



MECHANICAL EQUIPMENT SCHEDULES

UoW - Teaching & Learning Building

UW3396-GED-TL-ZZ-SH-M-0001

ISSUE	P02	PREPARED BY	JO
STATUS	For Comment	CHECKED BY	HT
DATE	06.03.26	APPROVED BY	



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HEAT PUMPS (ASHP)

P02

For Comment

06.03.26

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Reference	#	ASHP 1.1 - 1.6			
Location		Roof Plant Space			
Refrigerant		R290			
Circuit No / compressor No	qty.	1 / 1			
Compressor speed control		variable speed (VSD)			
Capacity Control	%	25-100%			
Source heat transfer fluid		Air			
Load heat transfer fluid		Water			
Heating capacity	kW	13.3			
COP		2.21			
EST / LST	°C (dB)	-4			
ELT / LLT	°C	55/50			
Cooling capacity	kW				
EER					
EST / LST	°C (dB)				
ELT / LLT	°C				
Min operating outdoor air temp.	°C	-25			
Max operating outdoor air temp.	°C	46			
Compressor power supply	V/Hz/Ph	400/50/3			
Max absorbed current	A	29.5			
Max inrush current	A				
Maximum power input	kW	6.02			
Dimensions L x W x H	mm	1330x528x1051			
Operational weight	kg	180			
Sound Pressure Level at 1m	dBA	33			
Manufacturer (equal or approved)		Clivet			
Model		Edge Pro WiSAN-PMP 1S 8.1			

Remarks



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BUFFER VESSELS / THERMAL STORES

P02

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Reference	#	BV01			
System		LTHW Heating			
Application		heating			
Shell material		carbon steel			
Maximum Operating Pressure	bar	3 bar			
Cladding material		PVC			
RAL colour					
Condensation control		vapour barrier			
Insulation thickness	mm	80			
Insulation thermal conductivity	W/mK				
Standing heat loss @ design temp.	kWh/24hrs				
Capacity	Litres	600			
Design fluid temperature	°C	60			
Process connections	qty.	4			
Process connection min. size	mm	80			
Instrumentation connections		see drawing			
Dimensions L x W x H	mm	650 x 2050			
Manufacturer (equal or approved)		Flamco			
Model		Flextherm PS 600			

Remarks



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HWS STORAGE CYLINDERS

P02

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Reference	#	DHWC 01				
Served buildings' areas		Whole Building				
Cylinder location		GF Plantroom				
Vented/unvented		unvented				
Direct/Indirect		indirect				
Maximum Operating Pressure	bar					
Shell material		stainless steel				
Cladding material		PVC				
RAL colour						
Insulation thermal conductivity	W/mK					
Standing heat loss	kWh/24hrs					
Capacity	Litres	250				
HWS storage temperature	°C	60				
Heat exchanger		external PHX				
Heating capacity	kW	18				
Entering/leaving LTHW	°C	60/55				
Immersion electric heater-1 capacity	kW					
Immersion electric heater-2 capacity	kW					
Immersion heater Sheath material		IncoLoy				
Power supply	V/Hz/Ph	400/50/3				
Dimensions L x W x H	mm					
Manufacturer (equal or approved)		TBC				
Model		TBC				

Remarks



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HEAT EXCHANGERS

Reference	#	PLEX 1.1				
System		DHW				
Heat exchanger type		plate, brazed				
Plate material		SS6316L				
Gasket material		to suit fluid				
Heat exchange capacity	kW	32				
Cold side fluid		water				
Inlet temperature	°C	60				
Outlet temperature	°C	55				
Max pressure drop	kPa					
Hot side fluid		water				
Inlet temperature	°C	62				
Outlet temperature	°C	57				
Max pressure drop	kPa					
Drip tray		no				
Insulation jacket		yes				
Dimensions L x W x H	mm					
Weight	kg					
Manufacturer (equal or approved)		TBC				
Model		TBC				

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CIRCULATION PUMPS

Reference	#	P1.1	P1.2		
Circuit		LTHW Primary Side	DHW Secondary Side		
Pump type		in-line, glandless	in-line, glandless		
Double/single head		double-head	single-head		
Duty/assist/standby		duty/standby	duty		
Pumped fluid		water	water		
Min fluid design temperature	°C	-10	-10		
Max fluid design temperature	°C	110	110		
Duty flow rate	L/sec	1.36	0.69		
Pressure loss	kPa	80	60		
Electrical supply	V/Hz/Ph	230/50/1	230/50/1		
Pump Motor		c/w Inverter drive	c/w Inverter drive		
Rated Power	kW	0.427	0.136		
Max Current	A	1.91	1.19		
Network communication with BMS					
Energy Efficiency Index (EEI)		0.19	0.18		
Motor Efficiency Rating					
Pipe connections		flanged	flanged		
Pressure rating	bar	PN10	PN10		
Connection size	DN	40	32		
Manufacturer (equal or approved)		Grundfos	Grundfos		
Model		Magna3 D 40-120 F	Magna3 D 32-80 N		

Remarks