



# DC 2000W - 5000W

AVAILABLE FROM  
NEPEAN ELECTRONICS



NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

The NEPEAN DC 2000W-5000W is designed for industrial equipment applications and high-performance multifunction which consist of; compressor, condenser, expansion valve, an evaporator, internal and external fans that uses 48V DC power supply. The purpose of its installation is to control internal cabinet temperatures (during normal application for closed state), with the controlled temperature being 20-45 °C ensuring all thermal sensors work at their best efficiency.

### NEPEAN Advantage

- Manufactured with all DC driven components
- Power supply voltage range; DC 42V - 60V
- Designed to allow for partial load starting, operation, and severe ambient conditions.
- Energy saving to 50% comparing with A.C.
- Strict process control and quality components used to ensure product reliability
- Suitable for F3 high temperature by using of R134a refrigeration
- DC speed control motor, minimal energy consumption and low noise
- Self-testing

### User parameter setting range

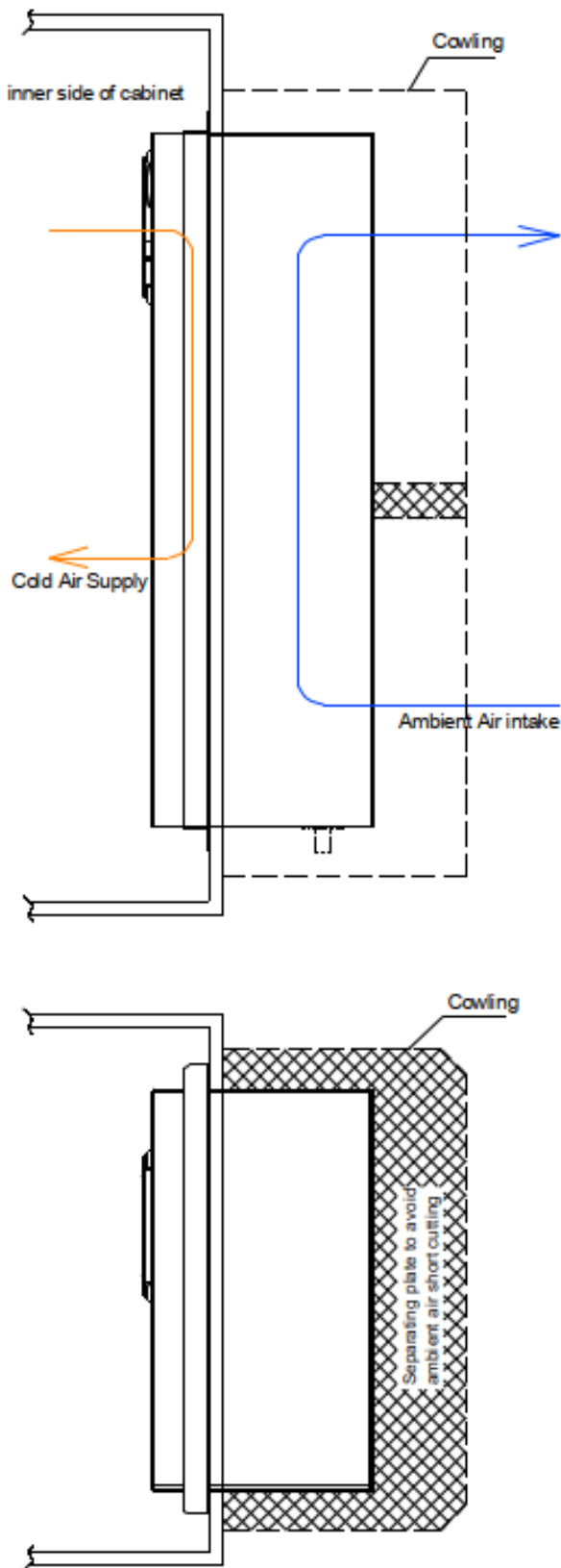
Item Name	Default Value	Value Range
Communication address for master/ slave unit setting	1 - slave unit	1 - slave unit 2- master unit
Compressor starting temperature	35°C	18°C ~ 50°C
Hysteresis value for compressor start/stop	5°C	1°C ~ 5°C
High temperature alarming value	58°C	30°C ~ 100°C
Low temperature alarming value	-42°C	-42°C ~ 25°C
Heater starting temperature value	5°C	-45°C ~ 15°C
Hysteresis value for heating start/ stop	10°C	5°C ~ 20°C
External input signal type definition	2	0 - Disable 1 - NO type 2 - NC type
Master/ Slave function definition	0	0 - Disable 1 - enable
Master/ Slave switching period for each unit	12 hours	0 ~ 72 hours
Return to factory setting	/	Press "S" key to return to factory setting under parameter setting status

### Ordering Information

Part Number	Description
711040	2000W DC Air Conditioner
711050	3000W DC Air Conditioner
711071	4000W DC Air Conditioner
711070	5000W DC Air Conditioner

# DC 2000W - 5000W

## Air Circulation Diagram



## LED Display Interface



## Interface Symbol Definition

Indicator Icon	Definition	Solid lighting	Blinking light
	Parameter setting	Under setting status	Self testing status
	Heating status	Heater running	Heater fail alarming when parameter icon off
	Cooling	Compressor running	Compressor fail when parameter icon off
	External fan	External fan running	External fan fail when parameter icon off
	-	-	-
	Alarm	Alarm	-

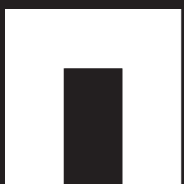
# DC 2000W - 5000W

## Specifications

Product	2000W	3000W	4000W	5000W
Rated Voltage	-48V	-48V	-48V	-48V
Cooling Capacity	2000W @35°C / 35°C	3000W @35°C / 35°C	4000W @35°C / 35°C	5000 @35°C / 35°C
Rated Power Consumption	520W @35°C / 35°C	1000W @35°C / 35°C	1200 @35°C / 35°C	1450 @35°C / 35°C
Rated Current	10.8A @35°C / 35°C	20.8A @35°C / 35°C	25A @35°C / 35°C	30A @35°C / 35°C
EER	3.8	3	3.3	3.4
Inner Circulation air flow rate	500m³/h	800m³/h	1000m³/h	1200m³/h
Display	LED	LED	LED	LED
Heater	NA	NA	NA	NA
Operating Temperature Range	-15°C ~ +55°C	-15°C ~ +55°C	-15°C ~ +55°C	-15°C ~ +55°C
Max. Noise Level	65dB(A) @1.0m away	65dB(A) @1.0m away	68dB(A) @1.0m away	68dB(A) @1.0m away
IP Protection level	IP55- between external and internal interface	IP55- between external and internal interface	IP55- between external and internal interface	IP55- between external and internal interface
Net Weight	31kg	47kg	62kg	62kg
Outer dimension (mm, HxWxD)	1112 x 412 x 175	1150 x 485 x 225	1300 x 600 x 300	1300 x 600 x 300
Refridgeration Type	R134a	R134a	R134a	R134a
Certification	CE	CE	CE	CE
Surface Treatment	Outdoor type powder coating, standard colour: RAL7035	Outdoor type powder coating, standard colour: RAL7035	Outdoor type powder coating, standard colour: RAL7035	Outdoor type powder coating, standard colour: RAL7035
Lifetime	10 years	10 years	10 years	10 years

## Wiring Specifications

Product	2000W	3000W	4000W	5000W
Power supply	-48VDC (GND/RTN: Positive, -48: negative)	-48VDC (GND/RTN: Positive, -48: negative)	-48VDC (GND/RTN: Positive, -48: negative)	-48VDC (GND/RTN: Positive, -48: negative)
Power supply range	-42 VDC ~ -60VDC	-42 VDC ~ -60VDC	-42 VDC ~ -60VDC	-42 VDC ~ -60VDC
DC power supply source capacity	>20Amps @ 48VDC	>30Amps @ 48VDC	>30Amps @ 48VDC	>38Amps @ 48VDC
Main power supply cable size	>12AWG (UL 1015)	>10AWG (UL 1015)	>10AWG (UL 1015)	>10AWG (UL 1015)
Voltage loss along power supply cable from power source to unit	<1.0V	<1.0V	<1.0V	<1.0V
Circuit breaker size	>20Amps	>30Amps	>35Amps	>40Amps



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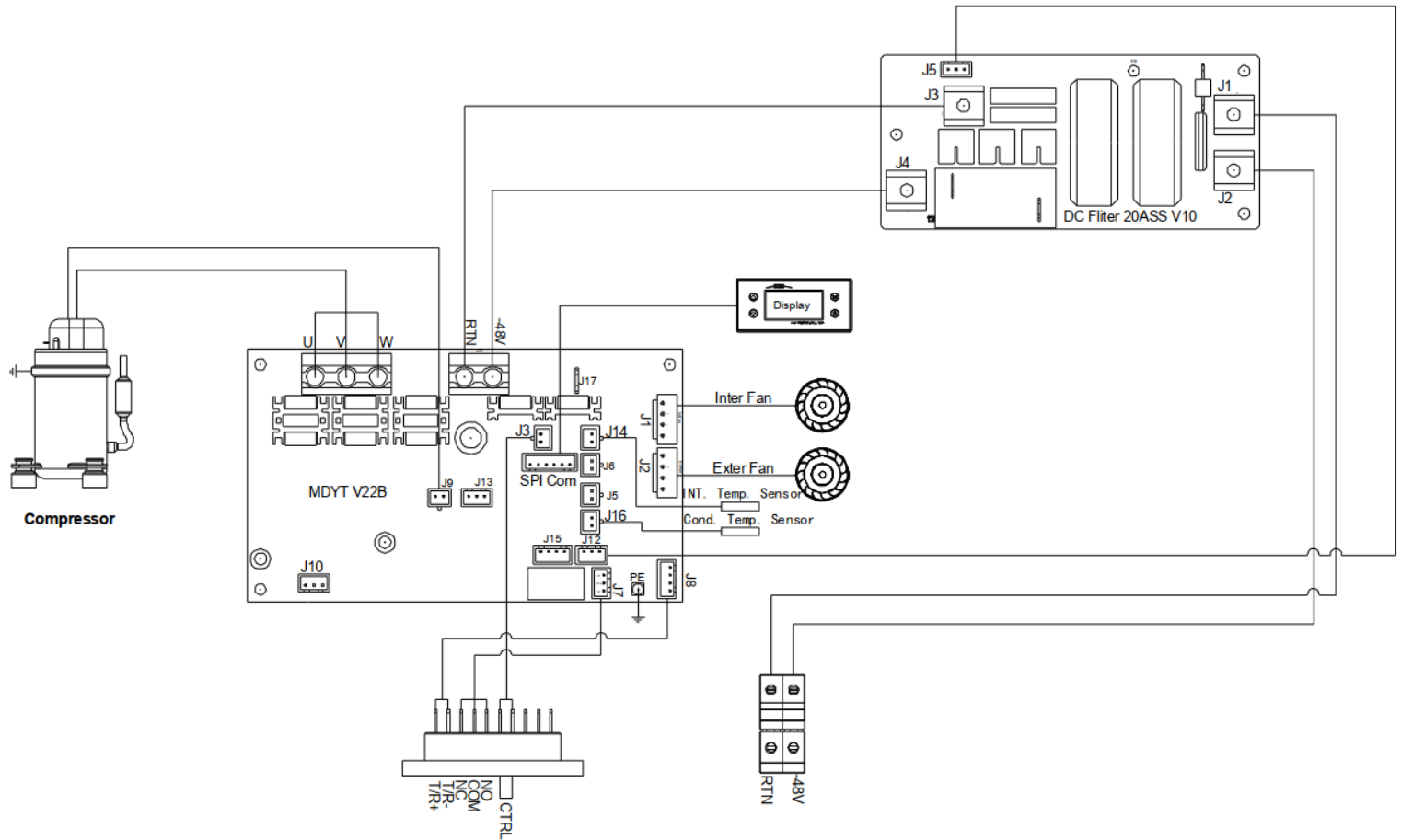
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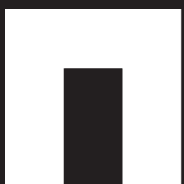
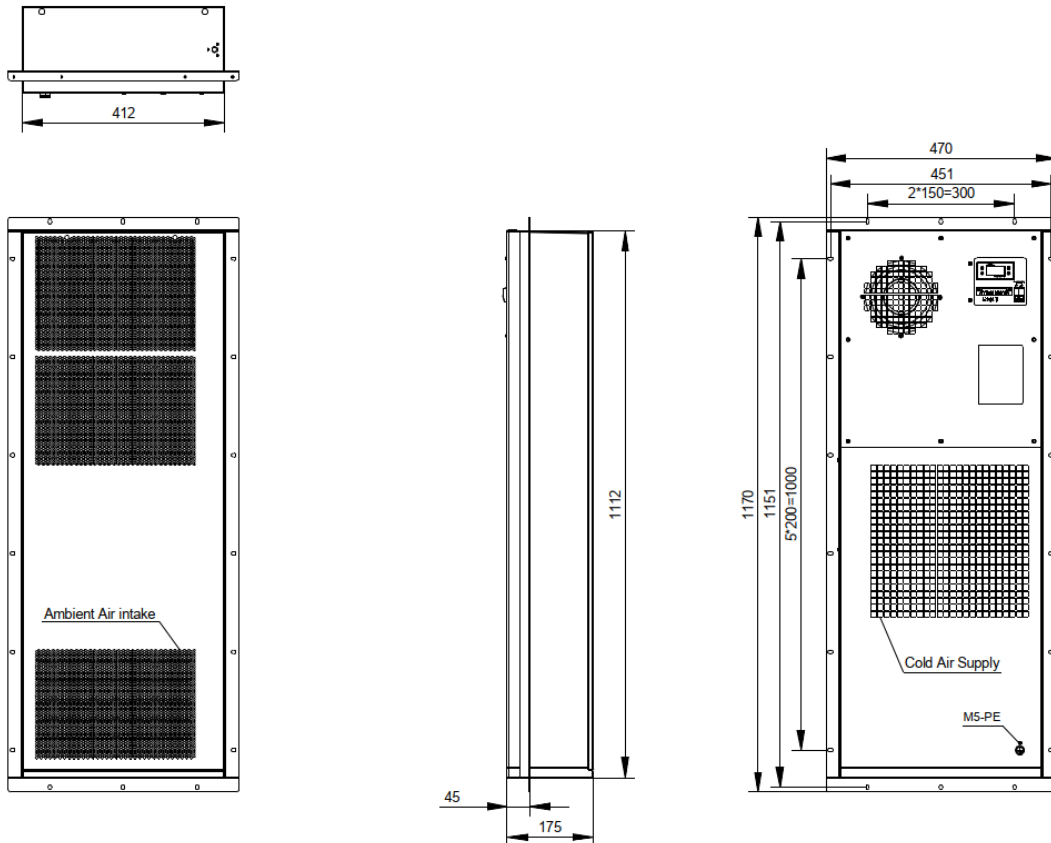
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# DC 2000W - 5000W

## 2000W Wiring Diagram



## 2000W Dimensions



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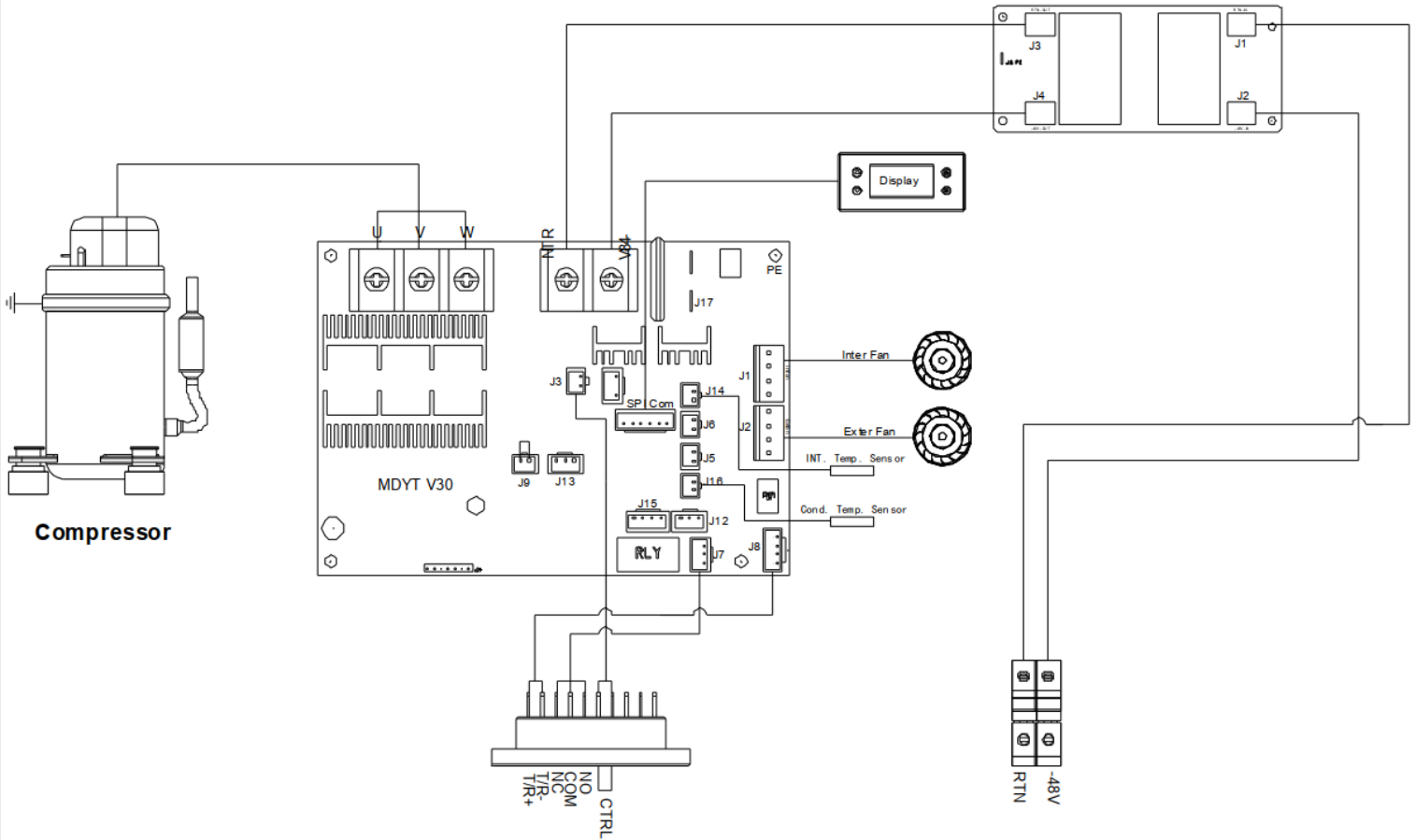
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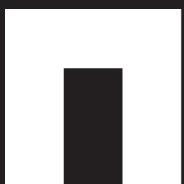
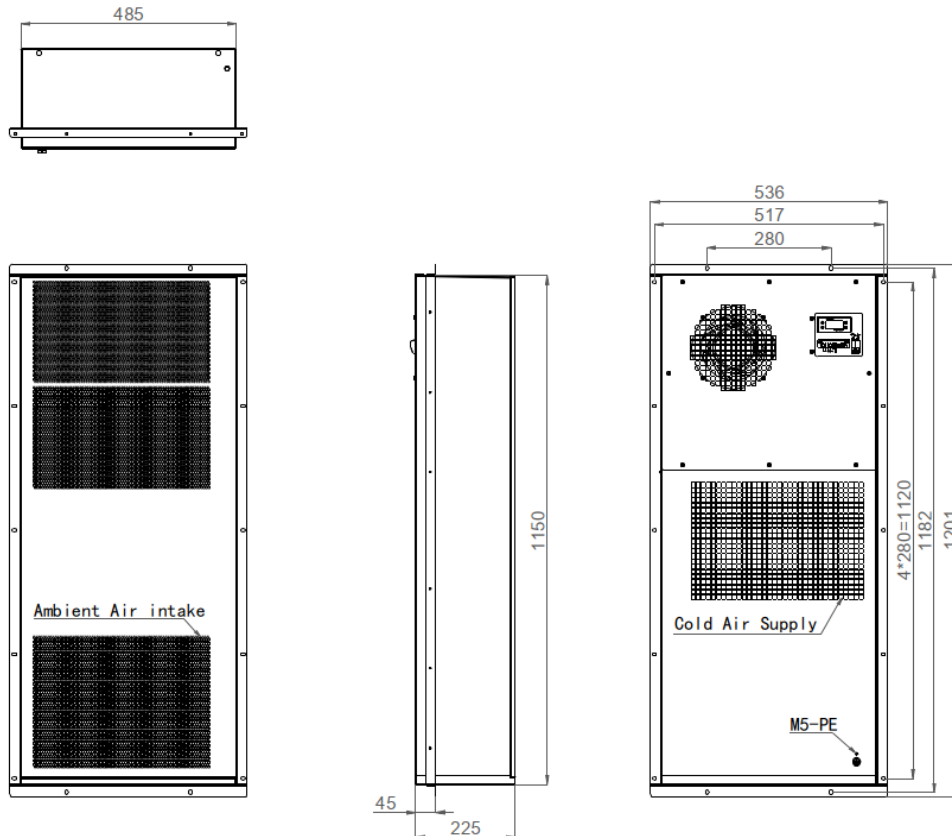
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# DC 2000W - 5000W

## 3000W Wiring Diagram



## 3000W Dimensions



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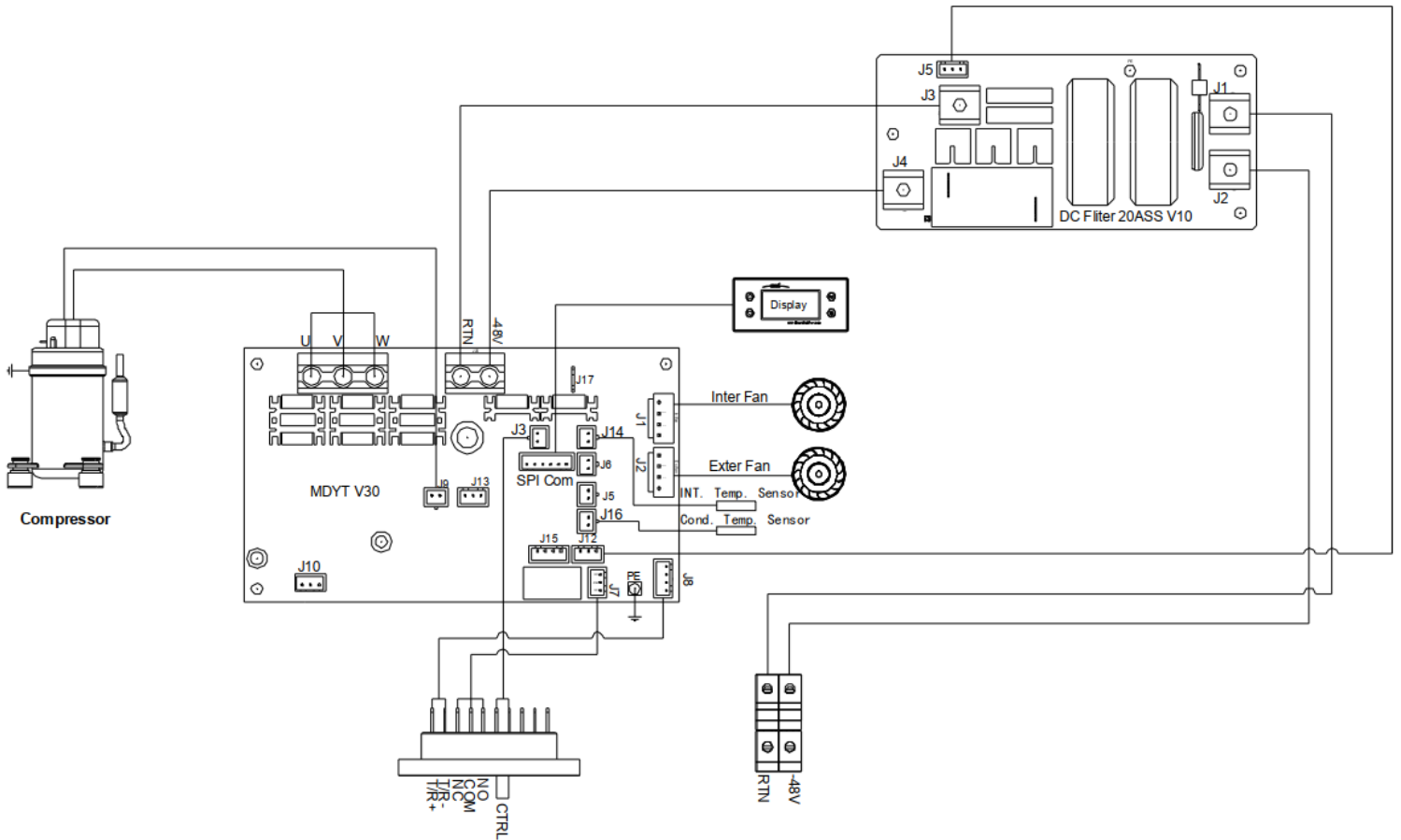
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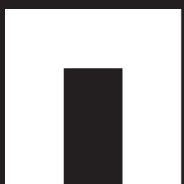
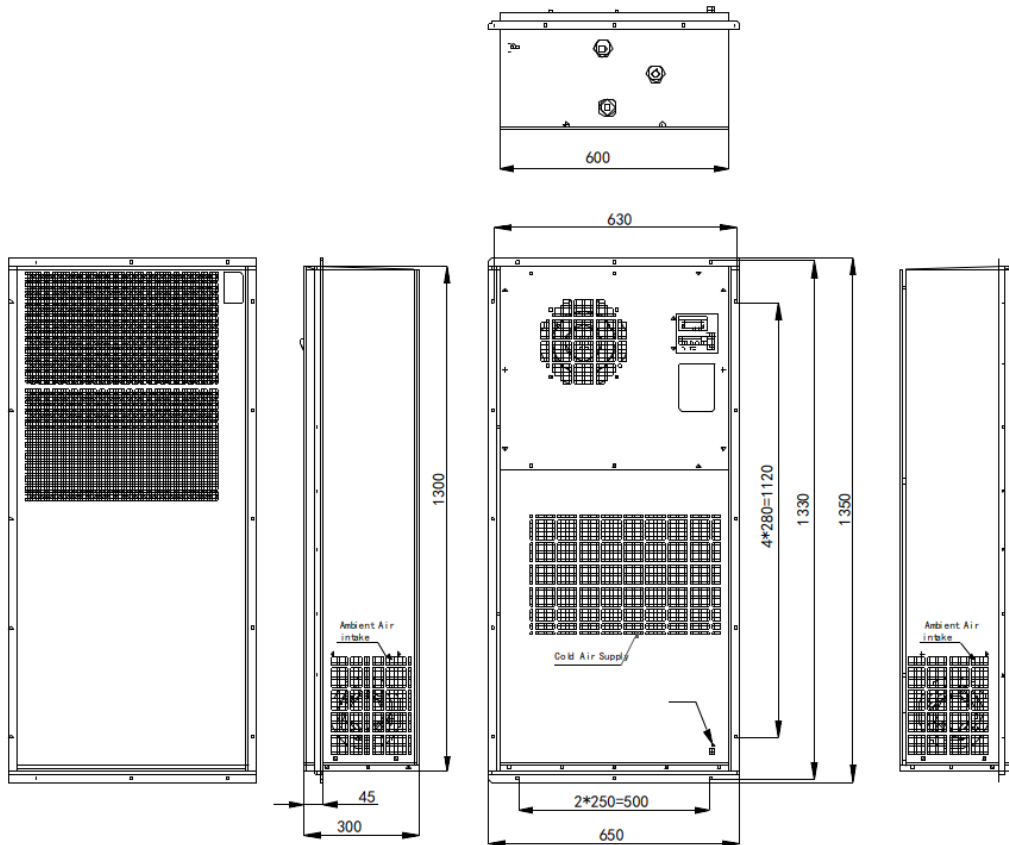
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# DC 2000W - 5000W

## 4000W Wiring Diagram



## 4000W Dimensions



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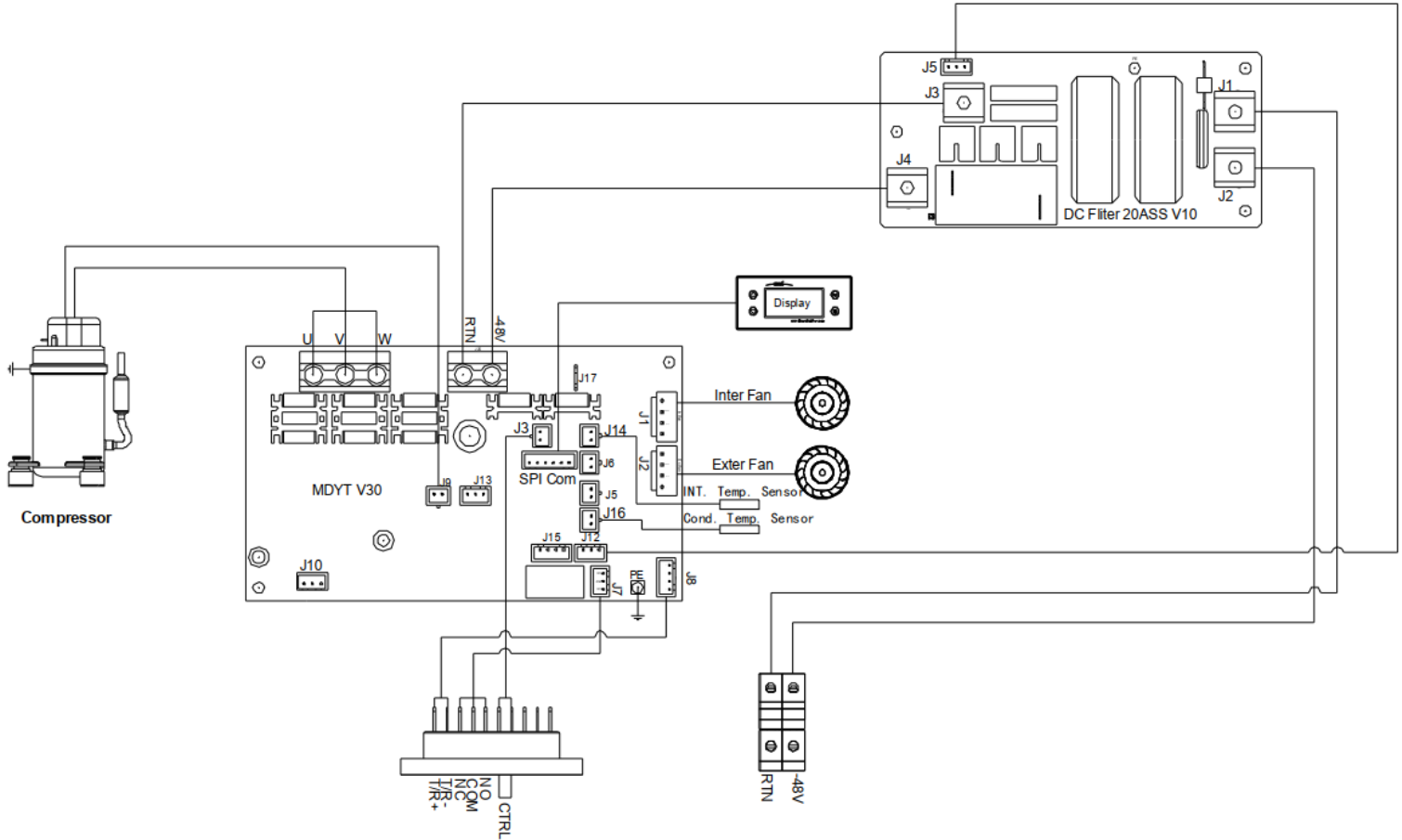
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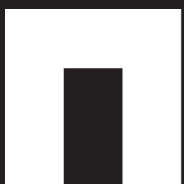
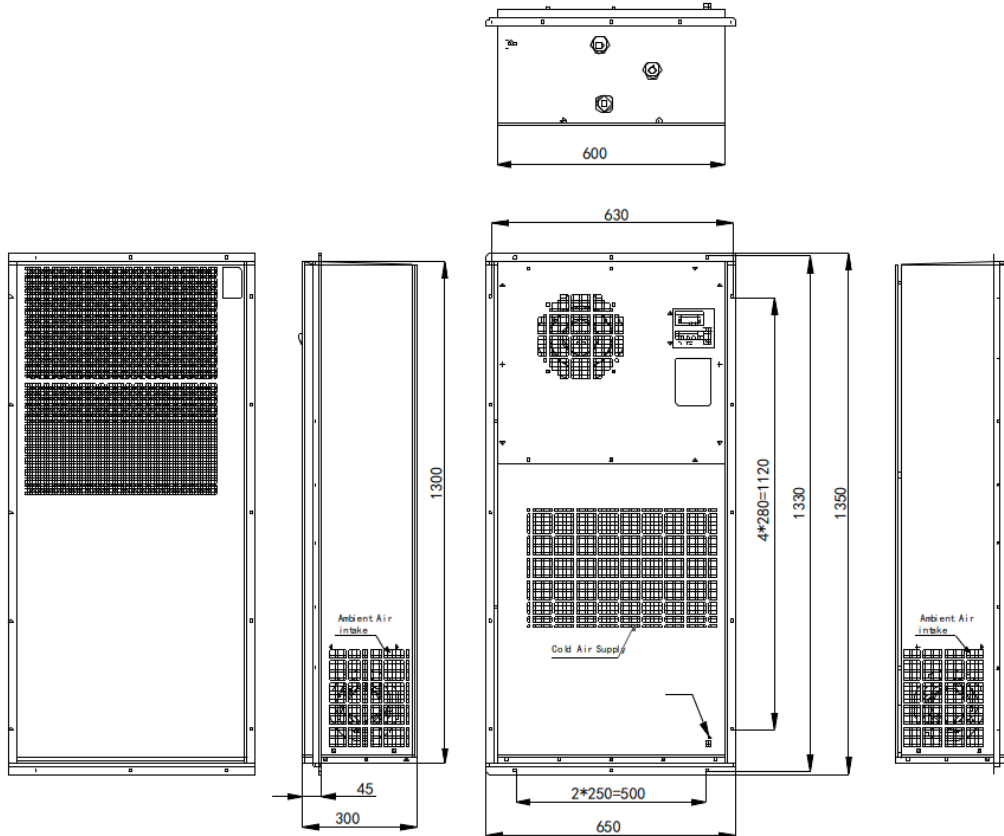
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# DC 2000W - 5000W

## 5000W Wiring Diagram



## 5000W Dimensions



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