

# QUATTRO

(SFK 57 Aqua<sup>4</sup>)

## Submittal

The SFK 57, named "Quattro" Aqua<sup>4</sup>, is a premix gas-fired condensing hot water heater that complies with CSA/ANSI Z21.10.3:19 Gas-fired water heaters. The Aqua<sup>4</sup>, is equipped with a Flow-tech<sup>®</sup> stainless steel heat exchanger that consists of a single tube coil with a diameter of 28 mm. This larger coil tube reduces the pressure drop across the heat exchanger, and prevents debris/limestone deposits and makes it much easier on maintenance. The Aqua<sup>4</sup> features a 1:10 air/gas modulation which is important for energy savings and important in providing a wide range of desired flow rates and temperatures.



### TECHNICAL FEATURES

MODEL		SFK 57
Maximum nominal heat capacity in heating circuit	btu/h - (kW)	88716 - (26)
Maximum nominal heat capacity in domestic circuit	btu/h - (kW)	98952 - (29)
Minimum input	btu/h - (kW)	13650 - (4)
Adjustable heating temperature	°F - (°C)	86-167 / 77-113 (30-75 / 25-45)
Adjustable domestic temperature	°F - (°C)	104 - 140 (40-60)
Maximum operating pressure	psi - (bar)	150 - (10.34)
Thermal efficiency		97 %
Continuous hot water supply - ΔT 54°F (30°C) - mixed water - 1 hour	gal(US) - (litres)	251 - (950)
Continuous hot water supply - ΔT 77°F (43°C) - mixed water - 1 hour	gal(US) - (litres)	188 - (711.5)
Continuous hot water supply - ΔT 54°F (30°C) - mixed water	GPM (litres/ min)	3.53 (13.36)
Continuous hot water supply - ΔT 77°F (43°C) - mixed water	GPM (litres/ min)	2.48 (9.38)
Width	in - (mm)	22.4 - (570)
Depth	in - (mm)	23.6 - (600)
Height	in - (mm)	60.11 - (1527)
Gross weight	lb - (Kg)	211 - (96)
Electric consumption - normal	W	180
Electric consumption - Standby	W	3.5

### MAIN FEATURES

ANTI-FREEZE FUNCTION PROTECTION

OUTDOOR RESET

WIDE MODULATING RANGE

LOW NOX EMISSIONS

PRE-WIRED ELECTRICAL LEAD

FULL GAS/AIR MODULATION

SOLAR CARD CONTROL (OPTIONAL)

TIME AND TEMPERATURE CONTROLLERS (OPTIONAL)

WARRANTY HEAT EXCHANGER: 12 YEARS;

WARRANTY COMPONENTS: 2 YEARS.

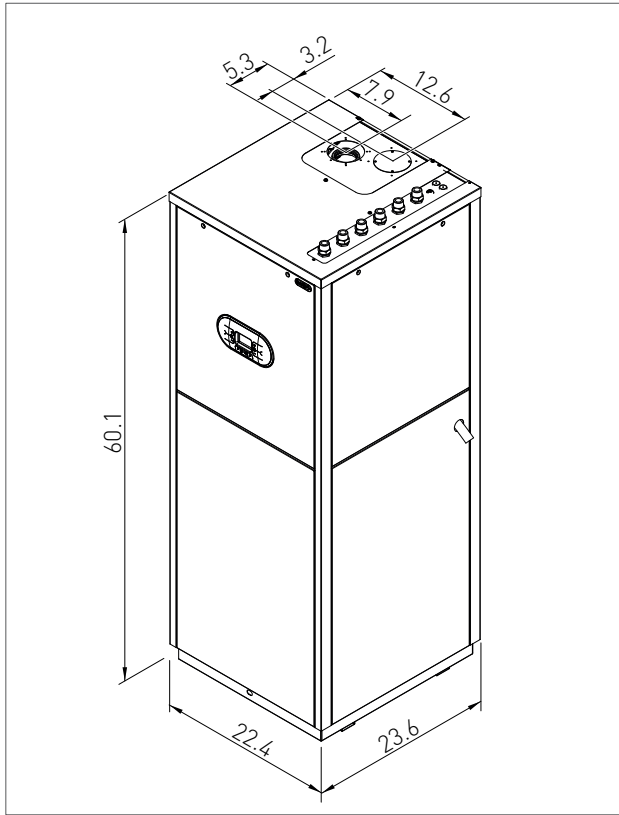
PROJECT NO.:	REPRESENTATIVE:
NAME:	DATE:
LOCATION:	
SPECIFIER:	APPROVED BY:
CONTRACTOR:	DATE:





# 1. SFK 57 QUATTRO SUBMITTAL

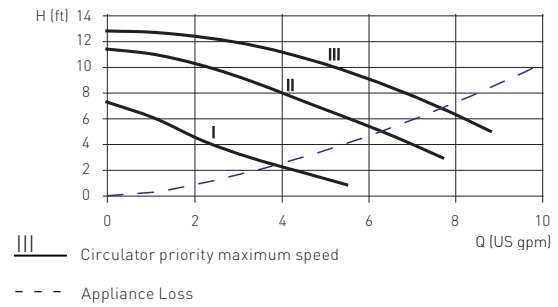
## OVERALL DIMENSIONS (INCH)



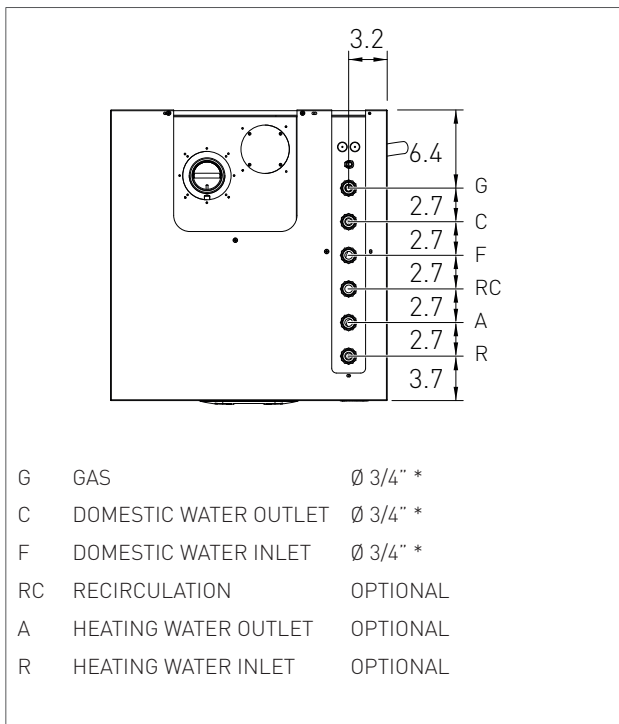
## TYPES OF EXHAUST SYSTEMS

- > COLLINEAR VENT, CO-AXIAL VENT AND SINGLE VENT.
- > PVC, CPVC AND POLYPROPYLENE FOR SIZES 2", 3" AND 4" DIAMETERS.
- > FOR CANADA USE GAS VENTING SYSTEMS CERTIFIED TO ULC S636.

## RECIRCULATION MODE CIRCULATOR PREVALENCE/FLOW DIAGRAM



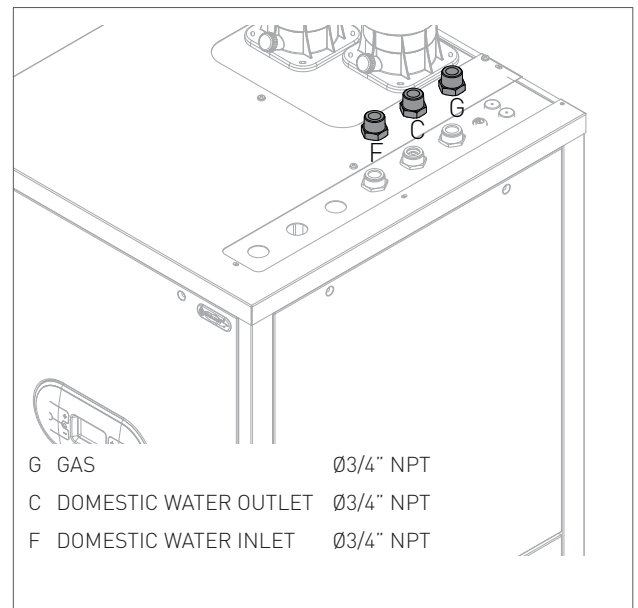
## JIG



G	GAS	Ø 3/4" *
C	DOMESTIC WATER OUTLET	Ø 3/4" *
F	DOMESTIC WATER INLET	Ø 3/4" *
RC	RECIRCULATION	OPTIONAL
A	HEATING WATER OUTLET	OPTIONAL
R	HEATING WATER INLET	OPTIONAL

## HYDRAULIC CONNECTION KIT

An hydraulic kit equipped with hydraulic connections is supplied by RADIANT.



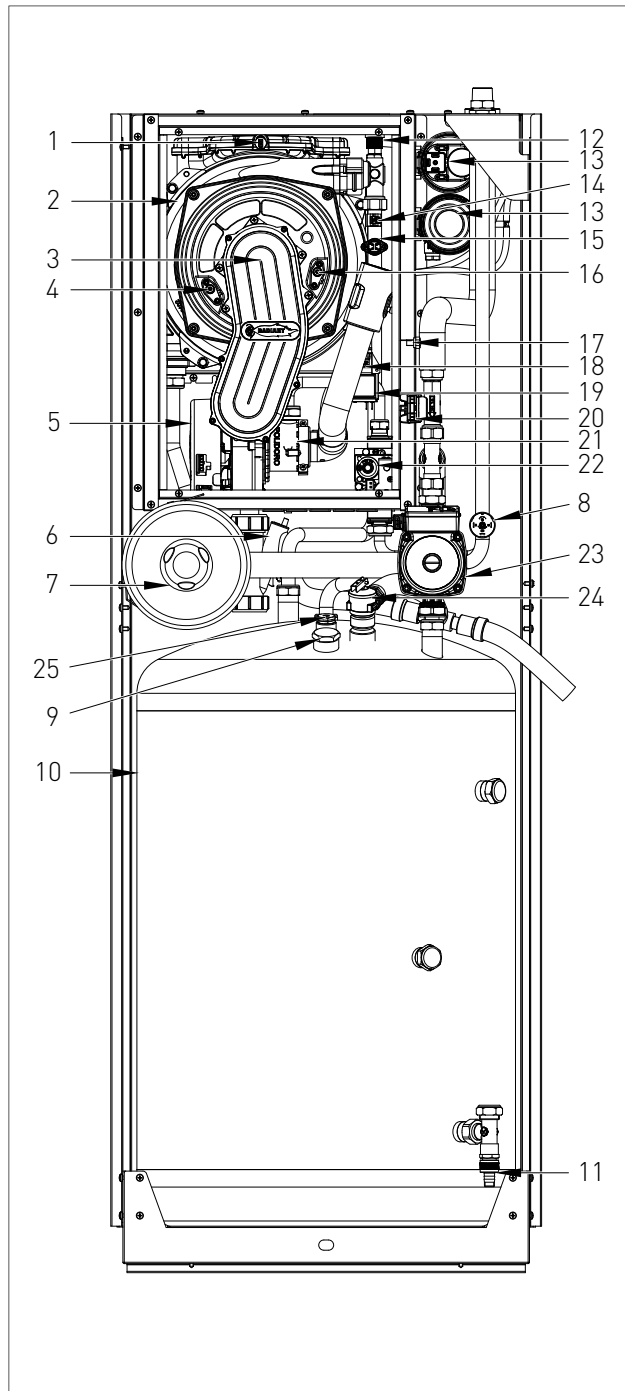
[\*] NOTE: THESE ARE CONNECTION SIZES BEFORE VALVE KIT/CONNECTION CONVERSION KIT IS INSTALLED.



**TECHNICAL ASSEMBLY**

**KEY**

- 1. EXHAUST SAFETY HIGH LIMIT SWITCH
- 2. HEAT EXCHANGER
- 3. BURNER UNIT
- 4. IONIZATION ELECTRODE
- 5. COMBUSTION BLOWER
- 6. CONDENSATE COLLECTION SIPHON
- 7. THERMAL EXPANSION TANK D.H.W.
- 8. WATER PRESSURE SWITCH
- 9. ANODE
- 10. STORAGE TANK
- 11. TANK DRAINING TAP
- 12. AIR ELIMINATOR
- 13. AIR PRESSURE SWITCH
- 14. DOMESTIC TEMPERATURE PROBE OUTLET
- 15. WATER TEMPERATURE HIGH LIMIT SWITCH
- 16. SPARK ELECTRODE
- 17. DOMESTIC TEMPERATURE PROBE INLET
- 18. AIR SUCTION TUBE
- 19. IGNITION TRANSFORMER
- 20. FLOW METER
- 21. PROPORTIONAL VENTURI
- 22. GAS VALVE
- 23. CIRCULATOR
- 24. TEMPERATURE AND PRESSURE RELIEF VALVE
- 25. STORAGE TANK PROBE

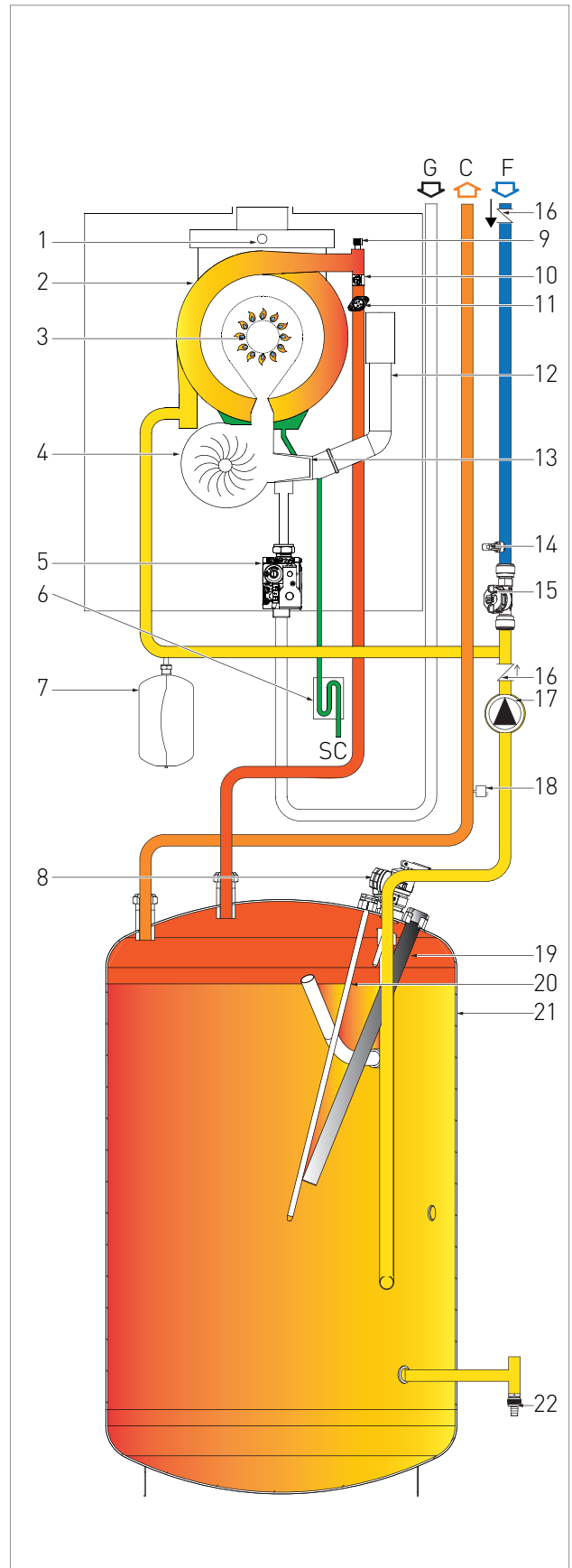


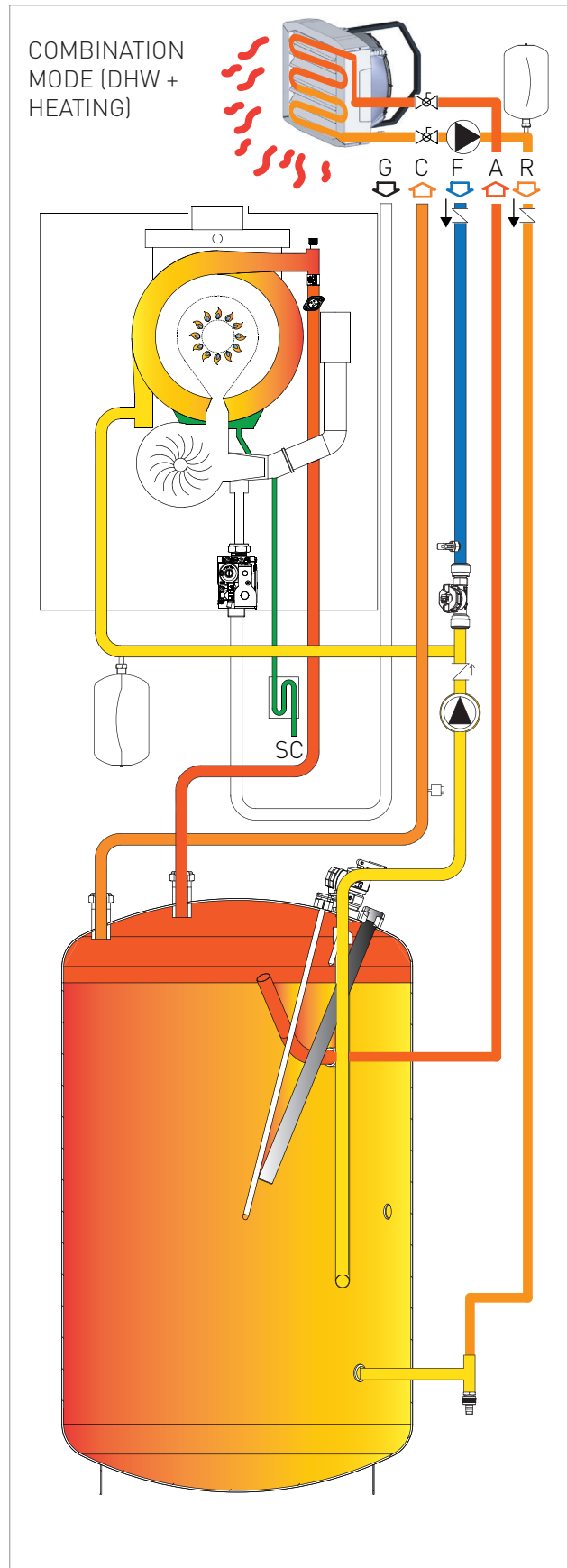
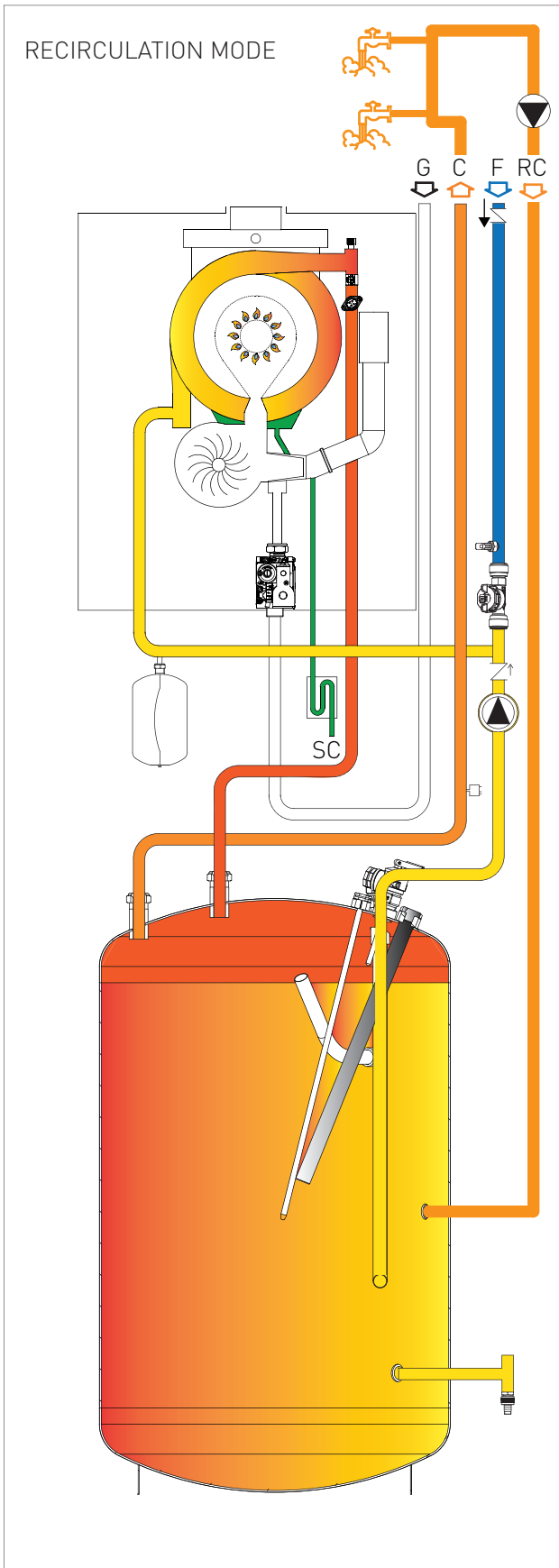
**HYDRAULIC BOARD**

**DRAW DEMAND WITH CIRCULATOR ACTIVE AND WITHOUT RECIRCULATION LINE**

**KEY**

- G. GAS INLET
- C. DOMESTIC WATER OUTLET
- F. DOMESTIC WATER INLET
- SC. CONDENSATE DRAIN
- RC. RECIRCULATION
- A. HEATING WATER OUTLET
- R. HEATING WATER INLET
  
- 26. EXHAUST SAFETY HIGH LIMIT SWITCH
- 27. HEAT EXCHANGER
- 28. BURNER UNIT
- 29. COMBUSTION BLOWER
- 30. GAS VALVE
- 31. CONDENSATE COLLECTION SIPHON
- 32. THERMAL EXPANSION TANK D.H.W.
- 33. PRESSURE RELIEF VALVE
- 34. AIR ELIMINATOR
- 35. DOMESTIC TEMPERATURE PROBE OUTLET
- 36. WATER TEMPERATURE HIGH LIMIT SWITCH
- 37. AIR SUCTION TUBE
- 38. PROPORTIONAL VENTURI
- 39. DOMESTIC TEMPERATURE PROBE INLET
- 40. FLOW METER
- 41. CHECK VALVE
- 42. CIRCULATOR
- 43. WATER PRESSURE SWITCH
- 44. ANODE
- 45. STORAGE TANK PROBE
- 46. STORAGE TANK
- 47. TANK DRAINING TAP

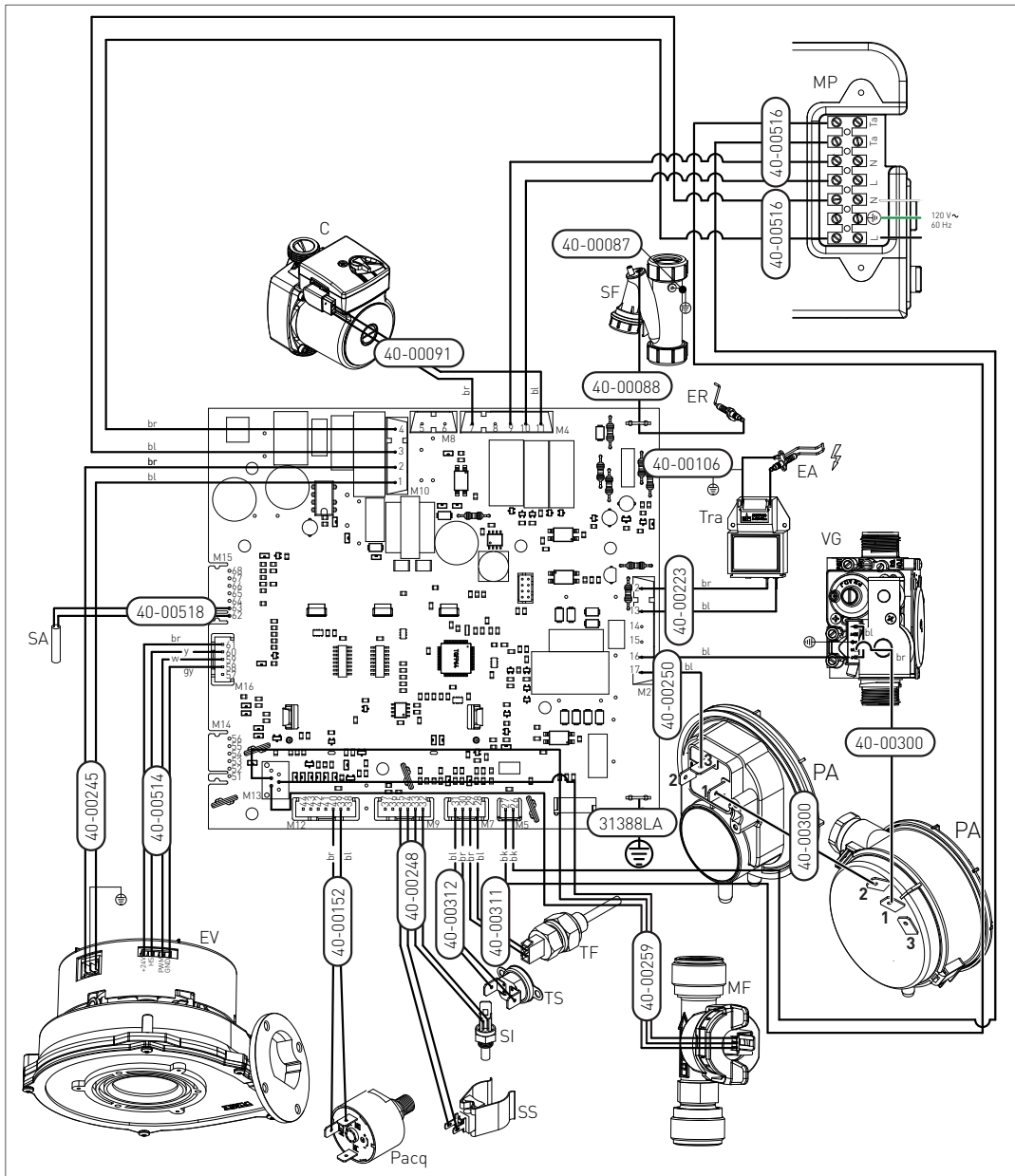






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## WIRING DIAGRAM



- |  |   |                            |           |
|--|---|----------------------------|-----------|
| ER: IONIZATION ELECTRODE                     | TS: WATER TEMPERATURE HIGH LIMIT SWITCH | MP: PANEL TERMINAL         | BL: BLUE  |
| EA: SPARK ELECTRODE                          | MF: FLOW SWITCH                         | L: LINE                    | BR: BROWN |
| C: CIRCULATOR                                | SI: DOMESTIC TEMPERATURE PROBE INLET    | N: NEUTRAL                 | O: ORANGE |
| VG: GAS VALVE                                | SS: DOMESTIC TEMPERATURE PROBE          | G: GREEN                   | Y: YELLOW |
| TRA: IGNITION TRANSFORMER                    | EV: COMBUSTION BLOWER                   | RE: RED                    | W: WHITE  |
| TF: EXHAUST SAFETY HIGH LIMIT SWITCH_(102°C) | PA: AIR PRESSURE SWITCH                 | BK: BLACK                  | GY: GREY  |
| SA: STORAGE TANK PROBE                       | SF: CONDENSATE COLLECTION SIPHON        | TA: ENVIRONMENT THERMOSTAT |           |
| PACQ: WATER PRESSURE SWITCH                  |   |                            |           |