### **TOSHIBA**

### Simultaneously warm & cold

## SHRM-e



Highlights

Highest possible efficiency due to heat recovery Combinations of up to 151 kW of cooling capacity and heating capacity Two twin-rotary compressors per unit







VRF 3-pipe outdoor unit for simultaneous cooling and heating with a wide performance spectrum. For combination with VRF indoor units, valve kits (exhaust air control) and VN heat exchangers.



#### Performance

- ESEER values up to 8.17
- Excellent energy and cost efficiency
- Suitable for monovalent heating operation



#### **Flexibility**

- Max. pipe lengths up to 1000 m (starting from 34 PS)
- Max. height differences up to 90 m
- Up to 64 indoor units can be connected (starting from 30 PS)
- Capacities up to 20 PS available with only one outdoor unit module
- Flexible control options for all applications
- Optimal ratio of unit capacity to installation surface
- Quiet operation protects people and the environment
- System diversity to 135%
- Simple system design with SelectionTool software



#### Technical details

- Next generation of perfected A3 compressors
- Two inverter-controlled compressors per unit module

SHRM @

- At 64 cc, enlarged compressor compression chamber (starting from 14 PS)
- Shared vane technology with a carbon coating
- Two twin-rotary compressors in all units
- Compressor backup
- Outdoor unit modulation for maximum dependability and durability
- Shared heat exchangers
- Advanced fan design enables maximum capacity with minimum noise generation and current consumption
- Continuous heating for short defrost cycles without any comfort losses during heating operation
- Intelligent refrigerant management ensures an optimal supply to all indoor units, regardless of their position in the building
- Wireless wave tool function simplifies commissioning, servicing, and system monitoring with Android smartphones



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Technical data			MMY-AP4816FT8P-E
Capacity code	НР		48
Combined units			18 + 16 + 14
Cooling capacity	kW	*	135,40
Power consumption (min./nom./max.)	kW	*	41,70
Partial load efficiency @ 80%/60%/40%	W/W	*	4,1 - 5,3 - 6,7
Energy efficiency EER	W/W	*	3,25
nergy efficiency ESEER		*	7,76
Running current	A	*	65,40
Heating capacity	kW	*	135,40
Power consumption (min./nom./max.)	kW	*	36,60
Partial load efficiency @ 80%/60%/40%	W/W	*	4,4 - 5,0 - 5,3
Energy efficiency SCOP		*	4,68
Running current	A	*	57,40
Airflow	m³/h		17300 + 17300 + 12200
external static pressure	Pa		40
Sound pressure level (low/med/high)	dB(A)	*	66,5
Sound pressure level (low/med/high)	dB(A)	*	68,0
Sound power level	dB(A)	*	87,5
Sound power level	dB(A)	*	88,5
Sound pressure level (night operation)	dB(A)		58,5
Compressor type			2x Twin-Rotary
iquid pipe diameter	mm (inch)		22,2 (7/8)
Suction gas pipe diameter	mm (inch)		41,3 (1 5/8)
Hot gas pipe diameter	mm (inch)		34,9 (1 3/8)
Dil equalization pipe diameter	mm (inch)		9,5 (3/8)
Outdoor temperature operating range (minmax.)	°C	*	-15 / +46
Outdoor temperature operating range (minmax.)	°C	*	-25 / +25
ower supply	V/Ph+N/Hz		380-415/3/50
starting current	A		Softstart
Connectable indoor units (max.)	Pce.		64
Pipe length (max.)	m		1000
Height difference (max.)	m		90
Refrigerant			R410A
Refrigerant charge	kg		3x 11,00
Dimensions (HxWxD)	mm		1830 x 4450 x 780
	kg		377+377+316

<sup>★</sup> Cooling ★ Heating

The measuring conditions for this product can be found at http://www.toshiba-klima.at/en/measuring-conditions.html

### **TOSHIBA**

## TOSHIBA Features - general overview



**Energy Label:** Energy label **A+ to A+++**, indicates the power consumption and energy efficiency class.



**HI POWER:** Particularly strong airflow for quickly reaching the requested temperature.



**ErP Ecodesign:** All criteria of **ECODESIGN**-guideline are fulfilled and confirm highest system efficiency.



Auto diagnostic: Check of system for flawless operation.



Hybrid inverter control: Smooth capacity regulation.



**Eco Mode:** Energy saving function.



Rotary compressor: Reliability and high efficiency.



Quiet Mode: Particularly low noise level - whispering mode.



Twin rotary compressor: Long-lasting, smoothly running and highest efficiency.



**Comfort Sleep:** Gradual increase of temperature by 2 °C until morning.



R410A: Used refrigerant: R410A.



**Power Selection:** Capacity regulation and therefore power savings of up to 25, 50 or 75%.



R32: Used refrigerant: R32.



Floor Mode: Natural floor warming effect for greater comfort.



Wifi ready: Optional control of the system via a smartphone.



**Preset Mode:** Activates individual settings at the touch of a button.



KNX: Optional KNX bus connection.



**One Touch Mode:** Fully automatic operation adapted to your needs.



Dust filter: Washable filter against coarse contamination.



**Timer:** Individual programming of on-/off times.



IAQ filter: Fine mesh filter with natural substances.



**Off Timer:** Shutdown of the unit at chosen times (30 min to 12 h).



Active carbon-catechin filter: Cleansing filter with enzymes from green tea.



Week Timer: Up to four settings per day and seven per week.



Plasma filter: Pure Mode: Electrostatic filter system.



**Automatic Restart:** After a power blackout.



**Air ionizer:** Negative iones cover polluted particles in the air. Dust, pollen and smoke are neutralized.



**8 °C frost protection function:** Frost protection for uninhabited rooms.



**Self-cleaning function:** Usage of condensate water for cleaning.



**Louver:** Flexible setting of louvers.



Auto Mode: Automatic selection between cooling and heating.



**3D Airflow:** 6 different airflow patterns in all directions.