| 1.0 Reference and Address | | | |
|---|---|---|---|
| Report Number | 2510B0285SHA-001 | Original Issued: 30-Dec-2025 | Revised: None |
| Standard(s) | Household And Similar Electrical Appliances, Part 1: General Requirements [UL 60335-1:2016 Ed.6]<br><br>Safety Of Household And Similar Appliances - Part 1: General Requirements [CSA C22.2#60335-1:2016 Ed.2]<br><br>Household and Similar Electrical Appliances - Safety - Part 2 - 40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners, and Dehumidifiers [UL 60335-2-40:2022 Ed.4]<br><br>Household and Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers [CSA C22.2#60335-2-40:2022 Ed.4] | | |

| | | | |
|---|---|---|---|
| Applicant | Nantong Ningpu Electrical Appliance Co., Ltd. | Manufacturer | **Nantong Ningpu Electrical Appliance Co., Ltd.** |
| Address | No.139, Huanghe Road, Rudong Economic Development Zone, Nantong, Jiangsu Province, 226400 | Address | No.139, Huanghe Road, Rudong Economic Development Zone, Nantong, Jiangsu Province, 226400 |
| Country | P.R. China | Country | P.R. China |
| Contact | Mr. Qi Lin | Contact | Mr. Qi Lin |
| Phone | 86-513-81969611 | Phone | 86-513-81969611 |
| FAX | 86-513-8196 8003 | FAX | 86-513-8196 8003 |
| Email | qilin@ningpu.com.cn | Email | qilin@ningpu.com.cn |

| 2.0 Product Description | |
|---|---|
| Product | Portable Air Conditioner |
| Brand name | Ningpu, NEPO<br>Costway, Auseo, COWSAR, Fornido, Joy Pebble, Kndko, R.W.FLAME, ZAFRO, Xbeauty, Electactic, KISSAIR, Antarctic Star, Kismile, WAA, Garvee |
| Description | These units covered by this report are cord-connected, air-cooled, portable type room air conditioners with a hermetically sealed self-contained refrigeration system. They are intended for indoor use only. A removable and flexible exhaust hose is provided to discharge hot condenser air out of the conditioned room. These units are equipped with a flexible cord having grounding conductor with LCDI plug and connected to power supply rated at 115 VAC, 60 Hz. The control circuit may be powered from a switching power supply. |
| Models | NPP followed by A-Z or blank; followed by 1-100 or blank; followed by A-Z or blank; followed by -05C, -05H, -06C or -06H; followed by /X1E; may be followed by -W.<br>NPP-05C/X1E, NPP-06C/X1E, NPPB2A-05C/X1E, NPPC3A-05C/X1E, NPPD4A-05C/X1E, NPPE5B-05C/X1E, NPPB2A-06C/X1E, NPPC3A-06C/X1E, NPPD4A-06C/X1E, NPPE5B-06C/X1E, FP11174US, FP11174US-WH, FP11175US, FP11175US-WH |
| Model Similarity | For convenience, abbreviate NPP followed by A-Z or blank; followed by 1-100 or blank; followed by A-Z or blank; followed by -05C; followed by /X1E; may be followed by -W to NPP-05C/X1E series.<br>Abbreviate NPP followed by A-Z or blank; followed by 1-100 or blank; followed by A-Z or blank; followed by -05H; followed by /X1E; may be followed by -W to NPP-05H/X1E series.<br>abbreviate NPP followed by A-Z or blank; followed by 1-100 or blank; followed by A-Z or blank; followed by -06C; followed by /X1E; may be followed by -W to NPP-06C/X1E series.<br>abbreviate NPP followed by A-Z or blank; followed by 1-100 or blank; followed by A-Z or blank; followed by -06H; followed by /X1E; may be followed by -W to NPP-06H/X1E series.<br>Brand Garvee is for NPP-05C/X1E, NPP-06C/X1E only.<br>Brand Auseo, COWSAR, Fornido, Joy Pebble, Kndko, R.W.FLAME, ZAFRO, Xbeauty, Electactic, KISSAIR, Antarctic Star, Kismile, WAA are for NPPB2A-05C/X1E, NPPC3A-05C/X1E, NPPD4A-05C/X1E, NPPE5B-05C/X1E, NPPB2A-06C/X1E, NPPC3A-06C/X1E, NPPD4A-06C/X1E, NPPE5B-06C/X1E only.<br>FP11174US is identical with NPP-05C/X1E except for the model name.<br>FP11174US-WH is identical with NPP-05C/X1E except for the model name.<br>FP11175US is identical with NPP-06C/X1E except for the model name.<br>FP11175US-WH is identical with NPP-06C/X1E except for the model name.<br>Brand Costway is for FP11174US, FP11174US-WH, FP11175US, FP11175US-WH only. |

| **2.0 Product Description** | | | | | |
|---|---|---|---|---|---|
| Ratings | 115V~, 60Hz, R32 | | | | |
| | Model | Total Input Current | RLA of Compressor | LRA of Compressor | FLA of fan motor |
| | NPP-05C/X1E<br>NPP-05H/X1E | 6.9A | 5.5A | 27A | 1.27A |
| | NPP-06C/X1E<br>NPP-06H/X1E | 7.9A | 6.3A | 34A | 1.27A |
| Other Ratings | Model | Refridgerant Mass | | Max. High/Low Pressure | |
| | NPP-05C/X1E<br>NPP-05H/X1E | 7.05oz | | 620/360psig | |
| | NPP-06C/X1E<br>NPP-06H/X1E | 6.77oz | | 620/360psig | |

## 3.0 Product Photographs

**Photo 1 -** Front view (NPP-06H/X1E)


**Photo 2 -** Side view (NPP-06H/X1E)

## 3.0 Product Photographs

**Photo 3 -** Side view (NPP-06H/X1E)

**Photo 4 -** Rear view (NPP-06H/X1E)

## 3.0 Product Photographs

**Photo 5 -** Internal view (NPP-06H/X1E)

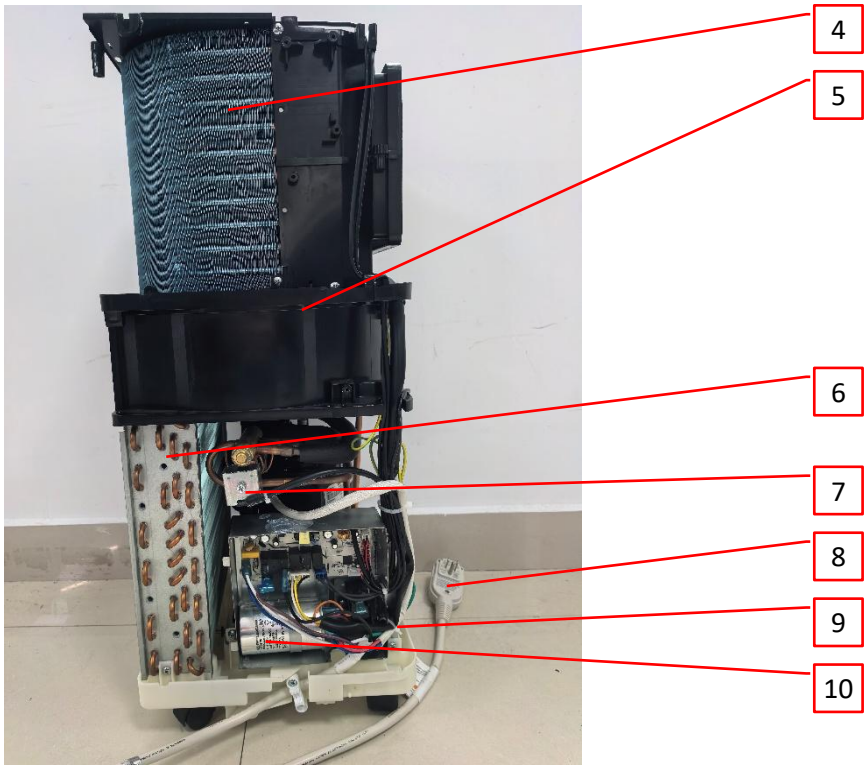
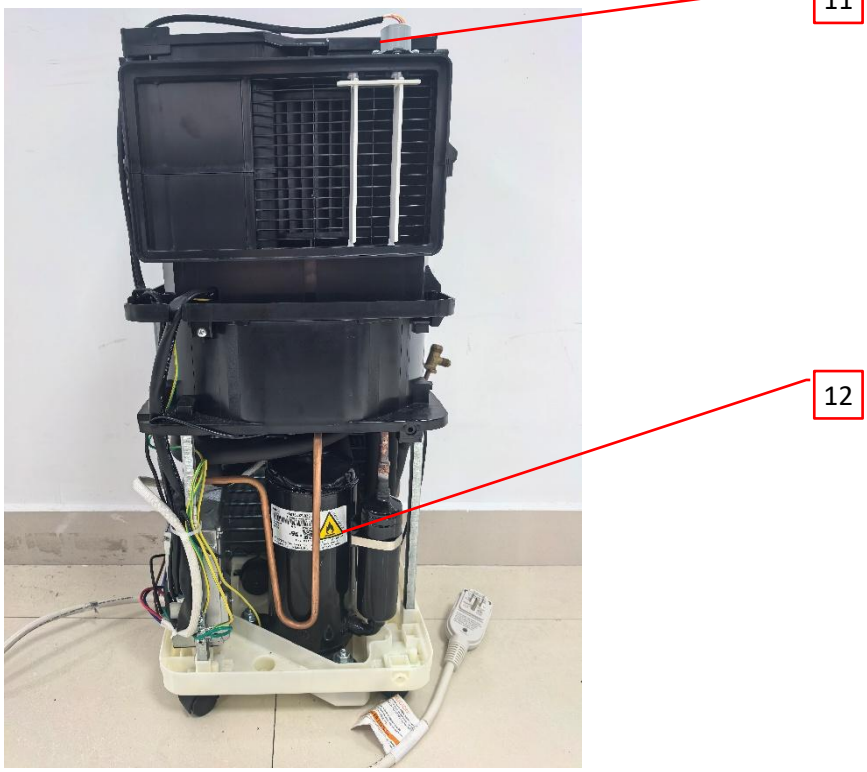



**Photo 6 -** Internal view (NPP-06H/X1E)



## 3.0 Product Photographs

**Photo 7 -** Internal view (NPP-06H/X1E)

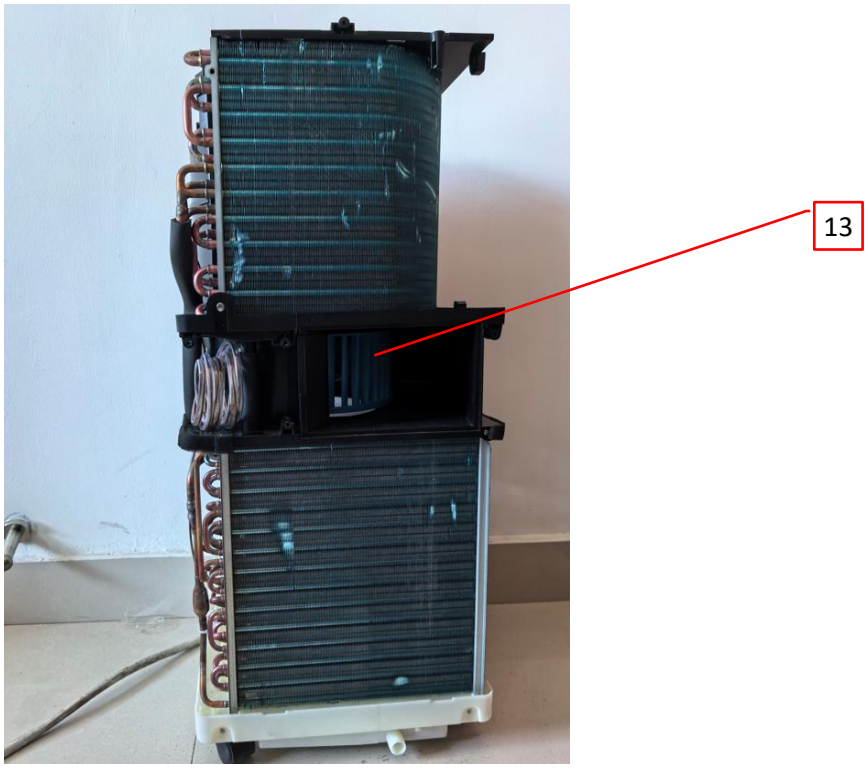
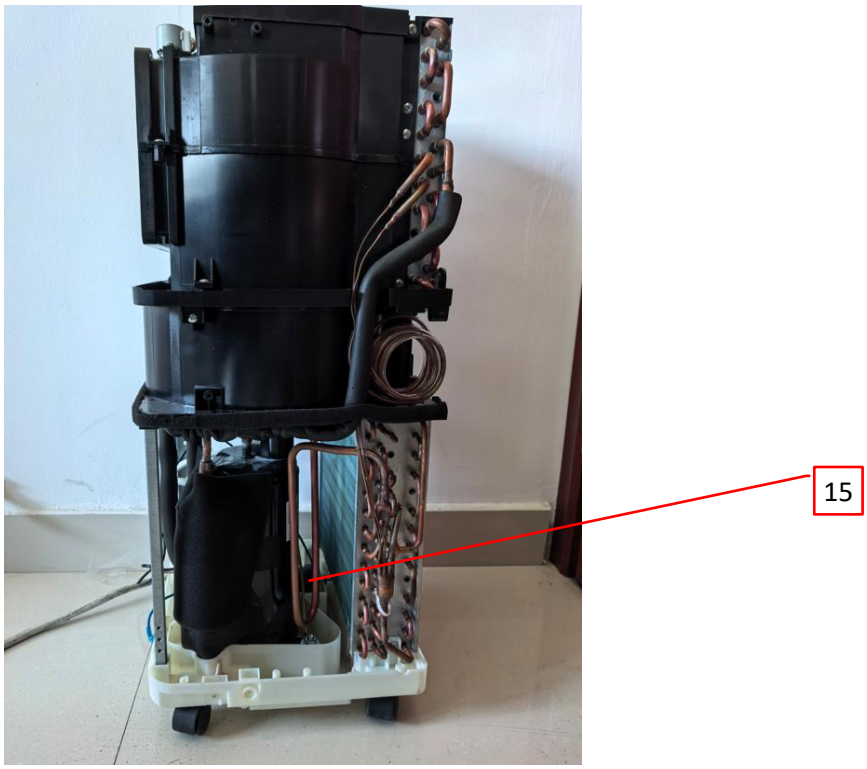



**Photo 8 -** Internal view (NPP-06H/X1E)



## 3.0 Product Photographs

**Photo 9 -** Internal view of PWB box (NPP-06H/X1E)

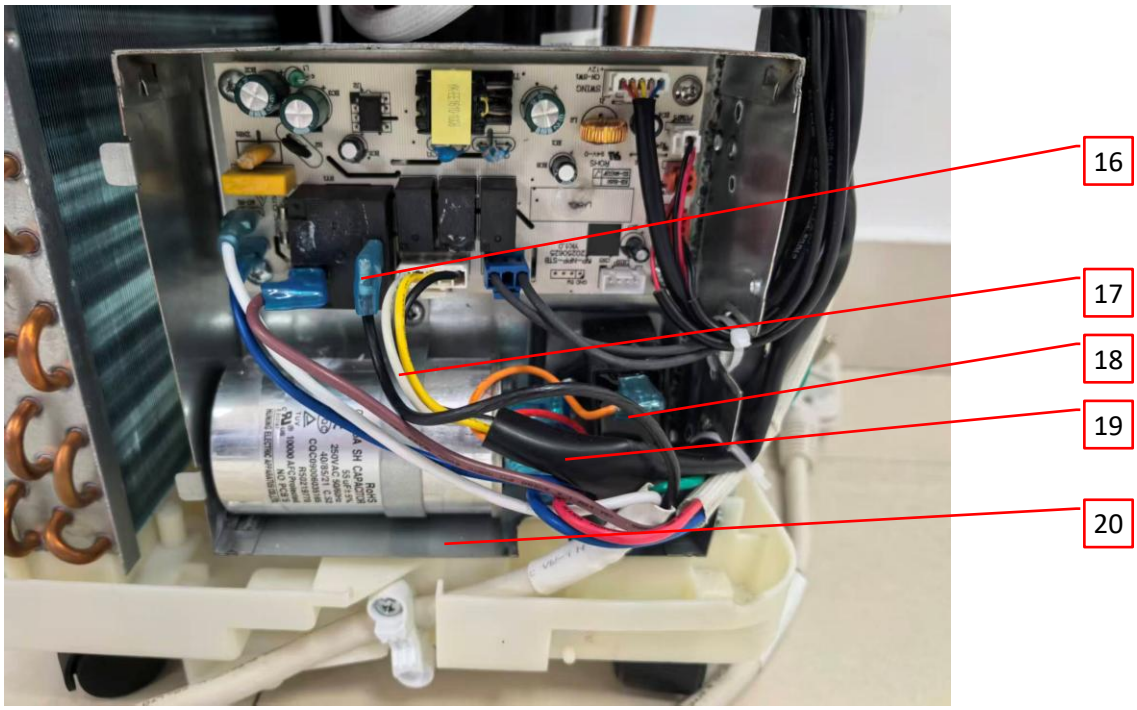
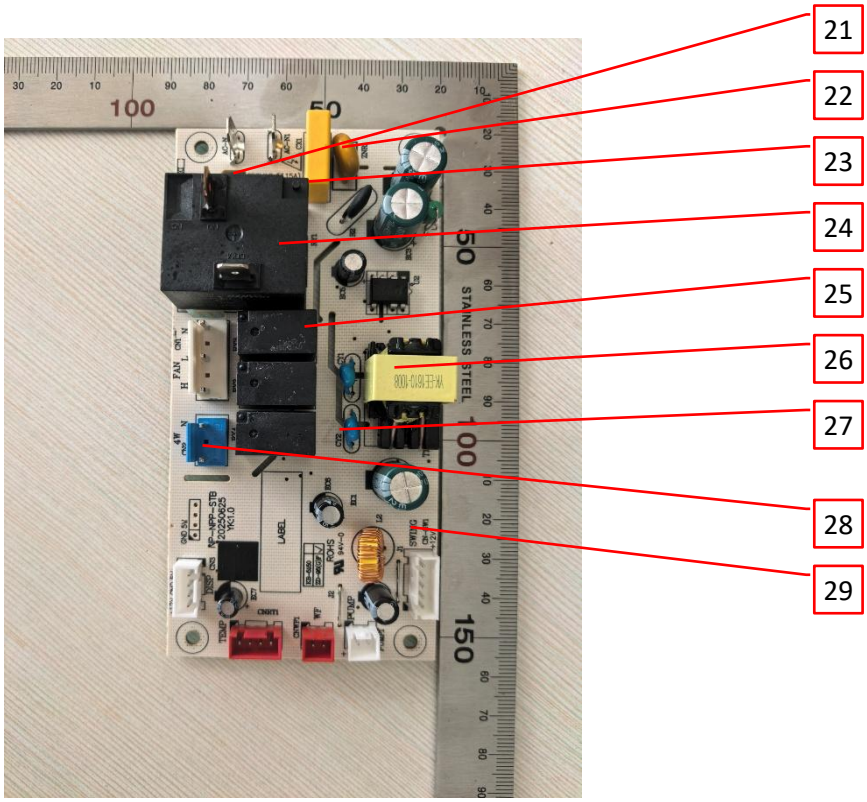



**Photo 10 -** Front view of PWB board (NPP-06H/X1E)



## 3.0 Product Photographs

**Photo 11 -** Rear view of PWB box (NPP-06H/X1E)

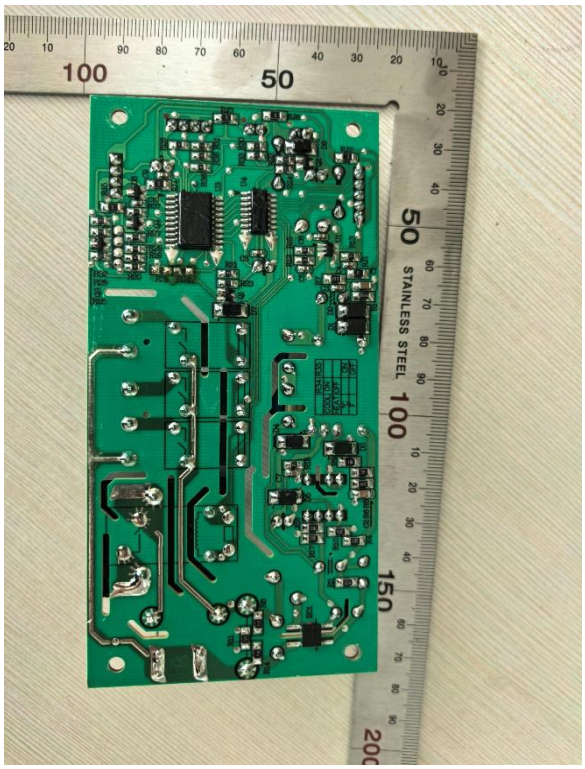
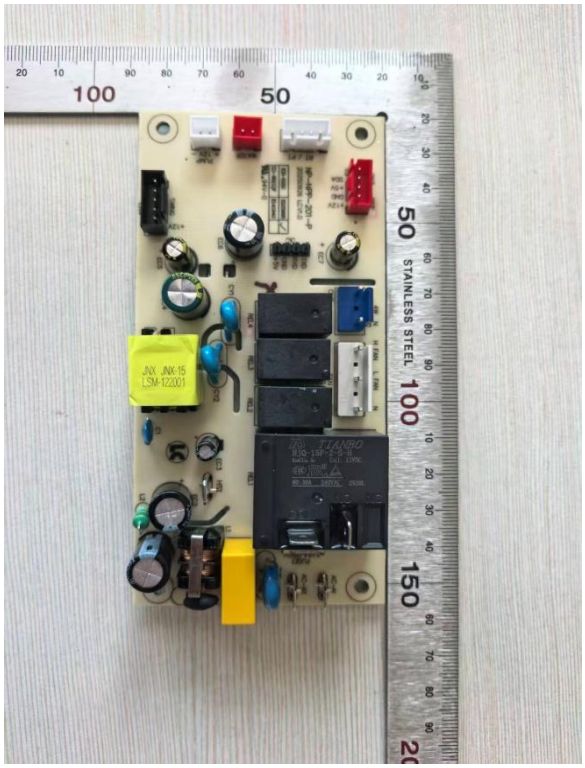
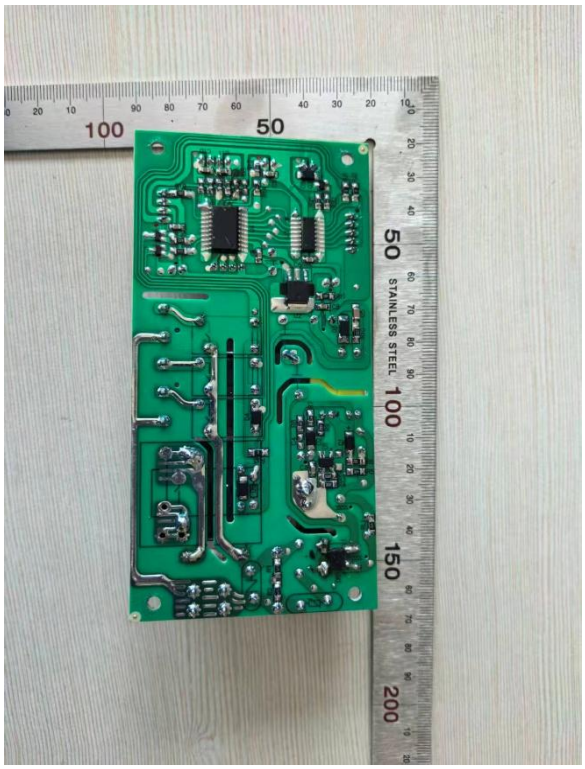



**Photo 12 -** Front view of alternative PWB board (NPP-06H/X1E)



## 3.0 Product Photographs

**Photo 13 -** Rear view of alternative PWB board (NPP-06H/X1E)



| 4.0 Critical Components | | | | | | |
|---|---|---|---|---|---|---|
| Photo # | Item no.[1] | Name | Manufacturer/ trademark[2] | Type / model[2] | Technical data and securement means | Mark(s) of conformity [3] |
| 1 | 1 | Enclosure | CHI MEI CORPORATION (E56070) | PA-763 | ABS, rated HB, Minimum 2.0mm thick, assembled with screws. | cURus |
| | | | ZHEN JIANG CHI MEI CHEMICAL CO LTD (E194560) | D-1200 | ABS, rated HB, Minimum 2.0mm thick, assembled with screws. | cURus |
| 2 | 2 | Supply cord | SUZHOU ELE WIRE & CABLE CO LTD (E316671) | JLL301 | Rated 300V, 105ºC, VW-1, 16 or 18AWG for all model, terminated with LCDI. | cURus |
| | | | TOWER MFG CORP (E257683) | 21571 | Rated 300V, 105ºC, 16 or 18AWG for all model, terminated with LCDI, factory ID: blank, T3 or T4. | cURus |
| | | | Zhongshan Kaper Electrical Co., Ltd. (E488435) | KPL301 | Rated 300V, 105ºC, 16 or 18AWG for all model, terminated with LCDI. | cURus |
| | | | Jiangsu General Protecht Co Ltd (E333125) | GPW01 | Rated 300V, 105ºC, VW-1, 16 or 18AWG for all model, terminated with LCDI. Factory ID: H or J. | cURus |
| | | | | GPW02 | Rated 300V, 105ºC, VW-1, 16 or 18AWG for all model, terminated with LCDI. Factory ID: H or J. | cURus |
| | | | Various | Various | Rated 300V, 105ºC, VW-1, 16 or 18AWG for all model, terminated with LCDI. | cURus |
| 2 | 3 | Label (not shown) | Various | Various | 80ºC, suitable for ABS, pasted on the side panel of enclosure. | cURus |
| 5 | 4 | Evaporator coil | Various | Various | Copper tube, thickness 0.29mm, Outside diameter 5mm or 7mm. | NR |
| 5 | 5 | Internal Frame | CHI MEI CORPORATION (E56070) | PA-763 | ABS, HB, RTI (60, 60,60)ºC. Minimum 2.0mm thick, assembled with screws. | cURus |
| | | | ZHEN JIANG CHI MEI CHEMICAL CO LTD (E194560) | D-1200 | ABS, HB, RTI (60, 60,60)ºC. Minimum 2.0mm thick, assembled with screws. | cURus |
| 5 | 6 | Condenser coil | Various | Various | Copper tube, thickness 0.29mm, Outside diameter 5mm or 7mm. | NR |

| 4.0 Critical Components | | | | | | |
|---|---|---|---|---|---|---|
| Photo # | Item no.[1] | Name | Manufacturer/ trademark[2] | Type / model[2] | Technical data and securement means | Mark(s) of conformity [3] |
| 5 | 7 | 4-way valve | ZHEJIANG SANHUA CLIMATE & APPLIANCE CONTROLS GROUP CO LTD (MH25894) | SHF series | Rated 110-120V, 50/60Hz | cURus |
| | | | ZHONGSHAN CITY GANGLI REFRIGERATIO N FITTINGS CO., LTD. (SA32856) | SHF series | Rated 110-120V, 50/60Hz | cURus |
| 5 | 8 | Plug with LCDI | SUZHOU ELE MFG CO LTD (E250451) | L15515 | 120V, 15A, 13A, 10A (10A for NPP-05C/X1E, NPP-05H/X1E series only). | UR |
| | | | | L22515 | | cURus |
| | | | TOWER MFG CORP (E242788) | 30386 | 120V, 10A (10A for NPP-05C/X1E, NPP-05H/X1E series only). | cURus |
| | | | | 30385 | 120V, 13A. | cURus |
| | | | | 30380 | 120V, 15A. | cURus |
| | | | Zhongshan Kaper Electrical Co., Ltd. (2308A1555SHA-001) | KP-LC10 | 120V, 10A (10A for NPP-05C/X1E, NPP-05H/X1E series only). | cETLus |
| | | | Zhongshan Kaper Electrical Co., Ltd. (2308A1555SHA-001) | KP-LC13 | 120V, 13A. | cETLus |
| | | | Zhongshan Kaper Electrical Co., Ltd. (2308A1555SHA-001) | KP-LC15 | 120V, 15A. | cETLus |
| | | | Jiangsu General Protecht Co Ltd (E257183) | GPL5-10-1 | 120V, 10A (10A for NPP-05C/X1E, NPP-05H/X1E series only). | cURus |
| | | | Jiangsu General Protecht Co Ltd (E257183) | GPL5-13-1 | 120V, 13A. | cURus |
| | | | Various | Various | 120V, 15A, 13A, 10A (10A for NPP-05C/X1E, NPP-05H/X1E series only). | cETLus |
| 5 | 9 | Cable tie | Various | Various | V-2, 85ºC | cURus |

| 4.0 Critical Components | | | | | | |
|---|---|---|---|---|---|---|
| Photo # | Item no.[1] | Name | Manufacturer/ trademark[2] | Type / model[2] | Technical data and securement means | Mark(s) of conformity [3] |
| 5 | 10 | Capacitor for compressor | WUXI HONGGUANG CAPACITOR CO LTD (E235355) | CBB65 | 250VAC, 50/60Hz, min. 70℃,55μF | cURus |
| | | | GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E307429) | CBB65 | | cURus |
| | | | FOSHAN SHUNDE BEIJIAO HUA DA ELECTRIC INDUSTRIAL CO LTD (E221217) | CBB65 | | cURus |
| | | | | CBB6-5 | | cURus |
| | | | NINGGUO HUNING ELECTRIC APPARATUS CO LTD (E312167) | CBB65A | | cURus |
| | | | | CBB65 | | cURus |
| | | | SHENG YE ELECTRIC CO., LTD□ (E237947) | C65R | | cURus |
| | | | ANHUI XINTIANDI ELECTRICAL APPLIANCES CO LTD | CBB65 | | cURus |
| | | | Ningguo Huili Electric CO., LTD (E315669) | CBB65 | | cURus |
| 6 | 11 | Step motor (Optional) | ZHONGSHAN CITYLIHUI ELECTRICAL APPLIANCE CO LTD. | 24BYJ48 | 12VDC | NR |
| | | | ZHEJIANG PUJIANG ASEN MAGNET & ELECTRONIC CO LTD | 24BYJ48 | 12VDC | NR |
| | | | CHANGZHOU MIN SHENG ELECTRONIC CO LTD | 24BYJ48 | 12VDC | NR |

| 4.0 Critical Components | | | | | | |
|---|---|---|---|---|---|---|
| Photo # | Item no.[1] | Name | Manufacturer/ trademark[2] | Type / model[2] | Technical data and securement means | Mark(s) of conformity [3] |
| 6 | 12 | compressor | GUANGDONG MEIZHI COMPRESSOR LTD (SA12105) | KSN66E01VZDX3 | 115V/60Hz, R32, LRA 27.0A. Comply with annex BB & CC of UL 60335-2-34. For NPP-05C/X1E, NPP-05H/X1E series. | cURus |
| | | | GUANGDONG MEIZHI COMPRESSOR LTD (SA12105) | KSN76E02VBZC1 | 115V/60Hz, R32, LRA 34.0A. Comply with annex BB & CC of UL 60335-2-34. For NPP-06C/X1E, NPP-06H/X1E series. | cURus |
| 7 | 13 | Fan blade | CHI MEI CORPORATION (E56070) | PA-747(+) | ABS, rated HB, RTI (85, 80, 85)ºC. Minimum 1.5mm thick. | cURus |
| | | | ZHEN JIANG CHI MEI CHEMICAL CO LTD (E194560) | PA-757K(+) | ABS, rated HB, RTI (85, 80, 85)ºC. Minimum 1.5mm thick. | cURus |
| 7 | 14 | Fan motor (not shown) | NANTONG NINGPU ELECTRICAL APPLIANCE CO LTD | YSL60-4B6 | 110-120V, 60Hz, 1.27A, thermally protected, marked as Class B, tested as Class A. | See 5.0 |
| 8 | 15 | Water splash motor | NANTONG NINGPU ELECTRICAL APPLIANCE CO LTD | NPP-205 | DC 12V, 3W | NR |
| | | | HEFEI JUNAN ELECTROMECHANICAL EQUIPMENT Co. Ltd. | NPP-205 | DC 12V, 3W | NR |
| 9 | 16 | Quick connector | Various | Various | R/C (RFWV, 7), suitable for size and type of wires used. Wrapped with PVC insulation, R/C(YDTU2), rated 600V, 105ºC, VW-1. | cURus |
| 9 | 17 | Internal wiring | Various | 1015 | Rated 600V, 105ºC, VW-1, 16 or 18 AWG for compressor, 16-22 AWG for other primary circuits. Wrapped with PVC tubing, rated VW-1. | cURus |
| | | | Various | 1017 | Rated 600V, 105ºC, VW-1, 16 or 18 AWG for compressor, 16-22 AWG for other primary circuits. Wrapped with PVC tubing, rated VW-1. | cURus |

| 4.0 Critical Components | | | | | | |
|---|---|---|---|---|---|---|
| Photo # | Item no.[1] | Name | Manufacturer/ trademark[2] | Type / model[2] | Technical data and securement means | Mark(s) of conformity [3] |
| 9 | 18 | Capacitor for fan motor | WUXI HONGGUANG CAPACITOR CO LTD (E189613) | CBB61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E307429) | CBB61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E215893) | CBB61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | FOSHAN SHUNDE BEIJIAO HUA DA ELECTRIC INDUSTRIAL CO LTD (E221217) | CBB61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | | CBB6-1 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | FOSHAN SHUNDE BEIJIAO HUA DA ELECTRIC INDUSTRIAL CO LTD (E162459) | CBB61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | | CBB6-1 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | SHENG YE ELECTRIC CO., LTD□ (E237947) | C61-P2 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | SHENG YE ELECTRIC CO., LTD (E185116) | C61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | | CBB61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | SHENG YE ELECTRIC CO., LTD (E185116) | C61A | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| | | | Ningguo Huili Electric CO., LTD (E313438) | CBB61 | 250VAC, 50/60Hz, 20μF, min. 70ºC | cURus |
| 9 | 19 | Sleeving | Various | Various | 200ºC, VW-1. | cURus |
| 9 | 20 | Electrical box | Various | Various | Steel. Minimum 0.8mm thick, assembled to internal frame with screws. | NR |

| 4.0 Critical Components | | | | | | |
|---|---|---|---|---|---|---|
| Photo # | Item no.[1] | Name | Manufacturer/ trademark[2] | Type / model[2] | Technical data and securement means | Mark(s) of conformity [3] |
| 10 | 21 | Fuse | varist | Various | R/C (JDYX2, 8), rated 250V, 3.15A. | cURus |
| 10 | 22 | Surge-protective device | Various | Various | R/C (VZCA2, 8), Rated min. 270V. | cURus |
| 10 | 23 | X2 capacitor | Various | Various | R/C (FOWX2, 8), Rated 250/275/280/310V, 0.1μF/0.22μF/0.47μF, min. 85ºC. | cURus |
| 10 | 24 | Relay for Comprssor | SANYOU CORPORATION LIMITED (E190598) | SLI-SH-112DMK | 240/250VAC, 30A, min70ºC, 10E4.<br>Ex nC IIC Gc<br>Cert. CNEx19.5423U. | cURus |
| | | | WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228) | RA2-112LM-S | 240/250VAC, 30A, min70ºC, 10E4.<br>Ex nC IIC Gc<br>Cert. CNEx17.1774U. | cURus |
| | | | Zhejiang Meishuo Electric Technology Co Ltd (E358149) | MPQ4-S-112D-A | 240/250VAC, 30A, min70ºC, 10E4.<br>Ex nC IIC Gc | cURus |
| | | | NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485) | HJQ-15F-2-S-H | 240/250VAC, 30A, min70ºC, 10E4.<br>Ex nC IIC Gc | cURus |
| | | | NINGBO YINZHOU YONGLIN ELECTRICAL EQUIPMENT CO LTD (E233840) | YL224TE-A-S-12VDC | 240/250VAC, 30A, min70ºC, 10E4.<br>Ex nC IIC GcCert.<br>Cert. CNEx. 21.0272U. | cURus |
| 10 | 25 | Relay for others | SANYOU CORPORATION LIMITED (E179745) | SJ-SH-112DM2 | 240/250VAC, 5A, min70ºC, 10E4.<br>Ex nC IIC Gc<br>Cert. CNEx15.1506U. | cURus |
| | | | Zhejiang Meishuo Electric Technology Co Ltd (E358149) | MPD-S-112-A | 240/250VAC, 5A, min70ºC, 10E4.<br>Ex nC IIC Gc | cURus |
| | | | NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485) | TRG1D-12VDC-S-H | 240/250VAC, 5A, min70ºC, 10E4.<br>Ex nC IIC Gc | cURus |

| 4.0 Critical Components | | | | | | |
|---|---|---|---|---|---|---|
| Photo # | Item no.[1] | Name | Manufacturer/ trademark[2] | Type / model[2] | Technical data and securement means | Mark(s) of conformity [3] |
| | | | NINGBO YINZHOU YONGLIN ELECTRICAL EQUIPMENT CO LTD (E233840) | YL305-A-12VDC | 240/250VAC, 5A, min70ºC, 10E4. Ex nC IIC Gc Cert. CNEx. 21.0273U. | cURus |
| 10 | 26 | Switching transformer | Foshan Shunde Shuoli Electronics & Electrical Appliance Co., Ltd. | YK-EE1610-1008 | Input: 115V, 60Hz, Output: 12V, 0.6A | See 5.0 |
| | | | SHENZHEN JNX TECHNOLOGY CO.,LTD | JNX JNX-15 LSM-122001 | Input: 115V, 60Hz, Output: 12V, 0.6A | See 5.0 |
| 10 | 27 | Y capacitor | Various | Various | R/C (FOWX2, 8), rated 250V, 300V or 400V, 1000, 2200 or 4700 pF, Y1 or Y2 type. | cURus |
| 10 | 28 | Wire connector | Various | Various | R/C (RFWV2, 8), suitable for size and type of wires used. | cURus |
| 10 | 29 | PWB | SHANDONG JINBAO ELECTRONICS CO LTD (E141940) | ZD series | CEM-1 or FR-4 Rated V-0, min.thickness 1.4mm, T130. | cURus |
| | | | KINGBOARD LAMINATES HOLDINGS LTD (E123995) | KB series | CEM-1 or FR-4 Rated V-0, min.thickness 1.4mm, T130. | cURus |

NOTES:

1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.

2) “Various“ means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.

3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

## 5.0 Critical Unlisted CEC Components

**INSULATED COIL**

| Photo # | Item no. | Name | Manufacturer/Trademark | Type / model |
|---|---|---|---|---|
| 7 | 14 | Fan motor (not shown) | NANTONG NINGPU ELECTRICAL APPLIANCE CO LTD | YSL60-4B6 |
| Electrical Rating: | | 110-120V, 60Hz, 1.27A | | Insulation class A |
| Component Standard used: | | UL 60335-1:2016 Ed.6<br>CSA C22.2#60335-1:2016 Ed.2<br>UL 60335-2-40:2022 Ed.4<br>CSA C22.2#60335-2-40:2022 Ed.4 | | |

**MATERIALS LIST**

| Component | Manufacturer | Type/model | Dimensions/thickness/assembly information |
|---|---|---|---|
| Slot liners | JIANGSU YUXING FILM TECHNOLOGY CO LTD (E212271) | 6021 DND | VTM-2, RTI (105 105 105)ºC, thickness 0.188mm |
| Insulation tape | JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD (E246950) | JY25-A (b) | 130ºC |
| | JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111) | CT* (b)(g) | 130ºC |
| | JINGJIANG JINGYANG INSULATING PRODUCT CO LTD (E309872) | JY-133 | 130ºC |
| | SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD (E188295) | JY313# | 130ºC |
| | CHANG SHU LIANG YI TAPE INDUSTRY CO LTD (E246820) | LY-02 | 130ºC |

| 5.0 Critical Unlisted CEC Components | | | |
|---|---|---|---|
| Magnet Wire | HESHAN CITY TEHSING HUANCHIU ELECTRIC | UEW(L)/155 | Class 155. |
| | | Q(A/1)L/155 | Class 155. |
| | ZHUHAI GREE ELECTRIC ENTERPRISES LTD | QZ(G)/155 | Class 155. |
| | | UEW/155 | Class 155. |
| | Tongling Jingda Special Magnet | QA/N-x 155-A | Class 155. |
| Protective device | JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD (E214731) | 18AM-B | Rated 250V, 5A, automatically reset, operate temperature 135±5 ºc |
| | | BR-A2D | Rated 250V, 6A, automatically reset, operate temperature 135±5 ºc |
| | DONGYANG HENGDIAN THERMAL PROTECTOR FACTORY (GENERAL PARTNERSHIP) (E213246) | KSD-IID | Rated 250V, 5A, automatically reset, operate temperature 135±5 ºc |

**WINDING(S) RESISTANCE**

| Winding Designation | Wire Size ($mm^2$) | Wire Type | Turns | Volts | Amps | DC resistance (Ω) +/- 10%: |
|---|---|---|---|---|---|---|
| Main winding | 0.31 | / | / | / | / | 28.6 |
| Aux. winding | 0.41 | / | / | / | / | 11.62 |

**VERIFICATION PROCESS**

| Frequency: **Annual** | Test Site: **CEC** | Number of samples to test: **1** |
|---|---|---|

| Test Name | Test Parameters | | |
|---|---|---|---|
| Winding resistance | See resistance per winding above. | | |
| Dielectric Strength | Apply voltage Between | Test Voltage | Test Time |
| | Primary to core | | |
| | Primary to secondary | | |
| | Secondary to core | | |

## 5.0 Critical Unlisted CEC Components

**INSULATED COIL**

| Photo # | Item no. | Name | Manufacturer/Trademark | Type / model |
|---|---|---|---|---|
| 10 | 26 | Switching transformer | Foshan Shunde Shuoli Electronics & Electrical Appliance Co., Ltd. | YK-EE1610-1008 |

| | | |
|---|---|---|
| Electrical Rating: | Input: 115V, 60Hz,<br>Output: 12V, 0.6A | Insulation class A |
| Component Standard used: | UL 1310:2018 Ed.7+R:09Jun2022<br>CSA C22.2#223:2015 Ed.3 | |

**MATERIALS LIST**

| Component | Manufacturer | Type/model | Dimensions/thickness/assembly information |
|---|---|---|---|
| Bobbin | CHANG CHUN PLASTICS CO LTD | T375J | Minimum thichness:0.7mm. |
| Insulation tape | JINGJIANG JINGYANG INSULATING PRODUCT CO.,LTD. | JY-133 | 130ºC |
| Winding (Pri.)、(Sec.) | Foshan Sanshui Jindeli Industry Co Ltd | UEW 130℃ | 130ºC |
| | SIHUI HENGHUI ELECTRICAL APPLIANCES CO LTD | UEW 130℃ | 130ºC |
| | GUANG ZHOU CHUNYI ELECTRIC ENTERDRISE LTD | UEW 130℃ | 130ºC |
| PTFE tubing | DONGGUAN LING FREE HARDWARE PLASTICS PRODUCT CO LTD | LFST-001 | 200℃ |

**WINDING(S) RESISTANCE**

| Winding Designation | Wire Size ($mm^2$) | Wire Type | Turns | Volts | Amps | DC resistance (Ω) +/- 10%: |
|---|---|---|---|---|---|---|
| N1(1-3) | 0.23 | / | 94 | / | / | 2.26 |
| N3(7-10) | 0.40 | / | 15 | / | / | 0.65 |
| N4(4-5) | 0.20 | / | 15 | / | / | 0.98 |

**VERIFICATION PROCESS**

| Frequency: **Annual** | Test Site: **CEC** | Number of samples to test: **1** |
|---|---|---|

| Test Name | Test Parameters | | |
|---|---|---|---|
| Winding resistance | See resistance per winding above. | | |
| Dielectric Strength | Apply voltage Between | Test Voltage | Test Time |
| | Primary to core | 1230V | 60s |
| | Primary to secondary | 1230V | 60s |
| | Secondary to core | 500V | 60s |

## 5.0 Critical Unlisted CEC Components

| INSULATED COIL | | | | |
|---|---|---|---|---|
| Photo # | Item no. | Name | Manufacturer/Trademark | Type / model |
| 10 | 26 | Switching transformer | SHENZHEN JNX TECHNOLOGY CO.,LTD | JNX JNX-15 LSM-122001 |
| Electrical Rating: | | Input: 115V, 60Hz, Output: 12V, 0.6A | | Insulation class A |
| Component Standard used: | | UL 1310:2018 Ed.7+R:09Jun2022 CSA C22.2#223:2015 Ed.3 | | |

**MATERIALS LIST**

| Component | Manufacturer | Type/model | Dimensions/thickness/assembly information |
|---|---|---|---|
| Bobbin | CHANG CHUN PLASTICS CO LTD (E59481) | T375J | V-0, RTI(150,150,150) ºC, Minimum thichness:0.8mm. |
| Insulation tape | JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111) | CT-280B | PET, T130. |
| Primary winding | DONG GUAN YIDA INDUSTRIAL CO LTD (E344055) | 2UEW/155 | Class 155. |
| Secondary winding | SHENZHEN KAIZHONG HEDONG NEW MATERIALS CO LTD (E357240) | TIW-B | Reinforced insulation, class 130. |
| Tubing | DONGGUAN CITY CHANGJIE METALS & PLASTIC PRODUCTS CO LTD (E338209) | CJ-TT-L | PTFE, 150V, T200, VW-1. |
| Varnish | ZHUHAI CHANGXIAN NEW MATERIALS TECHNOLOGY CO LTD (E335405) | E962 | Class 130. |

**5.0 Critical Unlisted CEC Components**

**WINDING(S) RESISTANCE**

| Winding Designation | Wire Size ($mm^2$) | Wire Type | Turns | Volts | Amps | DC resistance (Ω) +/- 10%: |
|---|---|---|---|---|---|---|
| N1 | 0.23 | / | 65 | / | / | 1 |
| N2/A | 0.13 | / | 6 | / | / | 0.325 |
| N4 | 0.5 | / | 6 | / | / | 0.016 |

**VERIFICATION PROCESS**

| Frequency: **Annual** | Test Site: **CEC** | Number of samples to test: **1** |
|---|---|---|

| Test Name | Test Parameters | | |
|---|---|---|---|
| Winding resistance | See resistance per winding above. | | |
| Dielectric Strength | Apply voltage Between | Test Voltage | Test Time |
| | Primary to core | 1230V | 60s |
| | Primary to secondary | 1230V | 60s |
| | Secondary to core | 500V | 60s |

**6.0 Critical Features**

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Spacing - In primary circuits, minimum 3.2mm spacing through air and 6.4mm spacing over surface of insulating material are maintained through air and over surfaces between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts in refrigerated and/or air-handing compartments. Minimum 1.6mm spacing through air and 1.6mm spacing over surface of insulating material are maintained through air and over surfaces between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts in non-refrigerated and/or non-air-handing compartments
2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. Accessibility of Live Parts - All uninsulated live parts in primary circuitry and high voltage circuitry are housed within a non-metallic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed to contact during any servicing operation and that are likely to become energized are reliably connected to the equipment grounding terminal.
6. Polarized Connection -This product is provided with a polarized power supply connection. All fuses are connected only to the ungrounded supply circuit conductor.
7. Internal Wiring - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All wiring is 16-22 AWG, with a minimum rating of 600 V, 105 °C, for primary circuits.
8. Schematics - NA
9. Markings - The product is marked on a labeling system as described in item no. 3 of Section 4.0 as follows:
   - applicant's name or brand name
   - model number
   - date of manufacture
   - electrical ratings (rated voltage, total input current, frequency, FLA of motors, RLA/LRA)
   - the kind and amount of refrigerant in pounds, ounces, or both
   - the high and low side design pressures

**6.0 Critical Features**

10. Cautionary Markings - Refer to the following for details:
The following shall be marked on the outside of the unit with letter not less than 3.2mm.
"WARNING: RISK OF ELECTRIC SHOCK. CAN CAUSE INJURY OR DEATH. DISCONNECT All REMOTE ELECTRIC POWER SUPPLIES BEFORE SERVICING
Avertissement: risque de choc électrique. Peut causer des blessures ou la mort. Débranchez toutes les alimentations électriques à distance avant l'entretien

WARNING – Risk Of Fire. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing
AVERTISSEMENT – Risque d'incendie. Réfrigérant inflammable utilisé. À réparer uniquement par un personnel de service qualifié. Ne pas percer le tube de refrigerant

WARNING – Risk Of Fire. Dispose Of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used
AVERTISSEMENT – Risque d'incendie. Éliminer correctement conformément aux réglementations fédérales ou locales. Réfrigérant inflammable utilize"

The following shall be marked on the outside of the unit with letter not less than 6.4mm.
"WARNING – Risk Of Fire – Store in a well ventilated room without continuously operating flames or other potential ignition
AVERTISSEMENT – Risque d'incendie – Stocker dans une pièce bien ventilée sans flammes en fonctionnement continu ou autre inflammation potentielle"

The following shall be marked inside of unit near compressor with letters not less than 3.2mm:
"WARNING – Risk Of Fire. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must Be Followed
AVERTISSEMENT – Risque d'incendie. Réfrigérant inflammable utilisé. Consultez le manuel de réparation/guide du propriétaire avant d'essayer de réparer ce produit. Toutes les précautions de sécurité doivent être suivies"

The following shall be marked on the package with letters not less than 3.2mm:
"WARNING – Risk of Fire due to Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with National Regulations
AVERTISSEMENT – Risque d'incendie dû à l'utilisation d'un réfrigérant inflammable. Suivez attentivement les instructions de manipulation conformément aux réglementations nationales"

11. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer.
Refer to Illustration No. 1 to 1i. All necessary warning sentences required by standards are contained by provided manual, only partial literature is pasted in sec. 7.

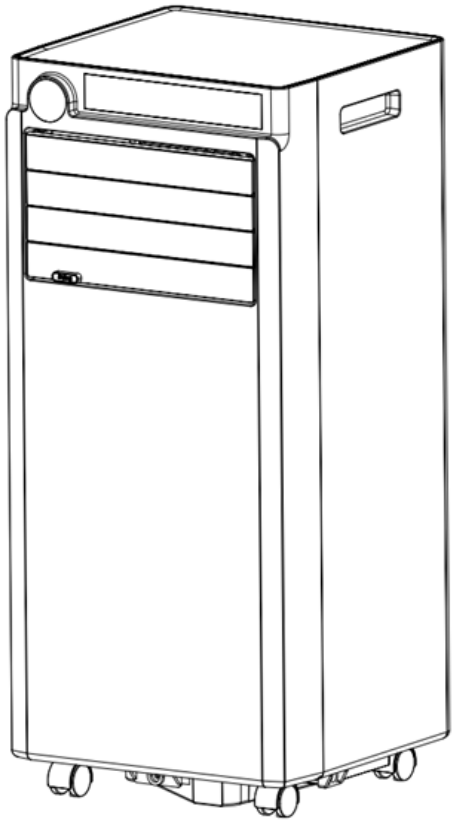
## 7.0 Illustrations

**Illustration 1 -** Manual

Portable Air Conditioner

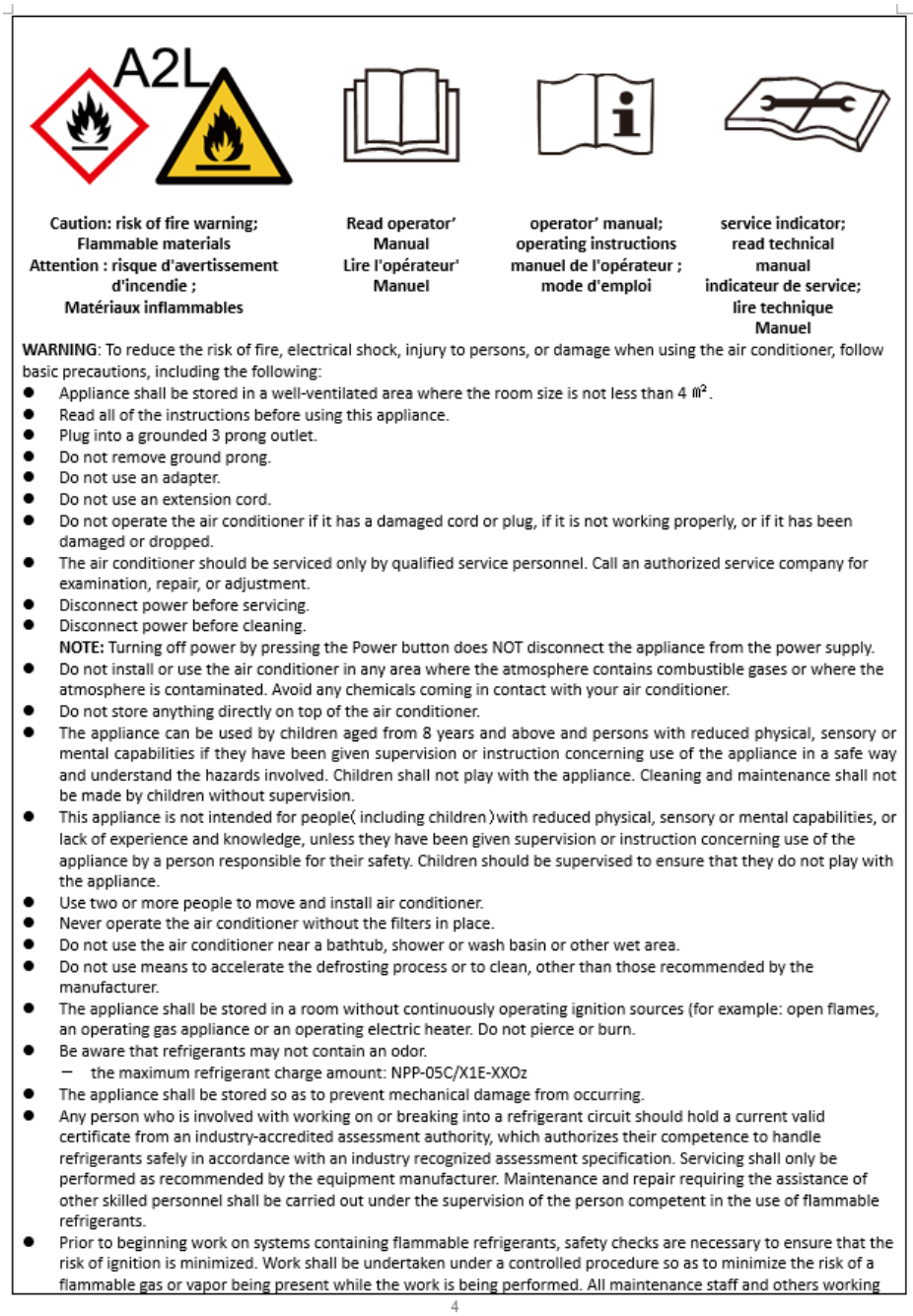
NPP Series

Installation and User Manual



## 7.0 Illustrations

**Illustration 1a -** Manual



## 7.0 Illustrations

**Illustration 1b -** Manual

in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. no sparking, adequately sealed or intrinsically safe.
- If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or $CO^2$ fire extinguisher adjacent to the charging area.
- No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.
- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use. Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating. Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.
- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.
- Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.
- Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is confirmed. Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work. If a leak is suspected, all naked flames shall be removed/extinguished. If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.
- When breaking into the refrigerant circuit to make repairs – or for any other purpose – conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to:
  - remove refrigerant;
  - purge the circuit with inert gas;
  - evacuate;
  - purge again with inert gas;
  - open the circuit by cutting or brazing.
- The refrigerant charge shall be recovered into the correct recovery cylinders. The system shall be "flushed" with OFN to render the unit safe. This process may need to be repeated several times. Compressed air or oxygen shall not be used for this task. Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipe-work are to take place. Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.
- In addition to conventional charging procedures, the following requirements shall be followed.
  - Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
  - Cylinders shall be kept upright.
  - Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
  - Label the system when charging is complete (if not already).

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## 7.0 Illustrations

**Illustration 1c -** Manual

- Extreme care shall be taken not to overfill the refrigeration system.

- Prior to recharging the system it shall be pressure tested with OFN. The system shall be leak tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.
- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of reclaimed refrigerant. It is essential that electrical power is available before the task is commenced.
  a) Become familiar with the equipment and its operation.
  b) Isolate system electrically.
  c) Before attempting the procedure ensure that:
  --mechanical handling equipment is available, if required, for handling refrigerant cylinders;
  --all personal protective equipment is available and being used correctly;
  --the recovery process is supervised at all times by a competent person;
  --recovery equipment and cylinders conform to the appropriate standards.
  d) Pump down refrigerant system, if possible.
  e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
  f) Make sure that cylinder is situated on the scales before recovery takes place.
  g) Start the recovery machine and operate in accordance with manufacturer's instructions.
  h) Do not overfill cylinders. (No more than 80 % volume liquid charge).
  i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
  j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
  k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.
- Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.
- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely. When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge are available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs. The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
  The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged. Do not mix refrigerants in recovery units and especially not in cylinders. If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall be employed to accelerate this process. When oil is drained from a system, it shall be carried out safely.

**READ AND SAVE THESE INSTRUCTIONS**

- **AVERTISSEMENT :** Pour réduire le risque d'incendie, de choc électrique, de blessure ou de dommage lors de l'utilisation du climatiseur, suivez les précautions de base, notamment les suivantes :
- L'appareil doit être stocké dans un endroit bien ventilé où la taille de la pièce n'est pas inférieure à 4 $m^2$.
- Lisez toutes les instructions avant d'utiliser cet appareil.
- Branchez-le dans une prise à 3 broches mise à la terre.
- Ne pas enlever la broche de mise à la terre.
- N'utilise pas un adaptateur.
- N'utilisez pas de rallonge.
- N'utilisez pas le climatiseur s'il a un cordon ou une fiche endommagé, s'il ne fonctionne pas correctement, ou s'il a été endommagé ou est tombé.

## 7.0 Illustrations

**Illustration 1d -** Manual

-- les équipements de récupération et les bouteilles sont conformes aux normes appropriées.

d) Pump down refrigerant system, if possible.

e) Si un vide n'est pas possible, créez un collecteur afin que le réfrigérant puisse être retiré de diverses parties du système.

f) Assurez-vous que le cylindre est situé sur la balance avant de procéder à la récupération.Start the recovery machine and operate in accordance with manufacturer's instructions.

g) Ne pas trop remplir les cylindres. (Pas plus de 80 % de volume de charge liquide).

h) Ne pas dépasser la pression maximale de service du vérin, même temporairement.

i) Lorsque les bouteilles ont été correctement remplies et que le processus est terminé, assurez-vous que les bouteilles et l'équipement sont retirés du site rapidement et que toutes les vannes d'isolement de l'équipement sont fermées.Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

- L'équipement doit être étiqueté indiquant qu'il a été mis hors service et vidé de son réfrigérant. L'étiquette doit être datée et signée. Assurez-vous qu'il y a des étiquettes sur l'équipement indiquant que l'équipement contient un réfrigérant inflammable.
- Lors de l'élimination du réfrigérant d'un système, que ce soit pour l'entretien ou la mise hors service, il est recommandé de faire en sorte que tous les réfrigérants soient éliminés en toute sécurité. Lors du transfert de réfrigérant dans des bouteilles, assurez-vous que seules des bouteilles de récupération de réfrigérant appropriées sont utilisées. Assurez-vous que le nombre correct de cylindres pour contenir la charge totale du système est disponible. Toutes les bouteilles à utiliser sont désignées pour le réfrigérant récupéré et étiquetées pour ce réfrigérant (c'est-à-dire des bouteilles spéciales pour la récupération du réfrigérant). Les bouteilles doivent être équipées d'une soupape de surpression et de vannes d'arrêt associées en bon état de fonctionnement. Les cylindres de récupération vides sont évacués et, si possible, refroidis avant la récupération. L'équipement de récupération doit être en bon état de fonctionnement avec un ensemble d'instructions concernant l'équipement à portée de main et doit être adapté à la récupération des fluides frigorigènes inflammables. De plus, un jeu de balances étalonnées doit être disponible et en bon état de fonctionnement. Les tuyaux doivent être équipés de raccords de déconnexion étanches et en bon état. Avant d'utiliser la machine de récupération, vérifiez qu'elle est en bon état de fonctionnement, qu'elle a été correctement entretenue et que tous les composants électriques associés sont scellés pour éviter toute inflammation en cas de fuite de fluide frigorigène. Consulter le fabricant en cas de doute.
  Le réfrigérant récupéré doit être retourné au fournisseur de réfrigérant dans le bon cylindre de récupération, et la note de transfert de déchets appropriée doit être rédigée. Ne pas mélanger les fluides frigorigènes dans les récupérateurs et surtout pas dans les bouteilles. Si des compresseurs ou des huiles de compresseur doivent être retirés, assurez-vous qu'ils ont été évacués à un niveau acceptable pour s'assurer que le réfrigérant inflammable ne reste pas dans le lubrifiant. Le processus d'évacuation doit être effectué avant le retour du compresseur aux fournisseurs. Seul le chauffage électrique du corps du compresseur doit être utilisé pour accélérer ce processus. Lorsque l'huile est vidangée d'un système, elle doit être effectuée en toute sécurité.

**LIRE ET CONSERVER CES INSTRUCTIONS**

WARNING-Risk Of Fire or Explosion-Store in a well ventilated room without continuously operating flames or other potential ignition.
MISE EN GARDE-Risque d'incendie Ou d'explosion-Conserver Dans Une Pièce Bien Ventilée, Sans Flammes Allumées En Permanence Ni Autre Source d'inflammation Potentielle.

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## 7.0 Illustrations

**Illustration 1e -** Manual

1) Checks to the area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

2) Work procedure

Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.

3) General work area

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

4) Checking for presence of refrigerant

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

5) Presence of fire extinguisher

If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

6) No ignition sources

No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. “No Smoking” signs shall be displayed.

7) Ventilated area

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

8) Checks to the refrigeration equipment

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer’s maintenance and service guidelines shall be followed. If in doubt consult the manufacturer’s technical department for assistance.

The following checks shall be applied to installations using flammable refrigerants:

a) The charge size is in accordance with the room size within which the refrigerant containing parts are installed.

b) The ventilation machinery and outlets are operating adequately and are not obstructed.

c) If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.

d) Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected.

e) Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently

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## 7.0 Illustrations

**Illustration 1f -** Manual

resistant to being corroded or are suitably protected against being so corroded.

9) Checks to electrical devices

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

Initial safety checks shall include:

a) That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking.

b) That there no live electrical components and wiring are exposed while charging, recovering or purging the system.

c) That there is continuity of earth bonding.

**2. Repairs to sealed components**

1) During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.

2) Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected. This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc. Ensure that apparatus is mounted securely.

Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres.

Replacement parts shall be in accordance with the manufacturer's specifications.

**NOTE:** The use of silicon sealant may inhibit the effectiveness of some types of leak detection equipment. Intrinsically safe components do not have to be isolated prior to working on them.

**3. Repair to intrinsically safe components**

Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.

Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating.

Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

**4. Cabling**

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

**5. Detection of flammable refrigerants**

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## 7.0 Illustrations

### **Illustration 1g -** Manual

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

6. **Leak detection methods**

The following leak detection methods are deemed acceptable for systems containing flammable refrigerants.

Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is confirmed.

Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

If a leak is suspected, all naked flames shall be removed/ extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

7. **Removal and evacuation**

When breaking into the refrigerant circuit to make repairs – or for any other purpose –conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to:

1) Remove refrigerant.
2) Purge the circuit with inert gas.
3) Evacuate.
4) Purge again with inert gas.
5) Open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders. The system shall be "flushed" with OFN to render the unit safe. This process may need to be repeated several times. Compressed air or oxygen shall not be used for this task.

Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipe-work are to take place.

Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.

8. **Charging procedures**

In addition to conventional charging procedures, the following requirements shall be followed.

1) Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.

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## 7.0 Illustrations

**Illustration 1h -** Manual

2) Cylinders shall be kept upright.
3) Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
4) Label the system when charging is complete (if not already).
5) Extreme care shall be taken not to overfill the refrigeration system.
Prior to recharging the system it shall be pressure tested with OFN. The system shall be leak tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

**9. Decommissioning**

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of reclaimed refrigerant. It is essential that electrical power is available before the task is commenced.

1) Become familiar with the equipment and its operation.
2) Isolate system electrically.
3) Before attempting the procedure ensure that:
a) Mechanical handling equipment is available, if required, for handling refrigerant cylinders.
b) All personal protective equipment is available and being used correctly.
c) The recovery process is supervised at all times by a competent person.
d) Recovery equipment and cylinders conform to the appropriate standards.
4) Pump down refrigerant system, if possible.
5) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
6) Make sure that cylinder is situated on the scales before recovery takes place.
7) Start the recovery machine and operate in accordance with manufacturer's instructions.
8) Do not overfill cylinders. (No more than 80 % volume liquid charge).
9) Do not exceed the maximum working pressure of the cylinder, even temporarily.
10) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
11) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

**10. Labelling**

Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

**11. Recovery**

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order.

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## 7.0 Illustrations

**Illustration 1i -** Manual

Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

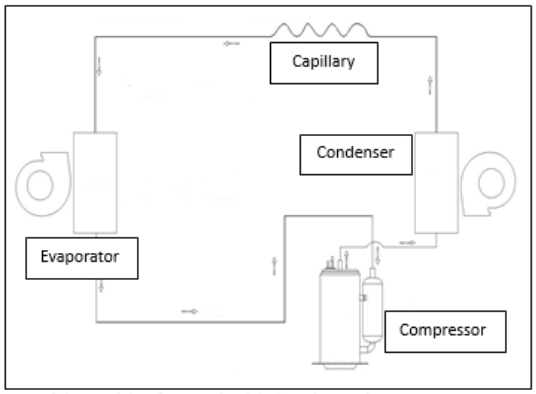
The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.

The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall be employed to accelerate this process. When oil is drained from a system, it shall be carried out safely.

**Appendix**

Schematic diagram of the air-conditioner




For specific technical parameters of the model, refer to rating label on the product.

Correct Disposal of this product

This marking indicates that the product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

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| 8.0 Test Summary | | | | | |
|---|---|---|---|---|---|
| Evaluation Period | 2025-12-05 to 2025-12-12 | | | Project No. | 2510B0285SHA |
| Sample Rec. Date | 18-Nov-25 | Condition | Prototype | Sample ID. | A251118-28 |
| Test Location | Intertek Testing Services Shanghai Limited | | | | |
| Test Procedure | Testing Lab | | | | |

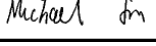
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

| Test Description | UL 60335-1:2016 Ed.6<br>CSA C22.2#60335-1:2016 Ed.2<br>UL 60335-2-40:2022 Ed.4<br>CSA C22.2#60335-2-40:2022 Ed.4<br>Clause |
|---|---|
| Power input and current | 10 |
| Heating | 11 |
| Leakage current and electric strength at operating temperature | 13 |
| Moisture resistance | 15 |
| Leakage current and electric strength | 16 |
| Overload protection of transformers and associated circuits | 17 |
| Abnormal operation | 19 |
| Stability and mechanical hazards | 20 |
| Mechanical strength | 21 |
| Construction | 22 |
| Internal wiring | 23 |
| Components | 24 |
| Supply connection and external flexible cords | 25 |
| Terminals for external conductors | 26 |
| Provision for earthing | 27 |
| Screws and connections | 28 |
| Clearances, creepage distances and solid insulation | 29 |
| Resistance to heat and fire | 30 |
| Resistance to rusting | 31 |

| Test Description | UL 1310:2018 Ed.7+R:09Jun2022/ Clause | CSA C22.2#223:2015 Ed.3/ Clause |
|---|---|---|
| Leakage Current Test | 26 | 6.6 |
| Leakage Current Test and Dielectric Voltage Withstand Test After Humidity Exposure | 27 | -- |
| Maximum Output Voltage Test | 28 | 6.3.1 |
| Maximum Input Test | 29 | 6.3.2 |
| Output Current and Power Test | 30 | 6.3.4 |
| Full-Load Output Current Test | 32 | 6.3.3 |
| Dielectric Voltage-Withstand Test | 34 | 6.5 |
| Abnormal Test | 39 | -- |

**8.1 Signatures**

A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.

| Completed by: | Michael Jin | Reviewed by: | Jack Tang |
|---|---|---|---|
| Title: | Project Engineer | Title: | Technical Supervisor |
| Signature: |  | Signature: |  |

| 9.0 Correlation Page For Multiple Listings | |
|---|---|
| The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program. | |
| BASIC LISTEE | Nantong Ningpu Electrical Appliance Co., Ltd. |
| Address | No.139, Huanghe Road, Rudong Economic Development Zone, Nantong, Jiangsu Province, 226400 |
| Country | P.R. China |
| Product | Portable Air Conditioner |

| | |
|---|---|
| MULTIPLE LISTEE 1 | None |
| Address | |
| Country | |
| Brand Name | |
| ASSOCIATED MANUFACTURER | |
| Address | |
| Country | |

| MULTIPLE LISTEE 1 MODELS | BASIC LISTEE MODELS |
|---|---|
| | |

| | |
|---|---|
| MULTIPLE LISTEE 2 | |
| Address | |
| Country | |
| Brand Name | |
| ASSOCIATED MANUFACTURER | |
| Address | |
| Country | |

| MULTIPLE LISTEE 2 MODELS | BASIC LISTEE MODELS |
|---|---|
| | |

| | |
|---|---|
| MULTIPLE LISTEE 3 | None |
| Address | |
| Country | |
| Brand Name | |
| ASSOCIATED MANUFACTURER | |
| Address | |
| Country | |

| MULTIPLE LISTEE 3 MODELS | BASIC LISTEE MODELS |
|---|---|
| | |

**10.0 General Information**

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
3) a control number issued by Intertek
4) a product descriptor that identifies the standards used for certification. Example:

**For US standards**, the words, “Conforms to” shall appear with the standard number along with the word, “Standard” or “Std.” Example: “Conforms to ANSI/UL Std. XX.”

**For Canadian standards**, the words “Certified to CAN/CSA Standard CXX No. XX.” shall be used, or abbreviated, “Cert. to CAN/CSA Std. CXX No. XX.”

Can be used together when both standards are used.

**If all standards on the ATM have the same standard title**, the shared title or its abbreviation may be used in place of the examples above. Example: "Medical Electrical Equipment" or "MEE"; "Information Technology Equipment" or "ITE"; "Audio/Video Information And Communication Technology Equipment" or "A/V ICTE".

**Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.** The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

**10.1 Evaluation of Unlisted Components**

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

**The Applicant will be notified, in writing, via the applicable contact methods, as defined in Section 1.0, when these components must be selected and sent to Component Evaluation Center (CEC) for re-evaluation.**

**Due to particular testing requirements, some components may be requested to be shipped to specific labs. Thus, specific shipment destination(s) for each sample will be provided in the written notification.**

Managing CEC Location:
Intertek Testing Services (Shanghai FTZ) Co., Ltd
ETL Component Evaluation Center
Building No. 86, 1198 Qinzhou Road (North)
Shanghai 200233, China
Attn: Ms. Emiliana Zhou
Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

## 11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

**Required Tests**

Dielectric Voltage Withstand Test
Grounding Continuity Test
Pressure Tests For Leakage and Strength

## 11.1 Dielectric Voltage Withstand Test

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.
The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.
The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.
If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:
1 - a voltmeter in the primary circuit;
2 - a selector switch marked to indicate the test potential; or
3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.
In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

**Products Requiring Dielectric Voltage Withstand Test:**

| Product | Test Voltage | Test Time |
|---|---|---|
| All products covered by this Report. | 1230V<br>or<br>1480V | 60 s<br><br>1 s |

| **11.2 Grounding Continuity Test** |
|---|
| Method<br><br>Each product listed below shall be subjected to a test to determine that there is continuity between accessible dead-metal parts of the product and the grounding pin or blade of the attachment plug.<br><br>If all accessible dead metal is connected, only a single test need be performed. A visual or audible device (ohmmeter, buzzer, etc.) may be used to indicate grounding continuity. |
| **Products Requiring Grounding Continuity Test:** |
| All products covered by this Report. |

| **11.3 Pressure Tests for Leakage and Strength** |
|---|
| Method<br>Each air conditioner shall be tested and proved tight at not less than the design pressure(s) marked on the appliance.<br><br>If the final assembly is completed with flare-type fittings or telescoped tubing joints which are sealed with sliver solder, brazing, or the equivalent, the pressure test of the complete system may be at the low-side design pressure provided that the high-side parts are individually tested either by the room air conditioner manufacturer or by the manufacturer of the part at not less than the high-side design pressure.<br><br>At least once each year, a strength test shall be conducted on refrigerant-containing components of the shell-type which have an inside diameter greater than 3 inches (76.2mm) including motor-compressor enclosures. The test shall be conducted on at least one sample of each size and type. The part shall comply with requirements of Strength Tests. Such tests may be conducted either by the room air conditioner manufacturer or by the manufacturer of the component. |
| **Products Requiring Pressure Tests for Leakage and Strength:** |
| All products covered by this Report.<br>High side pressure 620 psig, Low side pressure 360 psig |

| 12.0 Revision Summary | | | | |
|---|---|---|---|---|
| The following changes are in compliance with the declaration of Section 8.1: | | | | |
| Date/ Proj # Site ID | Project Handler/ Reviewer | Section | Item | Description of Change |
| | | | | None |