

Model	MWS 500LTM-S1	
Item No.	503-050-005	
Rating condition	19/16 °C db/wb	7/6 °C db/wb
Nominal EWT/LWT °C	20 / 62	15 / 62
Nominal Heating Capacity kW ¹	54	40
Input Power kW ¹	13.5	14.3
COP ¹	4.0	2.8
Unit Controller	UC8	
Design HEX differential °C	42	47
Water Flow rate l/min. ¹	18.5	12.2
Min./Max. Inlet Water temp. °C (Heating)	2 / 35	
Min. Operating Ambient Air temp. °C	-10	
Max. Water Temperature °C	65	
Entering Water Pressure Drop kPa ²	14 (2 psi)	7 (1 psi)
Heat Exchanger	Thermoshell® (x2)	
Desuperheater	Thermoshell® (x1)	
Max. Operating Water Pressure kPa	1000 (145psi)	
Electronic Expansion Valves	2	
Refrigerant	R32	
Refrigerant Charge kg	5.75	
Compressor type	Fixed scroll (tandem)	
Compressor technology	Liquid injection	
Compressor oil type	POE-46 (NXG5020 or equivalent)	
Power supply ³	3 ph. 400 V ac 50 Hz + N + E	
Compressor overload setting A	15	
Running current A	20 / 22 / 20	22 / 24 / 22
Max. Running Current A	30 / 32 / 30	30 / 32 / 30
RCD type recommended	type A, 30mA, 3 pole	
Water connections	1" BSP male (x2)	
Sound Power ⁴ (SWL) dB(A)	75	
Sound Pressure @ 3m (SPL) dB(A)	59	
Fan type	3 speed Axial 500mm (x2)	
Pump type	Integrated BLDC	
Max. Head Delivery of Pump m	12	
Communication Options	BMS / Modbus	
Design technology	Anti-thermosyphon system	
Storage tank requirement	Thermally stratified	
Net weight (excl. water) kg	351	
Shipping weight kg	365	

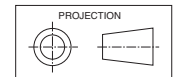
¹ At rating conditions above

² Pressure drop at Water Flow rate and rating conditions above.

³ Voltage range: 380–415V.

⁴ Radiated. EN 12102-1:2017.

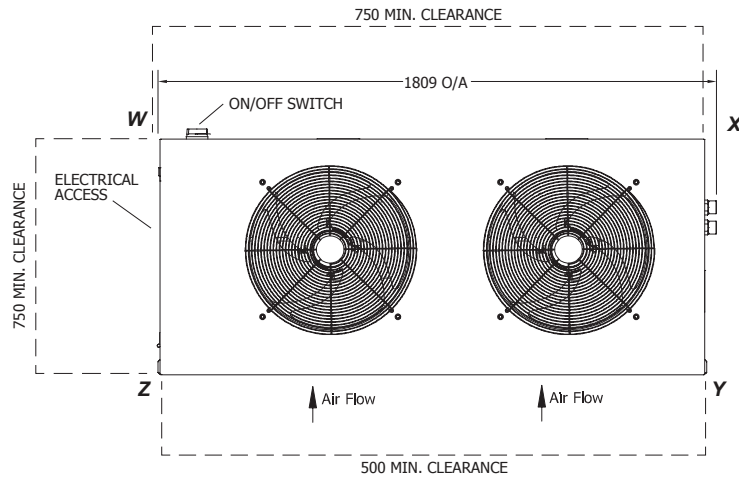
DIMENSIONS (mm)



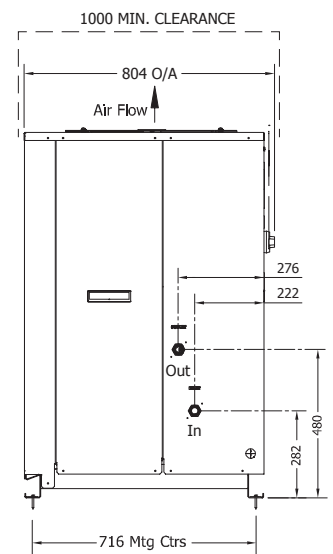
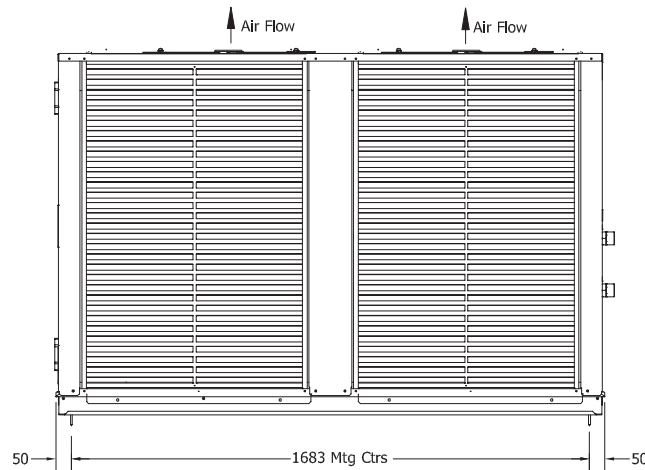
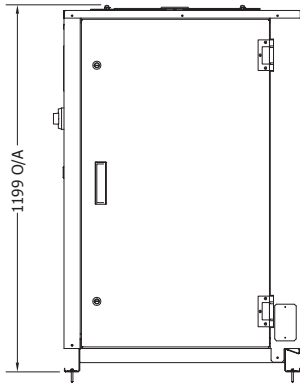
Not to Scale

MWS 500LTM

POINT LOADS (kg)			
W	X	Y	Z
113	93	60	85

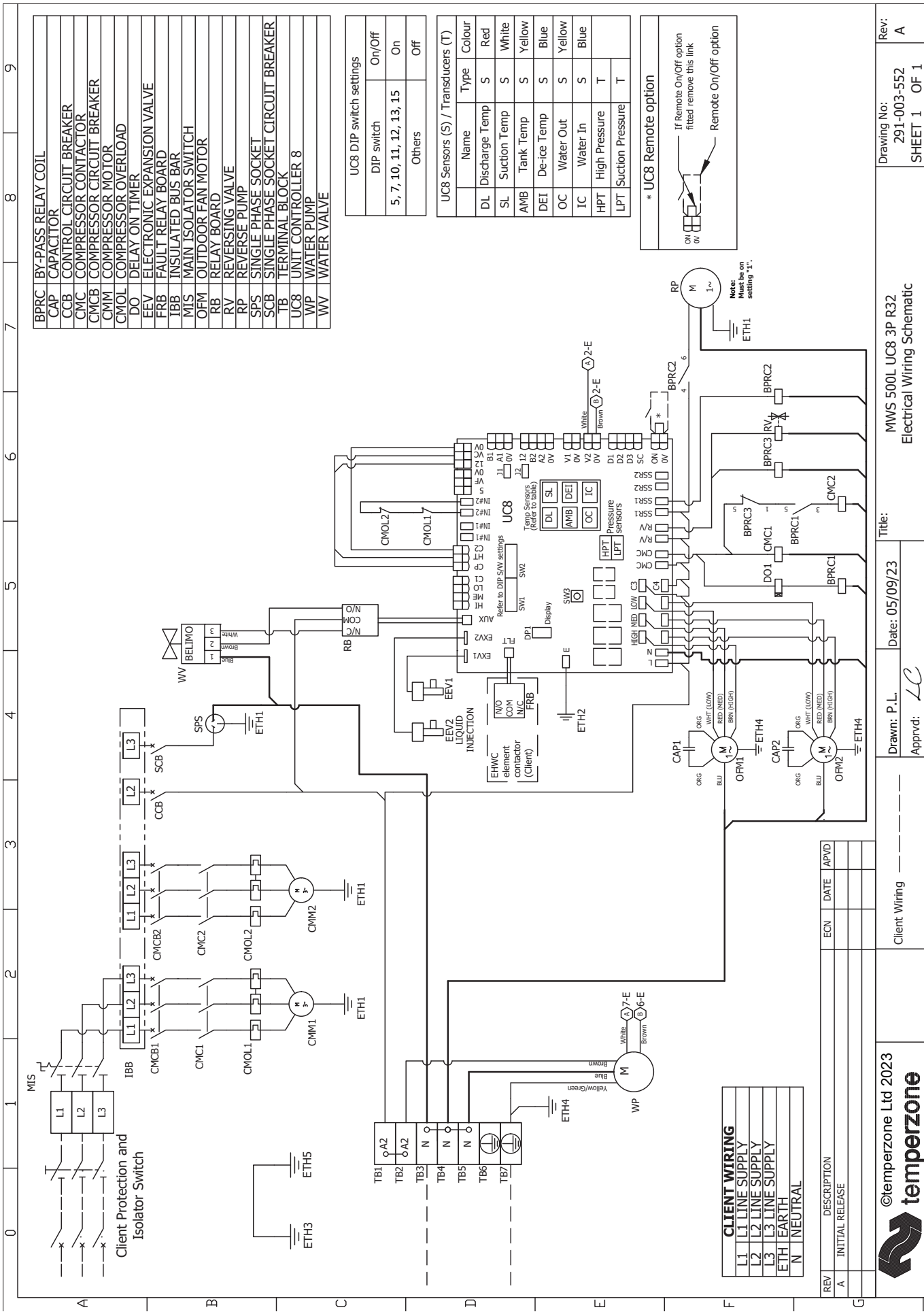


Water Conns;
2x BSP Male 25,4mm (1")



NOTE

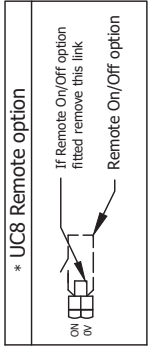
Specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.



BPRC	BY-PASS RELAY COIL
CAP	CAPACITOR
CCB	CONTROL CIRCUIT BREAKER
CMC	COMPRESSOR CONTACTOR
CMCB	COMPRESSOR CIRCUIT BREAKER
CMM	COMPRESSOR MOTOR
CMOL	COMPRESSOR OVERLOAD
DO	DELAY ON TIMER
EEV	ELECTRIC EXPANSION VALVE
FRB	FAULT RELAY BOARD
IBB	INSULATED BUS BAR
MIS	MAIN ISOLATOR SWITCH
OFM	OUTDOOR FAN MOTOR
RB	RELAY BOARD
RV	REVERSING VALVE
RP	REVERSE PUMP
SPS	SINGLE PHASE SOCKET
SCB	SINGLE PHASE SOCKET CIRCUIT BREAKER
TB	TERMINAL BLOCK
UC8	UNIT CONTROLLER 8
WP	WATER PUMP
WV	WATER VALVE

UC8 DIP switch settings	
DIP switch	On/Off
5, 7, 10, 11, 12, 13, 15	On
Others	Off

UC8 Sensors (S) / Transducers (T)		
Name	Type	Colour
DL	Discharge Temp	S
SL	Suction Temp	S
AMB	Tank Temp	S
DEI	De-ice Temp	S
OC	Water Out	S
IC	Water In	S
HPT	High Pressure	T
LPT	Suction Pressure	T



REV	DESCRIPTION	ECN	DATE	APVD
A	INITIAL RELEASE			

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A	INITIAL RELEASE			



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Client Wiring

Drawn: P.L.
Approved: LC

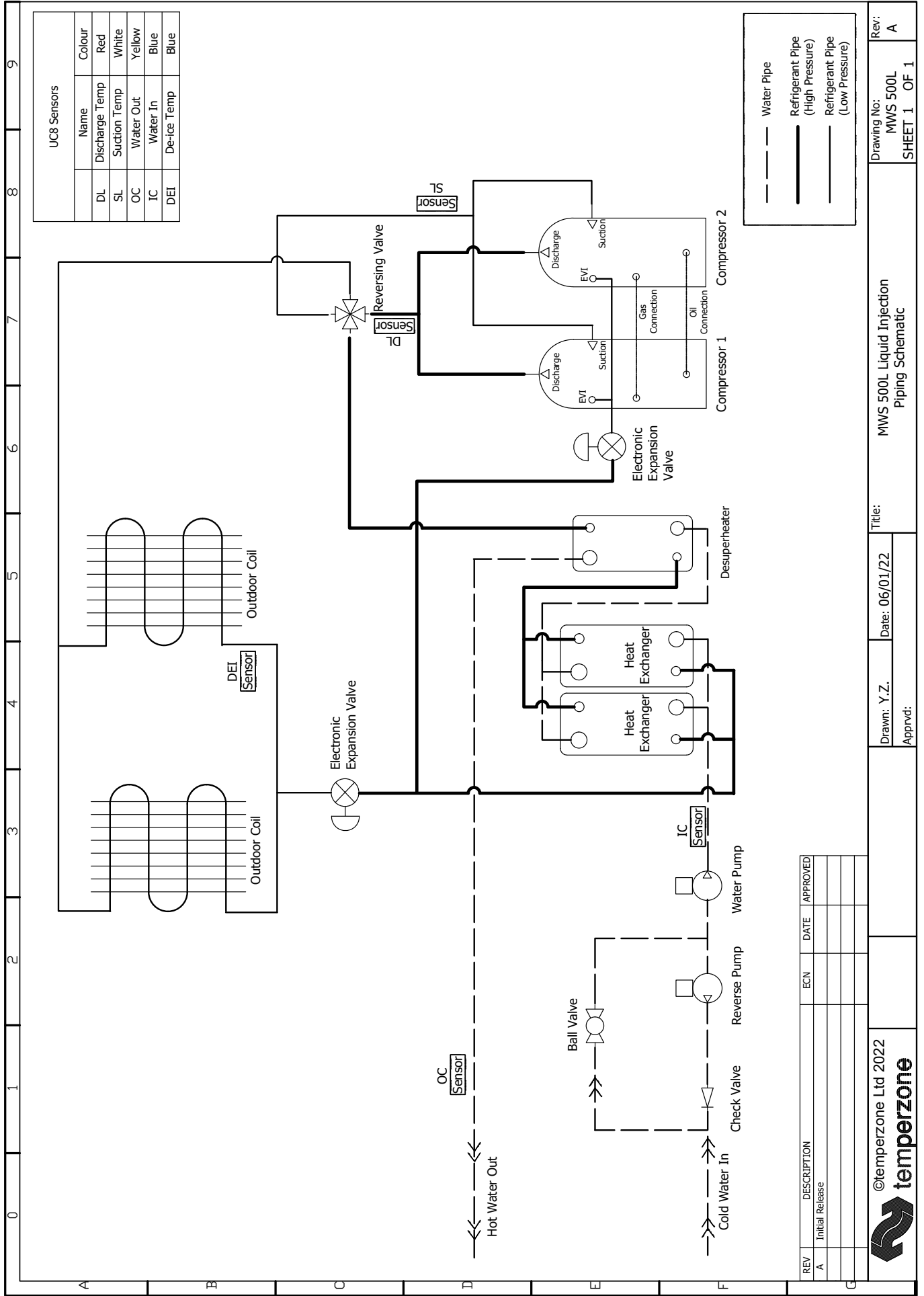
Date: 05/09/23

Title: Electrical Wiring Schematic
MWS 500L UC8 3P R32

Drawing No: 291-003-552
SHEET 1 OF 1

Rev: A

INTERNAL PIPING



UC8 Sensors

Name	Colour	
DL	Discharge Temp	Red
SL	Suction Temp	White
OC	Water Out	Yellow
IC	Water In	Blue
DEI	De-ice Temp	Blue

---	Water Pipe
—	Refrigerant Pipe (High Pressure)
—	Refrigerant Pipe (Low Pressure)

REV	DESCRIPTION	ECN	DATE	APPROVED
A	Initial Release			



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Drawn: Y.Z. Date: 06/01/22

Title: MWS 500L Liquid Injection Piping Schematic

Drawing No: MWS 500L SHEET 1 OF 1

Rev: A