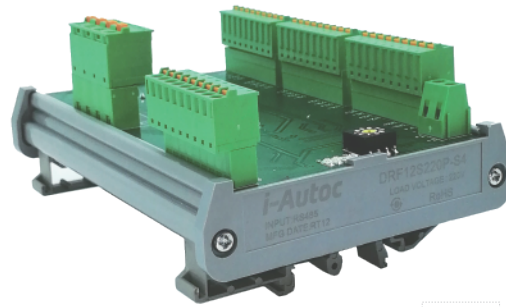


Product Description

- ◆ RS 485 Bus Control
- ◆ Modbus RTU Communication Protocol
- ◆ 12 Sets of Signal Output
- ◆ LED Indication
- ◆ Stabilized Voltage Output
- ◆ 35mm Standard Din Rail Mount



Product Description

DRF	12	S	220	T	P	-S4	F	L
DRF Series	Channel 12:12	Function S: Stabilized Output	Load Voltage 220:220VAC 380:380VAC	blank: Three-phase with N T: Three-phase without N	Output Mode P: Power Proportional Output	Control Mode S4:RS 485	F: Cooling fan with control	L: LED Light

220	DRF12S220P-S4FL
380	DRF12S380TP-S4FL

Technical Specification

Input Circuit		
Auxiliary Power Supply Voltage Range	19.6 ~ 28.8VDC	
Max.Auxiliary Power Supply Current	700mA	
Input Control	RS 485 (2 Connections)	
Output Circuit		
Voltage Range of Load Power Supply	220VAC	190~260VAC
	380VAC	190~440VAC
Output Load Voltage Range	220VAC	0-220VAC
	380VAC	0-380VAC
Max. Output Current for Single Channel	50mA	

General Information

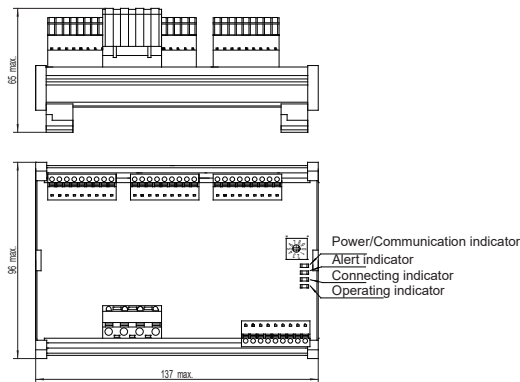
Control Register Address	U1	20
	U2	21
	U3	22
	U4	23
	V1	24
	V2	25
	V3	26
	V4	27
	W1	28
	W2	29
	W3	30
	W4	31
Switch Register Address		35

General Information

General Information	
Target Temperature Setting Register	36
Temperature Range Setting Register	37
Thermocouple type register	38

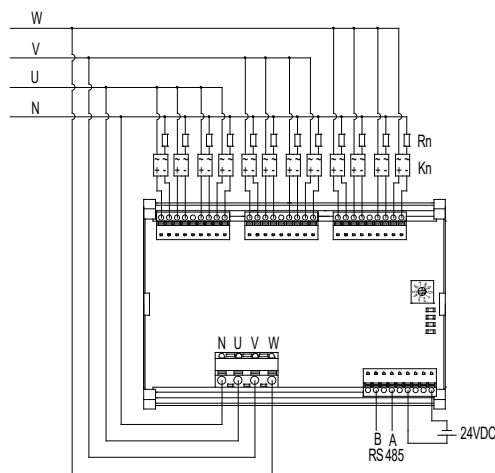
General Information	
Station Address Range	1~8
Max. Station Point	8
Communication Agreement	Modbus RTU
Dielectric Strength	≥3000Vrms
Ambient Operating Temperature Range	-30°C ~ +80°C
Ambient Storage Temperature Range	-30°C ~ +100°C
Weight [Typical]	232g

Installation and LED Indication



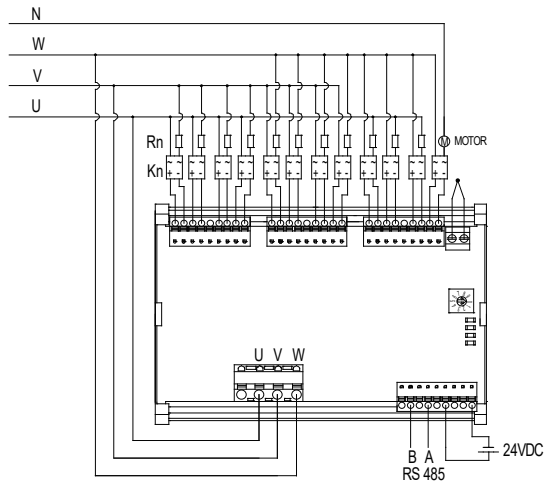
Power supply/Communication indicator: LED lights up when there is a power supply;
LED becomes brighter when the module is communicating;
Alert indicator: LED lights up when there is a failure;
Connecting indicator: LED lights up when the control resistor value is not zero;
Operating indicator: LED flashes every 1.5s when the module is operating.

Wiring Diagram



DRF12S220P-S4FL

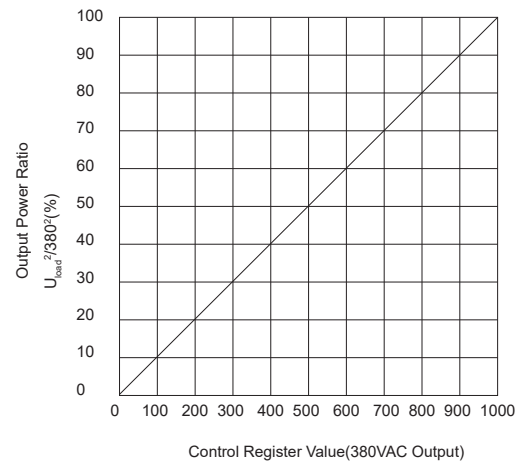
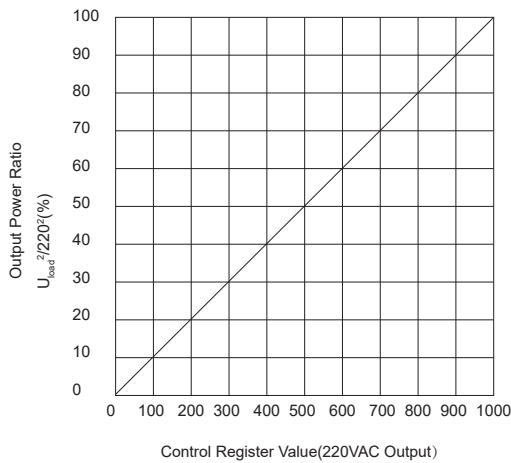
Wiring Diagram



DRF12S380TP-S4FL

Note: 1) Kn is a random-on solid state relay, Rn is a load controlled by SSR.
2) F + and F - are common ports, when the value of REG_TEMP_SET is non-zero, the route is used to control the cooling fan. When the value of REG_TEMP_SET is zero, the route is controlled by REG_CON_W4.

Output /Proportional Control Characteristic



Important Notice

1. In order to reduce the external interference, twisted pair or shielding wire is recommended as the control line of RS485.
2. SSR should adopt random-on type, zero-crossing SSR cannot be used.
3. DRF12S220P-S4F power supply is three-phase with N, and each circuit voltage is 220 VAC. DRF12S380TP-S4F power supply is three-phase without N.
4. In order to improve the accuracy of temperature measurement, it is suggested to choose a shielded thermocouple.