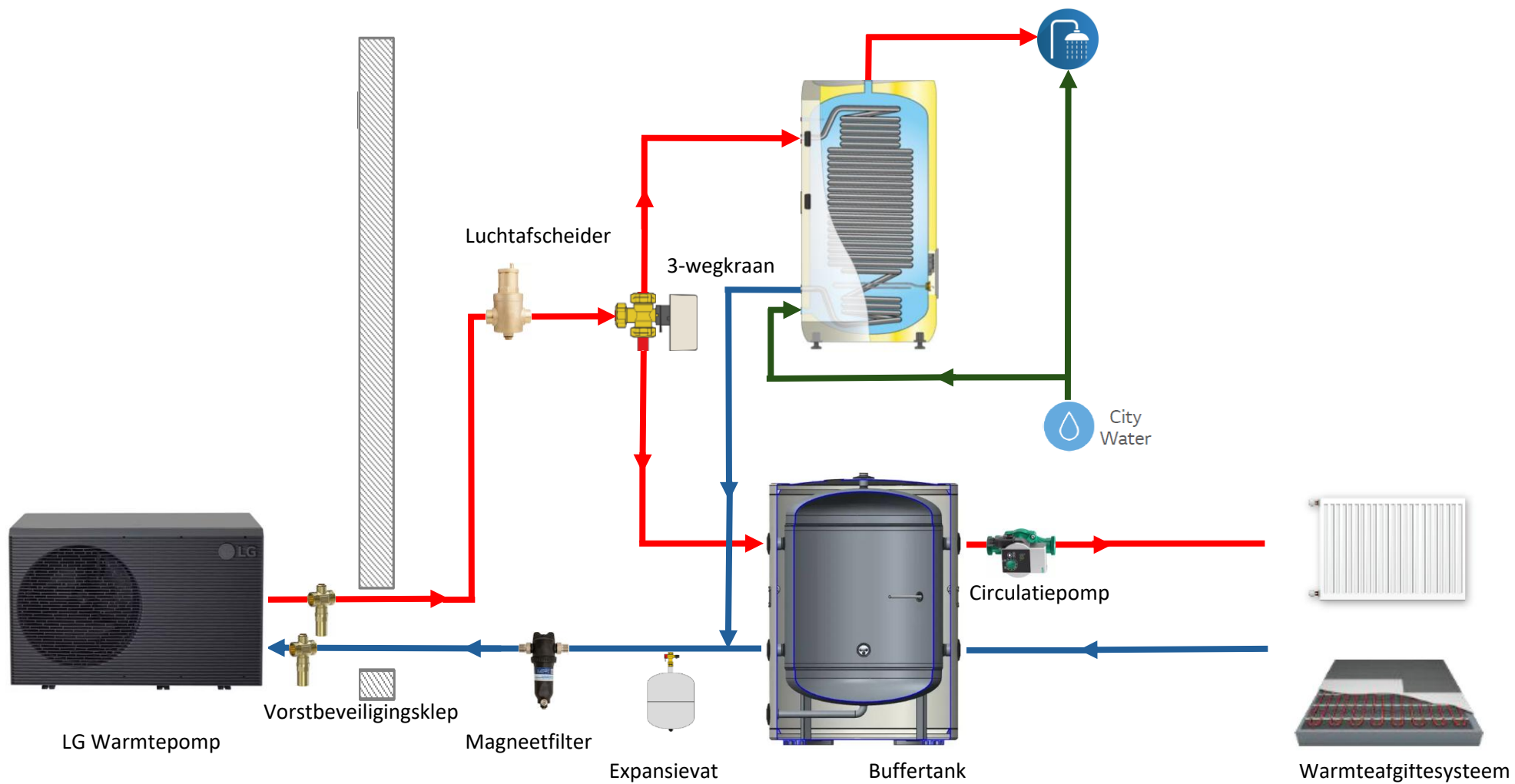




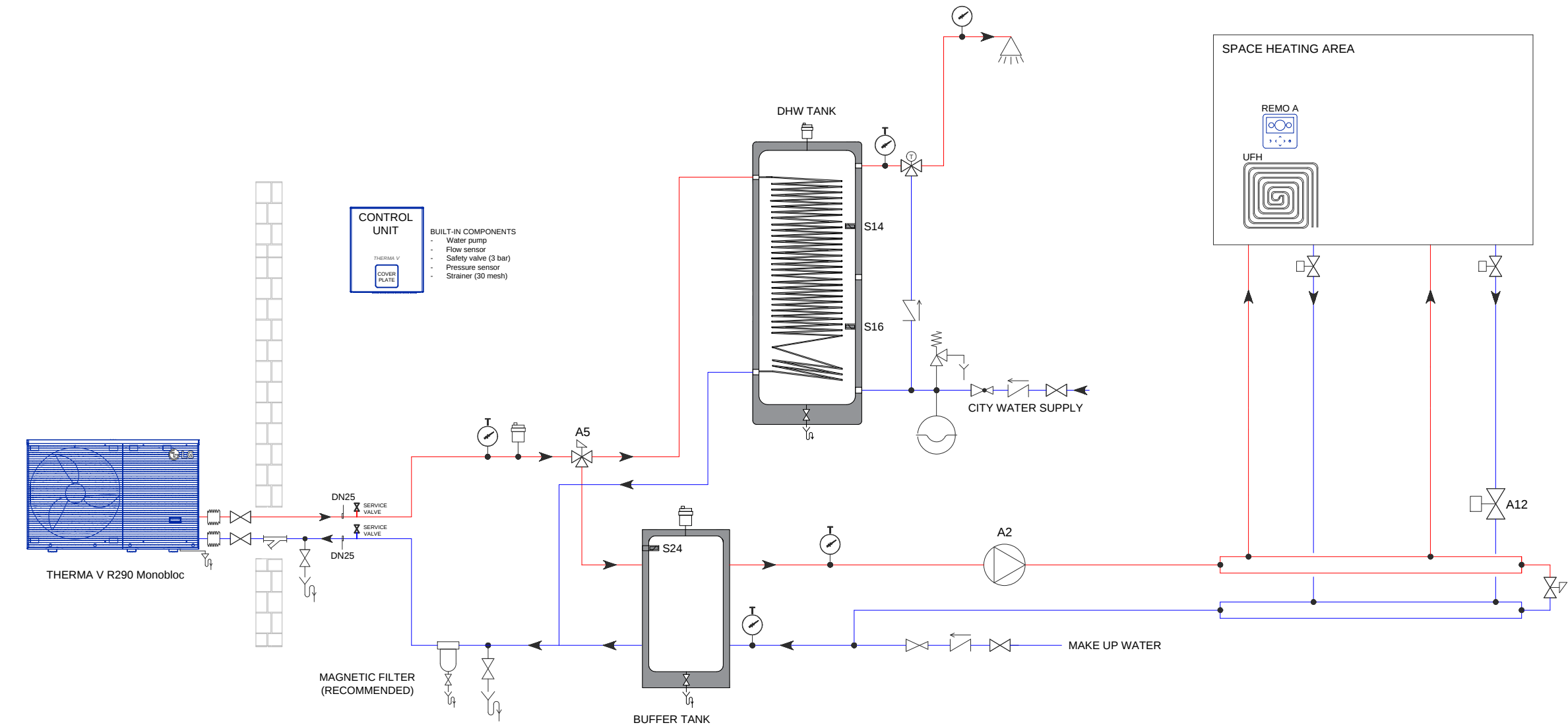
HYDRONIC DIAGRAM

SYSTEM SUMMARY

Application	Space Heating and DHW
Product	R290 Monobloc Control Unit
Terminal device	Under floor heating
Main controller	RS3 remote controller
Control setting of LG RS3 controller	
External pump	Controlled by THERMA V
Remark	

SYMBOL & LEGENDS

	Circulation Pump		Motorized 3 Way Valve		Check Valve		RS3 Remote Controller
	Expansion Tank		Motorized 2 Way Valve		Safety Relief Valve with drain		Remote Room Air Sensor
	Air Vent		Differential Pressure Valve		Y-type strainer		Dry Contact
	Pressure Gauge		Thermostatic Mixing Valve		Flow Sensor		Wi-Fi Modem
	Flexible Connection		Shut Off Valve		Magnetic Contactor		Thermostat
	Drain		Pressure Reducing Valve		Drain Pan		Cover Plate



NOTE

1. This diagram should be used only for reference purpose. It does not contain all the required equipment and safety components in accordance with actual site conditions. Furthermore, please make sure to take into account the applicable standards and laws for each country.
2. It is essential to ensure the minimum amount of water contained in the heating or cooling system.
3. Must fit the insulations on the entire water piping including valves and connections.
4. In a cold climate region, water drainage from outdoor unit must be frost-proof.

DWG NO. :

REV. 00

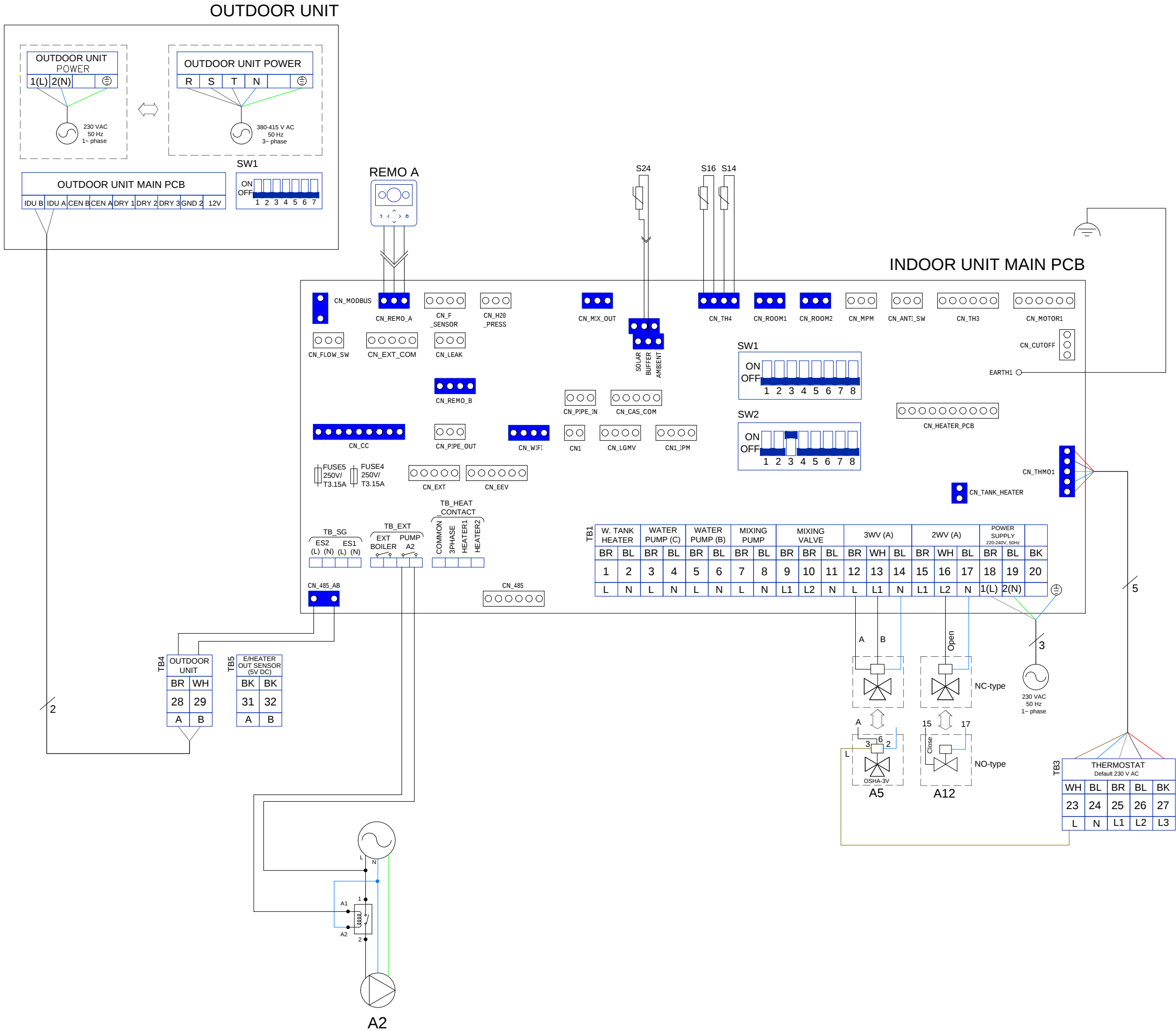
LG ACCESSORIES

LG ACCESSORIES		
Abbr.	Component	Accessory
A5	3-Way-Valve (DHW<>Space)	OSHA-3V
S13	Backup heater outlet sensor	PRSTAT5K10
A8/9+ S13	Backup heater (3kW,1~)	HA031M.E1
	Backup heater (6kW,3~)	HA061M.E1
S14	DHW tank sensor (top)	PHRSTA0
	DHW tank (200 l)	OSHW-200F
	DHW tank (300 l)	OSHW-300F
	DHW tank (300 l, 2 coils)	OSHW-300FD
	DHW Boost heater kit	PHLTA
S16	DHW tank sensor (bottom)	PHLLA
S18	Flow temp. sensor Circuit 2	PRSTAT5K10
S20	Wall-mounted outside sensor	PHATS0
S21	Room air sensor Circuit 1	PQRSTA0
REMO A	Room air controller Circuit 1	PREMTW101
S22	Room air sensor Circuit 2	PQRSTA0
REMO B	Room air controller Circuit 2	PREMTW101
S24	Buffer tank sensor	PHRSTA0
	Drain pan for Hydro Unit	PHDPC
	Thermostatic mixing valve	OSHA-MV(1)
	Extension-cable (10m) for Remote controller	PZCWRC1
	Y-type wire to connect Remote controller as Slave	PZCWRC2
	Cover plate if Remote controller is used as Room controller	PDC-HK10
	Dry contact	PDRYCB000
	Dry contact for Thermostat	PDRYCB320
	WIFI Modem (optional)	PWFMD200
	Extension-cable (10m) for WIFI Modem	PWYREW000
	Meter interface for calibrated meters	PENKTH000
	Cloud Gateway (optional)	PWFMDB200

3RD ACCESSORIES

3rd-PARTY ACCESSORIES		
Abbr.	Component	Spec
A2	External pump	potential-free output
A3	Pump Circuit 2 (Mix pump)	230VAC, max. 1.05 A
A4	Solar collector pump	230 VAC, max. 1.05 A, Non-PWM
A5	3-Way-Valve (DHW<>Space)	230VAC, 3-wire (Neutral/Open/Close)
A6/7	Mixing valve Circuit 2	230VAC, 3-wire (Neutral/Open/Close)
A8/9	Backup heater (Step1/2)	230VAC Signal-output
A10	DHW Boost heater	230VAC Signal-output
A11	Enable/Disable External boiler	Potential-free output
A12	2-Way-Valve (Cooling)	230VAC, 2-wire or NC-type
A15	DHW Recirculation pump	230 VAC, max. 1.05 A
S15	Solar collector temperature	PT1000
	Buffer tank	
	Magnetic filter	mandatory in case of renovation
	Frost protection	Anti-freeze valves/Electric heating band/Glycole
	Additional Expansion vessel	related to water volume
	Acoustic decoupling	between ODU and in-house piping
	DHW tank	with large heat-exchanger suitable for heat pumps
	Thermostatic mixing valve	depending on use-case
	DHW expansion vessel	

WIRING DIAGRAM



DIPSWITCH SETTINGS

INDOOR UNIT MAIN PCB

DIP SW 1		1	2	3	4	5	6	7	8
MODBUS Communication Type	Master (Link to LG Module)	X							
	Slave (Link to 3rd party controller)	O							
MODBUS Function	Not used		X						
	Unified Open Protocol		O						
Not used			--	--	--	--			
Antifreeze Mode	Antifreeze is not applied								X
	Antifreeze is applied (-> Delete N_ANT1_SW)								O
Default setting		X	X	O	X	X	X	X	X

DIP SW 2		1	2	3	4	5	6	7	8
Not used		--							
Accessory Installation Information	Heating(Cooling) only		X	X					
	Heating(Cooling) + Hot water		X	O					
	Heating(Cooling) + Hot water + Solarthermal		O	X					
Heat Pump Cycle	Heating only				X				
	Heating and Cooling				O				
Not used					--				
Selecting Backup Heater Capacity	Backup heater is not used						X	X	
	Half capacity is used						O	X	
	Full capacity is used							O	O
Thermostat Installation	Thermostat is not installed								X
	Thermostat is installed								O
Default setting		X	X	X	X	X	O	O	X

OUTDOOR UNIT MAIN PCB

DIP SW 1		1	2	3	4	5
Low Noise Mode	Always mode		X			
	Partial mode		O			
Peak Control	Max mode			X		
	Peak control : To limit maximum current (power saving)			O		
Hot Gas Defrosting Mode	Hot Gas Defrosting is active				X	X
	Hot Gas Defrosting is inactive				O	O
Default setting		X	X	X	X	X

INSTALLATION SETTINGS ON RS3

Menue path (REMO A)	Required setting
Configuration > Control method	
Configuration > Select Room devices > RMC linked to	Circuit 1&2
Configuration > Select Room devices > Circuit 1 > Digital input	--
Configuration > Select Room devices > Circuit 1 > Room air sensor	Room sensor
Configuration > Select Room devices > Circuit 2 > Digital input	--
Configuration > Select Room devices > Circuit 2 > Room air sensor	Remote controller
Configuration > Mixing Circuit	Heating only
Configuration > External pump > Pump setting	Circuit 1
Configuration > External pump > Boiler setting	???
Configuration > Boiler output	Not use
Configuration > DHW boost heater	- optional -
Configuration > Select outdoor air sensor	- optional -
Configuration > Buffer tank sensor	- optional -
Configuration > Boiler pump operation > Main pump	???
Configuration > Boiler pump operation > External pump	???
Configuration > RMC master/slave	Master
Domestic Hot Water > DHW recirculation > Enable recirculation	Use
Connectivity > Dry Contact > CN_CC	--
Connectivity > Central control address > Access Code (Hex)	- optional -
Connectivity > Modbus address > Access Code (Hex)	- optional -
Connectivity > Meter Interface > Modbus Address	- optional -
Connectivity > Energy state > Signal type	- optional -
Connectivity > Thermostat control type	--

Menue path (REMO B)	Required setting
Configuration > Select Room devices > RMC linked to	Circuit 2
Configuration > RMC master/slave	Master