### TOSHIBA

2-pipe powerhouse next generation

# SMMS-u





#### Highlights

Pointing the way in connectivity, efficiency, reliability and service friendliness Single modules up to 24 HP / 67 kW cooling capacity available Combinations of up to 335 kW cooling- and 345 kW heating-capacity Unique triple-rotary compressor (16-20 HP)

VRF 2-pipe outdoor unit for cooling or heating operation with a wide performance spectrum. For combination with VRF indoor units, DX-kits, hot water modules and VN heat exchangers according to the Selection Tool design software.



#### Performance

- SEER values up to 7,73
- \_ SCOP values up to 4,79
- Optimized R410A refrigeration circuit enables the smallest amount of refrigerant
- Outstanding energy and cost efficiency
- Suitable for monovalent heating operation
- Hi-Power fan unit optimizes the airflow
- \_ Super efficient split heat exchanger
- Defrosting in heating mode without sacrificing comfort
- Maximum operational reliability through auto backup



#### **Flexibility**

- $_{-}\,$  Maximum piping lengths up to 1,200 m (from 26 HP)
- $_{-}\,$  Maximum height differences up to 110 m
- Up to 128 indoor units can be connected to each individual system
- Capacities up to 24 HP available with just one outdoor unit module
- Combinations of up to 120 HP / 335 kW cooling capacity possible
- Free combination concept, according to priority efficiency or installation space
- Flexible control options for all applications
- Night Operation: quiet operation protects humans and the environment
- System diversity up to 200%
- Easy system design with SelectionTool software
- Combination with existing systems possible

### **>** ⊤€

#### Technical details

- Perfected A3 twin-rotary compressor (8-14 HP)
- Two A3 twin-rotary compressors (22-24 HP)
- Unique K4 triple-rotary compressor (16-20 HP)
- Double-vane technology with carbon coating
- Auto-Backup operation
- Uninterrupted heating operation for up to 5 hours
- Ultra-short defrosting cycles of up to 3.5 minutes
- Intelligent refrigerant management ensures the best possible supply for all indoor units, regardless of their position in the building
- Shortest oil return cycles thanks to intelligent oil management algorithms
- Fast TU2C-Link system bus with 19,200 bps
- The wireless NFC WaveTool function simplifies commissioning, service and system monitoring with Android smartphones
- The DynaDoctor service tool for convenient recording, monitoring and diagnosis as a PC application can be connected to outdoor or indoor devices via USB
- Optional service link adapter TCB-SS1UU-E enables data logging even without a PC on micro SDHC card (included, 8 GB)



# **TOSHIBA**

# SMMS-u

Technical data			MMY-MUP1601HT8P- E
Capacity code	НР		16
Cooling capacity	kW	*	45,00
Power consumption (min./nom./max.)	kW	*	14,06
Energy efficiency EER	W/W	*	3,20
Energy efficiency SEER		*	7,71
Energy efficiency ESEER		*	7,71
Running current	A	*	21,6
Heating capacity	kW	*	45,00
Power consumption (min./nom./max.)	kW	*	11,94
Energy efficiency COP	W/W	*	3,77
Energy efficiency SCOP		*	4,79
Running current	A	*	18,3
Airflow	m³/h		15300
External static pressure	Pa		80
Sound pressure level (low/med/high)	dB(A)	*	60
Sound pressure level (low/med/high)	dB(A)	*	63
Sound power level	dB(A)	*	83
Sound power level	dB(A)	*	86
Sound pressure level (night operation)	dB(A)		53
Compressor type			1x Triple-Rotary
Liquid pipe diameter	mm (inch)		15,9 (5/8)
Suction gas pipe diameter	mm (inch)		28,6 (1 1/8)
Outdoor temperature operating range (minmax.)	°C	*	-15 / +52
Outdoor temperature operating range (minmax.)	°C	*	-25 / +15,5
Power supply	V/Ph+N/Hz		380-415/3/50
Recommended fusing	А		3x 40
Recommended power supply line type			H07RN-F 5G6,0
Communication line			YSLCY 2x1,5
Current consumption (nom.)	А		18,3
Current consumption (max.)	А		21,5
Starting current	А		Softstart
Connectable indoor units (max.)	Pce.		36
Pipe length (max.)	m		500
Height difference (max.)	m		110
Refrigerant			R410A
Refrigerant charge	kg		9,00
Dimensions (HxWxD)	mm		1690 x 1290 x 780
Weight	kg		312

\* 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.