

Amenity Space Air Conditioning - Technical Submittal (TSM)

Project: New Cross Residential, Oldham Road
Project No: MC1160
TSM No: D464-AME-XX-XX-TS-M-0033

Ameon Limited Unit 9-10 Olympic Court
Boardmans Way
Whitehills Business Park
Blackpool
FY4 5GU

Tel: 01253 760160
Fax: 01253 760150
Email: enquiries@ameon.co.uk



TOSHIBA

Outdoor Units

No.	System Name	Outdoor unit type	Model Name	Capacity Code	Cooling Capacity[kW]		Heating Capacity[kW]		System Diversity	Maximum Building Diversity	Number of Indoor Units	Sound Pressure		Sound Power		Design Conditions		Cooling Power Input (kW)	Heating Power Input (kW)	Electrical Information		
					Rated	Corrected	Rated	Corrected				Cooling (dBA)	Heating (dBA)	Cooling (dBA)	Heating (dBA)	Cooling Dry Bulb Temperature	Heating Wet Bulb Temperature			V - Φ - Hz	MOCp [A]	MCA [A]
1	RESIDENTIAL ENTRANCE	Super Heat Recovery Multi System (SHRM-e)	MMY-MAP1606FT8P-UK	16	45.00	38.83	50.00	49.38	100.6%	0%	6	61	62	83	84	5.72	3.5	35.0 °C	6.0 °C	0.00	0.00	380/415 - 3 - 50

Indoor Units

No.	System Name	Indoor Unit Type	Capacity Code	Indoor Model	Name	Fan Speed	Total Capacity		Sensible Capacity		Heating capacity		Flow Selector	Sound Pressure (dBA)
							Rated	Corrected	Rated	Corrected	Rated	Corrected		
1	VRF	Standard	0.6	UP0051HP-E	OFFICE	High	1.70	1.45	1.50	1.36	1.90	1.84	Y1123FE	
2	VRF	4-way Cassette	4	UP0361HP-E	RESIDENT LOBBY	High	11.20	9.58	7.70	7.00	12.50	12.13	Y1803FE	43
3	VRF	4-way Cassette	4	UP0361HP-E	RESIDENT LOBBY	High	11.20	9.58	7.70	7.00	12.50	12.13	Y1803FE	43
4	VRF	4-way Cassette	2.5	UP0241HP-E	COWORKING	High	7.10	6.07	4.90	4.46	8.00	7.76	Y1123FE	35
5	VRF	4-way Cassette	2.5	UP0241HP-E	COWORKING	High	7.10	6.07	4.90	4.46	8.00	7.76	Y1123FE	35
6	VRF	4-way Cassette	2.5	UP0241HP-E	RESIDENT LOUNGE	High	7.10	6.07	4.90	4.46	8.00	7.76	Y1123FE	35

No.	System Name	Room Design Conditions				Electrical Information					
		Cooling DB [°C]	Cooling WB [°C]	Cooling RH [%]	Heating DB [°C]	V - Φ - Hz	Total MOCp [A]	Total MCA [A]			
1	OFFICE	23.0	16.3	50.0	20.0	20-240 - 1 - 5	15	1.44			
2	RESIDENT LOBBY	23.0	16.3	50.0	20.0	20-240 - 1 - 5	15	1.44			
3	RESIDENT LOBBY	23.0	16.3	50.0	20.0	20-240 - 1 - 5	15	1.44			
4	COWORKING	23.0	16.3	50.0	20.0	20-240 - 1 - 5	15	1.09			
5	COWORKING	23.0	16.3	50.0	20.0	20-240 - 1 - 5	15	1.09			
6	RESIDENT LOUNGE	23.0	16.3	50.0	20.0	20-240 - 1 - 5	15	1.09			

Ventilators

No.	Type	Model Name	Name	Fan Speed	V - Φ - Hz	Electrical Information				Design air flow [m³/h]	ESP Setting [in WG]
						Total MOCp [A]	Total MCA [A]	Protection Device size [A]	Cable size [mm²]		
1	Exchanger	VN-M1500HE1	AMENITY	High	220/240 - 1 - 50	15	4.89				

Notes

1) 4no RBC-AMSUS1-EN local wall mounted controllers will be provided to control the 4no independent zones

Toshiba Air Conditioning - VRF Data Sheet

MMY-MAP1606FT8P

Three-pipe SHRMe - Super Heat Recovery Condensing Unit

Features

- Dual setpoint for more precision
- ESEER increased to >8
- UK-SEER achievable to >10
- New 4 series flow box with 50 m run
- New 4- and 6-port multi-flow boxes

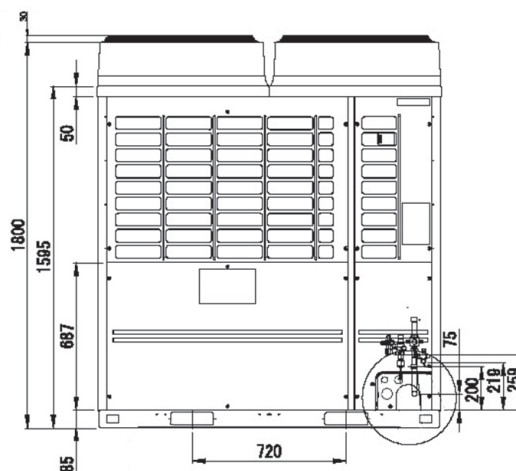
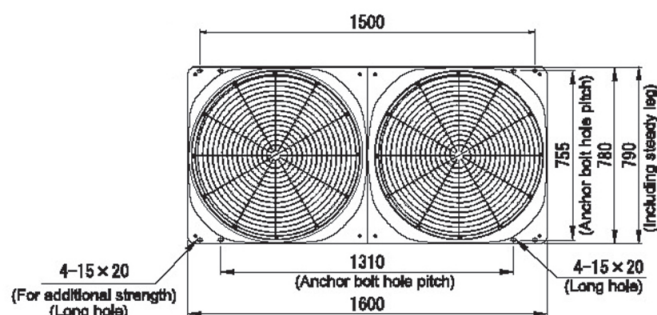


Technical Data

Model reference		MMY-MAP1606FT8P
Nominal cooling	kW	45.0
Nominal heating	kW	50.0
Capacity code		16
Min./max. capacities connectable	kW	36.00/60.75
Power input (cool/heat)	kW	13.9/12.2
SEER/ESEER Value (Office Profile)		7.62/8.17
SCOP/ESCOP Value (Office Profile)		4.62/4.82
Starting current	A	1
Running current (cool/heat)	A	21.81/19.14
MCA (minimum circuit amps)	A	40.6
MOCP (maximum overcurrent protection)	A	50.0
Power supply	V-ph-Hz	380/415-3-50
Interconnecting cable		2-core screened 1.5 mm
Sound power (cool/heat)	dB(A)	83/84
Sound pressure (cool/heat)	dB(A)	61/62
Standard air flow	m ³ /h	17300
Standard air flow	l/s	4806
External static pressure	Pa	40
Maximum indoor units connectable		36
Dimensions (H x W x D)	mm	1830 x 1600 x 780
Unit weight	kg	377
R410A refrigerant base charge	kg	11

Note: The electrical installation needs to meet current electrical regulations BS7671:2018 the 18th Edition of the IET regulations.

Dimensional Drawings



Cool Designs Ltd

Raising the Standards in Air Conditioning Distribution

www.cdlweb.info



All UK duties are based on Cooling Indoor air temperature 22°C DB/16°C WB Outdoor air temperature 28°C DB 50% RH, high fan speed, 5 m pipe run.
Heating Indoor air temperature 21°C DB Outdoor air temperature -4°C DB 100% RH, high fan speed, 5 m pipe run. Values are based on the maximum compressor output.
Data obtained from Toshiba Air Conditioning Web Data July 2019.

Toshiba Air Conditioning Data Sheet

MMU-UP0241HP-E
VRF 4 WAY CASSETTE



Model Reference		MMU-UP0241HP-E	
Capacity Code		HP	2.5
Nominal	Cooling Capacity	kW	7.1
	Heating Capacity	kW	8.0
UK	Cooling Total/Sensible	kW	6.4/4.6
	Heating	kW	5.4
Electrical	Power Input	kW	0.036
	Run Current	Amps	0.38
	Start Current	Amps	0.42
Air Flow	High - Medium - Low	l/s	358 - 255 - 222
	High - Medium - Low	m ³ /h	1290 - 920 - 800
Sound	Pressure High - Medium - Low	dB(A)	35 - 31 - 28
	Power High - Medium - Low	dB(A)	50 - 46 - 43
Unit	Height x Width x Depth	mm	256 x 840 x 840
	Weight	kg	20
Panel	Height x Width x Depth	mm	30 x 950 x 950
	Weight RBC-U41PG(W)-E	kg	4
Pipe Connection	Flare Connections (gas - liquid)	inch	5/8 - 3/8
	Drain Pipe Connection OD/ID	mm	32/25
Power Supply	Suggested Fuse Size	V/ph/Hz-A	220-240/1/50-5

TOSHIBA

- Two louver shape option
- Possible to set three different and swing modes
- Wide air flow in all directions
- Optimal air diffusion up to 4.6m ceiling height!
- Self-cleaning function and Ag-ion tip for anti-mould in drain cap
- Built-in high-lift drain pump
- Compact chassis with only 256mm height (up to size 30)
- Lightweight unit, for easy and quick installation

Toshiba Air Conditioning Data Sheet

MMU-UP0361HP-E
VRF 4 WAY CASSETTE



Model Reference		MMU-UP0361HP-E	
Capacity Code		HP	4.0
Nominal	Cooling Capacity	kW	11.2
	Heating Capacity	kW	12.5
UK	Cooling Total/Sensible	kW	10.2/7.3
	Heating	kW	8.5
Electrical	Power Input	kW	0.088
	Run Current	Amps	0.78
	Start Current	Amps	0.87
Air Flow	High - Medium - Low	l/s	547 - 397 - 297
	High - Medium - Low	m ³ /h	1970 - 1430 - 1070
Sound	Pressure High - Medium - Low	dB(A)	43 - 38 - 32
	Power High - Medium - Low	dB(A)	58 - 53 - 47
Unit	Height x Width x Depth	mm	319 x 840 x 840
	Weight	kg	25
Panel	Height x Width x Depth	mm	30 x 950 x 950
	Weight RBC-U41PG(W)-E	kg	4
Pipe Connection	Flare Connections (gas - liquid)	inch	5/8 - 3/8
	Drain Pipe Connection OD/ID	mm	32/25
Power Supply	Suggested Fuse Size	V/ph/Hz-A	220-240/1/50-5

TOSHIBA

- Two louver shape option
- Possible to set three different and swing modes
- Wide air flow in all directions
- Optimal air diffusion up to 4.6m ceiling height!
- Self-cleaning function and Ag-ion tip for anti-mould in drain cap
- Built-in high-lift drain pump
- Compact chassis with only 256mm height (up to size 30)
- Lightweight unit, for easy and quick installation

Toshiba Air Conditioning Data Sheet

MMK-UP0051HP-E
VRF HIGH WALL



Model Reference		MMK-UP0051HP-E	
Capacity Code		HP	0.6
Nominal	Cooling Capacity	kW	1.7
	Heating Capacity	kW	1.9
UK	Cooling Total/Sensible	kW	1.5/1.4
	Heating	kW	1.3
Electrical	Power Input	kW	0.013
	Run Current	Amps	0.15
	Start Current	Amps	0.19
Air Flow	High - Medium - Low	l/s	126 - 103 - 75
	High - Medium - Low	m ³ /h	455 - 370 - 270
Sound	Pressure High - Medium - Low	dB(A)	33 - 29 - 25
	Power High - Medium - Low	dB(A)	48 - 44 - 40
Unit	Height x Width x Depth	mm	293 x 798 x 230
	Weight	kg	11
Pipe Connection	Flare Connections (gas - liquid)	inch	3/8 - 1/4
	Drain Pipe Connection OD/ID	mm	16/14
Power Supply	Suggested Fuse Size	V/ph/Hz-A	220-240/1/50-5
Remote Controller			WH-TA09NE (Infra-Red)

*/ Awaiting published data

TOSHIBA

- The unit is compact and lightweight, it is perfect for installation above the doors or in narrow corridors.
- New appearance, simple, elegant with nice led display.
- Special fin coating for Healthy & Fresh air.
- Ultra pure filter (818F0050) available as an option to ensure healthy and pleasant atmosphere.
- Remote controller for easy access to the preferred setting.
- Filters for dust collection can be easily removed by lifting the front panel and can be cleaned easily washing them under running water.

Indoor Unit



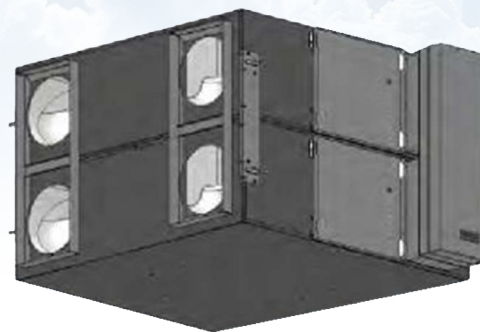
Toshiba Air Conditioning - Air-to-Air Heat Exchanger Data Sheet

VN-M1500HE1

Standard Heat Exchanger

Features

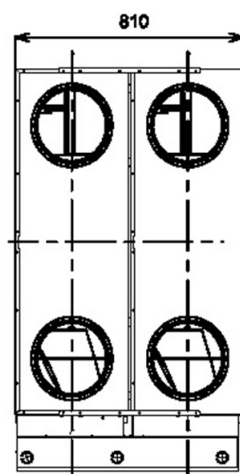
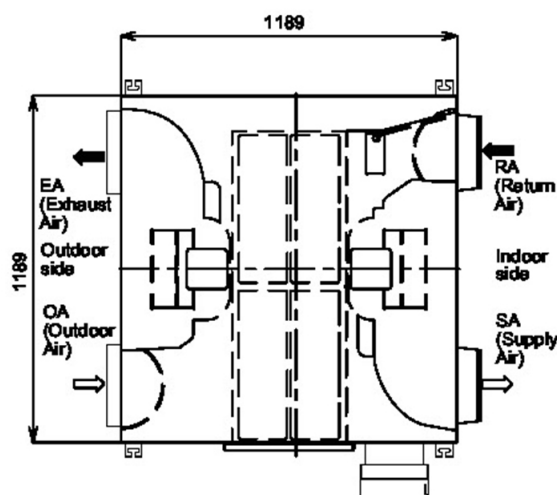
- Complies with the ENTR LOT 6 Tier 2 regulations
- DC motor for reduced power consumption
- Increased efficiency
- Compatible with standard TCC-Link controls



Technical Data

Model reference		VN-M1500HE1
Temperature exchange efficiency (EH/H/L)	%	76.5/76.5/79.0
Enthalpy exchange efficiency - cooling (EH/H/L)	%	64.0/64.0/67.0
Enthalpy exchange efficiency - heating (EH/H/L)	%	71.0/71.0/73.5
Sound pressure (EH/H/L)	dB(A)	41.0/40.0/36.0
Power consumption (EH/H/L)	W	640/570/320
Maximum running current	A	5.08
Suggested fuse size	A	10
External static pressure (EH/H/L)	Pa	140/110/80
Fan air flow (EH/H/L)	l/s	417/417/333
Dimensions (H x W x D)	inch	1189 x 1189 x 810
Weight	kg	126
Power supply	V-ph-Hz	220/240-1-50
Duct diameter	mm	250
Operating range - around unit	°C	-10 to 40, RH ≤ 80%
Operating range - outdoor air	°C	-15 to 43, RH ≤ 80%
Operating range - return air	°C	5 to 40, RH ≤ 80%

Dimensional Drawings



Cool Designs Ltd

Raising the Standards in Air Conditioning Distribution

www.cdlweb.info



All UK duties are based on Cooling Indoor air temperature 22°C DB/16°C WB Outdoor air temperature 28°C DB 50% RH, high fan speed, 5 m pipe run.
Heating Indoor air temperature 21°C DB Outdoor air temperature -4°C DB 100% RH, high fan speed, 5 m pipe run. Values are based on the maximum compressor output.
Data obtained from Toshiba Air Conditioning Web Data July 2013.