

# Technical Specification

(APEXLIGHT Series)

Bare Electric Heater

For electric heating

## I. Precautions:

Read these operation instructions carefully to become familiar with and properly use this product before it is installed and used. The following instructions are specifically provided to achieve the intended operation effect regarding proper installation and use of our product:

- (1) This product is not suitable for anyone with deteriorated physical performance, sensory ability or mental capacity, or those with little experience and knowledge (including children), unless they are supervised or instructed by their guardians who are responsible for their safety regarding how to use it. Children should be properly supervised to ensure that they will never play with this equipment.
- (2) Select a model properly based on the actual operating environment; otherwise, the accessibility in its use may be affected.
- (3) This product cannot be installed in any environment with corrosive, flammable or explosive substances, or any place with special requirements (such as kitchen). Otherwise, the normal operation of the unit will be affected or the service life will be reduced, or even a fire hazard or serious injury will occur. For those special places above, use special air conditioners with the corrosion or explosion protection function.
- (4) If this product requires installation, removal or maintenance, contact a dealer designated by us or our local service center for professional support. The user shall not carry out any unit removal or maintenance without permission; otherwise, this may result in related damages for which we will assume no liability whatsoever.
- (5) All the illustrations and information contained in these operation instructions are for reference only. We will make our product better through continuous improvement and innovation. This product is subject to adjustment. Please refer to the actual product.

## Exceptions

The manufacturer assumes no liability whatsoever for any personal injury or property damage arising from any of the following causes:

- (1) Any damage to this product due to improper use or misuse;
- (2) Any change to, replacement or maintenance of, or use of this product with another equipment, which goes against the manufacturer's operation instructions;
- (3) It is verified that a product defect directly arises out of corrosive gas;
- (4) It is verified that a defect is caused by improper operation during transportation of this product;
- (5) Failure to follow the operation instructions or related regulations while operating, repairing, or maintaining the unit;
- (6) It is verified that a dispute arises out of the quality specification or performance of parts produced by other manufacturers; or
- (7) Any personal injury or property damage caused by natural disasters or force majeure.

## Specification Tables

Ratings for GMV-ND09-30NhB-T(U) air Handlers

SUPPLEMENTARY HEATER(Optional)							Part Number
Heater Kit Model	Amperage		Min. Circuit Ampacity		Max Fuse Size/Max Ckt, Bkr Size/ (Hacr Type Per Nec)		
	VAC		VAC		VAC		
	208	230	208	230	208	230	
LYQ-08-A ECOHR05 KW	18	20	25.5	28	30	30	320004060157
LYQ-08-C ECOHR10 KW	36	40	48	53	50	60	320004060160

Ratings for GMV-ND36-42NhB-T(U) air Handlers

SUPPLEMENTARY HEATER(Optional)							Part Number
Heater Kit Model	Amperage		Min. Circuit Ampacity		Max Fuse Size/Max Ckt, Bkr Size/ (Hacr Type Per Nec)		
	VAC		VAC		VAC		
	208	230	208	230	208	230	
LYQ-08-A ECOHR05 KW	18	20	28	31	30	35	320004060157
LYQ-08-C ECOHR10 KW	36	40	51	56	60	60	320004060160
LYQ-08-D ECOHR15 KW	54	60	74	82	80	90	320004060158

Ratings for GMV-ND48-60NhB-T(U) air Handlers

SUPPLEMENTARY HEATER(Optional)							Part Number
Heater Kit Model	Amperage		Min. Circuit Ampacity		Max Fuse Size/Max Ckt, Bkr Size/ (Hacr Type Per Nec)		
	VAC		VAC		VAC		
	208	230	208	230	208	230	
LYQ-08-A ECOHR05KW	18	20	31	33	35	35	320004060157
LYQ-08-C ECOHR10KW	36	40	53	58	60	60	320004060160
LYQ-08-D ECOHR15KW	54	60	76	83	80	90	320004060158
LYQ-08-E ECOHR20KW	72	80	98	108	100	110	320004060161

## Compatibility Table

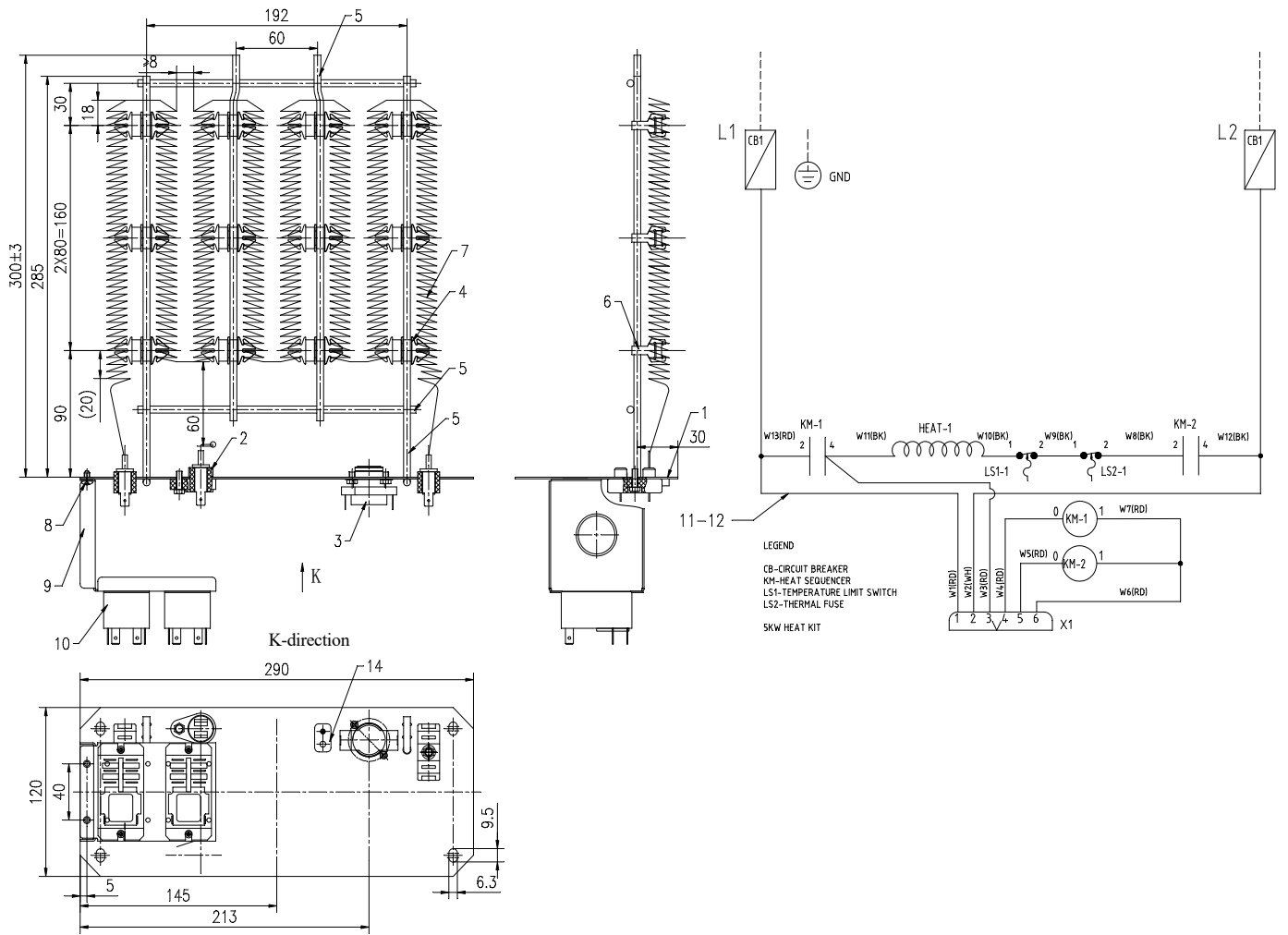
Heater Kit Model	Applicable GMV Air Handlers
LYQ-08-A ECOHR05KW	GMV-ND09-60NhB-T(U) 9K Through 60K
LYQ-08-C ECOHR10KW	GMV-ND09-60NhB-T(U) 9K Through 60K
LYQ-08-D ECOHR15KW	GMV-ND36-60NhB-T(U) 36K Through 60K
LYQ-08-E ECOHR20KW	GMV-ND48-60NhB-T(U) 48K Through 60K

## II. Product Structure:

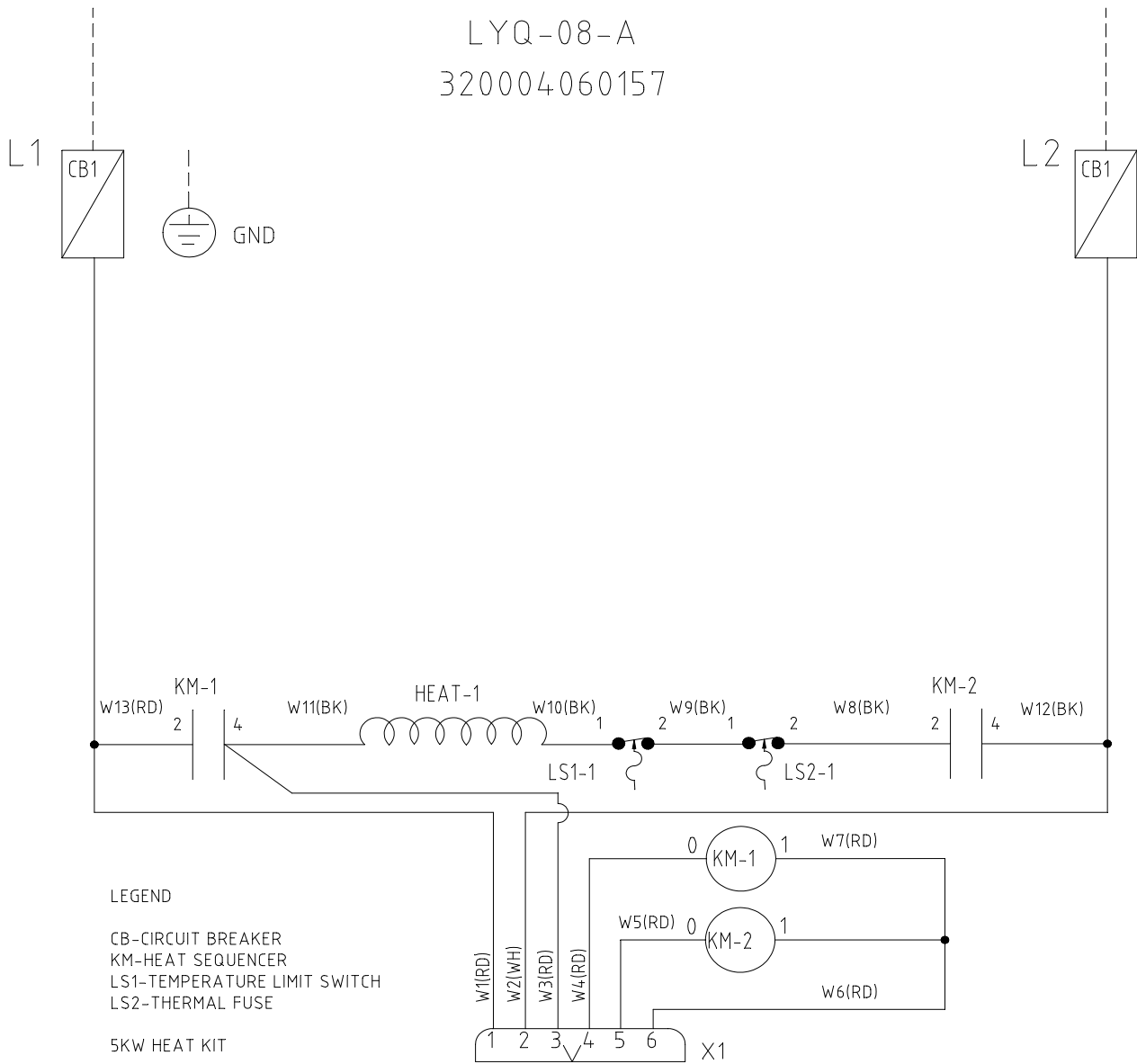
① Model: LYQ-08-A    Material Code: 320004060157

(a) Specification: 240 V / 5 KW

(b) Overall dimension drawing



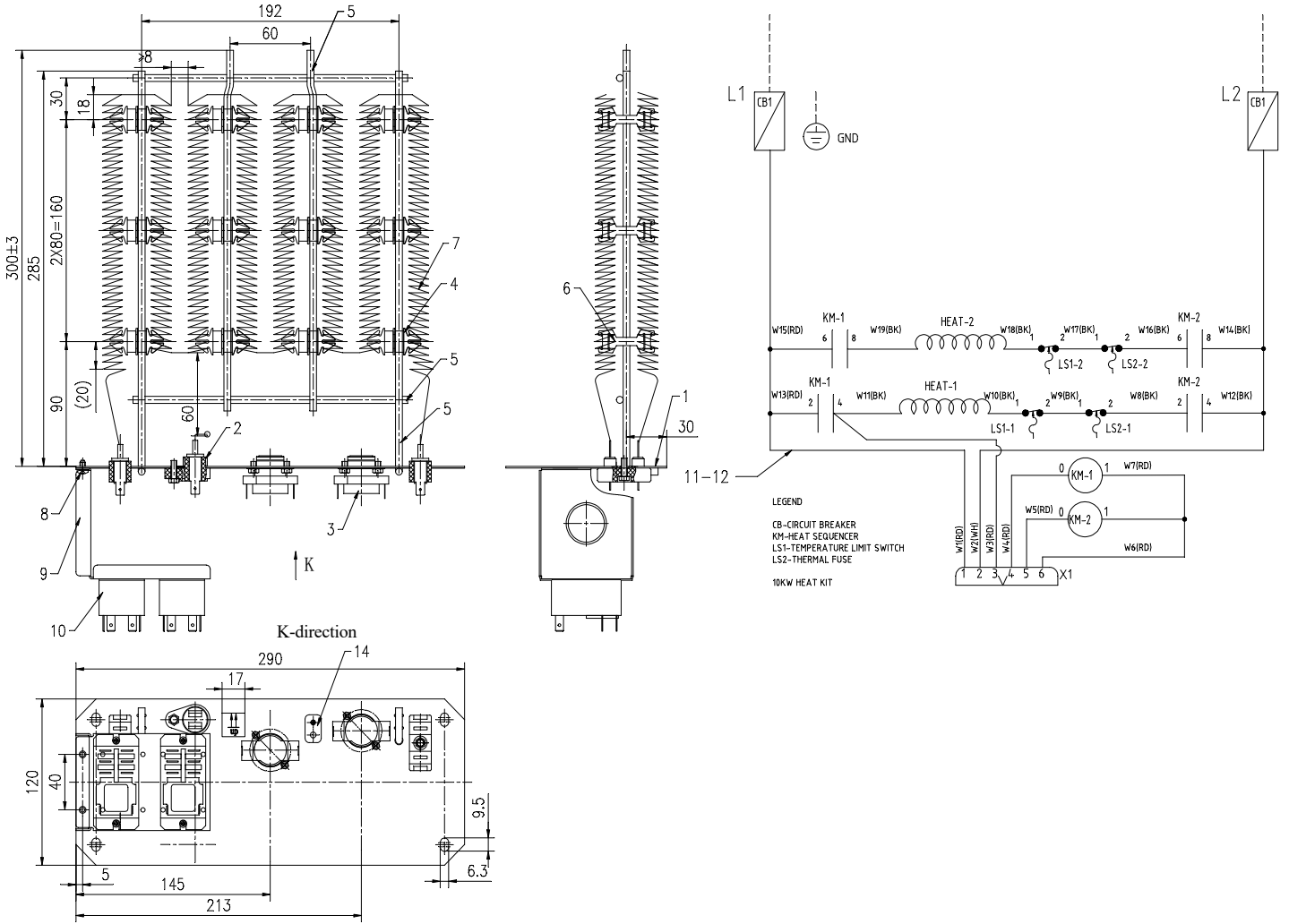
(c) Wiring diagram:



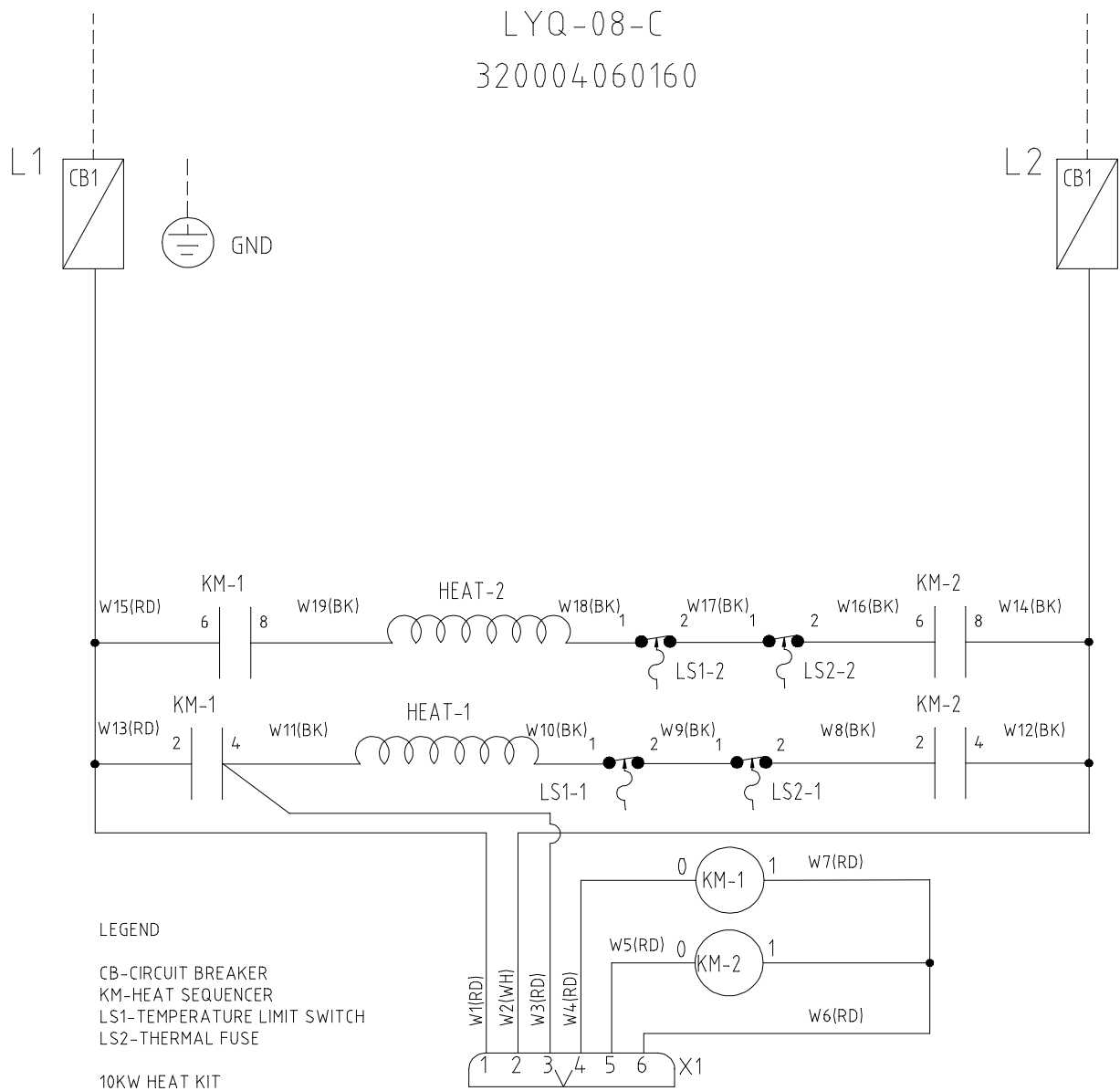
③ Model: LYQ-08-C Material Code: 320004060160

(a) Specification: 240 V / 10 KW

(b) Overall dimension drawing



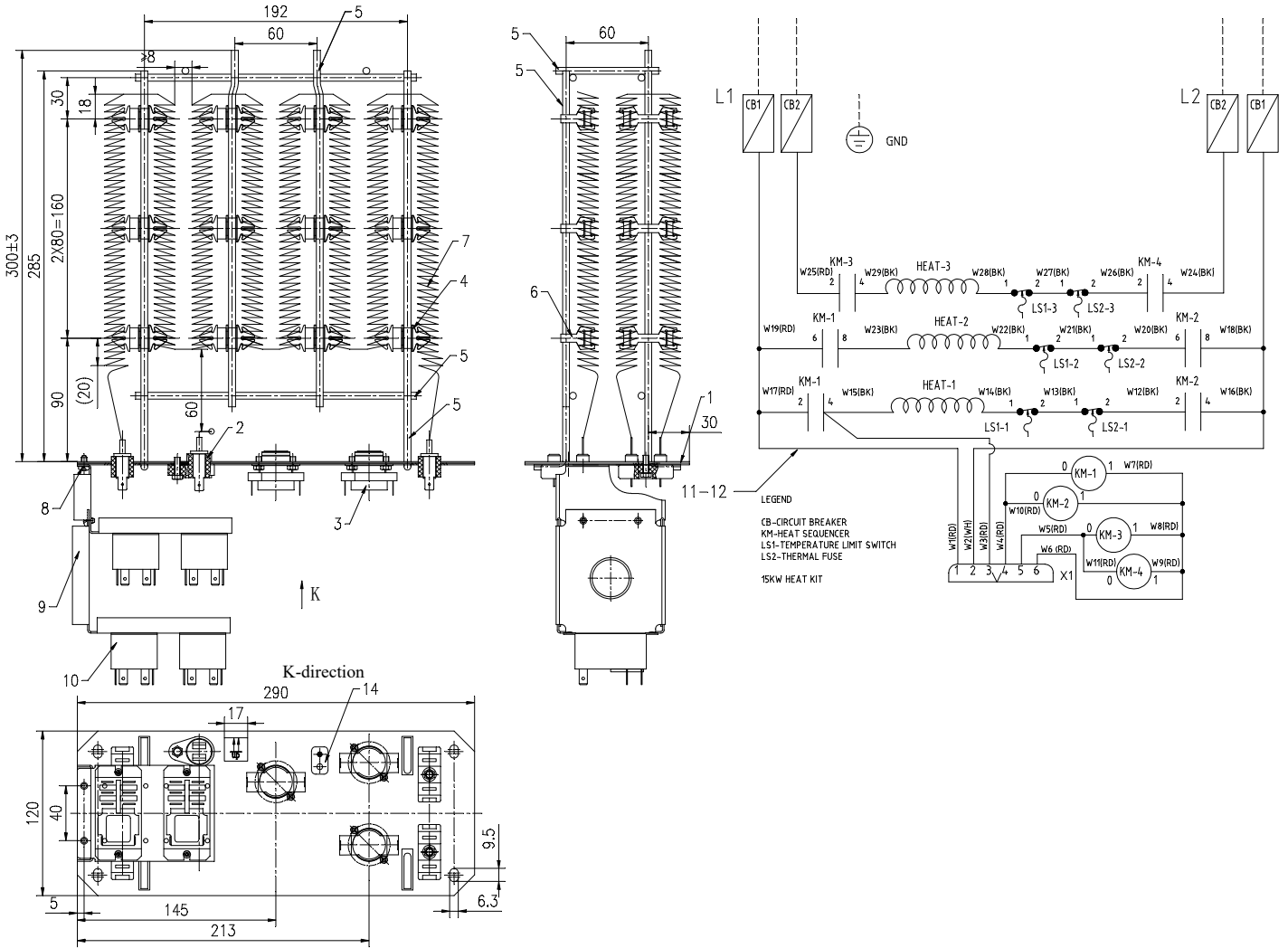
(c) Wiring diagram:



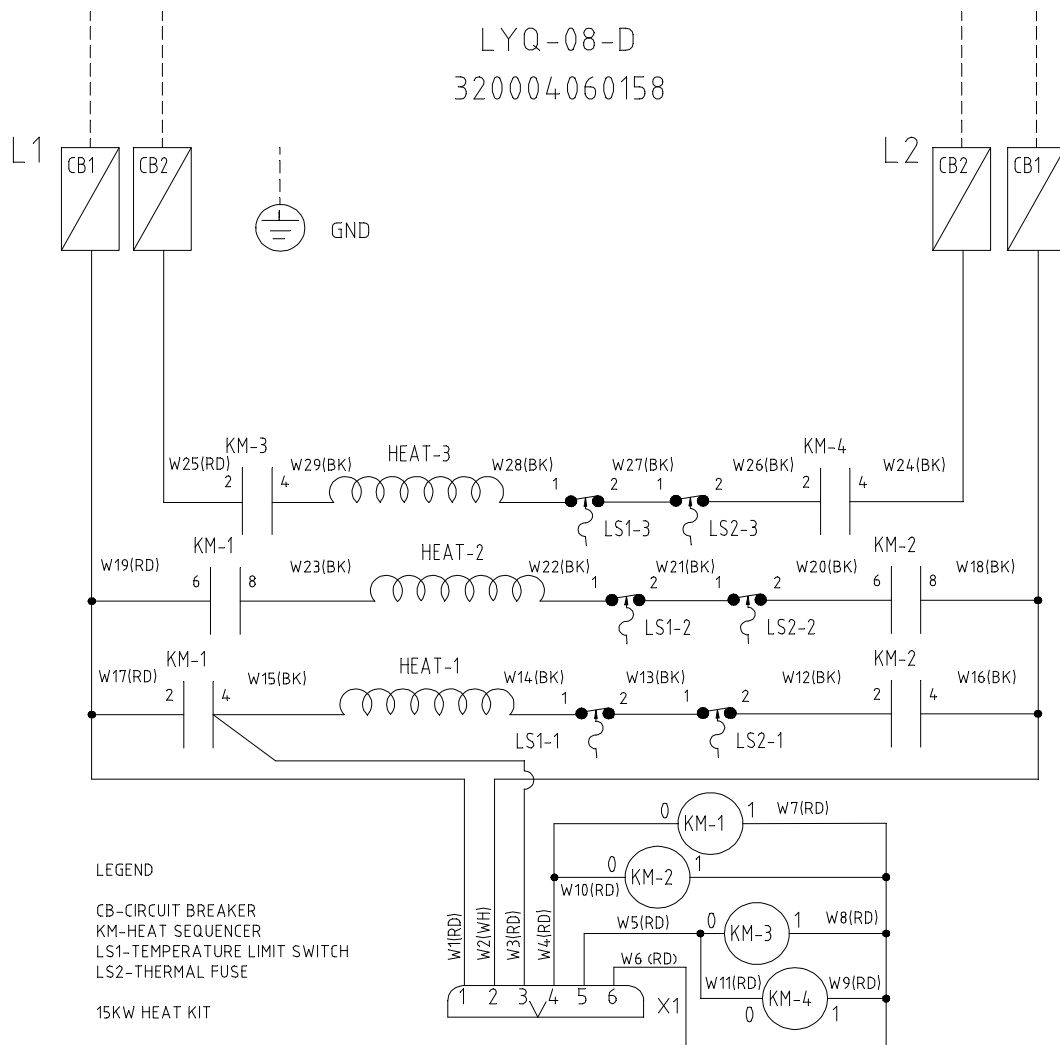
④ Model: LYQ-08-D      Material Code: 320004060158

(a) Specification: 240 V / 15 KW

(b) Overall dimension drawing



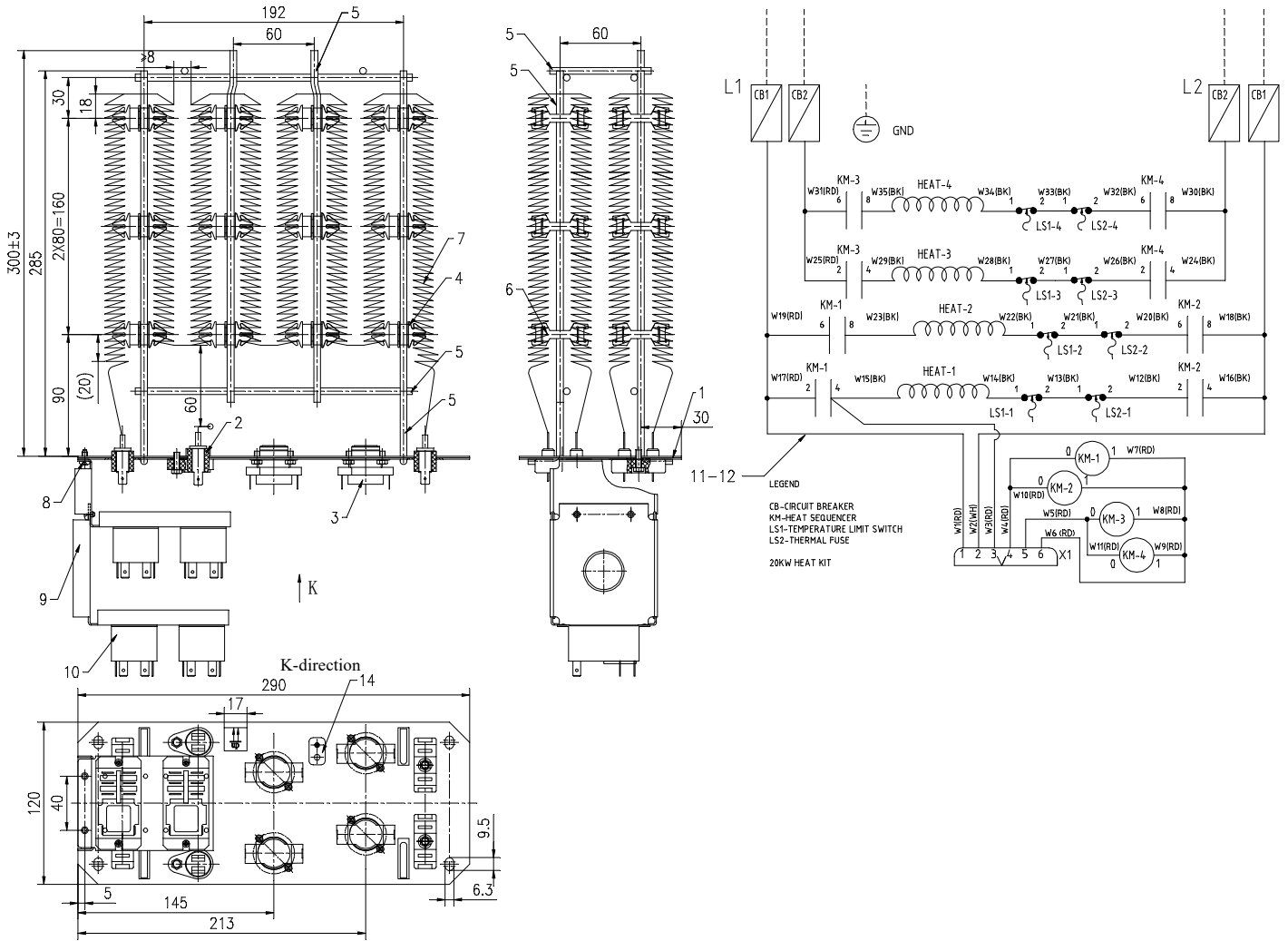
(c) Wiring diagram:



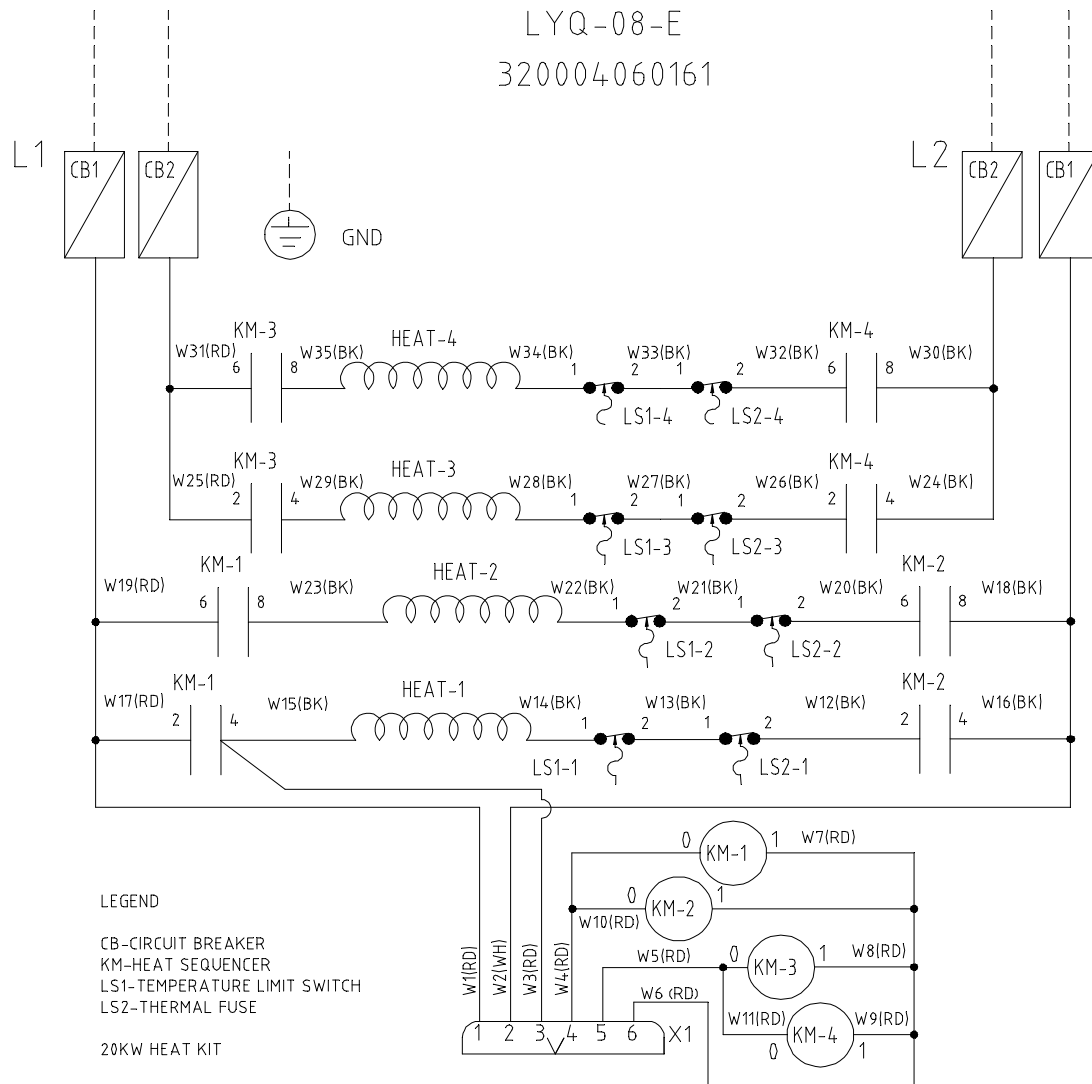
⑤ Model: LYQ-08-E      Material Code: 320004060161

(a) Specification: 240 V / 20 KW

(b) Overall dimension drawing



(c) Wiring diagram:



### III. Major Materials

S/N.	Description	Material	Specification	Remarks
1	Mounting plate	Galvanized steel plate	t=1.2	
2	Fuse assembly		250 V, 25 A, 121 °C	
3	Temperature controller		250 V, 25 A, 60/40	
4	Ceramic module	95% alumina ceramics		
5	Frame strip	SUS304	Φ5	
6	Clamp	SUS304		
7	Heating element	Cr20Ni80		
8	Screw	Trivalent chromium electroplating		
9	Mounting plate of relay	Galvanized steel plate	t=1.2	
10	Relay		HF92F-024A6-2A21F/ JT92F-024A6-2A21F	
11	Wire		UL1015	
12	Wire		UL1332	
13	Circuit breaker		30 A / 45 A / 60 A	
14	Thermal bulb		1KQ-XARP-2 (white)-1200mm	

#### IV. Technical Requirements:

1. Parts should be firmly fixed without looseness.

Spot welding should be used for the mounting plate, frame strip, and clamp.

2. Dimensions without individual tolerance indications are subject to Grade C defined in GB/T1804.
3. For electric strength, no breakdown or flashover should occur when dielectric strength is AC1800V/S at 5 mA.
4. Cold insulation resistance  $\geq 100 \text{ M}\Omega$
5. Leakage current at the operating voltage  $\leq 0.5 \text{ mA}$ .
6. All materials should comply with corresponding requirements in the *Toxic and Hazardous Substances Control for Electric Heaters* (DF-3-YF-002).
7. Firm assembly should be ensured between parts without warp or deformation as a whole.
8. No Chinese text is allowed for an entire part.
9. Standards QJ/GD12.10.008 and Q/321191 AAM008 shall be followed.