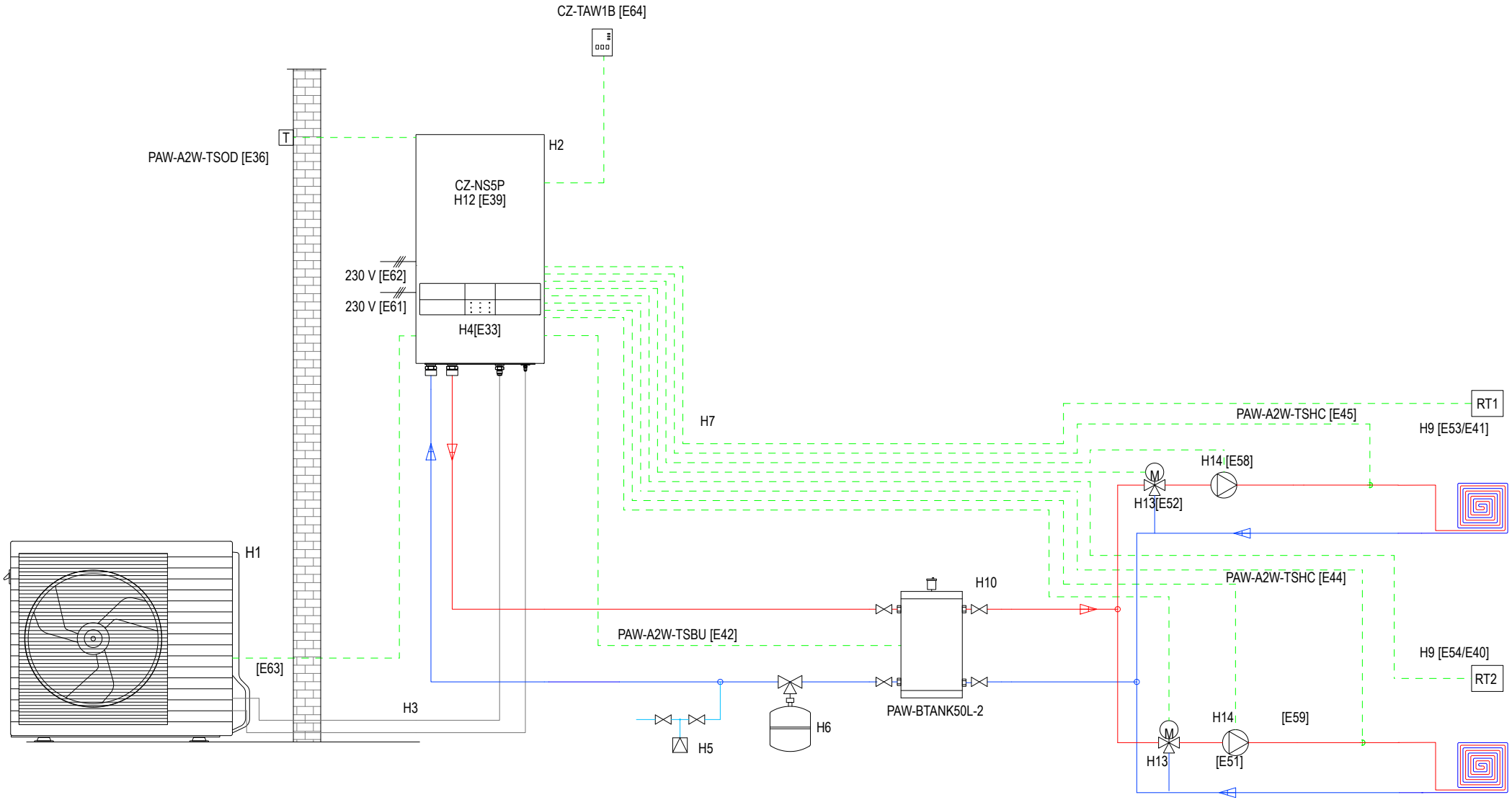
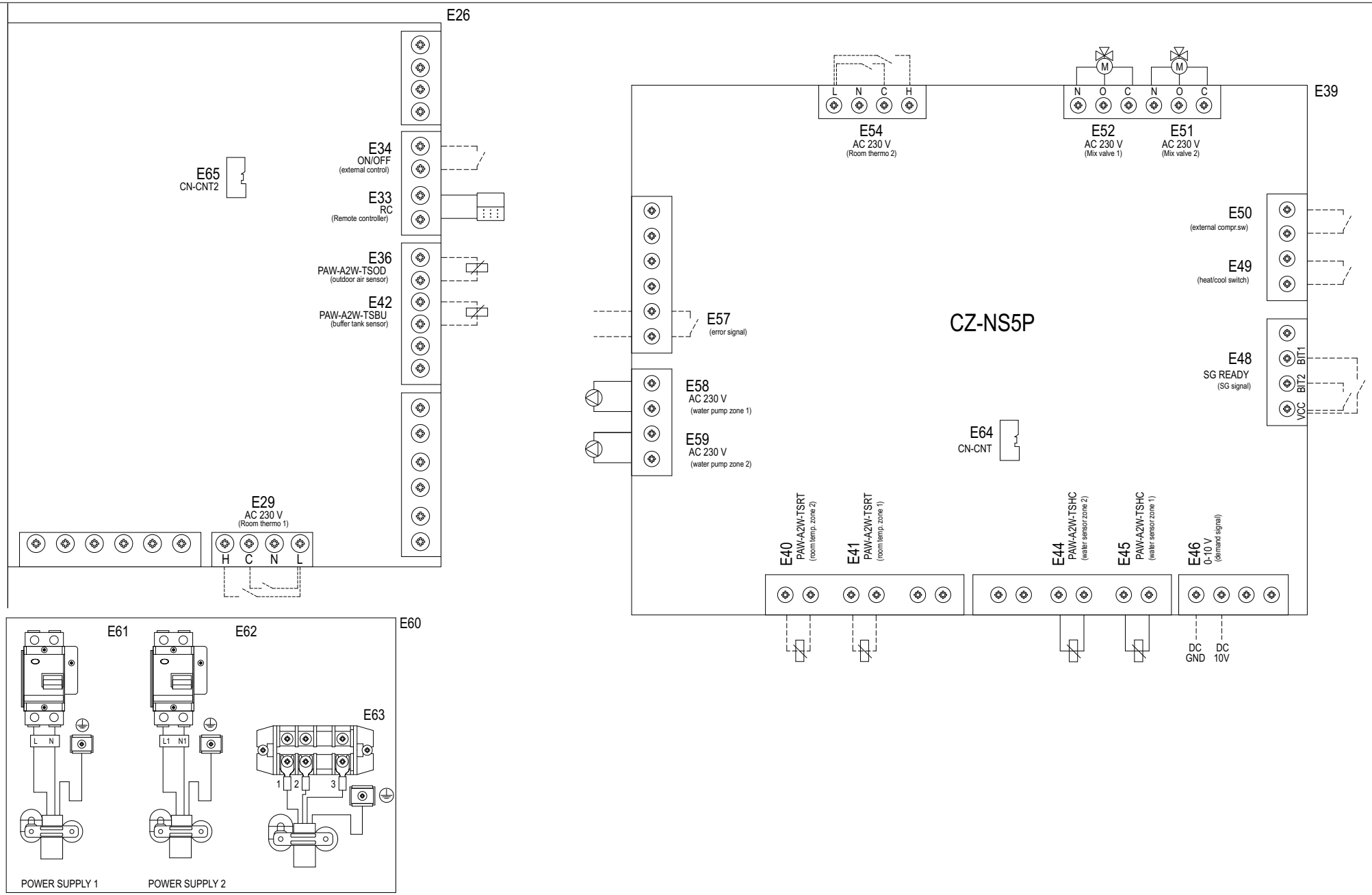


Panasonic | 2023-09-21,14:26:30 | . | . | .

A: HO-SN-MV.dxf, B: DEVBUFFER-SOLHEATNO-MONOVALENT.dxf, C: BUFFERYES-MIXED-MIXED-VALVENO.dxf, IDU: biblo-k, ODU: outdoor-i



Panasonic	2023-09-21,14:26:30	WH-SDC0309K3E5 + WH-UDZ05KE5	.	.	.

E33,E36,E39,E40,E41,E42,E44,E45,E51,E52,E53,E54,E58,E59,E61,E62,E63,E64

System Component List

Panasonic Components

REF	CODE	NR	DESCRIPTION
H1	WH-UDZ05KE5	1	Outdoor unit [05, E5]
H2	WH-SDC0309K3E5	1	Bi-bloc indoor unit (4) [0309, E5]
H9	PAW-A2W-TSRT	1	Room sensor (if needed) (1)
H10	PAW-BTANK50L-2	1	Buffer tank
H12	CZ-NS5P	1	Optional PCB for K and L generation heat pumps
E36	PAW-A2W-TSOD	1	Outdoor air sensor (optional)
---	PAW-GRDBSE20	1	Outdoor unit base ground support (optional)
---	CZ-NE2P (single fan models) / CZ-NE3P (twin fan models)	1	Base pan heater (optional)
E42	PAW-A2W-TSBU	1	Buffer tank sensor
E64	CZ-TAW1B	1	Wireless/Wired control of the heat pump (optional)
E44/E45	PAW-A2W-TSHC	2	Water sensor (mandatory)

Third Party Components

REF	CODE	NR	DESCRIPTION
H5	Backflow	1	Mandatory for France and Belgium, optional for other countries
H6	Expansion vessel	1	if needed
H9	Room thermostat	2	if needed (1)
H13	Mixing Valve	2	To mix down the water temperature
H14	Water pump	2	To be defined according to the system requirements

Footnotes

1	Select room thermostats or room sensors according to the selected circuits control.
4	For normal operation, water pressure reading should be between 0.5 bar and 3 bar

LEGEND – Refrigerant Split System

Panasonic

Legend for the hydraulic part	
H1	Refrigerant Split heat pump outdoor unit (provide outdoor unit drain)
H2	Split heat pump indoor unit: the magnetic filter and the flow meter are included in all K generation heat pumps.
H3	The refrigerant inside the HP is R32. For split units, the refrigerant pipes' maximum length is 50 m with 30 m maximum of height difference between indoor and outdoor unit. The 3 kW LT unit has a 25 m maximum length and 20 maximum height difference. For all size HPs, the minimum distance between indoor and outdoor unit is 3m. The R32 precharge will cater for 10 m.
H4	Remote controller of the Heat pump. Dual remote controls may be used (optional).
H5	System charge and backflow device
H6	Expansion vessel: every HP has a 10 litre expansion vessel that will cater for 200 litres at 55°C in the fully open heat pump circuit. Any variation, greater than the specification stated, will require a secondary expansion vessel added to the system.
H7	Electrical connections: to be defined when the hydraulic scheme and the system control logic have been selected.
H8	Automatic bypass valve
H9	Optional thermostat: every circuit can be controlled with one optional thermostat, with one room sensor or with the remote controller (CZ-RTW1 additional controller for additional circuit).
H10	Buffer tank / Volumiser: in the open primary circuit (when all heating – cooling circuits are closed) it is recommended a minimum water volume of at least 30 litres up to and including 9 kW units and 50 litres for 12 (kW stated is nominal heating capacity of the heat pump A7/W35).
H11	Heating/cooling circuit: If the HP is connected directly to the system, the minimum water flow rate must be guaranteed. Provide an automatic bypass valve (recommended 1" diameter) or a 3-way diverting valve on hydronic indoor units (fan-coil, duct unit etc.) or a thermostat must be removed to ensure sufficient flow. If you have floor heating provide a safety thermostat (for heating mode) and a dew-point sensor (for cooling mode).
H12	Optional PCB - CZ-NS5P - needed for this scheme
H13	Mix valve with 3 points control
H14	Secondary water pump: they must be chosen according to the system hydraulic performance.
H15	Boiler
H16	Solar panels
H17	Solar pump
H18	Pool pump
H19	Heat exchanger for the swimming pool (to be sized)
H20	Swimming pool
H21	Expansion vessel (cold water)
H22	Sanitary equipment
H23	Circulation pump (optional) and timer
	Shut-off valve
	Non-return valve
	Security valve
	Thermostatic mixing valve (optional)
	Pressure regulator
	Boiler circuit pipes
	Solar panels circuit pipes
	Pipes
	Domestic cold water pipe
	Electrical wired cables

Legend for the electric part	
E26	Main board PCB: the maximum cable length for sensor inputs is 30 meters and the maximum cable length for outputs and other inputs is 50 meters.
E27	2 way valve: open for heating (O+N) and close for cooling (C+N)
E28	3 way valve: open for DHW (O+N) and close for heating/cooling system (C+N)
E29	Optional thermostat 1: every circuit can be controlled with one optional thermostat (E29 for one zone and E29 and E54 for 2 zones), with one room sensor (E37 for one zone or E40 and E41 for 2 zones) or with the remote controller (E 33, 1 or 2 circuits).
E30	Booster heater
E31	Extra pump control
E32	ON/OFF boiler or deice output (dry contact)
E33	Remote Controller: the K generation heat pump remote controller can be used as a room thermostat for two circuits. The cables maximum length is 50 meters.
E34	External ON/OFF (dry contact)
E35	DHW tank sensor
E36	Outdoor air sensor (optional)
E37	Zone 1 room sensor (see point E29)
E38	OLP booster heater: on the OLP contact must be put a jumper if external booster heater is used and controlled by Panasonic heat pumps.
E39	Optional PCB: the maximum cable length for sensor inputs is 30 meters and the maximum cable length for outputs and other inputs is 50 meters. If the optional PCB (CZ-NS5P) is installed, the room sensor 1 and the extra pump control contacts of the main PCB are disabled
E40	Zone 2 room sensor (see point E29)
E41	Zone 1 room sensor (see point E29)
E42	Buffer tank sensor
E43	Pool water sensor
E44	Water sensor zone 2 (see point E29)
E45	Water sensor zone 1 (see point E29)
E46	Demand signal (0-10 V)
E47	Solar sensor
E48	Smart Grid signal: the 2 contacts can increase the set-point for DHW and heating or cooling if there is energy production from the PV panels. The 2 input contact can be also used to control a bivalent system with boiler and heat pump using an external control. The 2 options exclude one another.
E49	Heat / cool switch
E50	External compressor switch
E51	Mixing valve zone 2
E52	Mixing valve zone 1
E53	Optional thermostat 1 (see point E29)
E54	Optional thermostat 2 (see point E29)
E55	Pool pump
E56	Solar pump
E57	Error signal (dry contact
E58	Pump zone 1
E59	Pump zone 2
E60	Indoor unit power supply
E61	Indoor unit power supply 1 - main
E62	Indoor unit power supply 2 - heaters
E63	Connection to the outdoor unit: the outdoor unit power supply comes from the indoor unit, so it is not necessary to bring a direct power supply to the outdoor unit.
E64	CZ-TAW1B is a device that can allow the remote control of the heat pump using a LAN or Wifi connection to the modem. Using this device the HP can be online on the Aquarea Smart Cloud website (https://aquarea-smart.panasonic.com).