

Field Certification Certificate of Compliance

Certificate: 2579769

Project: 2579769

Date Issued: December 7, 2012

Issued to: Shield Air Solutions
3708 Greenhouse Road
Houston, TX 77084
U.S.A.

Attention: Steve Maughan

*The products listed below are eligible to bear CSA Field Certification Labels,
bearing the CSA Mark shown.*



Issued by: Darrelyn Smith
Darrelyn Smith

PRODUCTS

CLASS – 9098 81 MISCELLANEOUS – for Hazardous Locations – to US Requirements

CSA Field Certification Label(s) issued: from serial numbers U 104254 to U 104255.

Class I Division 1, Groups C & D, T3C

Wall Mount Heat Pump unit, Model: WHBX025-215-C1, 240Vac, 1 pH, 50 Hz, 33.1 MCA, Compressor 17.9 RLA/ 112 LRA, Condenser Fan 5.2 FLA, Evaporator Fan 5.5 FLA; Refrigerant R410-A, 110 oz Charge.

CSA Label#
U 104254
U 104255

Serial#
PWACKC216466814
PWACKC216466813

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APPLICABLE REQUIREMENTS

UL 1995, 3 rd Edition	-Heating and Cooling
UL 508, 17 th Edition	-Safety for Industrial Control Equipment
UL 1203, 4 th Edition	-Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations

MARKINGS

1. Submitter's Name
2. Model Designation
3. Complete Electrical Ratings (amps, hertz, phase, volts)
4. Serial Number Traceable to month and year of manufacture
5. Hazardous Locations Designations
6. Temperature Code
7. The following cautions:
"To prevent ignition of hazardous atmospheres disconnect device from supply circuit before opening. Keep assembly tight during operation."



CSA INTERNATIONAL

Supplement to Certificate of Compliance

Certificate: 2579769

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
2579769	December 7, 2012	Original Field Certification. Field Certification Labels issued: Serial numbers U 104254 to U 104255 (total of 2 labels) Report issued.



Descriptive and Test Report

REPORT: 2579769

PROJECT: 2579769

Edition 1: December 7, 2012; Project 2579769 - Dallas
Issued by Darrelyn Smith; Reviewed By David Taylor

Contents: Certificate of Compliance - Page 1 to 2
Supplement to Certificate of Compliance – Page 1
Description and Tests – Pages 1 to 6

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The test report shall not be reproduced, except in full, without the approval of CSA International.

2912 Kraft Street, Suite 10, Arlington, TX, U.S.A. 76010

Telephone: 817.652.9600 1.800.463.6727 Fax: 817.652.9884 www.csa-international.org

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ALTERATIONS

Markings as described above.

FACTORY TESTS

N/A

DESCRIPTION

General:

The Heat Pump unit is a 3 ton wall mount type unit originally manufactured by Bard Manufacturing and modified for hazardous (classified) locations by Shield Air to meet Class I Division 1, Group C & D, T3C requirements.

Only electrical modifications were made to the unit. All arcing/sparking components are either installed inside the shelter within the explosion proof enclosure control box or replaced by their explosion proof counterpart.

All electrical components have certified body approvals.

Critical Components:

Heat Pump Unit: Bard, W36H1-A00XXSXXX, cETLus, 3 ton, 240 Vac, 1 ph, 50 Hz, R410-A

Evaporator Motor: Baldor, CB703034, UL/CSA, Class I Division 1 Group C & D, 240 Vac, 1hp, 1 ph, 5.5 Amp, 50 Hz, 1425 rpm, 1.15 sf, 56C frame, T3C

Condenser Motor: Baldor, CB703038, UL/CSA, Class I Division 1 Group C & D, 240Vac, ¾ hp, 1 ph, 3.2 Amp, 50 Hz, 1425 rpm, 1.15 s.f. 56C frame, T3C

Control Box:

Explosion Proof Enclosure: Killark, EXB-10148, CSA/UL, Class I Division 1 Group B, C & D, Type 3,4

Contactors: Honeywell, R4222D 1021, CSA/UR, 208/240V 50/60 Hz

Logic: Siemens, 6ED1-052-1FB00-0BA6, cULus, 240 V, 10A
Siemens, 6ED1 055-1FB00-0BA1, cULus, 240V, 5A

Overload Relay: Siemens, 48DA18AA4, UL/CSA, 600 V MAX

Transformer: Pioneer Breaker & Control Supply, CN-PBC302-240V, cURus, 240 Vac, 30 A, 50/60

ISR: Turck, IM1-451-Ex-R, CSA/UL, Class I Division 1 Group A, B, C &D, $U_o < 11.3V$, $I_o < 13mA$, $R_i < 900$ ohms

On door:

Pot Operator: Killark, GO113-N34, CSA/UL, Class I Division 1 Group B, C & D

Selector Switch: Killark, G05-4H8H N34, CSA/UL, Class I Division 1 Group B, C & D

Pilot Light: Killark, G0B3-G23C N34 LED, 120 V Class I Division 1 Group B, C & D

Reset Button: Killark, G01-KX1C N34, CSA/UL Class I Division 1 Group B, C & D

Overload Manual Reset Button: Killark, GO-RST, CSA/UL Class I Division 1 Group B, C & D

Wiring:

Cable: RSCC, Model Gardex CC, UL, Class I Division 1 Groups A, B, C, &D, Type MC-HL 600V, 14 AWG Copper

Cable Fitting: Per Fit, model WTUP 056-050, cULus, Class I Division 1 Groups A, B, C, &D.

Conduit Fitting: Appleton, ¾ EYF-EYM, CSA/UL Class I Division 1 Groups A, B, C, &D.

Killark, ¾-14 NPSM, CSA/UL, Class I Division 1 Groups B, C, &D

Junction Box: Appleton, GR-EFHC, UL/CSA, Class I Division 1 Groups B, C, &D, type 3, 4

Adalet, XJXH, cULus, Class I Division 1 Groups B, C, &D, type 4

DESCRIPTIVE DOCUMENTS LIST:

Documents detailed herein are subject to inspection by CSA International personnel and shall be made available in the manufacturing location upon request.

Drawing Number	Revision	Title
16466-2	2	Electrical Schematic
WO-16466- R1	6/4/2012	Material Requisition
WO-16466-R2	7/9/2012	Material Requisition



TEST REPORT

The subject equipment is a previously certified heat pump unit, Bard Manufacturing model W36H1-A00XXSXXX, which has been modified for Class I Division 1, hazardous locations. All components added or replacing existing components are previously certified and are equivalent to the existing. Components not approved for area are located within the explosion proof enclosure . The core functionality of the heat pump unit system was not affected. All modified components are accepted with no further evaluation.

Std UL 1203 Clause 20.1 Temperature Test- Passed
Std UL 1995 Clause 52.1 Dielectric Strength- Passed
Std UL 1995 Clause 39.1. Input Test- Passed

No further evaluation deemed necessary.

END OF REPORT