



SPECIFICATIONS FOR PRO-TEMP 64 SERIES CONTROLLERS

Environmental:

All inputs and outputs are protected from electro-static discharge (ESD) and radio frequency interference (RFI). ESD protection is rated to 50,000 volts. RFI protection is rated to 15 V/M from 20 MHz to 300MHz. Operating temperature range is 34 F to 130 F, in a non-condensing atmosphere.

Outputs:

Dry contacts are rated at 750mA maximum under inductive load. A seven-day time clock scheduler provides set point adjustment with up to 20 schedules per week.

Analog Inputs:

Each input point measures voltage in a range of 0 to 10 volts with a resolution of 0.005 volts. These points are directly compatible with 10K @ 25C Thermister temperature sensors (no external interface is required). Temperature range is -30 F to 230 F with a resolution of 0.1 F, and absolute accuracy of +/- 1 F. No calibration is required. Interface to temperature sensors are supported using 0 to 10 volt inputs.



Product Specifications

Enclosure:

Epoxy coated CRS metal with lockable door.

Dimensions: 5"W x 6.75"H x 2.25"D.

Weight: 2.5lbs

Analog Inputs:

Quantity: 2

Type: Thermister

Range: -30 F to 230 F

Resolution: 0.1 F

Relay Outputs:

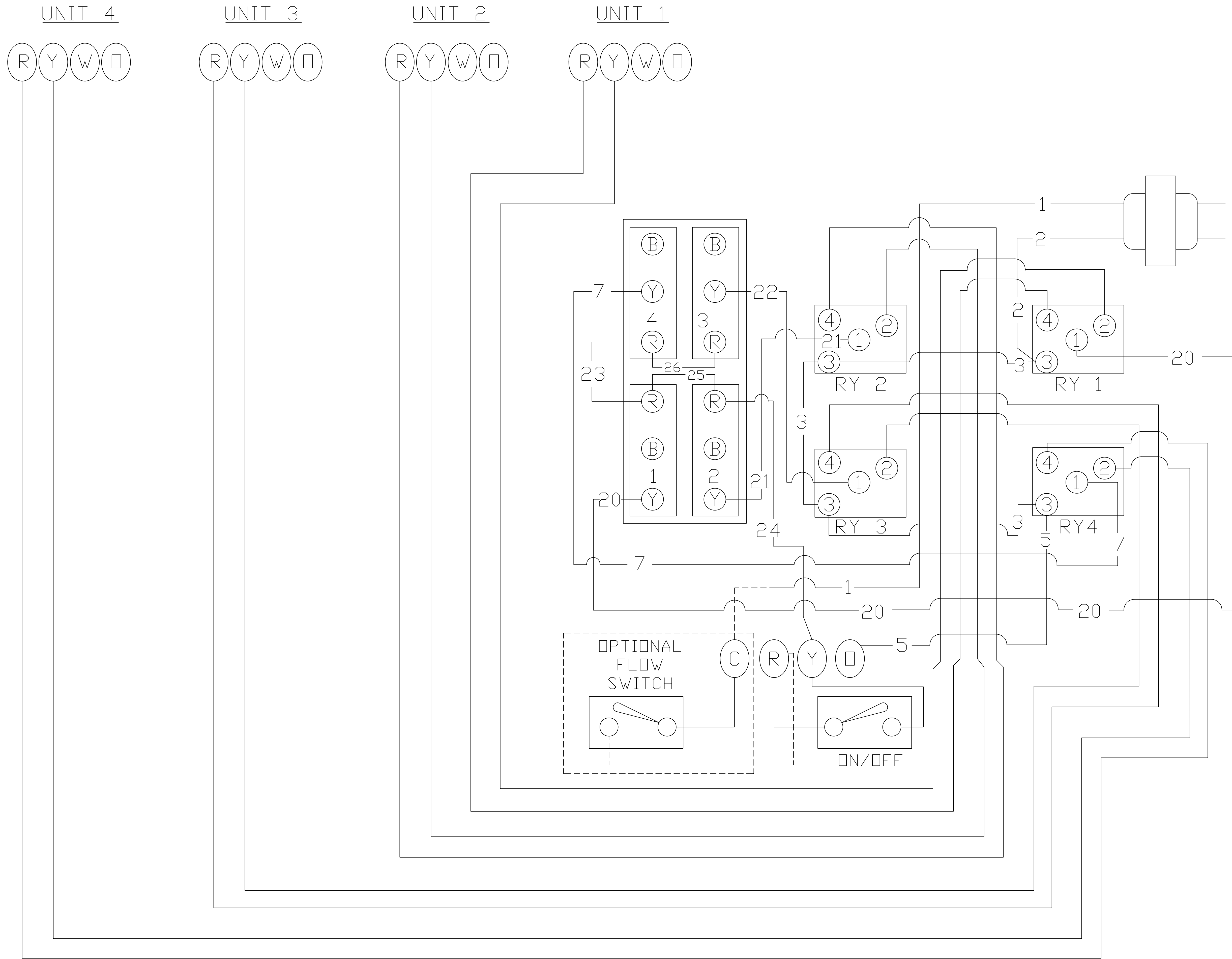
Quantity: 2

Type: N/C

Contact Rating: 750mA inductive load

Power Requirements:

24 VAC at 20 VA



ELECTRICAL DIAGRAM

SCALE: NONE

LIABILITY
 This drawing and our recommendations and suggestions, are intended to assist our customers. Our design represents our best judgment based on our experience and the best facts provided to us, any use thereof is at the sole risk of the customer.
 It is assumed that the customer will install the THAW-PAK system in compliance with all local, state and national codes.

CONSULTANTS:
BELMONT MGT.
 OHIO

PROJECT NAME:
CAMBRIDGE WOODS APTS.
 3365 AIRPORT HIGHWAY
 TOLEDO OHIO

THAW-PAK DISTRIBUTOR:
PERFORMANCE
 engineering group

DRAWN BY:
 Gordon Faustich

REVIEWED BY:
 AD

APPROVED BY:
 AD

ISSUED FOR

02/01/13	APPROVAL
04/03/13	ISSUE HISTORICAL EQUIPMENT
04/29/13	UPDATED SHEET P.
04/30/13	ISSUE HISTORICAL EQUIPMENT, CIRCULAR MARKUP
06/03/13	ASSC. JOB NO. AND REVISION SHEETS
06/13/13	ADD'D HEAT RECOVERY CONTROLS
07/29/13	LABELLED GROUNDING PUMP ON SHEET P.

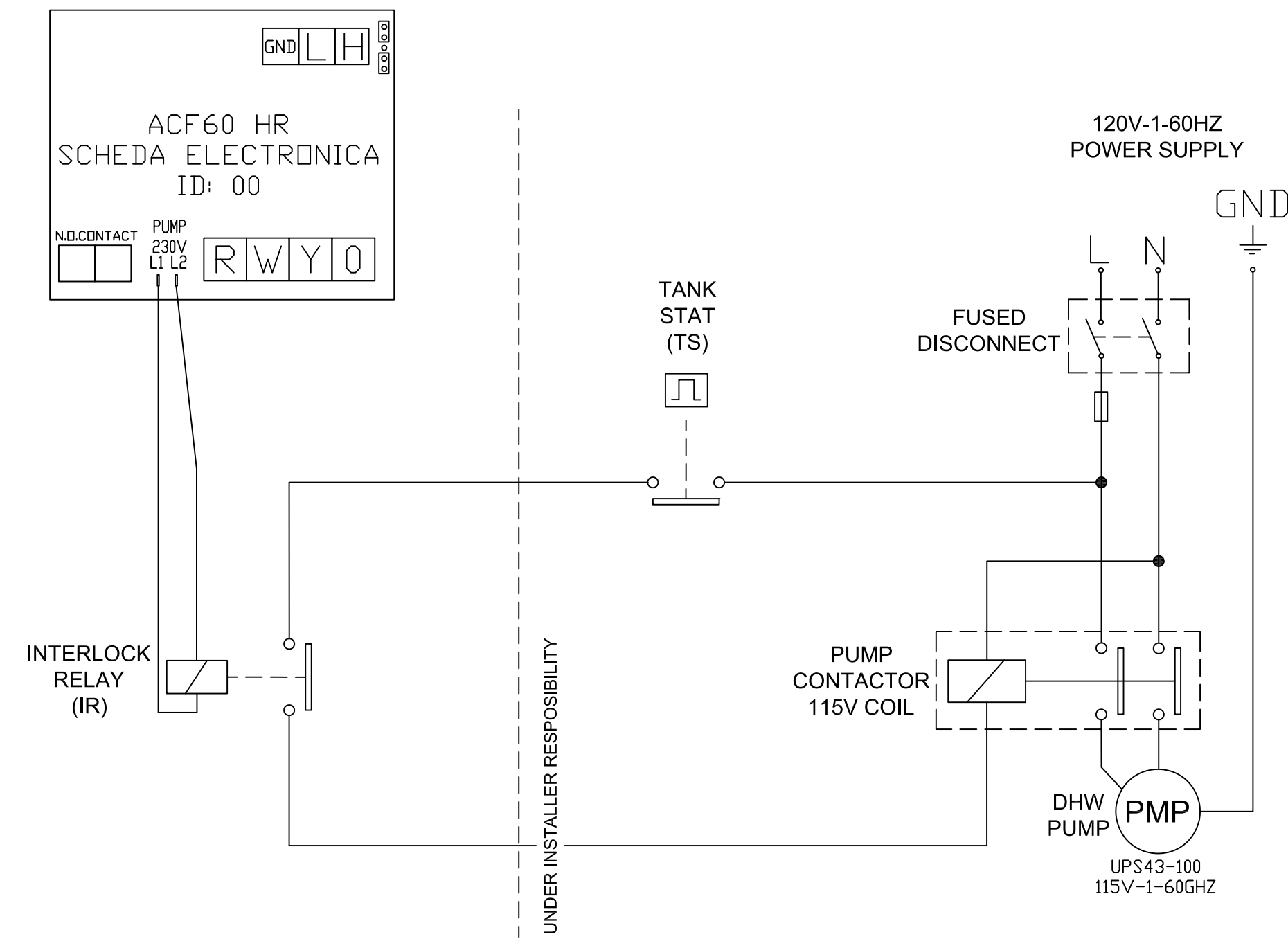
PROPERTY OF THAW-PAK
 This drawing is the property of THAW-PAK. It has been prepared to assist in the installation of our system. Customer agrees to keep confidential and not disclose this drawing or copies thereof without our written consent.

DRAWING NO.
13-009P_G

SHEET NO.
E1

HEAT RECOVERY ELECTRICAL DIAGRAMS

SCALE: NONE



ACF HEAT RECOVERY / DOMESTIC HOT WATER LOGIC
SINGLE ACF60-HR UNIT

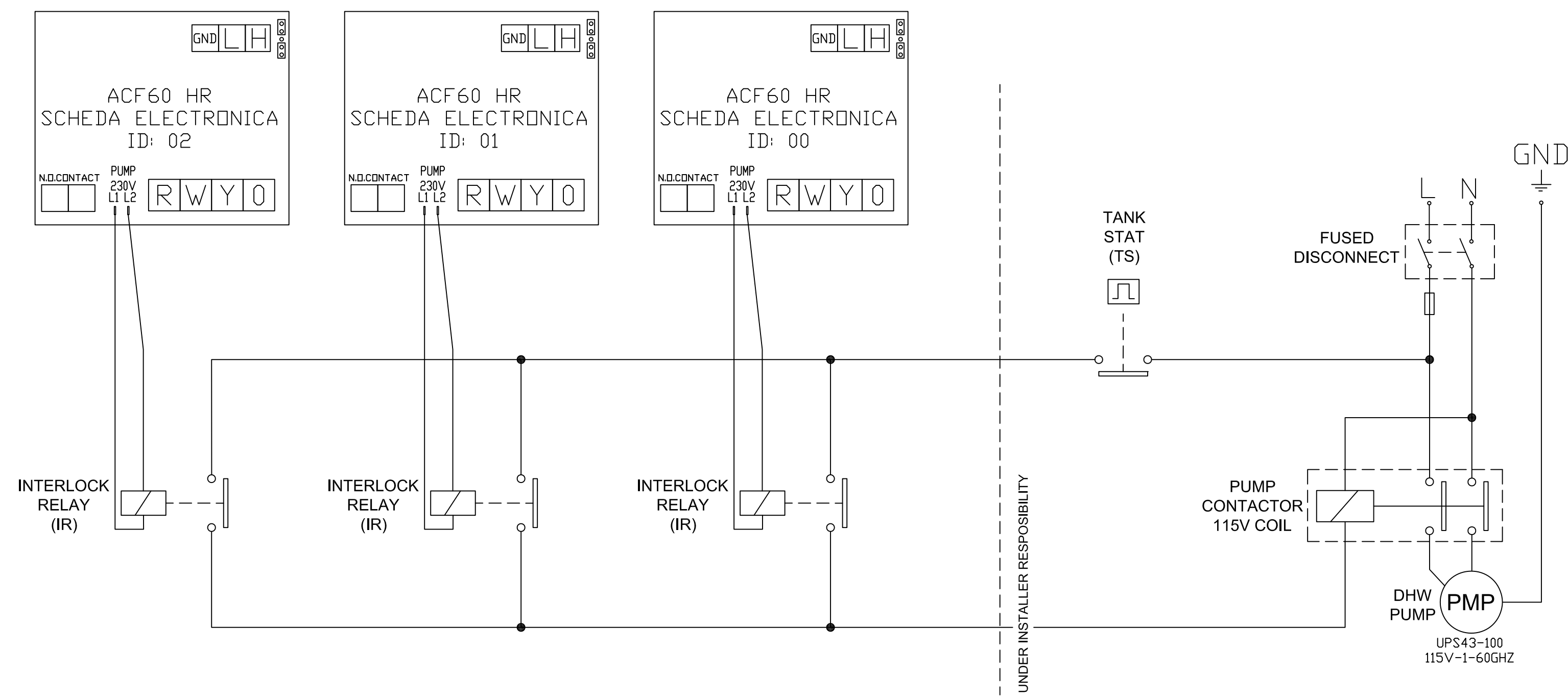
INTERLOCK RELAY (IR) - SUPPLIED WITH ACF UNIT; MAY BE LABELED (KP1) WILL ONLY ALLOW DHW OPERATION IF THE CHILLER IS OPERATING.

TANK STAT (TS); WILL SHUT OFF THE DHW PUMP IF TANK TEMPERATURE REACHES SET POINT.

FUSED DISCONNECT: MANUAL ON / OFF SERVICE DEVICE FOR 120 VOLT POWER SUPPLY TO DHW PUMP (15 AMP).

PUMP CONTACTOR: 15 / 20 AMP RATED CONTACTOR WITH 120V COIL TO CONTROL THE ON / OFF POWER OPERATION OF THE DHW PUMP (CONTROLLED BY IR AND / OR TS).

DHW PUMP: GRUNDFOS UPS43-100F - CIRCULATES GLYCOL MIXTURE BETWEEN THE HR COIL OF THE CHILLER AND THE HEATING COIL IN THE SMART TANK.



ACF HEAT RECOVERY / DOMESTIC HOT WATER DIAGRAM
MULTIPLE ACF60-HR UNITS (SEE SINGLE UNIT FOR LOGIC)

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AD

APPROVED BY:
AD

ISSUED FOR

DATE	APPROVAL
02/01/13	ISSUED FOR INITIAL EQUIPMENT
04/03/13	UPDATED SHEET P.
04/29/13	ISSUED FOR INITIAL GYCOL MAKEUP
06/03/13	ISSUE JOB NO. AND DRAWING SHEETS
06/13/13	ADDED HEAT RECOVERY CONTACTOR
07/29/13	LABELED CONTACTOR PUMP ON SHEET P.

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DRAWING NO.
13-009P_G

SHEET NO.
E2