Vector Inverter

300 Series

Vector/Permanent Magnet Synchronous/Photovoltaic



Proven Reliability.

Engineered Excellence

Vector Inverter

Product Specifications

Item	Parameter
Output Frequency	0–3000Hz
Overload Capacity	150% rated current for 1 minute, 180% rated current for 3 seconds
Modulation Mode	Optimized space voltage vector SVPWM modulation
Control Mode	Sensorless vector control (with optimized low frequency dead-zone compensation characteristics)
Frequency Resolution	Digital setting: 0.01Hz; Analog setting: max frequency × 0.025%
Starting Frequency	0.0–10.0Hz
Torque Boost	Automatic torque boost; Manual torque boost 0.1%–30.0%
Built-in PID	Easy closed-loop control system
Multi-stage Speed Operation	Multi-stage speed operation through built-in PLC or control terminals
Operation Command Channel	Via control panel. via control terminals, 485 communication
Switch Input Channel	Forward/Reverse commands; 5-channel programmable switch input
Analog Input Channel	2-channel analog signal input, 0–20mA, 0–10V
Analog Output Channel	Available analog signal output (4-20mA or 0-10V) and multi-variable output including preset frequency or output frequency
Switch Output Channel	2-channel relay output signals
Protection Function	Overcurrent protection, overvoltage protection, undervoltage protection, overheating protection, overload protection, etc.
PV Power Tracking	CVT mode, MPPT mode

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Model	Rated Current	Dimensions (Height*Width*Thickness) (Unit: mm)	IGBT	Operation Voltage
300-0.75KWG-3	2.5A	164*88*125	Single Tube	3-Phase 380V Input, 3-Phase 380V Output
300-1.5KWG-3	3.7A			
300-2.2KWG-3	5A			
300-3KWG-3	6.8A			
300N-4KWG-3	9A	184*97*135		
300N-5.5KWG-3	13A			
300N-7.5KWG-3	17A			
300N-11KWG-3	25A	219*125*171 (Plastic Shell)		
300N-15KWG-3	32A			
300T-11KWG-3	25A	280*150*196 (Iron Shell)	Module	
300T-15KWG-3	32A			
300T-18.5KWG-3	37A			
300N-22KWG-3	45A	330*170*235		
300T-30KWG-3	60A	380*215*215		
300T-37KWG-3	75A			
300-45KWG-3	90A	510*260*260		
300-55KWG-3	110A			
300T-75KWG-3	150A	535*260*272		
300T-90KWG-3	176A			
300-110KWG-3	210A	600*340*280		
300-132KWG-3	250A	800*380*310		
300-160KWG-3	300A			
300-185KWG-3	340A			
300-200KWG-3	380A			
300-220KWG-3	415A	920*500*315		
300-250KWG-3	470A			
300-285KWG-3	520A			
300-315KWG-3	600A	1050*650*360		
300-355KWG-3	640A			
300-400KWG-3	690A	1250*850*350		
300-450KWG-3	820A			
300-500KWG-3	860A			
300-550KWG-3	920A	1350*1000*390		
300-630KWG-3	1100A			
300-720KWG-3	1220A			

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Power	0.75kW/1.5kW/2.2kW/3kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	1.24kg



Power	4kW/5.5kW/7.5kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	1.8kg



Power	11kW/15kw
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	2.85kg



Power	11kW/15kW/18.5kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	5.1kg



Power	22kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	8kg



Power	30kW/37kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	11.2kg



Power	45kW/55kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	20.4kg



Power	75kW/90kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	22.5kg



Power	110kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	35kg

Vector Inverter

Product Specifications



Power	132kW/160kW/185kW/200kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	52kg



Power	220kW/250kW/285kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	78kg



Power	315kW/350kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz



Power	400kW/450kW/500kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz



Power	550kW/630kW/720kW
Input Voltage	3PH 380V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz

Vector Inverter

Product Specifications

Model	Rated Current	Dimensions (Height*Width*Thickness) (Unit: mm)	IGBT	Operation Voltage
300-0.75KWG-S2	Input: 4.5A, Output: 3.5A	164(Height)*88(Width)*125(Thickness)	Single Tube	Single Phase 220V Input, 3-Phase 220V Output
300-1.5KWG-S2	Input: 8A, Output: 6.8A			
300-2.2KWG-S2	Input: 12A, Output: 10A			
300-3KWG-S2	Input: 15A, Output: 13A	184(Height)*97(Width)*135(Thickness)		
300-4KWG-S2	Input: 18A, Output: 15A	219(Height)*125(Width)*171(Thickness)		
300-5.5KWG-S2	Input: 25A, Output: 20A			



Power	0.75kW/1.5kW/2.2kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	3PH 0-220V
Output Frequency	0-600Hz
Product Weight	1.24kg



Power	3kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	3PH 0-220V
Output Frequency	0-600Hz
Product Weight	1.8kg



Power	4kW/5.5kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	3PH 0-220V
Output Frequency	0-600Hz
Product Weight	2.85kg

Vector Inverter

Model	Rated Current	Dimensions (Height*Width*Thickness) (Unit: mm)	IGBT	Operation Voltage
300-0.75KWG-S3	Input: 4.5A, Output: 2.5A	164(Height)*88(Width)*125(Thickness)	Single Tube	1-Phase 220V Input, 3-Phase 380V Output
300-1.5KWG-S3	Input: 8A, Output:3.7A			
300-2.2KWG-S3	Input: 12A, Output:5A			
300-3KWG-S3	Input: 15A, Output:6.8A			
300-4KWG-S3	Input: 18A, Output:9A	184(Height)*97(Width)*135(Thickness)		
300-5.5KWG-S3	Input: 25A, Output:13A			
300-7.5KWG-S3	Input: 34A, Output:17A	219(Height)*125(Width)*171(Thickness)		
300-11KWG-S3	Input: 50A, Output:25A			



Power	0.75kW/1.5kW/2.2kW/3kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	1.24kg



Power	4kW/5.5kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	1.8kg



Power	7.5kW/11kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	3PH 0-380V
Output Frequency	0-600Hz
Product Weight	2.85kg

Vector Inverter

Product Specifications

Model	Rated Current	Dimensions (Height*Width*Thickness) (Unit: mm)	IGBT	Operation Voltage
300-0.75KWG-H2	Input: 3.5A, Output: 3.5A	164(Height)*88(Width)*125(Thickness)	Single Tube	1-Phase 220V Input, 1-Phase 220V Output
300-1.5KWG-H2	Input: 6.8A, Output:6.8A			
300-2.2KWG-H2	Input: 10A, Output:10A			
300-3.0KWG-H2	Input: 13A, Output:13A	184(Height)*97(Width)*135(Thickness)		



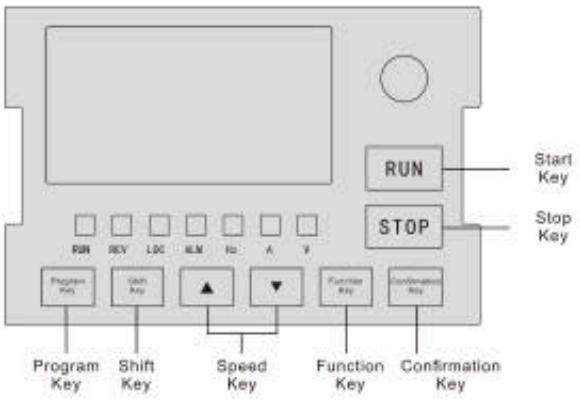
Power	0.75kW/1.5kW/2.2kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	1PH 0-220V
Output Frequency	0-600Hz
Product Weight	1.24kg



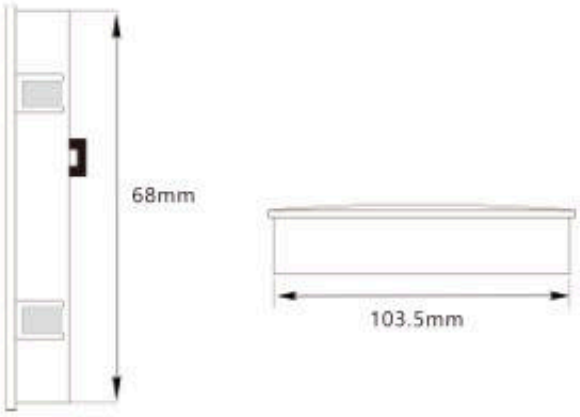
Power	3kW
Input Voltage	1PH 220V 50/60Hz
Output Voltage	1PH 0-220V
Output Frequency	0-600Hz
Product Weight	1.8kg

Vector Inverter

Inverter Panel



Panel Cabin



Panel Cabin Opening Size: 68*103.5mm

Electrical Installation

Main Circuit Terminals and Wiring

1) Description of Inverter Main Circuit Terminals

Terminal Markings	Name	Descriptions
R/L1, S, T/L2	Power Input Terminals	AC power supply connection points
PP, PB	Braking Resistor Connection Terminals	Connected to braking resistor
U, V, W	Inverter Output Terminals	Connected to 3-phase motor
H2 Inverter U, V	nverter Output Terminals	Connected to 1-phase motor
G, ⏚ , E	Grounding Terminal	Connected to the grounding terminal of the distribution box, or other standard grounding electrodes

Inverter Control Circuit Wiring Description

Control Terminal Function Description

300 Series Inverter Control Terminal Function Description

Category	Terminal Symbol	Terminal Name	Functional Description
Power Supply	+10V-GND	External +10V Power Supply	Provides external +10V power supply, maximum output current: 50mA. Generally used as power supply for external potentiometer, potentiometer resistance range: 1kΩ~5kΩ.
	+24V(PC)-GND	External +24V Power Supply	Provides external +24V power supply, generally used as power supply for digital input/output terminals and external sensors, maximum output current: 200mA.
Analog Input	AI1-GND	Analog Input Terminal 1	1. Input range: DC 0~10V / 0~20mA. 2. Input impedance: 22kΩ for voltage input, 500Ω for current input.
Analog Input	AI2-GND	Analog Input Terminal 1	1. Input range: DC 0~10V. 2. Input impedance: 22kΩ for voltage input, 500Ω for current input.
Digital Input	DI1-GND (COM)	Digital Input 1	1. Input impedance: 1kΩ 2. Electrical level voltage range during input: 5V~30V. In addition to the features of DI1~DI4, DI5 can also be used as a high-speed pulse input channel (Optional). Maximum input frequency: 20kHz. DI6 (Equipped on some models).
	DI2-GND (COM)	Digital Input 2	
	DI3-GND (COM)	Digital Input 3	
	DI4-GND (COM)	Digital Input 4	
	DI5-GND (COM)	Digital Input 5	
	DI6-GND (COM)	Digital Input 6	
Analog Input	AO1-GND	Analog Output Terminal 1	Output voltage range: 0V~10V. Output current range: 0~20mA.
	AO2-GND	Analog Output Terminal 2	
Relay Output	T1A-T1C	Relay Normally Open	Contact drive capacity: AC 250V, 3A, COSΦ=0.4. DC 30V, 1A. — Normally closed contacts are unavailable on some models. Please refer to the actual product.
	T1A-T1B	Relay Normally Close d	
	T2A-T2C	Relay Normally Open	Contact drive capacity: AC 250V, 3A, COSΦ=0.4. DC 30V, 1A.
	T2A-T2B	Relay Normally Close d	
Communication	485+, 485- (A+, B-)	RS485 Communication	A+ (485+) is the RS485 differential signal positive input. B- (485-) is the RS485 differential signal negative input.
Digital Output	DO1-COM	Open Collector Output	Used as open collector output terminal (Equipped on some models).
	FM-COM	High-Speed Pulse Output	Used as high-speed pulse output, maximum frequency reaches 50kHz. When used as open collector output, specifications are the same as DO1 (Equipped on some models).

2.1.5 Signal Input Terminal Wiring Description

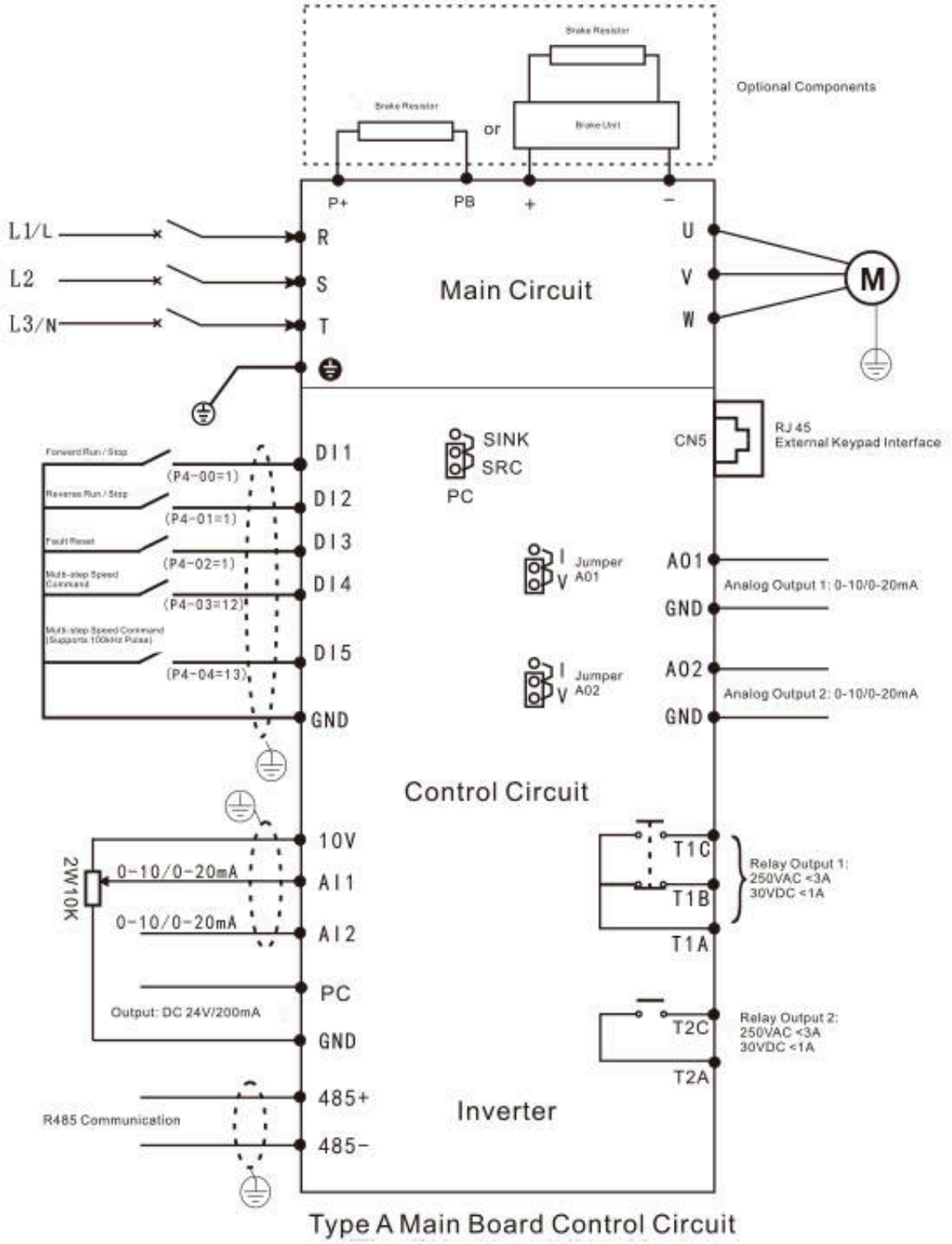
Weak analog voltage signals are highly susceptible to external disruptions. Therefore, it is advised to use shielded cables and keep wiring distance as short as possible (within 20 meters). In certain applications where analog signals suffer severe interference, a filter capacitor or ferrite core needs to be added at the analog signal source side.

Control Terminal Descriptions

The control circuit terminal layout of Type A main board is shown below:

Type A

AI1	AI2	AO1	AO2	GND	DI1	DI2	T1A	T1B	T1C
A+	B-	10V	GND	PC	DI3	DI4	DI5	T2A	T2C



Type A Main Board Control Circuit

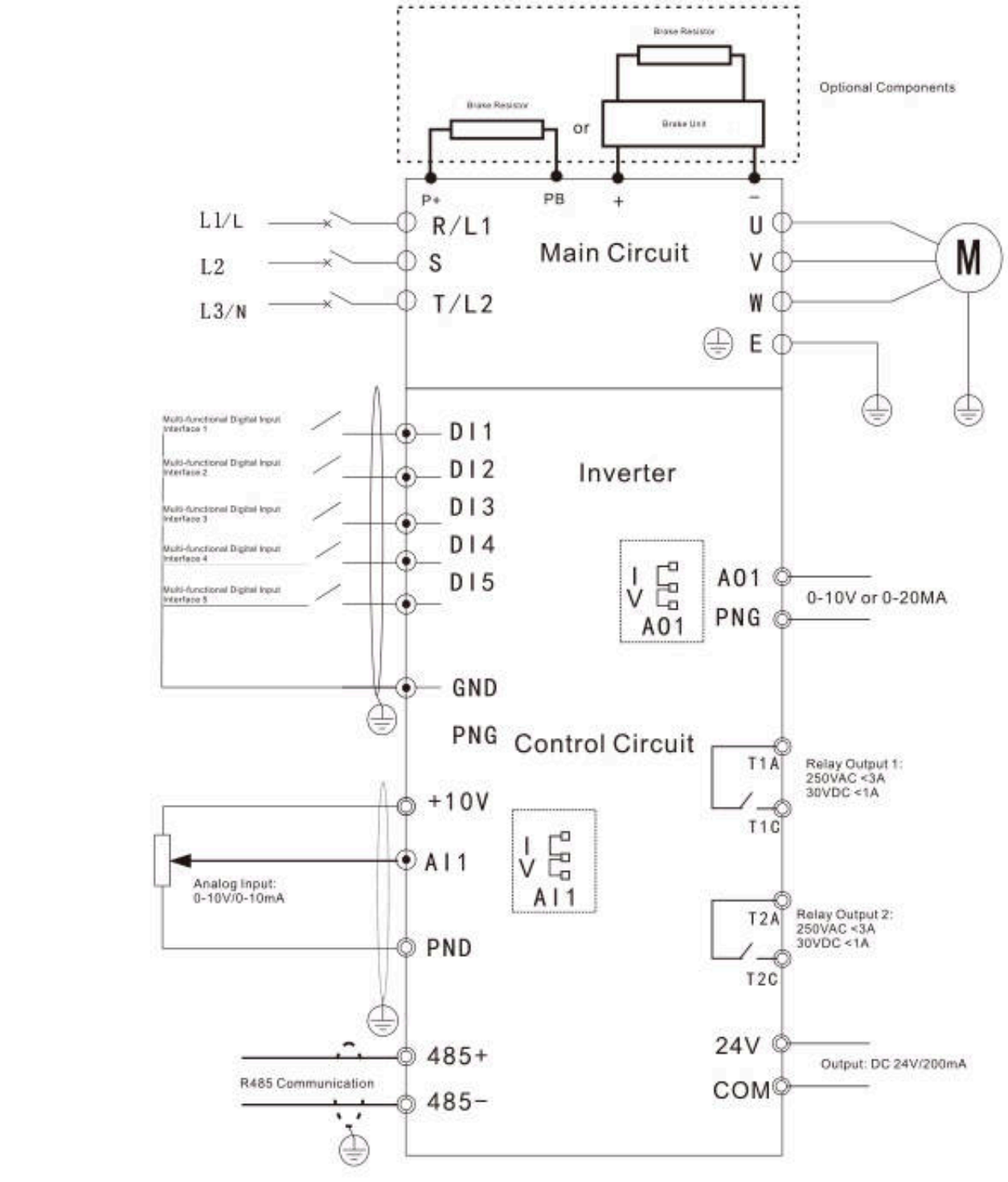
Control Terminal Descriptions

The control circuit terminal layout of Type B main board is shown below:

Type B

PND	AI1	AO1	10V	GND	24V	GND	T1A	T1C

485+	485-	DI1	DI2	DI3	DI4	DI5	T2A	T2C



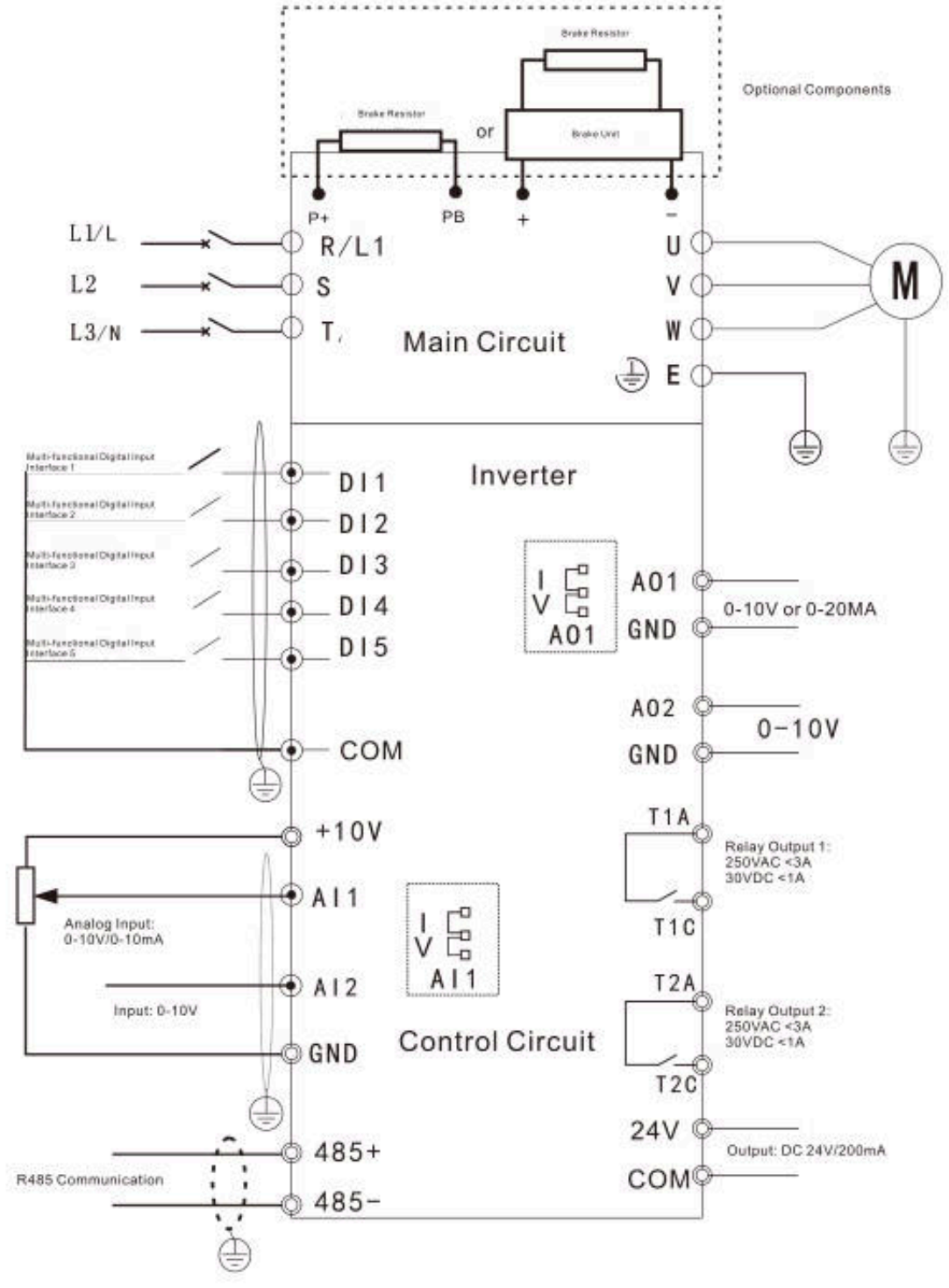
Type B Main Board Control Circuit

Control Terminal Descriptions

The control circuit terminal layout of Type C main board is shown below:

Type C

AI1	AI2	AO1	AO2	COM	DI1	DI3	DI5	T1A	T1C
485+	485-	10V	GND	COM	24V	DI2	DI4	T2A	T2C



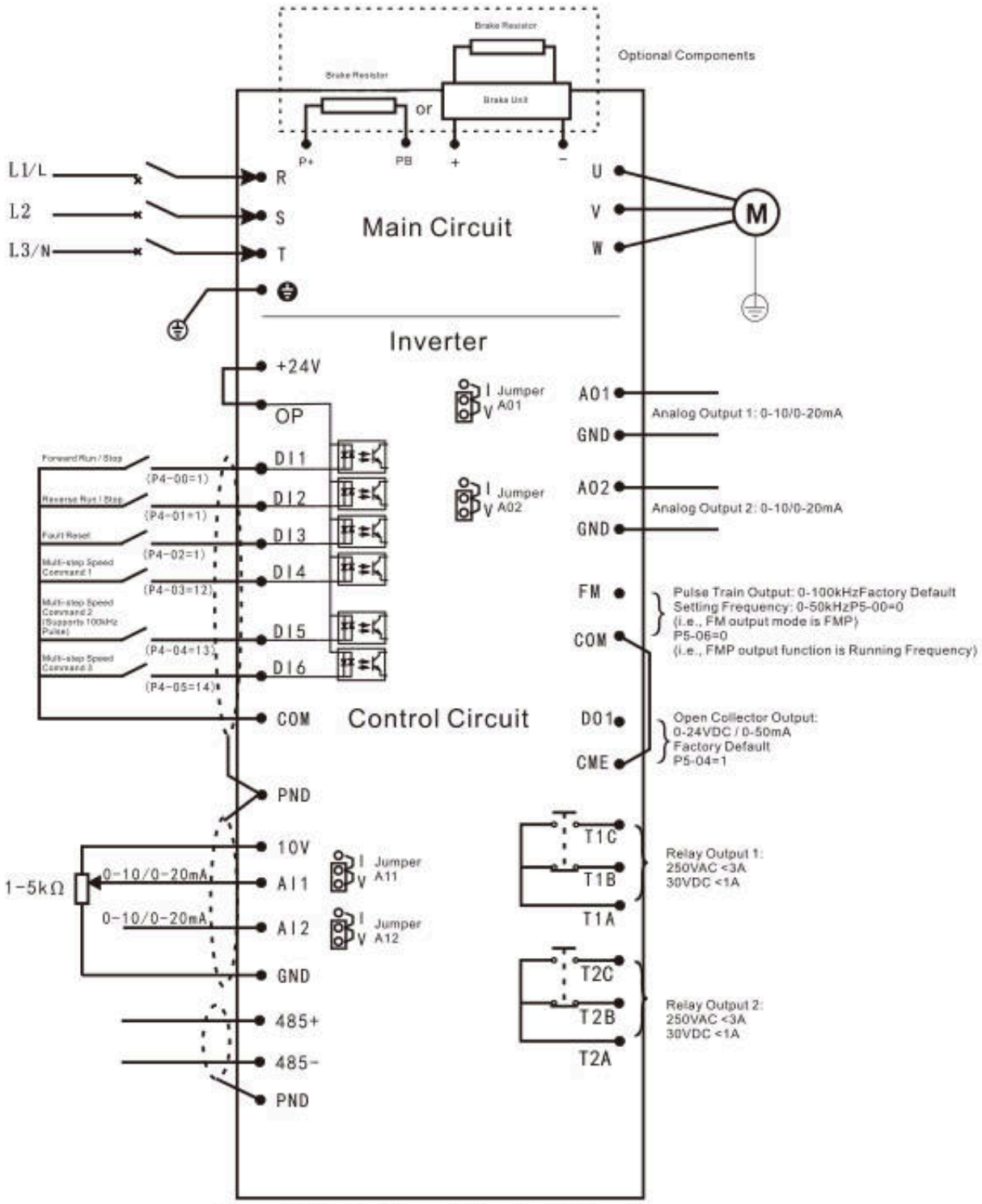
Type C Main Board Control Circuit

Control Terminal Descriptions

The control circuit terminal layout of Type D main board is shown below:

Type D

PND	AI1	AI2	AO1	AO2	DI1	DI2	DI3	DI4	DI5	DI6	T1A	T1B	T1C
485+	485-	10V	GND	COM	FM	DO1	COM	CME	24V	OP	T2A	T2B	T2C



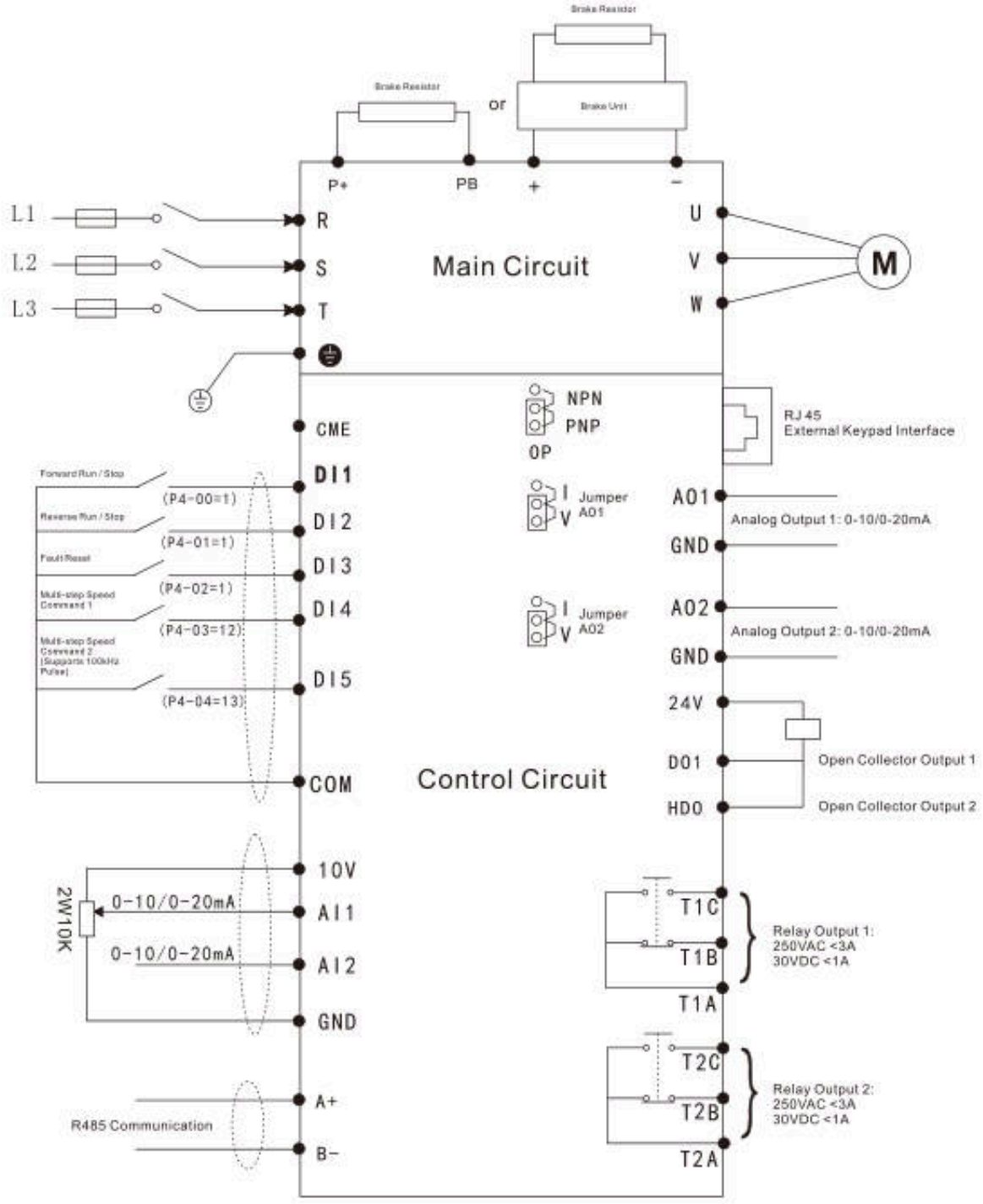
Type D Main Board Control Circuit

Control Terminal Descriptions

The control circuit terminal layout of Type E main board is shown below:

Type E

DI1	DI2	DI3	DI4	DI5	COM	AI1	AI2	AO1	AO2	T1A	T1B	T1C
HDO	DO1	COM	CME	24V	GND	GND	+10V	A+	B-	T2A	T2B	T2C



Type E Main Board Control Circuit