP3-PE – Analogue interface Interface to control the temperature, fan speed, mode, louver, on/off and lock of indoor unit through 0 – 10 V signal	500,--
	TCB-PCIN4E – Fault indication module* Outputs for failure and "indoor unit in operation"	125,--
	TCB-PCM04E – Antifreeze; remote on/off module* Inputs for ext. on/off, priority cooling/heating, sound reduction and outdoor unit fan „on“	90,--
	TCB-PCDM4E – Module for energy limitation/ load control* Inputs for ext. on/off and reduction of capacity (6 stages)	115,--

* For S-MMS MiNi, SMMSi and S-HRM outdoor units

TOSHIBA SERVICE PROGRAMS

- Computer software for the service technique
- Display and record of data of the units: unit on/off, cooling or heating operation, PMV open level, temperature data, pressure level, compressor on/of, malfunction code
- Consisting of: adapter box, cable for the unit, cable for the computer and CD-ROM

Type	Additional information	Single price excl. VAT [EUR]
4316V413	Dyna Doctor Hardware	1.390,--
43183026	Software MMS	25,--
43183027	Software S-MMS & S-HRM	25,--
43183028	Software Mini S-MMS	25,--
43183030	Software DI, S-DI & IMS	25,--
43183032	Software SMMSi	25,--
37589712	Software Estia	25,--

S-MMSi / MiNi-SMMS (2-pipe system): Joints and Headers

Y-Shapes (two Y-shapes per packing unit)

Type	Description	Connected indoor unit capacity		Single price excl. VAT [EUR]
		[kW]	[HP]	
RBM-BY54E (55E)	Y- shape	< 18 kW	< 6,4 kW	85,-
RBM-BY104E (105E)		18 kW < capacity < 37 kW	6,4 < capacity < 14,2	95,-
RBM-BY204E (205E)		37 kW < capacity < 71 kW	14,2 < capacity < 25,2	170,-
RBM-BY304E (305E)		71 kW < capacity	25,2 < capacity	215,-

Model change to series 5 coming in the course of the year



4/8-Branch Header (two 4/8-branch headers per packing unit)

Type	Description	Connected indoor unit capacity		Single price excl. VAT [EUR]
		[kW]	[HP]	
RBM-HY1043E	4-branch header	18 kW < capacity < 37 kW	6,4 < capacity < 14,2	200,-
RBM-HY2043E		37 kW < capacity < 71 kW	14,2 < capacity < 25,2	220,-
RBM-HY1083E	8-branch header	18 kW < capacity < 37 kW	6,4 < capacity < 14,2	330,-
RBM-HY2083E		37 kW < capacity < 71 kW	14,2 < capacity < 25,2	390,-



T-Joints (two T-joints per packing unit)

Type	Description			Single price excl. VAT [EUR]
RBM-BT14E	T-joint			280,-
RBM-BT24E	T-joint			320,-

S-HRM (3-pipe system): Branches

Y-Shapes (three Y-shapes per packing unit)

Type	Description	Connected indoor unit capacity		Single price excl. VAT [EUR]
		[kW]	[HP]	
RBM-BY55FE	Y- shape	< 18 kW	< 6,4 kW	125,-
RBM-BY105FE		18 kW < capacity < 37 kW	6,4 < capacity < 14,2	145,-
RBM-BY205FE		37 kW < capacity < 71 kW	14,2 < capacity < 25,2	200,-
RBM-BY305FE		71 kW < capacity	25,2 < capacity	280,-

4/8-Branch Header (three 4/8-fach headers per packing unit)

Type	Description	Connected indoor unit capacity		Single price excl. VAT [EUR]
		[kW]	[HP]	
RBM-HY1043FE	4-branch header	< 37 kW	< 14,2	380,-
RBM-HY2043FE	4-branch header	37 kW < capacity < 71 kW	14,2 < capacity < 25,2	420,-
RBM-HY1083FE	8-branch header	< 37 kW	< 14,2	520,-
RBM-HY2083FE	8-branch header	37 kW < capacity < 71 kW	14,2 < capacity < 25,2	560,-

T-Joints (three T-joints per packing unit)

Type	Description			Single price excl. VAT [EUR]
RBM-BT13FE	T-joint			250,-

Estia outdoor units

- Twin rotary compressor
- Inverter control
- Pipe length of up to 30 m
- Cooling operation (with fan coils)



Type	Capacity [kW]		Power consumption [kW]		COP		Dimensions [H/W/D] [mm]	Price excl. VAT [EUR]
	Heating	Cooling	Heating	Cooling	Heating	Cooling		
SERIES 2 – 1 phase								
HWS-1102H-E	11,2	10,0	2,40	3,52	4,66	3,52	1340/900/320	2.740,-
HWS-1402H-E	14,0	11,0	3,15	4,08	4,45	4,08	1340/900/320	3.200,-

SERIES 3 – 1 phase								
HWS-803H-E	8,0	6,0	1,82	2,13	4,40	2,82	890/900/320	2.550,-
HWS-1103H-E	11,2	10,0	2,32	3,52	4,77	2,84	1340/900/320	2.820,-
HWS-1403H-E	14,0	11,0	3,11	4,08	4,50	2,70	1340/900/320	3.300,-

SERIES 3 – 3 phase								
HWS-1103H8-E	11,2	10,0	2,39	3,52	4,69	2,84	1340/900/320	3.050,-
HWS-1403H8-E	14,0	11,0	3,21	4,08	4,36	2,70	1340/900/320	3.500,-
HWS-1603H8-E	16,0	13,0	3,72	4,80	4,30	2,71	1340/900/320	4.100,-

Hydro box

- Plate heat exchanger
- Electrical back up heater
- Flow temperature - heating: 20 – 55 °C, cooling: 10 (5) – 30 °C
- 2 temperature zones possible
- Remote control integrated



Type	Compatibility with outdoor units	Electric back up heater	Dimension [H/W/D] [mm]	Price excl. VAT [EUR]
SERIES 2				
HWS-1402XWHT6-E	HWS-1102H-E, HWS-1402H-E	2 x 230 V; 6 kW	925/525/355	4.300,-
HWS-1402XWHT9-E		3 x 230 V; 9 kW	925/525/355	4.330,-
SERIES 3				
HWS-803XWHM3-E	HWS-803H-E	230V; 3 kW	925/525/355	3.350,-
HWS-803XWHT6-E		2 x 230V; 6 kW	925/525/355	3.490,-
HWS-803XWHT9-E		3 x 230 V; 9 kW	925/525/355	3.600,-
HWS-1403XWHM3-E	HWS-1103,1403H-E HWS-1103, 1403, 1603H8-E	230V; 3 kW	925/525/355	4.390,-
HWS-1403XWHT6-E		2 x 230V; 6 kW	925/525/355	4.490,-
HWS-1403XWHT9-E		3 x 230 V; 9 kW	925/525/355	4.530,-

Estia warm water tank

- Stainless steel - insulated
- Electric back up heater with 2,75 kW
(for legionellic circuit and water heating > 43°C)
- Temperature sensor
- Safety thermo element



Type	Water volume (l)	Max. water temperature	Electrical heater [kW]	Current	Height [mm]	Diameter [mm]	Material	Price excl. VAT [EUR]
HWS-1501CSHM3-E *	150	75	2,75	1-phase 230 V	1.090	550	Stainless steel	1.060,-
HWS-2101CSHM3-E *	210	75	2,75		1.474	550		1.250,-
HWS-3001CSHM3-E	300	75	2,75		2.040	550		1.470,-

* No stock article

Estia accessories

Type	Description	Price excl. VAT [EUR]
TCB-PCMO3E	Interface for external input (voltage free contacts): <ul style="list-style-type: none"> ■ Input for heating requirement (room thermostat) ■ Input for cooling requirement (room thermostat) Alternative functions: <ul style="list-style-type: none"> ■ Input for external on/off 	90,-
TCB-PCIN3E	Interface for external output (voltage free contacts): <ul style="list-style-type: none"> ■ Output to activate external/existing heating system ■ Alarm signal output Alternative functions: <ul style="list-style-type: none"> ■ Defrost signal output ■ Operation signal output 	120,-
Sensor 95612037	Temperature sensor for on-site hot water tank	50,-
HWS-AMS11E	Remote control	150,-

Measuring conditions for Toshiba air-to-water heat pump:

Heating: outdoor temperature 7 °C TK, 6 °C FK, 35 °C flow temperature, DT = 5 °C

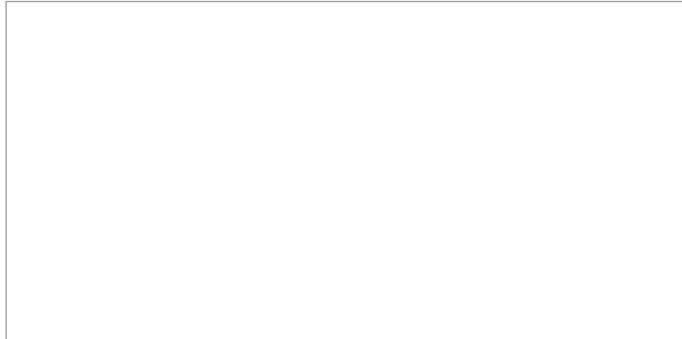
Cooling: outdoor temperature 35 °C TK, 18 °C flow temperature, DT = 5 °C

Refrigerant pipes: 7,5 m length and no height difference between indoor and outdoor unit

Sound pressure level: measure in 1 m distance to outdoor unit

TOSHIBA Leading Innovation >>>

Toshiba Fachhändler:



www.toshiba-aircondition.at