智能电机保护控制器选型指南
Smart Motor Protection Controller Selection Guide

系 列 Series	型 号 Model	结 构 Structure	特 点 Features	页 码 Page
GD2301	GD2301T GD2301L GD2301C	一体式 All-in-one type	具有电流保护功能，满足各种启动方式，采用LED显示屏，提供RS-485接口通讯。 一路电流DC4～20mA输出及漏电保护可选。 With the current protection features to meet a variety of startup mode, LED display, with RS-485 communication port. DC4~20mA analog output and leakage protection (Optional).	33
GD2302	GD2302T GD2302L GD2302C	显示、控制分体式 Split-type of display and controller		33
GD2310	GD2310	显示、控制分体式 Split-type of display and controller	具有电流、电压等十种保护功能，，满足各种启动方式，采用LCD显示，具备全电量测量、两路RS-485接口通讯（ModBus-RTU通讯协议）。 一路电流DC4～20mA输出可选。 With current, voltage and other 10 kinds of protection, LCD display, measurement of all the electric parameters, Two RS485 communication ports (ModBus -RTU Protocol), one DC4~20mA output (Optional).	33
	GD2310T		保护跳闸模式，具有电流、电压等十种保护功能，采用LCD显示，具备全电量测量、两路RS-485接口通讯（ModBus-RTU通讯协议）。 一路电流DC4～20mA输出可选。 Tripping protection mode, with current and voltage protection and other 10 kinds of protection, LCD display, measurements of all the electric parameters, two RS-485 communication ports (Mod-Bus-RTU Protocol). One DC4~20mA analog output Optional.	
GD2320	GD2320 GD2320-T	一体式 All-in-one type	结构新颖、经济实惠、安装方便。具有电流保护功能、一路电流DC4-20mA输出可选。 With novel structure, economic, easy installation. The current protection and one DC4~20mA analog output Optional.	34
	GD2320-L1/2 GD2320-TL1/2	显示、控制分体式 Split-type of display and controller		

智能电机保护控制器
Smart Motor Protection controller

概述 Instruction

智能电机保护控制器是我公司针对低压电动机在各种应用场合发生的故障而研发的一种电动机保护装置。适用于保护交流50Hz、额定工作电压为380V或660V的各种电动机。对电动机的短路、过载、堵转、断相/不平衡、过压、欠压、漏电/零序等故障引起的危害予以保护。本产品包括GD2301、GD2302 、GD2310 、GD2320 四个系列多个型号。

Guodian's Smart motor protection controller is a multi-function electric device for motor protection. It can prevent damage to motor (AC Rated Voltage 380V or 660V, 50Hz) caused by short circuit, overloading, block loading, phase loss / unbalance, over / under-voltage, current leakage, or zero sequence. Model No: GD2301, GD2302, GD2310, GD2320.

技术指标 Technical Index

执行标准：JB/T10613–2006《数字式电动机综合保护装置通用技术条件》

Implementation of standards: JB/T10613-2006《General specification for digital motor protector device》

电性能参数 Parameters of performance	
额定工作电压 Rated working voltage	AC380V/660V, 50Hz
额定工作电流 Rated working current	1A(0~1A); 5A(1~5A); 10A(1~10A); 25A(1~25A); 63A(1~63A)
辅助工作电源 Auxiliary power supply	AC85~265V, 50Hz or DC 85~330V
继电器输出接点容量 Contact capacity of replay output	AC220V×5A
测量精度 Measuring Accuracy	
电流 Current	GD2301/GD2302: ±1.0%（≤120%Ie），±3.0%（120%Ie～800%Ie） GD2310: ±0.5%（≤120%Ie），±2.0%（120%Ie～800%Ie）
电压 Voltage	GD2301C/GD2302C: ±1.0%； GD2310: ±0.5%
频率 Frequency	GD2310: ±0.05Hz
功率因素 Power Factor	GD2310: ±1.0%
功率 Power	GD2310: ±1.0%
电能 Energy	GD2310: ±1.0%
电气绝缘性能 Electric Insulation Capability	
绝缘强度 Insulation Resistance	100MΩ / 500V
介质强度 Dielectric strength	2kV (r.m.s), 50Hz, 1min.
环境条件 Environment	
工作环境 Working condition	温度Temperature: -10℃～55℃, 湿度Humidity: 20%RH～95%RH
贮存环境 Storage condition	温度Temperature: -25℃～70℃, 湿度Humidity: 20%RH～95%RH
大气压力 Atmospheric pressure	80kPa～110kPa（相对于海拔高度为2km及以下 Relative altitude less than 2km）
电磁兼容 EMC	
静电放电 Electrostatic discharge	GB/T 14598.14 (idt IEC60255-22-2) 规定的Ⅲ级（接触放电8kV）静电放电干扰实验。 Electrostatic Discharge Test GB/T 14598.14 (idt IEC60255-22-2), class Ⅲ (contact discharge: 8kV)
辐射电磁场 Radio frequency electromagnetic field	GB/T 14598.9 (idt IEC60255-22-3) 规定的Ⅲ级（40dB μV/m）辐射电磁场干扰实验。 Radiated, Radio-frequency, Electrostatic field immunity Test GB/T 14598.9 (idt IEC60255-22-3): class □ (40dB μV/m)
快速瞬变干扰 Electrical fast transient/burst	GB/T 14598.10 (idt IEC60255-22-4) 规定的Ⅳ级（通讯端口2kV, 其他端口4kV）的快速瞬变干扰实验。 Electrical Fast Transient Burst Immunity Test GB/T 14598.10 (idt IEC60255-22-4): class Ⅳ (communication Port: 2kV, other ports: 4kV)
浪涌（冲击）电压 Surge voltage	GB/T 14598.3（eqv IEC60255-5）规定的峰值为4kV（强电回路）或1kV（弱电回路）的标准雷电波的冲击电压实验。 Surge immunity test GB/T 14598.3 (eqv IEC60255-5): 4kV (peak voltage, Strong electric circuit); 1kV (peak voltage, Weak electric circuit).

GD2301 系 列 series

型 号 Model	结构 Structure	功能及特点 Function & feature
GD2301	一体式 All-in-one type	替代热继电器保护，保护输出采用常闭接点，控制器失电不影响电机运行。一路电流DC4~20mA、漏电保护及RS-485通讯接口可选。 The motor protector replaces the thermal replay protection by adopting Normal close contact output, the running of the protected motor will not be interruputed when the protector stopped due to power failure. One DC4~20mA analog output, current leakage protection, RS-485 communication port (Optional).
GD2301L		满足多种启动方式，电流保护，RS-485通讯接口。一路电流DC4~20mA输出、漏电保护可选。 Multiple startup modes are available, current protection, with RS-485 communication Port. One DC4~20mA analog output and current leakage protection (Optional).
GD2301C		满足多种启动方式，电流保护并带电压保护，RS-485通讯接口。一路电流DC4~20mA输出可选。 Multiple startup modes are available, current & voltage protection, RS-485 communication port. One DC4~20mA output (Optional).

外形尺寸：83x95x146mm
安装方式：35mm 导轨安装
穿线孔径：Ø14mm
Dimension: 83×95×146mm
Installation: 35mm DIN Sliding-way
Trepanning: Φ14mm

GD2302 系 列 series

型 号 Model	结构 Structure	功能及特点 Function & feature
GD2302T	显示、控制分体式 Split-type of display and controller	替代热继电器保护，保护输出采用常闭接点，控制器失电不影响电机运行。一路电流DC4~20mA、漏电保护、RS485可选。 The motor protector replaces the thermal replay protection by adopting Normal close contact output, the running of the protected motor will not be interruputed when the protector stopped due to power failure. One DC4~20mA analog output, current leakage protection, RS-485 communication port (Optional).
GD2302L		满足多种启动方式，电流保护，RS-485通讯。一路电流DC4~20mA输出、漏电保护可选。 Multiple startup modes are available, current protection, RS-485 communication port. One DC4~20mA analog output and current leakage protection (Optional).
GD2302C		满足多种启动方式，电流保护并带电压保护，一路电流DC4~20mA输出可选，RS485接口。 Multiple startup modes are available, current & voltage protection, RS-485 communication port. One DC4~20mA output (Optional).

外形尺寸：83x95x146mm
安装方式：35mm 导轨安装
穿线孔径：Ø14mm
Dimension: 83×95×146mm
Installation: 35mm DIN Sliding-way
Trepanning: Φ14mm

外形尺寸：72x72x34mm
开孔尺寸：67x67mm
Dimension: 72×72×34mm
Trepanning: 67×67mm

GD2310 列 series

型号 Model	结构 Structure	功能及特点 Function & feature
GD2310	显示控制分体式 Split-type of display and controller	综合型保护，满足多种启动方式，全电量测量，具抗晃电及自动重启功能，系统时钟，两路RS-485通讯接口（ModBus-RTU通讯协议）。 一路电流DC4~20mA输出可选。 Universal protection & multiple startup mode, It can measure all the electric parameters. With Anti-Voltage sag protection & Auto restart, Real-time clock, Two RS-485 communication ports . One DC4~20mA analog output Optional.
GD2310T		保护跳闸模式，全电量测量，两路RS-485接口（ModBus-RTU 通讯协议）。 一路电流DC4~20mA输出可选。 Tripping protection mode,It can measure all the electric parameters. Two RS485 ports (ModBus-RTU Protocol). One DC4~20mA analog output Optional.

外形尺寸：83x95x146mm
安装方式：35mm 导轨安装
穿线孔径：Ø14mm
Dimension: 83×95×146mm
Installation: 35mm DIN (Slide way)
Trepanning: Φ14mm

外形尺寸：72x72x34mm
开孔尺寸：67x67mm
Dimension: 72×72×34mm
Trepanning: 67×67mm

GD2320 系 列 series

GD2320 系列产品是一款设计新颖，便于安装的实用型、多功能电动机保护装置。本产品采用先进的分体组合结构，可根据现场情况采用一体式或分体式安装，有主回路穿芯和端子式两种接线方式，对电动机的短路、过载、堵转、断相/不平衡等故障引起的危害予以保护。

GD2320 is a practical protector with multi-functions for electrical appliances. The protector can be installed as the display part and the controlling park separated, with core through and terminal connection two modes. It can prevent damage caused by short circuit, overloading, block loading, phase loss/unbalance, over/under-voltage, current leakage, or zero sequence.

GD2320

35㎜导轨安装或螺钉固定，主回路穿芯，穿线孔径：Φ12m。
35mm DIN sliding-way or fixation by screw, The main loop through the core.
Thread aperture: Φ12mm

GD2320-T

35㎜导轨安装或螺钉固定，端子接线。
35mm DIN sliding-way or fixation by screw, Terminal connection.

GD2320-TL1/2

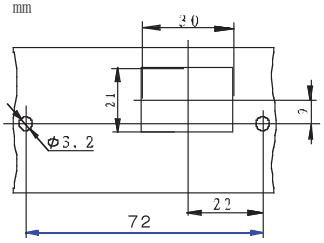
35㎜导轨安装或螺钉固定，端子接线。
35mm DIN sliding-way or fixation by screw, Terminal connection.

GD2320-L1/2

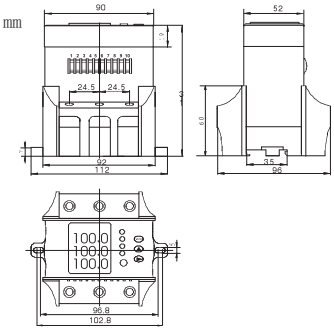
35㎜导轨安装或螺钉固定，主回路穿芯，穿线孔径：Φ12m。
35mm DIN sliding-way or fixation by screw, The main loop through the core.
Thread aperture: Φ12mm

安装及外形图 Installation & Demension

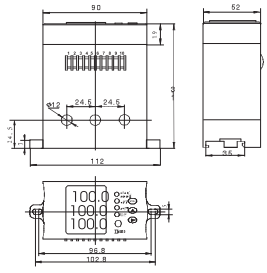
显示模块安装开孔示意图
Outline demension of display module
单位：mm



GD2320-T 外形图 Outline demension
单位：mm



GD2320 外形图 Outline demension
单位：mm



配套专用互感器 Matching transformers

型 号 Model	额定输入 Rated input	额定输出 Rated output	上限电压 Upper limit voltage
GDBH0.66-40I	75A ~ 250A	1A,5A	660V
GDBH0.66-60II	250A ~ 1000A	1A,5A	660V

GDBH0.66-40I

外型尺寸：75×43×97mm
Dimension : 75×43×97mm

GDBH0.66-60II

外型尺寸：75×45×105mm
Dimension : 75×45×105mm

产品功能 Products Function

型　号 Model	GD2301T GD2302T	GD2301L GD2302L	GD2301C GD2302C	GD2310	GD2310T	GD2320
标准保护功能 Standard protection function						
短路保护 Short circuit protection	●	●	●	●	●	●
启动加速超时保护 Over-time start protection	●	●	●	●	●	●
过载保护（定/反时限） Over loading protection(inverse/reverse)	●	●	●	●	●	●
堵转保护 Stall protection	●	●	●	●	●	●
缺相/不平衡保护 Phase failure protection / Unbalance protection	●	●	●	●	●	●
接触器分断能力保护 Contact breaking protection	●	●	●	●	●	●
欠载保护 Under load protection				●	●	
过压、欠压保护 Over voltage, under voltage protection			●	●	●	
接地/零序电流保护 Earth fault / zero-sequence current protection				●	●	
相序闭锁 Phase-sequence lock				●	●	
漏电保护 Current leakage protection	●	●		●	●	
抗晃电及自动重启 Anti-Voltage sag protection & Auto restart				●		
模拟量输入保护 DC4~20mA analogue input protection				●	●	
控制功能 Startup mode						
直接启动　Direct startup		●	●	●		
双向启动　Dual-direction startup		●	●	●		
Y/Δ启动　Y/Δ Startup		●	●	●		
自耦变压器降压启动 Autotransformer reduced voltage startup		●	●	●		
电抗器降压启动 Reactor reduced voltage startup		●	●	●		
其它启动 Other startup modes		定制　Customization				
测量功能 Measurement						
三相电流　Three phase current	●	●	●	●	●	●
三相电压　Three phase voltage	可选 Optional		●	●	●	
漏电电流　Leakage current	可选 Optional	可选 Optional	可选 Optional	●	●	
有功、无功功率　Active & Reactive Power				●	●	
频率、功率因素　Frequency, Power factor				●	●	
有功、无功电能　Active & Reactive Energy				●	●	
状态量输入 AC220V（有源接点输入）Digital input AC220V (Dry contact input self-powered)						
输入路数　Number of input		7	7	8	8	
继电器控制输出 Relay control output						
输出路数 Number of output	2	3	3	4	4	2
模拟量输出 Analog output						
DC4~20mA输出路数　Output ways	1（可选　Optional）	1（可选　Optional）	1（可选　Optional）	1（可选　Optional）	1（可选　Optional）	1（可选　Optional）
RS-485接口数　RS-485 Ports	1（可选　Optional）	1	1	2	2	

订货须知 Order Instruction

智能电机保护控制器分单保护和保护加控制两类产品，订货时请按下表列明型号、额定工作电流、控制方式、附加功能等相关内容 有特殊要求的产品要有文字说明。

Smart motor protection controller has two types of protection only and the protection-controlling. Please show the model, rated current, control mode, additional function and other related content in your order.

单保护类产品 Protection Series

产品型号 Model	额定电流 Rated current	可选附加功能 Add-one Optional	备注 Remark
GD2301T GD2302T GD2320 GD2320-T GD2320-L1/2 GD2320-TL1/2 GD2310T	1A 5A 10A 25A 63A ⋮	1、DC4~20mA输出 (M) 2、漏电保护 (L) 1、DC4~20mA output (M) 2、Current leakage protection (L)	L1: 表示配长度1米的连接线。 L2: 表示配长度2米的连接线。 L1: To provide a length of 1 meter of cable. L2: To provide a length of 2 meters of cable.

说明：额定电流在 63A 以内使用控制器内置电流互感器，63A 以上额定电流使用配套专用独立互感器。互感器二次侧额定输出电流为 1A, 5A。

Description: An internal CT is integrated inside when motor rated current is not up to 63A. and external CTs are required when over than 63A. Secondary transformer rated output current is 1A, 5A.

保护加控制类产品 Protection & Control Series

产品型号 Model	额定电流 Rated current	控制方式 Control Mode	可选附加功能 Add-ons Optional
GD2301L GD2302L GD2301C GD2302C GD2310	1A 5A 10A 25A 63A ⋮	A: 直接启动 D: 双向启动 Y: Y/Δ启动 T: 自耦变压器启动 A: Direct startup D: Dual ways startup Y: Y/Δ Startup T: Autotransformer step-down startup	1、DC4~20mA输出 (M) 2、漏电保护 (L) 1、DC4~20mA output (M) 2、Current leakage protection (L)

说明：额定电流在 63A 以内使用控制器内置电流互感器，63A 以上额定电流使用配套专用独立互感器。互感器二次侧额定输出电流为 1A, 5A。

Description: An internal CT is integrated inside when motor rated current is not up to 63A. and external CTs are required when over than 63A. Secondary transformer rated output current is 1A, 5A.

选型范例 Example

例1：GD2310T-5A-L　　说明：输入电流（CT 二次电流）5A， 保护跳闸模式，附加漏电保护功能。

例2：GD2320-L1-63A　　说明：输入电流 63A，保护跳闸模式，显示模块连接线 1 米（L1）。

例3：GD2302C-1A-Y-M　　说明：输入电流（CT 二次电流）1A，启动方式为 Y/△ 启动，附加 4~20mA 模拟量输出功能。

Example 1: GD2310T-5A-L　　**Description:** Input current (CT secondary current) 5A, protection tripping mode, add-ons leakage protection.

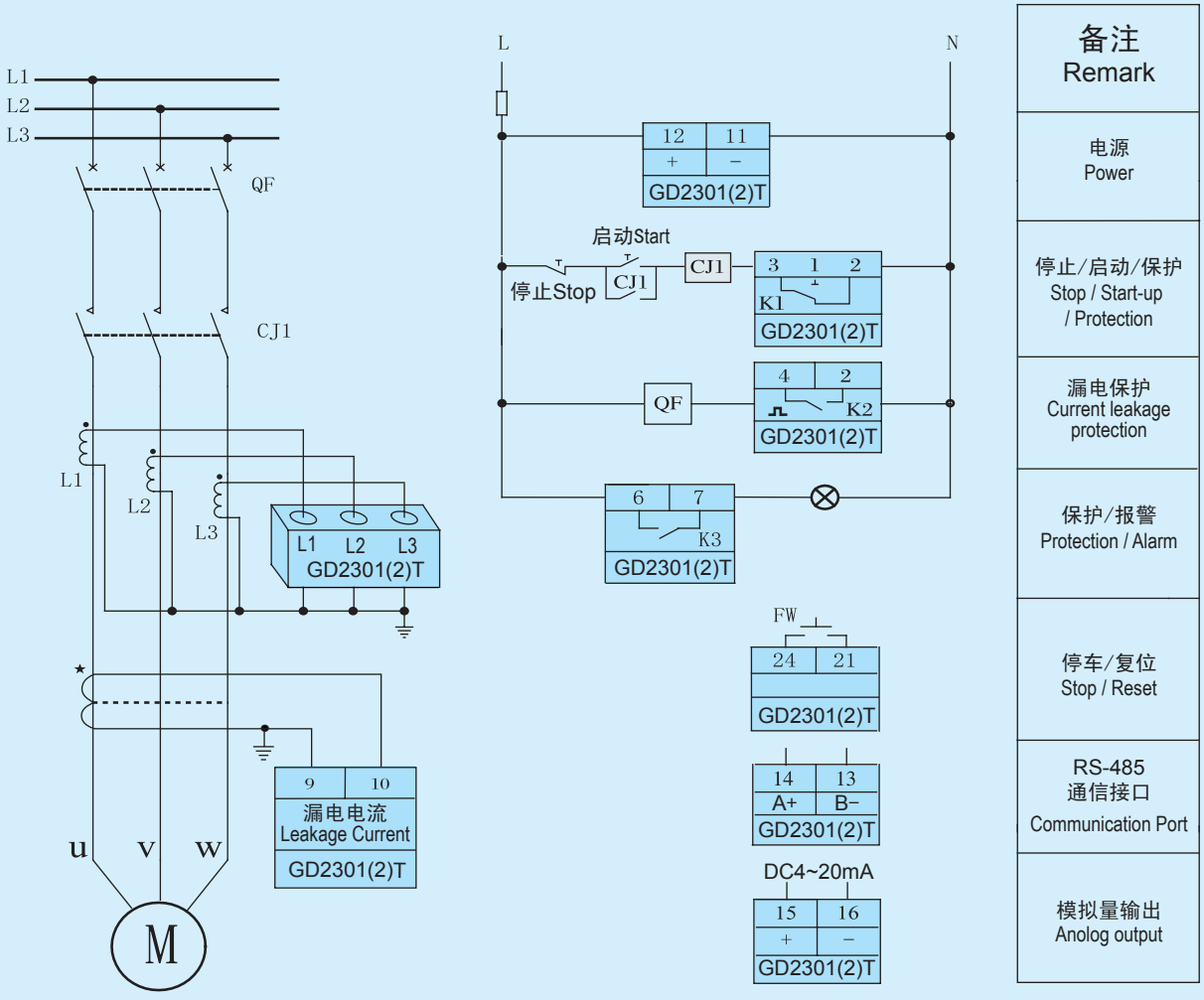
Example 2: GD2320-L1-63A　　**Description:** Input current 63A, Tripping protection mode, display module cable is 1 meter (L1).

Example 3: GD2302C-1A-Y-M　　**Description:** Input current (CT secondary current) 1A, Y/△ Start-up mode, add-ons 4~20mA analog output.

接线图 Connecting Diagram

GD2301T/GD2302T 直接启动保护方式接线图

GD2301T/GD2302T Wiring Diagram For Direct-Startup Mode



说明：

在保护跳闸模式下(仅适用于GD2301T或GD2302T)，保护输出采用常闭接点方式。电机启动：按下启动按钮，继电器CJ1的主触点闭合，电机的电源接通，电机得电运行。电机停车：按下停止按钮，电机失电而停车。

如果电机出现故障则使继电器K1得电，其常闭接点断开，交流接触器CJ1失电跳闸，电机电源被切除而停车。故障排除后须将控制器复位才能重新启动电机。

Introduction:

On the tripping protection mode (only for GD2301T and GD2302T), normally closed contact is adopted for the protection output.

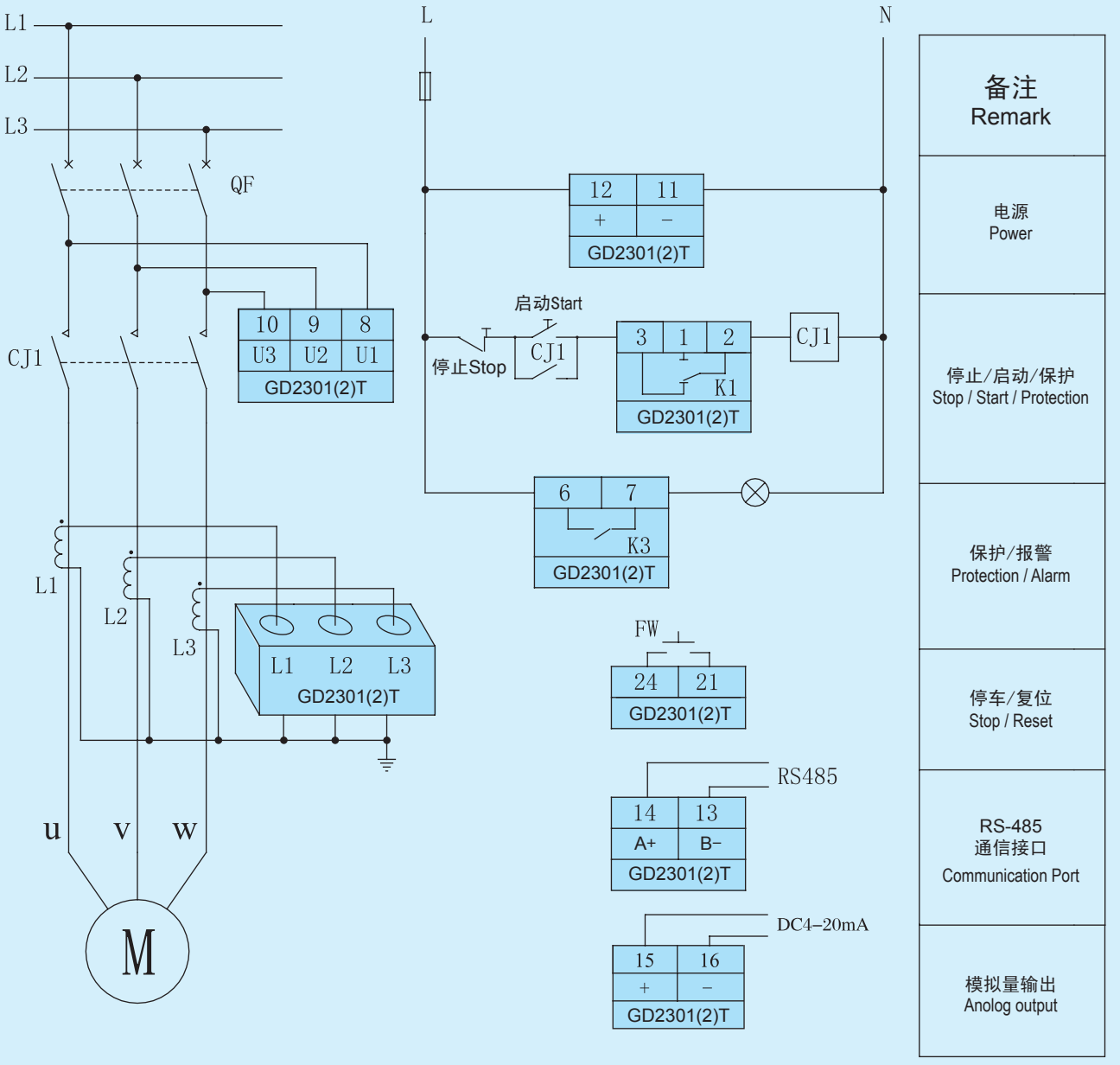
Start-up: Press the “start” button, the contactor (Relay CJ1) energizes and its main contact is closed, the motor connects to the power supply, and then the motor starts to run.

Shutdown: Press the “stop” button, the contactor (Relay CJ1) de-energized and the motor stops.

In case of any fault, the relay K1 energizes, the normally closed contact disconnects, the contactor (relay CJ1) is tripping, and the motor stops cause of the lost of power supply. Reset the controller to restart the motor after removing the failure.

GD2301T/GD2302T (增强型) 直接启动保护方式接线图

GD2301T/GD2302T(Enhance) Wiring Diagram For Direct-startup Protection Mode



说明：

在保护跳闸模式下(仅适用于GD2301T或GD2302T)，保护输出采用常闭接点方式。电机启动：按下启动按钮，继电器CJ1得电吸合并自保持，CJ1的主触点闭合，电机的电源接通，电机得电运行。电机停车：按下停止按钮，电机失电而停车。

如果电机出现故障则使继电器K1得电，其常闭接点断开，交流接触器CJ1失电跳闸，电机电源被切除而停车。故障排除后须将控制器复位才能重新启动电机。

Introduction:

On the tripping protection mode (only for GD2301T and GD2302T), normally closed contact is adopted for the protection output.

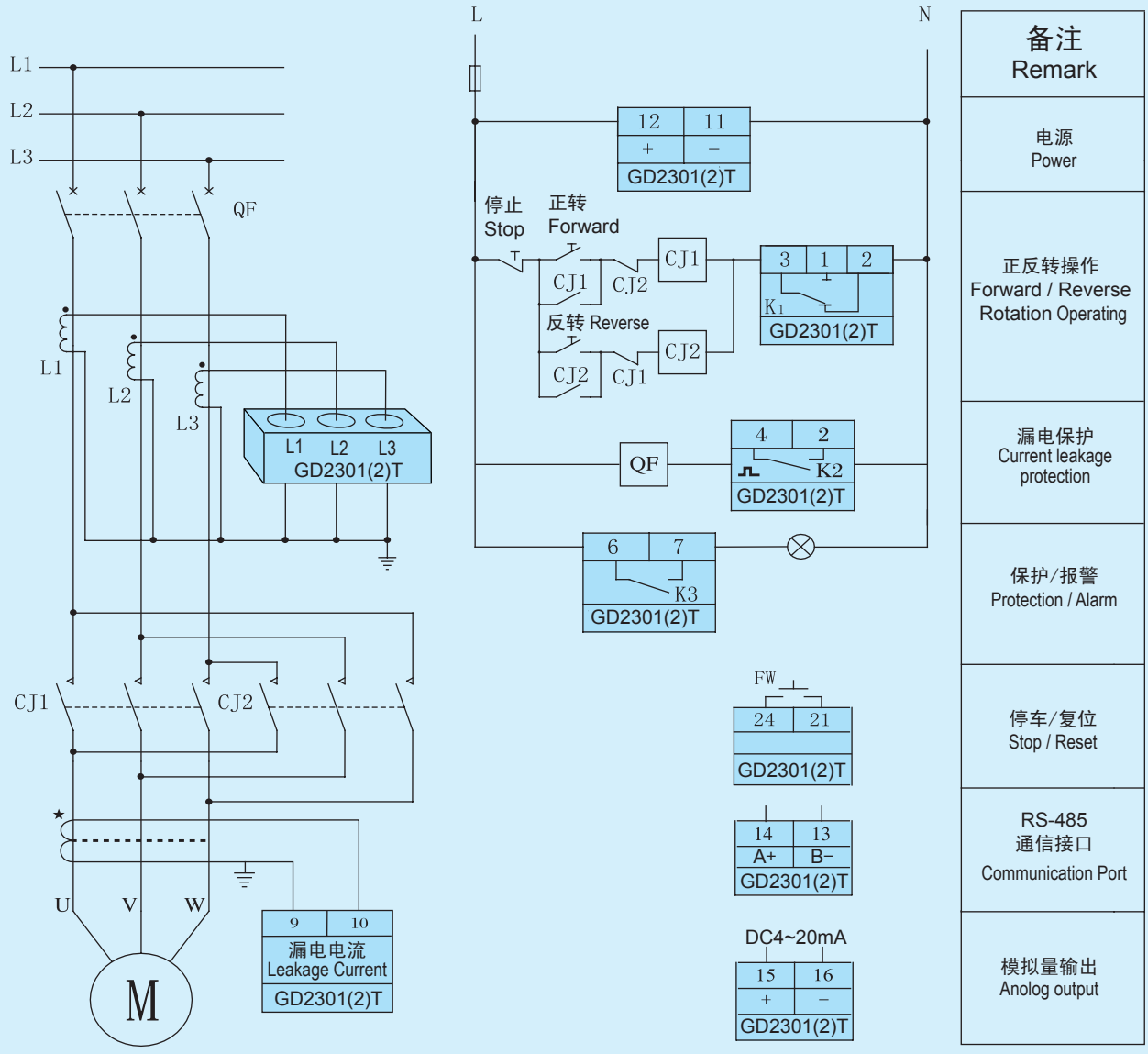
Start-up: Press the “Start” button, the contactor (Relay CJ1) energizes to close and keep, its main contact is closed, the motor connects to the power supply, and then the motor starts to run.

Shutdown: Press the “Stop” button, the contactor (Relay CJ1) de-energized and the motor stops.

In case of any fault, the relay K1 energizes, the normally closed contact disconnects, the contactor (relay CJ1) is tripping, and the motor stops cause of the lost of power supply. Reset the controller to restart the motor after removing the failure.

GD2301T/GD2302T“正反转”保护方式接线图

GD2301T/GD2302T Wiring Diagram For Forward/Reverse Running Protection Mode



说明：

在保护跳闸模式下(仅适用于GD2301T或GD2302T)，保护输出采用常闭接点方式。电机启动：按下正转按钮，继电器CJ1的主触点闭合并自保持，电机的电源接通，电机得电运行。电机停车：按下停止按钮，电机失电而停车。电机反转：按下反转按钮，电机反转运行。

如果电机出现故障则使继电器K1得电，其常闭接点断开，交流接触器CJ1/CJ2失电跳闸，电机电源被切除而停车。故障排除后须将控制器复位才能重新启动电机。

Introduction:

On the tripping protection mode (only for GD2301T and GD2302T), normally closed contact is adopted for the protection output.

Forward: Press the “Forward” button, the contactor (Relay CJ1) energizes and its main contact is closed, the motor connects to the power supply, and then the motor clockwise to run.

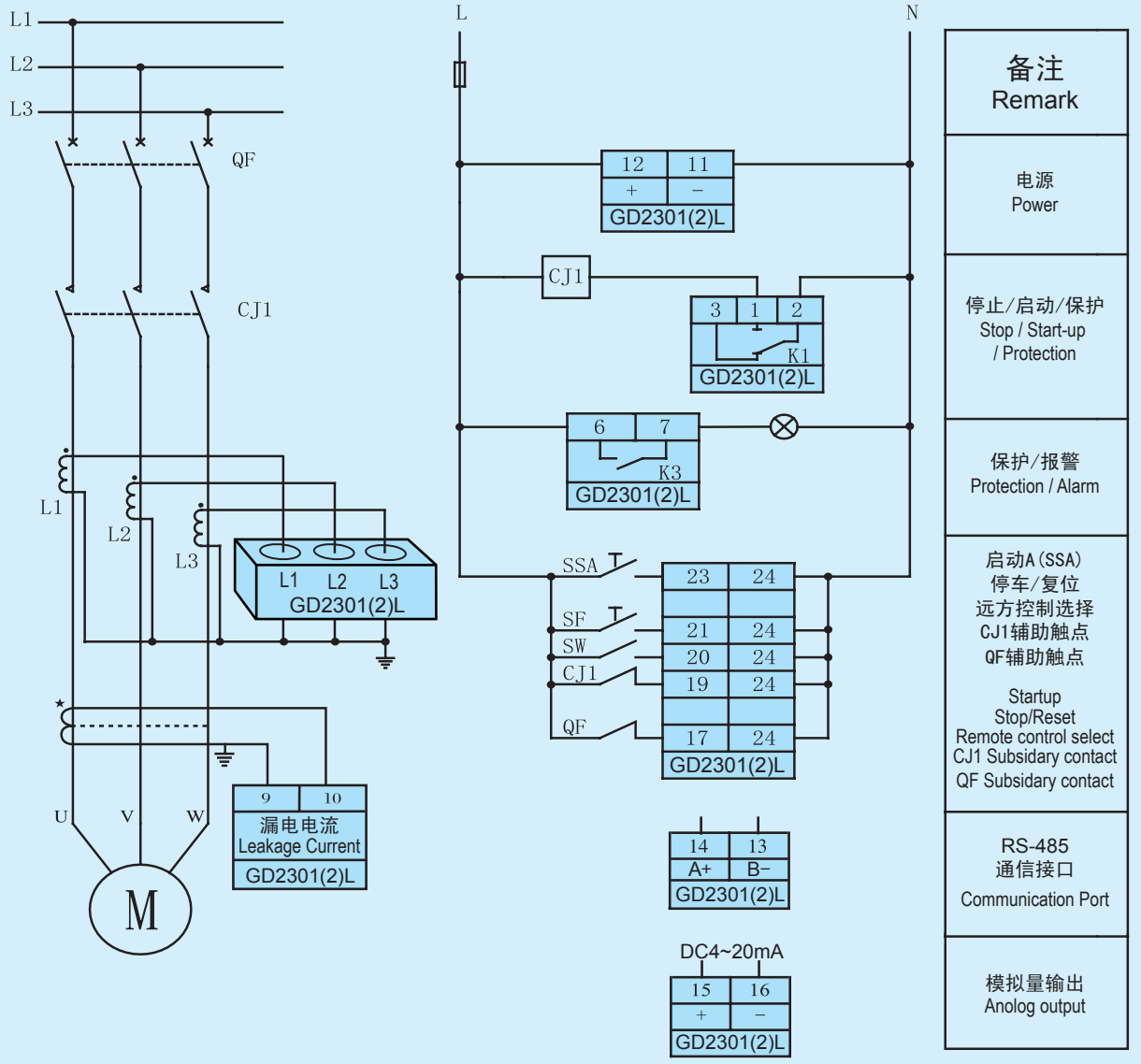
Reverse: Press the “Reverse” button, the motor counter-clockwise rotations.

Shutdown: Press the “Stop” button, the contactor (Relay CJ1) de-energized and the motor stops.

In case of any fault, the relay K1 energizes, the normally closed contact disconnects, the contactor (relay CJ1) is tripping, and the motor stops cause of the lost of power supply. Reset the controller to restart the motor after removing the failure.

GD2301T/GD2302T 直接启动保护方式接线图

GD2301L/GD2302 LWiring Diagram For Direct-Startup Protection Mode



说明：

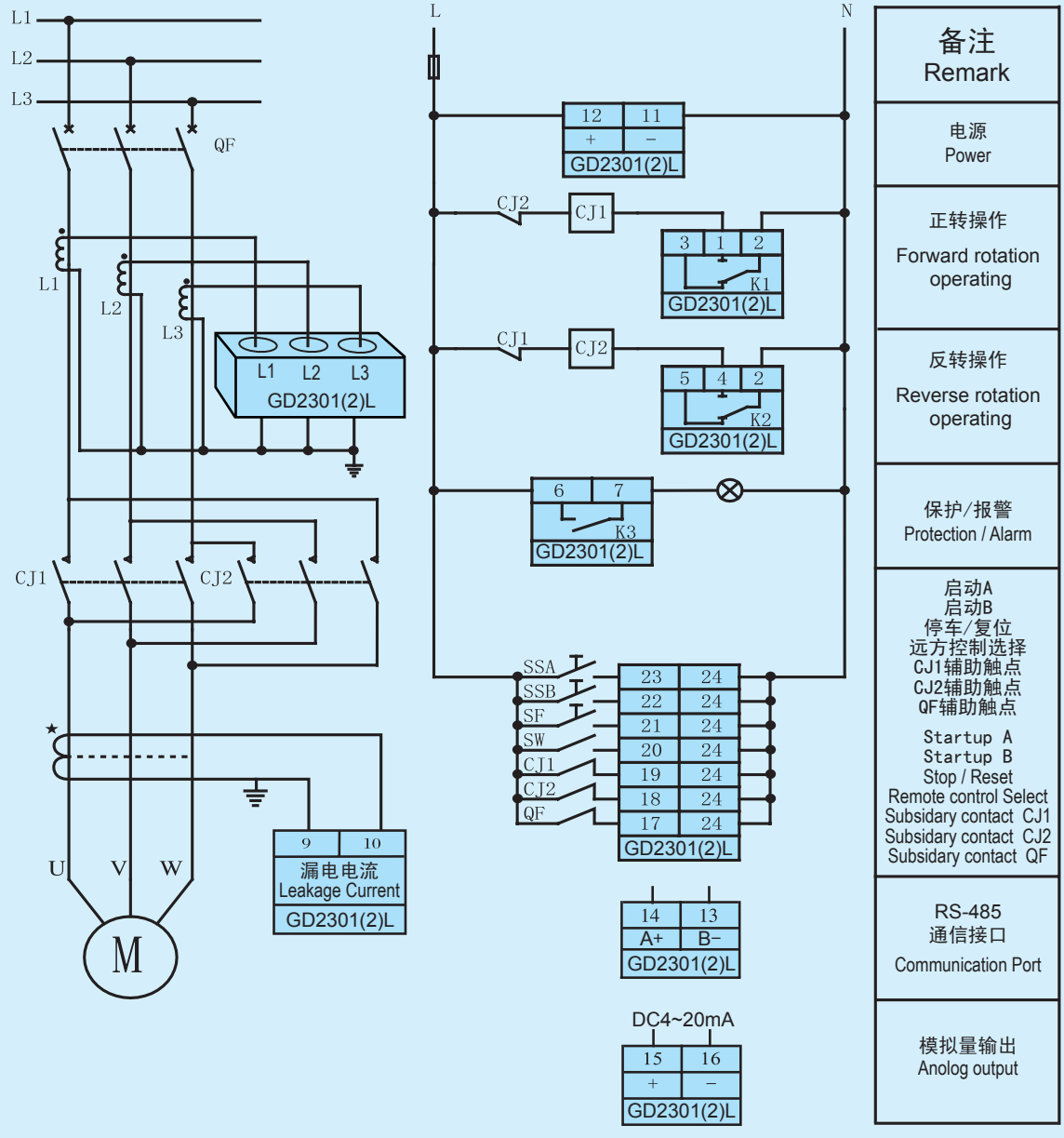
当控制器上电时，首先检测断路器是否在闭合状态，接触器CJ1是否在释放状态，如果接线错误，则显示”Err”，控制器不执行任何任务；如果接线正确，当接触器收到“启动A”命令时，内部继电器K1动作，交流接触器CJ1吸合，电机启动运行。当收到停车指令或发生故障时，接触器CJ1失电跳闸，电机电源被切除而停车。 故障排除后须将控制器复位才能重新启动电机。

Introduction:

When the controller is power on, the first step is detecting whether circuit breakers is in the closed state, Whether contactor is in the release of state (It will show "Err" if the connection is wrong, and the controller will not perform any task.), When the controller received "Start A" command, the contactor (CJ1) energizes and its main contact is closed, and the motor clockwise to run. When the controller received “Stop” command or any fault occurs, the contactor (CJ1) is tripping, and the motor stops. Reset the controller to restart the motor after removing the failure.

GD2301T/GD2302T“正反转”启动方式接线图

GD2301L/GD2302 L Wiring Diagram For Forward/Reverse Startup Protection Mode



说明：

当控制器上电时，首先检测断路器是否在闭合状态，接触器CJ1、CJ2是否在释放状态(如果接线错误，则显示“Err”，控制器不执行任何任务)。当控制器收到“启动A”命令时，内部继电器K1动作，交流接触器CJ1吸合，电机正向启动；当控制器收到“启动B”命令时，内部继电器K2动作，交流接触器CJ2吸合，电机反向启动。当收到停车指令或发生故障时，接触器CJ1或CJ2失电跳闸，电机电源被切除而停车。 故障排除后须将控制器复位才能重新启动电机。

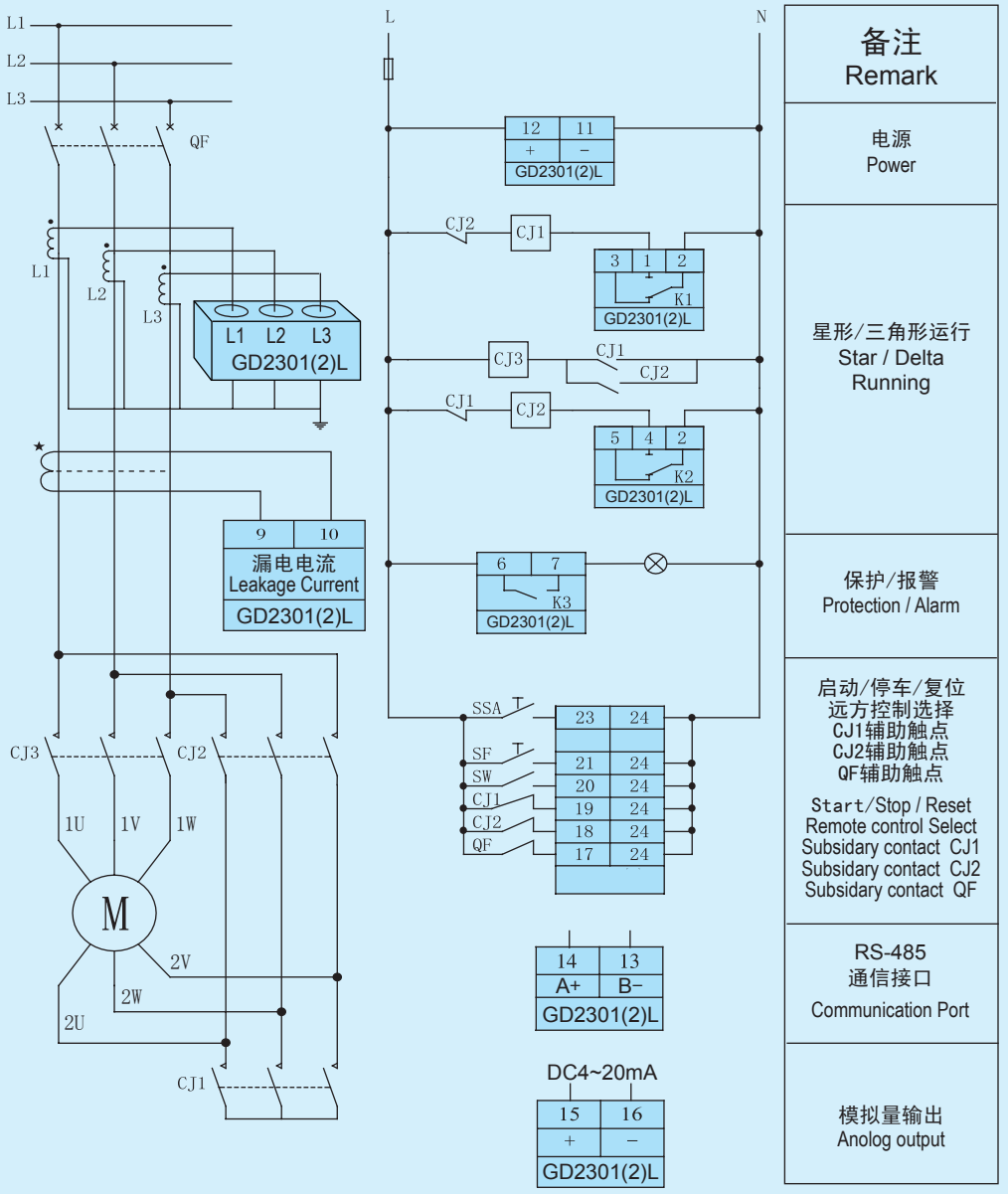
Introduction:

When the controller is power on, at first, it will detect whether the circuit breaker is in closed state, or the AC contactor (Relay CJ1 and CJ2) is release. (It will show "Err" if the connection is wrong, and the controller will not perform any task). When the controller received "Start A" command, the contactor (CJ1) energizes and its main contact is closed, and the motor clockwise to run. When the controller received "Start B" command, the contactor (CJ2) energizes and its main contact is closed, and the motor counter-clockwise to run.

When the controller received “Stop” command or any fault occurs, the AC contactor (CJ1/CJ2) release, and the motor stops. Reset the controller to restart the motor after removing the failure.

GD2301T/GD2302T 星 / 三角启动方式接线图

GD2301 L / GD2302 L Wiring Diagram For Star / Delta Startup Protection Mode



说明：

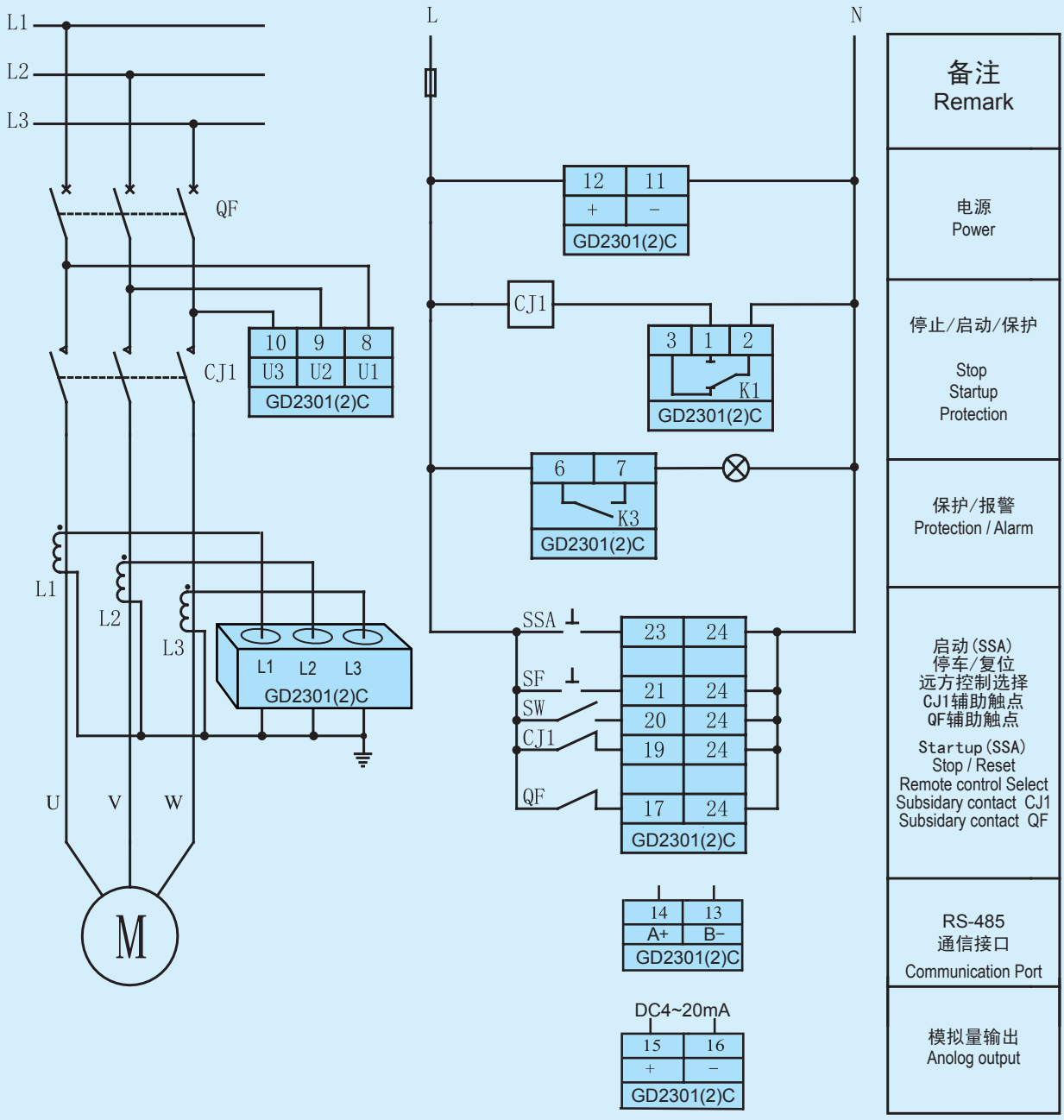
当控制器上电时，首先检测断路器是否在闭合状态，接触器CJ1、CJ2是否在释放状态(如果接线错误，则显示“Err”，控制器不执行任何任务)。当控制器收到“启动”命令时，内部继电器K1动作，交流接触器CJ1吸合，同时CJ3也吸合，电机为星型方式启动；当设定的启动时间到达后，继电器K1释放，继电器K2吸合，则接触器CJ1失电释放，接触器CJ2、CJ3吸合，电机自动切换到三角形运行方式。控制器接收到停车指令或保护跳闸时，继电器K2释放，接触器CJ2、CJ3失电释放，主回路断电，电机停车。

Introduction:

When the controller is power on, at first, it will detect whether the circuit breaker is in closed state, or the AC contactor (Relay CJ1 and CJ2) is release. (It will show "Err" if the connection is wrong, and the controller will not perform any task). When the controller received "Start" command, the contactor (CJ1 & CJ3) energizes to closed, and the motor start in the star mode. When the “Change over time" is up, the relay K1 release and the relay k2 close, then contactor CJ1 release and contactor CJ2 and CJ3 close, the motor change to the delta running mode.

When the controller received “Stop” command or any fault occurs, the relay K2 release, the contactor CJ2 and CJ3 is de-energized to release, and the motor stop.

GD2301C/GD2302C 直接启动方式接线图
GD2301C/GD2302C Wiring Diagram For Direct-Startup Protection Mode



说明：

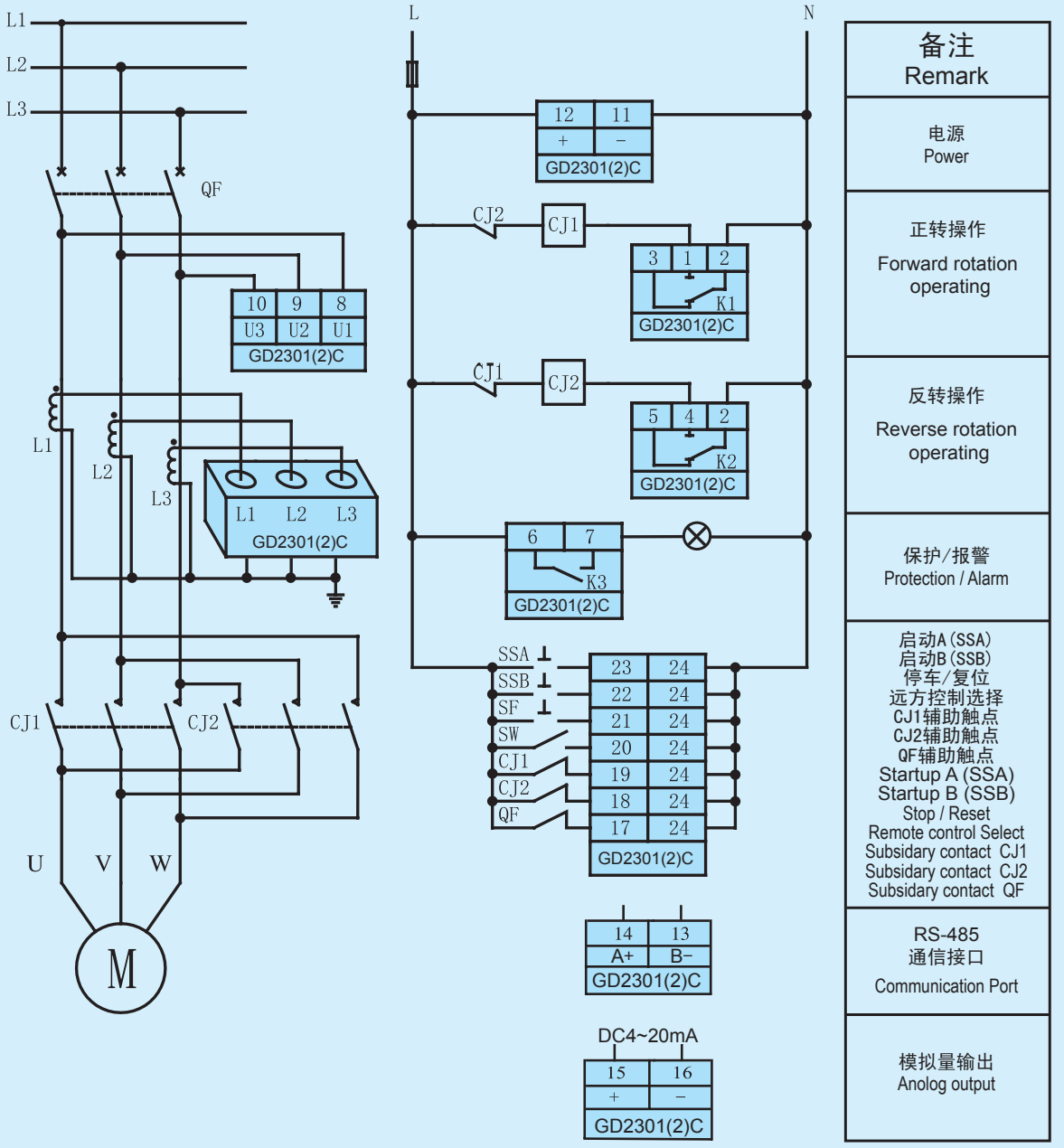
当控制器上电时，首先检测断路器是否在闭合状态，接触器CJ1是否在释放状态(如果接线错误，则显示“Err”，控制器不执行任何任务)。当控制器收到“启动A”命令时，内部继电器K1动作，交流接触器CJ1吸合，电机启动运行。当收到停车指令或发生故障时，接触器CJ1失电跳闸，电机电源被切除而停车。 故障排除后须将控制器复位才能重新启动电机。

Introduction:

When the controller is power on, at first, it will detect whether the circuit breaker is in closed state, or the AC contactor (Relay CJ1) is release. (It will show "Err" if the connection is wrong, and the controller will not perform any task). When the controller received "Start A" command, the contactor K1 energizes and the contactor CJ1 is close, the motor start running. When the controller received “Stop” command or any fault occurs, the contactor CJ1 release, and the motor stops. Reset the controller torestart the motor after removing the failure.

GD2301C/GD2302C “正反转”启动方式接线图

GD2301C/GD2302C Wiring diagram for forward / reverse running startup Mode



说明：

当控制器上电时，首先检测断路器是否在闭合状态，接触器CJ1、CJ2是否在释放状态(如果接线错误，则显示“Err”，控制器不执行任何任务)。当控制器收到“启动A”命令时，内部继电器K1动作，交流接触器CJ1吸合，电机正向启动；当控制器收到“启动B”命令时，内部继电器K2动作，交流接触器CJ2吸合， 电机反向启动。当收到停车指令，根据启动状况释放相应的接触器，电机电源被切除而停车。 故障排除后须将控制器复位才能重新启动电机。

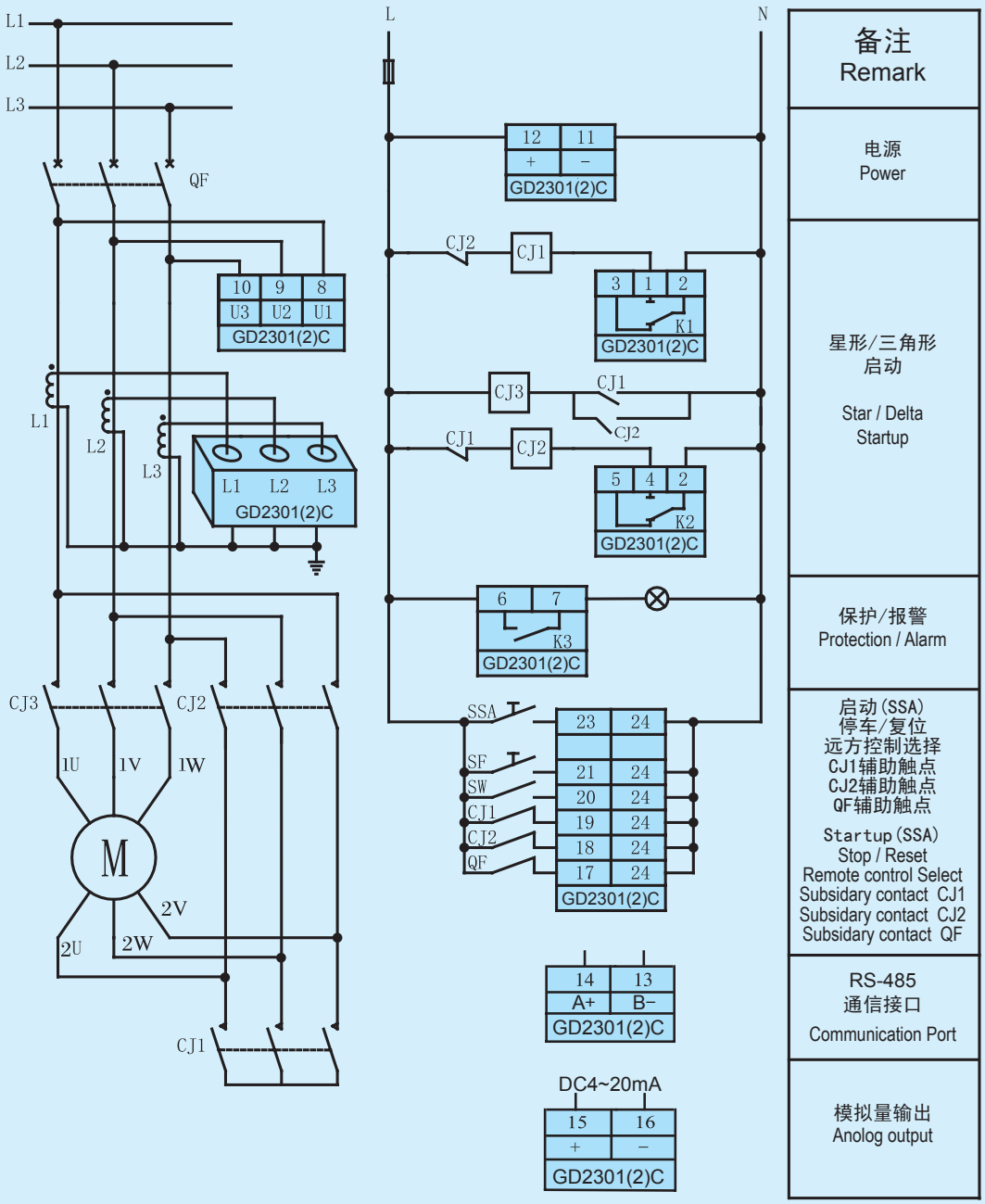
Introduction:

When the controller is power on, at first, it will detect whether the circuit breaker is in closed state, or the AC contactor (Relay CJ1 and CJ2) is release. (It will show "Err" if the connection is wrong, and the controller will not perform any task). When the controller received "Start A" command, the contactor (CJ1) energizes and its main contact is closed, and the motor clockwise to run. When the controller received "Start B" command, the contactor (CJ2) energizes and its main contact is closed, and the motor counter-clockwise to run.

When the controller received “Stop” command, the AC contactor CJ1 or CJ2 release, and the motor stops. Reset the controller to restart the motor after removing the failure.

GD2301C/GD2302C 星/三角启动方式接线图

GD2301C / GD2302C Wiring Diagram For Star / Delta Startup Protection Mode



说明：

当控制器上电时，首先检测断路器是否在闭合状态，接触器CJ1、CJ2是否在释放状态(如果接线错误，则显示“Err”，控制器不执行任何任务)。当控制器收到“启动”命令时，内部继电器K1动作，交流接触器CJ1吸合，同时CJ3也吸合，电机为星型方式启动；当设定的启动时间到达后，继电器K1释放，继电器K2吸合，则接触器CJ1失电释放，接触器CJ2、CJ3吸合，电机自动切换到三角形运行方式。控制器接收到停车指令或保护跳闸时，继电器K2释放，接触器CJ2、CJ3失电释放，主回路断电，电机停车。

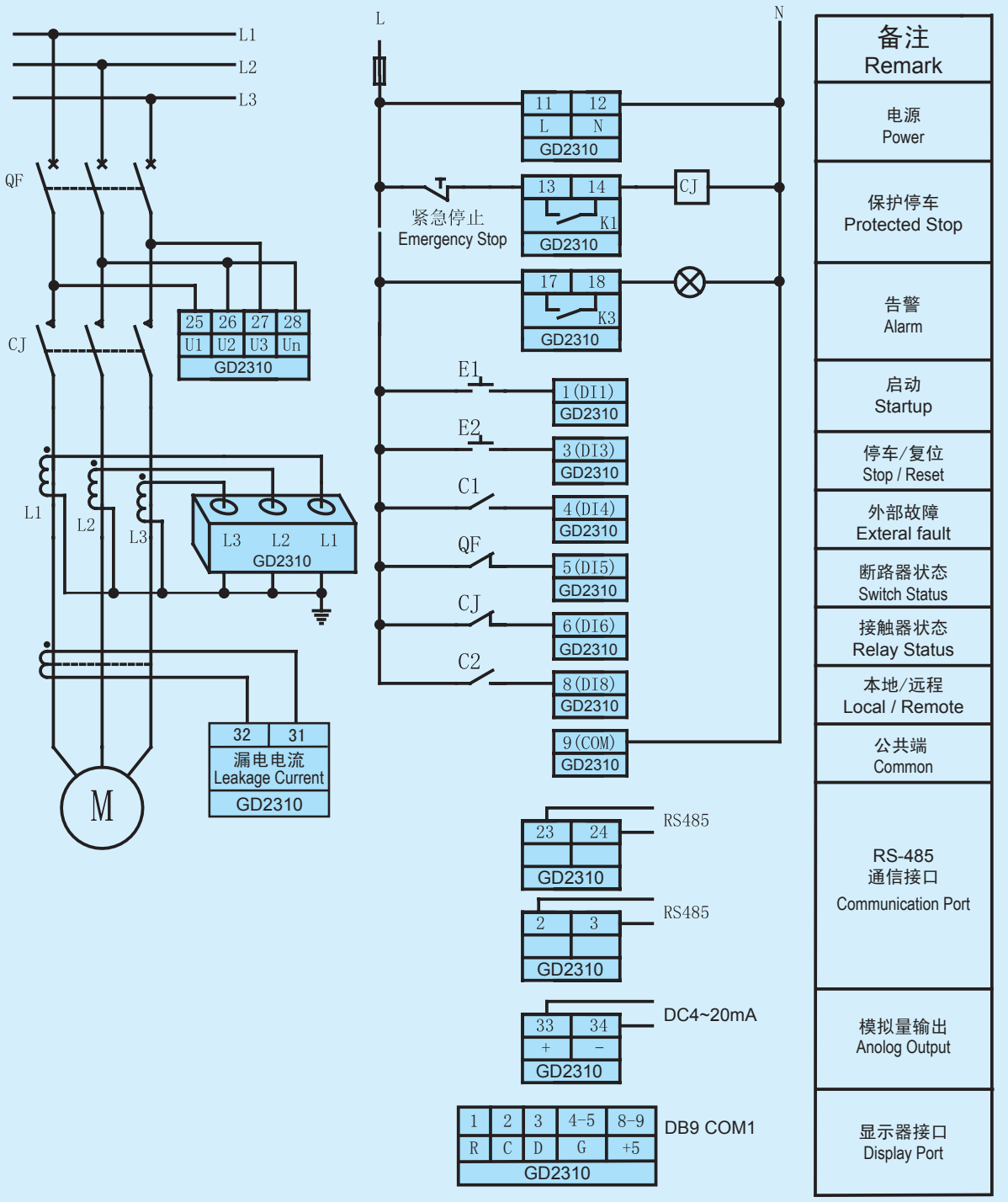
Introduction:

When the controller is power on, at first, it will detect whether the circuit breaker is in closed state, or the AC contactor (Relay CJ1 and CJ2) is release. (It will show "Err" if the connection is wrong, and the controller will not perform any task). When the controller received "Start" command, the contactor (CJ1 & CJ3) energizes to closed, and the motor start in the star mode. When the “Change over time" is up, the relay K1 release and the relay k2 close, then contactor CJ1 release and contactor CJ2 and CJ3 close, the motor change to the delta running mode.

When the controller received “Stop” command or any fault occurs, the relay K2 release, the contactor CJ2 and CJ3 is de-energized to release, and the motor stop.

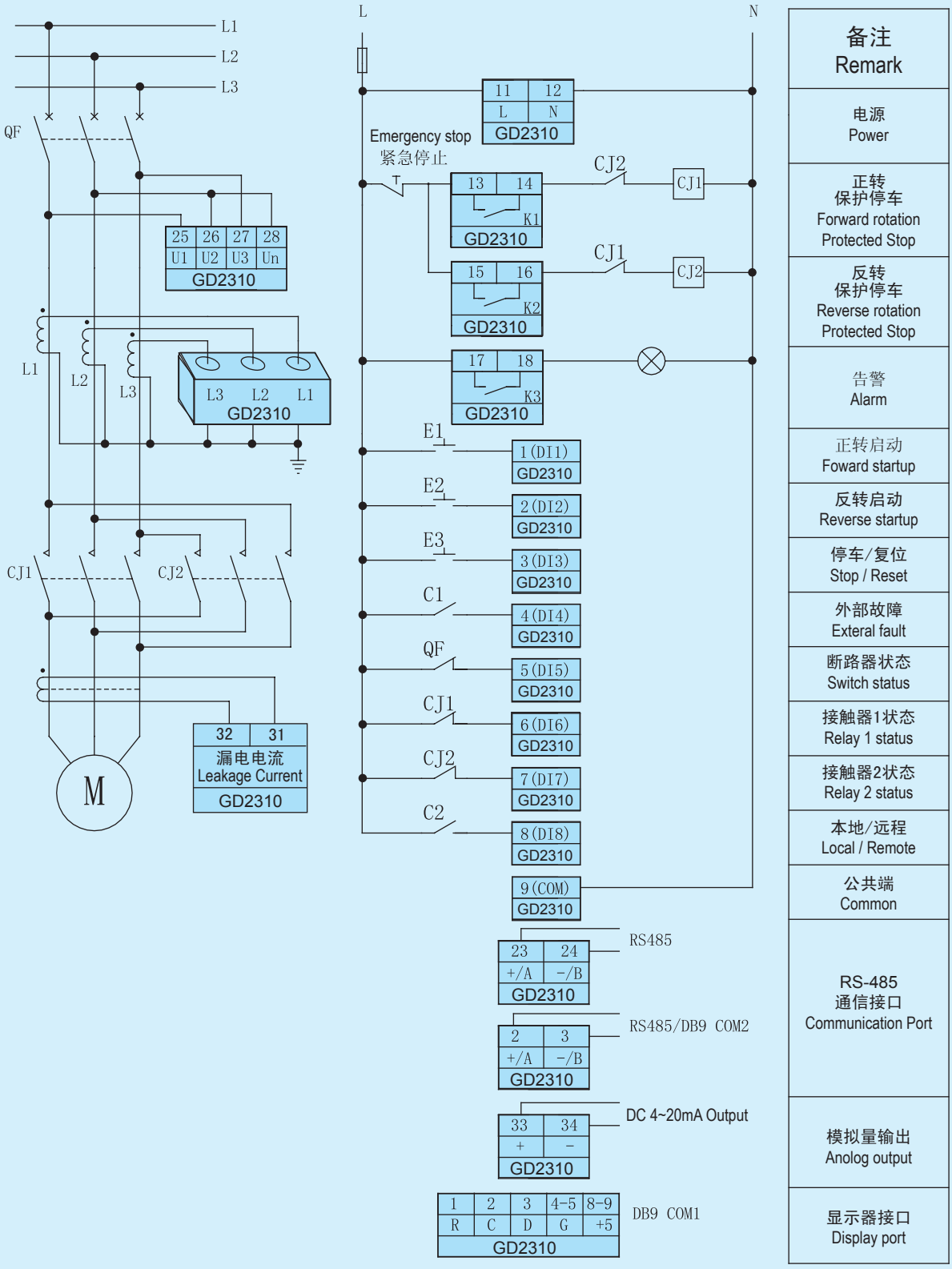
GD2310 直接启动保护方式接线图

GD2310 Wiring Diagram For Direct Startup Protection Mode



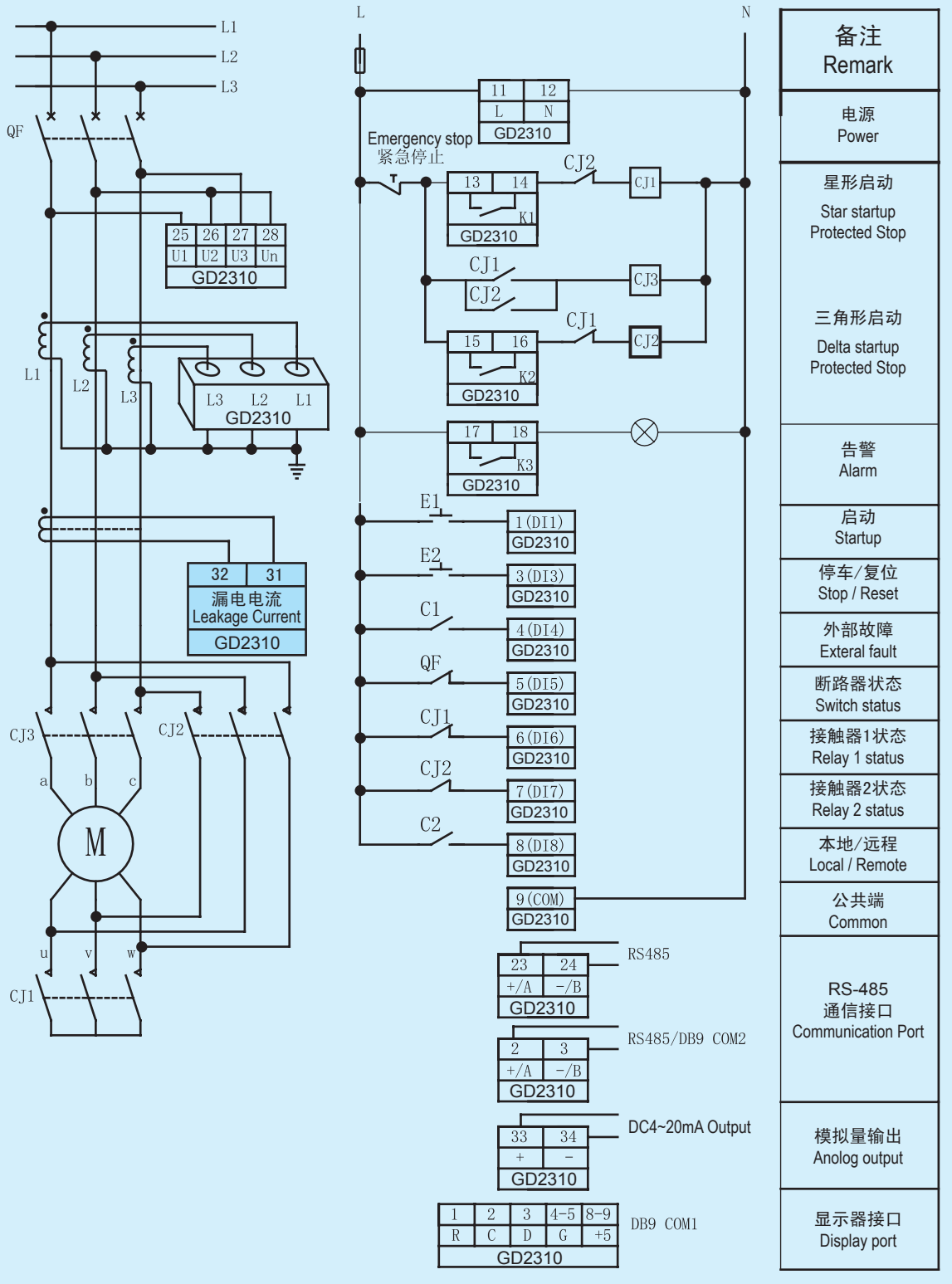
GD2310“正反转”启动方式接线图

GD2310 Wiring Diagram For Foward / Reverse Startup Mode



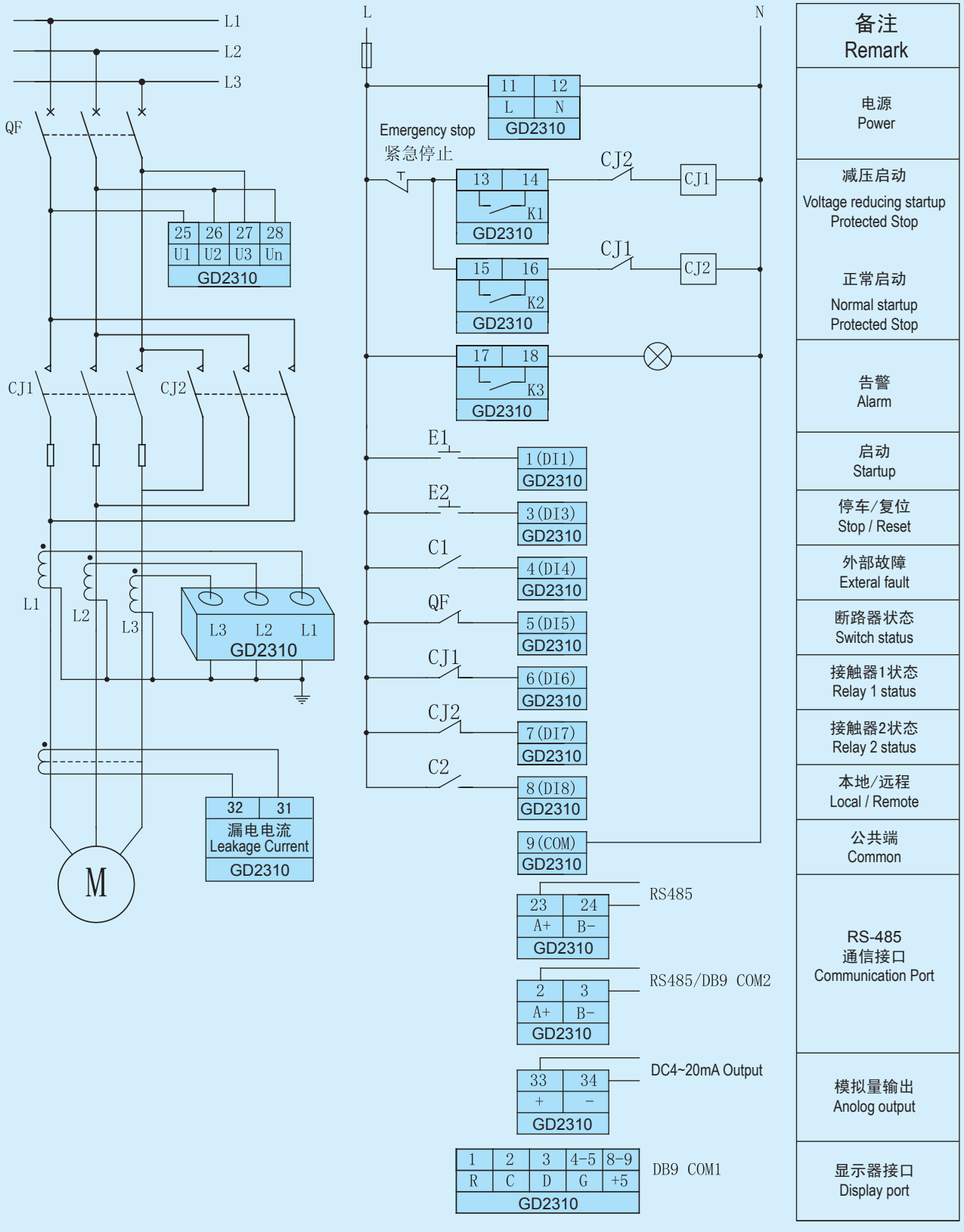
GD2310星－三角减压启动保护方式接线图

GD2310 Wiring Diagram For Astral / Triangular Voltage Reducing Startup Protection Mode



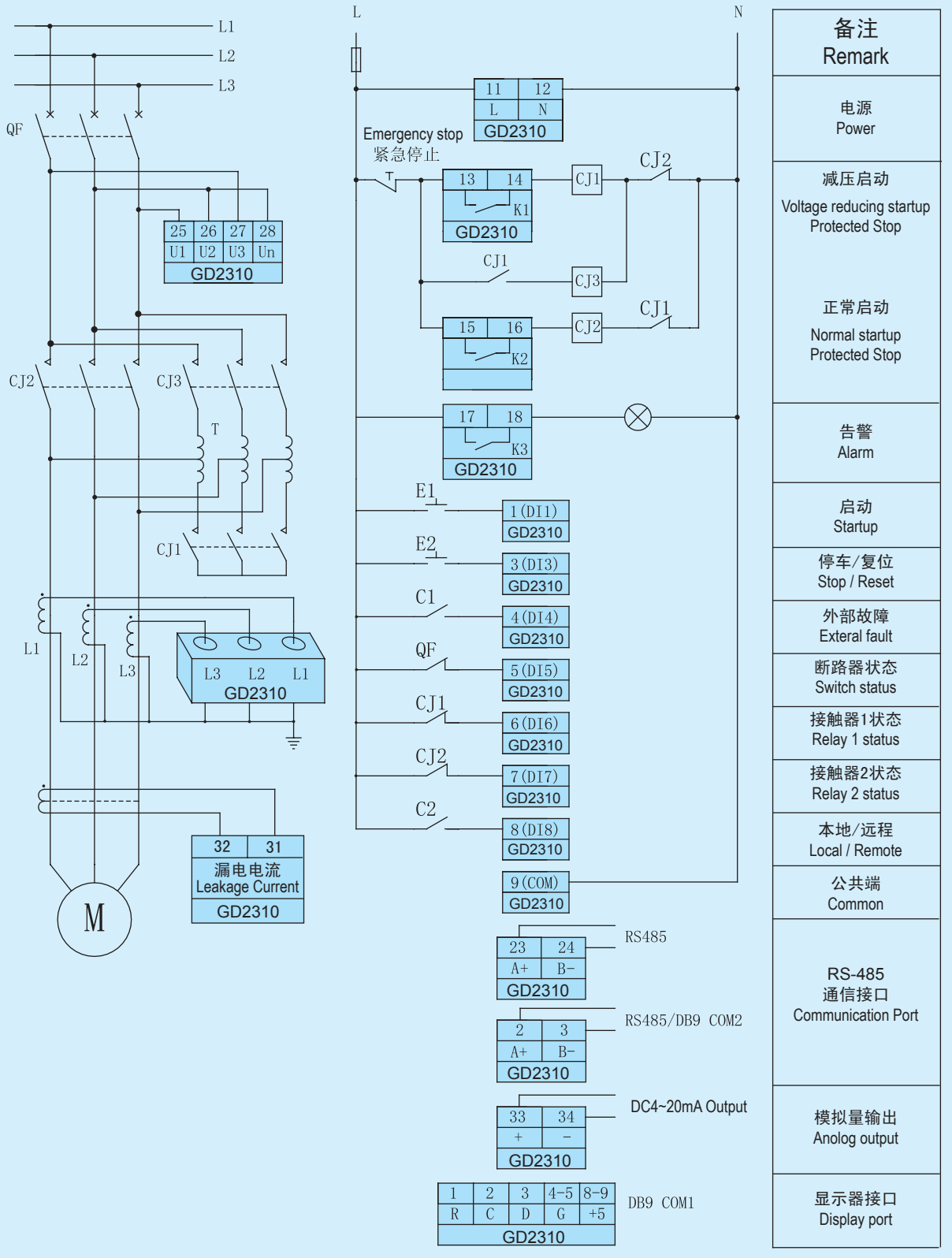
GD2310 定子绕组串电阻的减压启动保护方式接线图

GD2310 Wiring Diagram For Voltage Reducing Startup Protection of Stator Windings and Resistance in series Mode



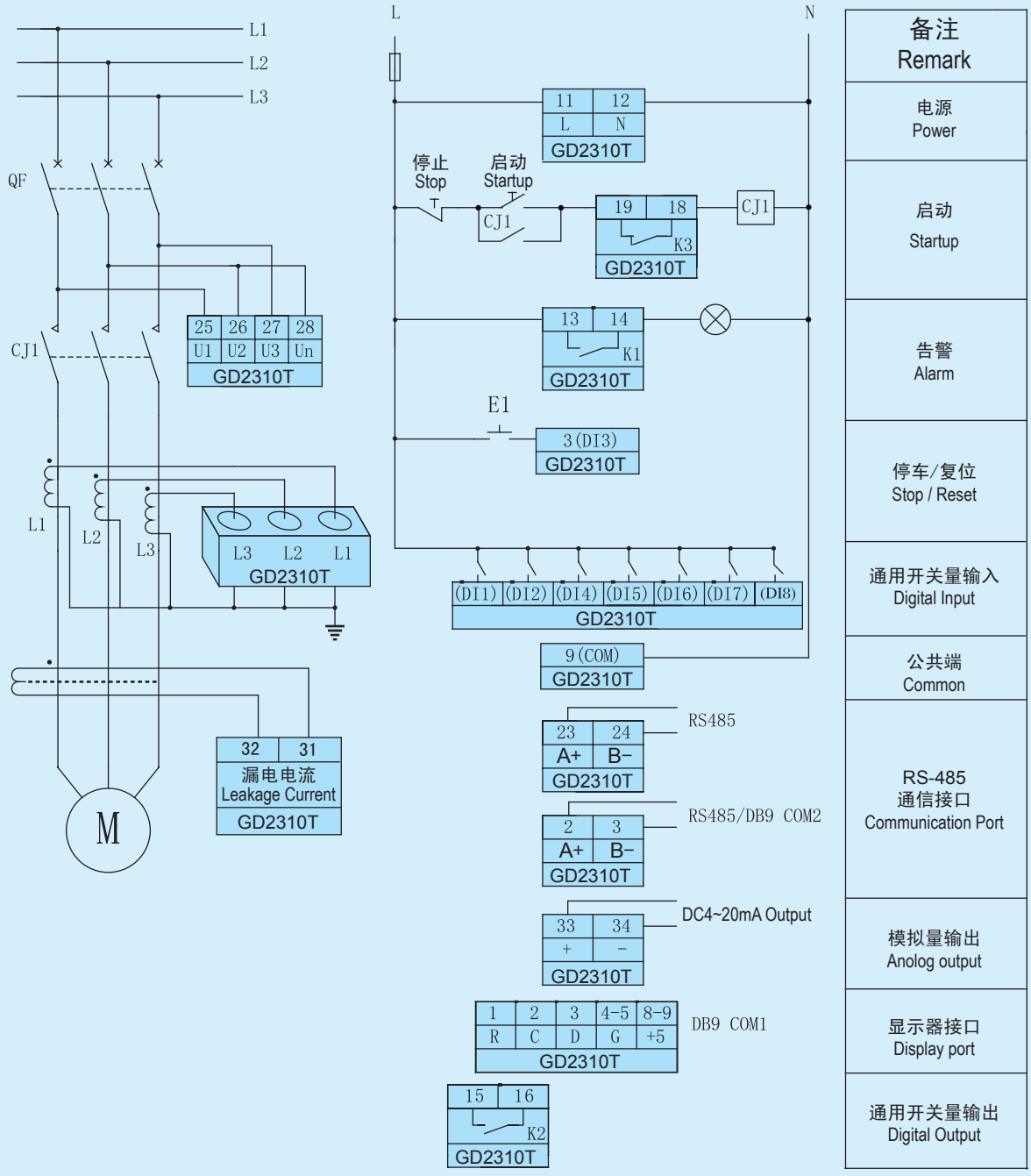
GD2310 自藕变压器的减压启动保护方式接线图

GD2310 Wiring Diagram For Autotransformer Voltage Reducing Startup Protection Mode



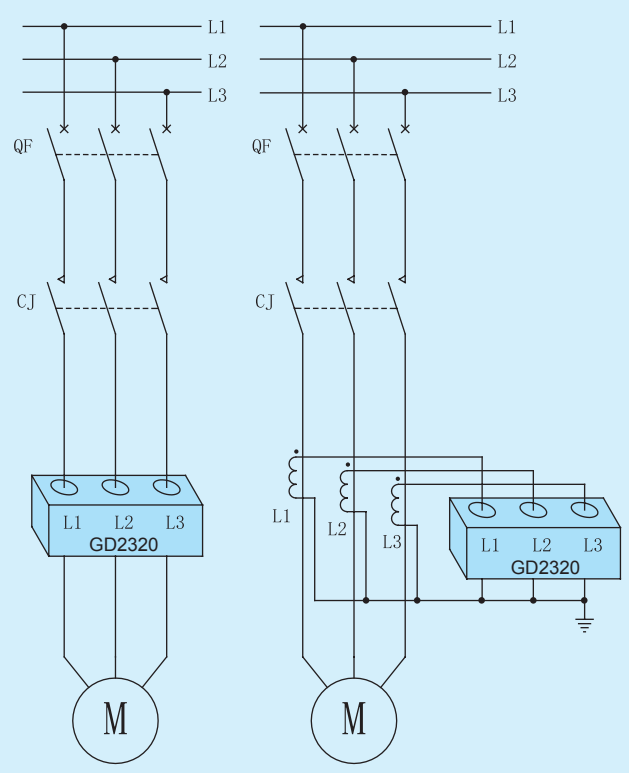
GD2310T 直接启动保护方式接线图

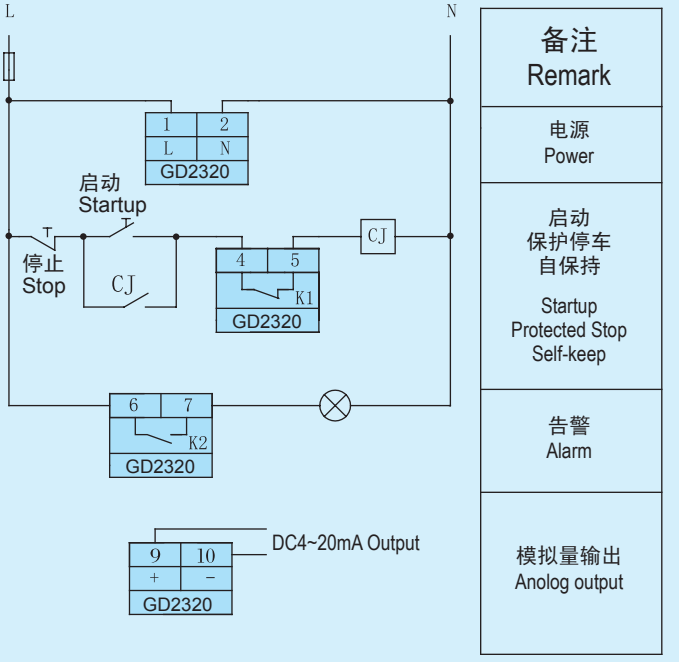
GD2310T Wiring Diagram for Direct Startup Protection Mode



GD2320 电机保护控制器接线图

GD2320 Wiring Diagram For Motor Protection Controller



无CT接线图
Without Current Transformer

有CT接线图
With Current Transformer