

变频空压机控制适配卡使用说明书 (APA-C301 标准型)

技术参数

变频空压机控制适配卡 APA-C301 拥有的配置如下：

- ◆ +24V 辅助电压源；
- ◆ 1 路空滤信号输入端子；
- ◆ 1 路油滤信号输入端子；
- ◆ 1 路油分信号输入端子；
- ◆ 1 路数字量输入端子(备用)；
- ◆ 1 路排气温度 PT100 检测通道；
- ◆ 1 路电机温度 PT100 检测通道；
- ◆ 2 路压力信号输入检测通道；
- ◆ 1 路 485 通讯接口，与控制面板通讯；
- ◆ 1 路 485 通讯接口，预留客户组网用；
- ◆ 1 路主机风机接触器控制信号；
- ◆ 1 路油冷风机接触器控制信号(单变频方案)；
- ◆ 1 路加载电磁阀控制信号；
- ◆ 2 路 220V AC 电压输出控制信号（备用）。

接线端子

接线端子排列如下：

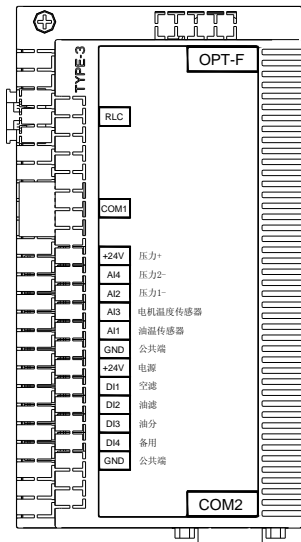


图 1 变频空压机控制适配卡的端子图

端子规格

类别	端子符号	功能说明	规格
数字输入 信号端子	DI1—GND	空滤信号输入	光耦隔离输入： 24VDC / 5mA或 无源常开触点
	DI2—GND	油滤信号输入	
	DI3—GND	油分信号输入	
	DI4—GND	保留	
电源	GND	开关量端子	最大输出电流： 100mA
	+24V	供电电源	
PT100 温度传感器 信号输入	GND	公共地	参考图 3 适配卡 接线图
	AI1	排气温度 PT100 检测通道	
	AI3	电机温度 PT100 检测通道	参考图 3 适配卡 接线图
压力信号输入	AI2	压力传感器 输入信号	0~20mA
	AI4	压力传感器 输入信号	0~20mA
	+24V	压力传感器电源	

安装与拆卸

适配卡的安装与拆卸参照图 2。

安装：① 将适配卡按如图示方向水平放置，使卡上的插座对准扩展卡托盘上的插座 3，下压直至适配卡紧贴托盘并听到“嗒”的响声；

② 将适配卡左上角的 M3 固定螺钉打紧。

拆卸：① 将适配卡左上角的 M3 固定螺钉拧松；

② 将适配卡从扩展卡托盘里向上拔出。

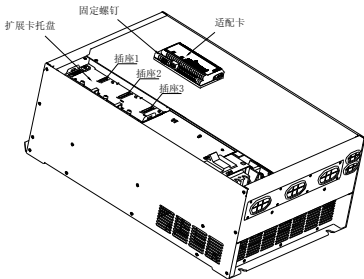


图 2 适配卡安装与拆卸的拆卸安装示意图

配线

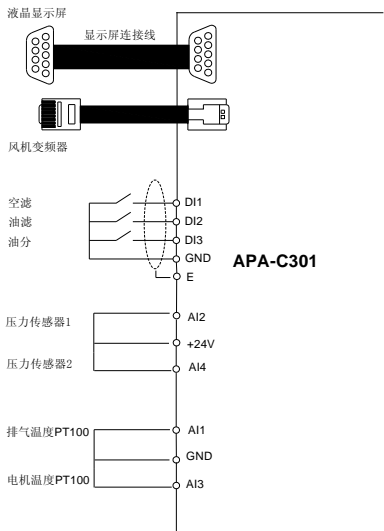


图 3 变频空压机控制适配卡的配线图

USER MANUAL FOR VARIABLE FREQUENCY AIR COMPRESSOR CONTROL ADAPTER CARD

(APA-C301 Standard)

Technical Parameter

Variable frequency air compressor control adapter card APA-C301 has following configurations:

- ◆ +24V auxiliary voltage supply;
- ◆ 1-circuit air filter signal input terminal;
- ◆ 1-circuit oil filter signal input terminal;
- ◆ 1-circuit oil-gas separator signal input terminal;
- ◆ 1-circuit digital quantity input terminal (standby);
- ◆ 1-circuit exhaust temperature PT100 inspection channel;
- ◆ 1-circuit motor temperature PT100 inspection channel;
- ◆ 2-circuit pressure signal input inspection channel;
- ◆ 1-circuit 485 telecommunication interface, communicating with control panel;
- ◆ 1-circuit 485 telecommunication interface, used for reserved client network;
- ◆ 1 circuit host machine fan contact control signal;
- ◆ 1 circuit oil cooling fan contact control signal (single variable frequency scheme);
- ◆ 1-circuit loading solenoid valve control signal;
- ◆ 2-circuit 220V AC voltage output control signal.

Terminals

Wiring terminals are arranged as follows:

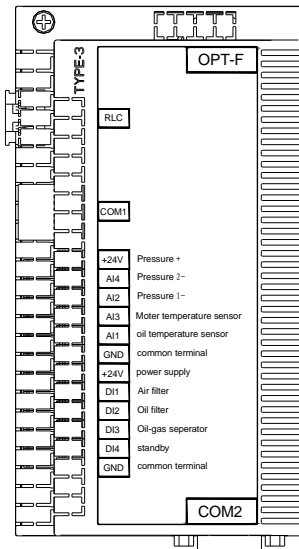


Figure 1 Terminal Diagram Of Adapter Card

Terminal Specification

Type	Terminal code	Terminal function	Specification
Digital input Signal terminal	DI1-GND	Air filter signal input	optically - isolated input: 24VDC / 5mA or passive normally open contact
	DI2-GND	Oil filter signal input	
	DI3-GND	Oil-gas separator signal input	
	DI4-GND	Reserved	
Power supply	GND	Power supply for switch quantity terminal	Maximum output current: 100mA
	+24V		
PT100 Temperature sensor Signal input	GND	Common ground	Refer to Figure 3 – Wiring Diagram of Adapter Card
	AI1	Exhaust temperature PT100 inspection channel	
	AI3	Motor temperature PT100 inspection channel	Refer to Figure 3 – Wiring Diagram of Adapter Card
Pressure signal input	AI2	Pressure sensor input signal	0 ~ 20mA
	AI4	Pressure sensor input signal	0 ~ 20mA
	+24V	Pressure sensor power supply	

Assembly & Disassembly

Refer to Figure 2 for assembly and disassembly of adapter card.

◆ Assembly

- ① Place adapter card horizontally in direction as shown in the figure, to aligned the socket on the card holder with the socket on the base of the card, and then press down until the adapter card sticks tightly to the base with a “click” sound;
- ② Tighten the fastening screw M3 fixing bolt at the left upper corner of the adapter card.

◆ Disassembly

- ① Loosen M3 fixing bolt at the left upper corner of the adapter card;
- ② Pull the adapter card up out from the base.

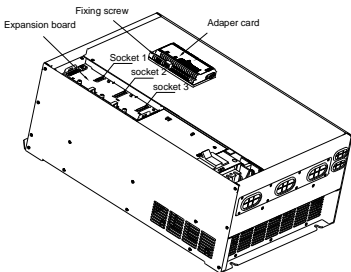


Figure 2 Assemblies and Disassembly of Adapter Card

Wiring

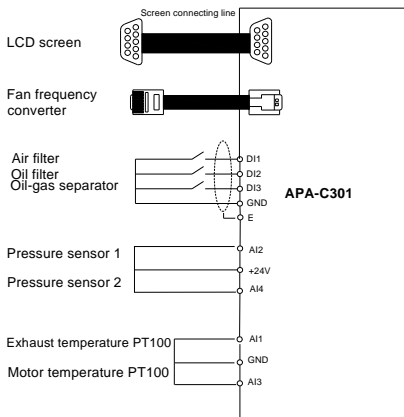


Figure 3 Wiring Diagram of Adapter Card