



DRN series is a 10.5 ~ 180 VDC redundant operation system. When two DRN series are working together and one of them is malfunction, the other one can supply full power. This can prevent high tier system causes data lost or equipment control error and, furthermore, loss of life and property because of faulty power. Buzzer of DRN series will alarm when one of them is not functional and will send relay RDY signal. (Customer can make specialized alarm system with this 1A relay contact.) When power source is unstable, V1 or V2 indicator will point out which power source is bad. DRN series can easily install with din rail / standard enclosure power supply, and do not need unconventional build-in RDY signal power supply because DRN series builds in this feature. The design can let customer use with commercially available power supply, lowering inventory and cost.



Environmental Parameters

Operating Temperature	- 15° C to + 50° C, Ambient
Operating Humidity	20 ~ 90 % RH, No Condensing
Storage Temperature	-20° C to + 85 °C, Ambient
Vibration	2G, 10~500Hz, 3 axes

Typical Product List:

Model	Voltage Input Voltage	Output Voltage	Output Current Max.	Alarm Voltage
DRN15	10.5~33V	10~33V	15A	10VDC
DRN10-80V	33~80V	33~80V	10A	26VDC
DRN10-180V	80~180V	80~180V	10A	64VDC

CE Standards

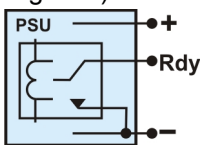
EN 55032, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11

Safety Standards



RDY Connection

Customers can design their own alarm device based on the RDY signal to prevent a situation where they are unaware of a power source failure, even when the output remains normal when one of the power sources is faulty. Customers can use RDY signal (RDY contact) for power failure indication. Function description: The RDY signal works when one or all power sources are faulty. The RDY signal has two states: The RDY signal is open circuit to ground (negative) when all power sources are normal; The RDY signal is short-circuited to ground (negative) when any one or all power source are faulty.





Application Circuit

Function description: A redundant system is a system in which two power supplies are supplying power to a load at the same time. When one of them fails and the other continues to supply power to the load, a fault alarm will be generated. The DRN series will emit a buzzer alarm and a RDY signal. The customer can choose to apply the RDY signal according to their needs. The specific power supply that has failed can be seen visually on the DRN series panel. There are V1 LED and V2 LED indicators on the panel. V1 LED light corresponds to the input terminal V1; V2 LED light corresponds to the input terminal V2. The corresponding light is off to indicate which power supply is faulty.

Wiring Instructions:

1. Standard Current Connection: The maximum output current is limited by DRN, see Figure 1. Two switching power supplies (PSUs) are connected to DRN series V1 and V2 respectively, with the positive to the positive of the power supply and the negative to the negative of the power supply. Two PSUs supply power to the equipment (load) at the same time when both of them are normal. When one of the power supply is faulty and the other one continues to supply power to the equipment (load), a fault alarm will be generated, the DRN will alarm the buzzer, send the RDY signal, and the panel indicator light will go out corresponding to the faulty power supply.

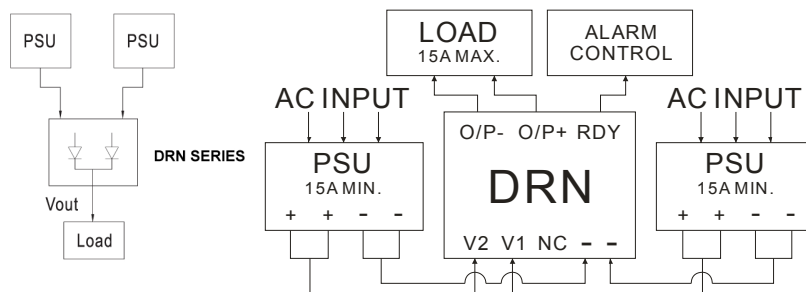


Figure 1

2. Expansion Current Connection: When more current is needed for the output, multiple DRNs need to be connected in parallel, and the maximum current output is the sum of N DRNs. The wiring is shown in Figure 2. The working principle is the same as the Standard Current Connection. When multiple DRNs are connected in parallel, each group V1 and V2 is connected in parallel.

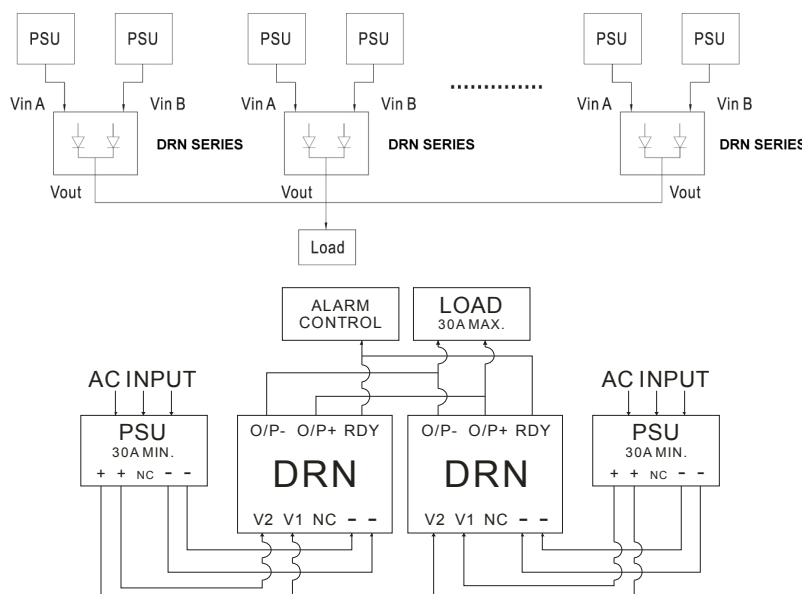
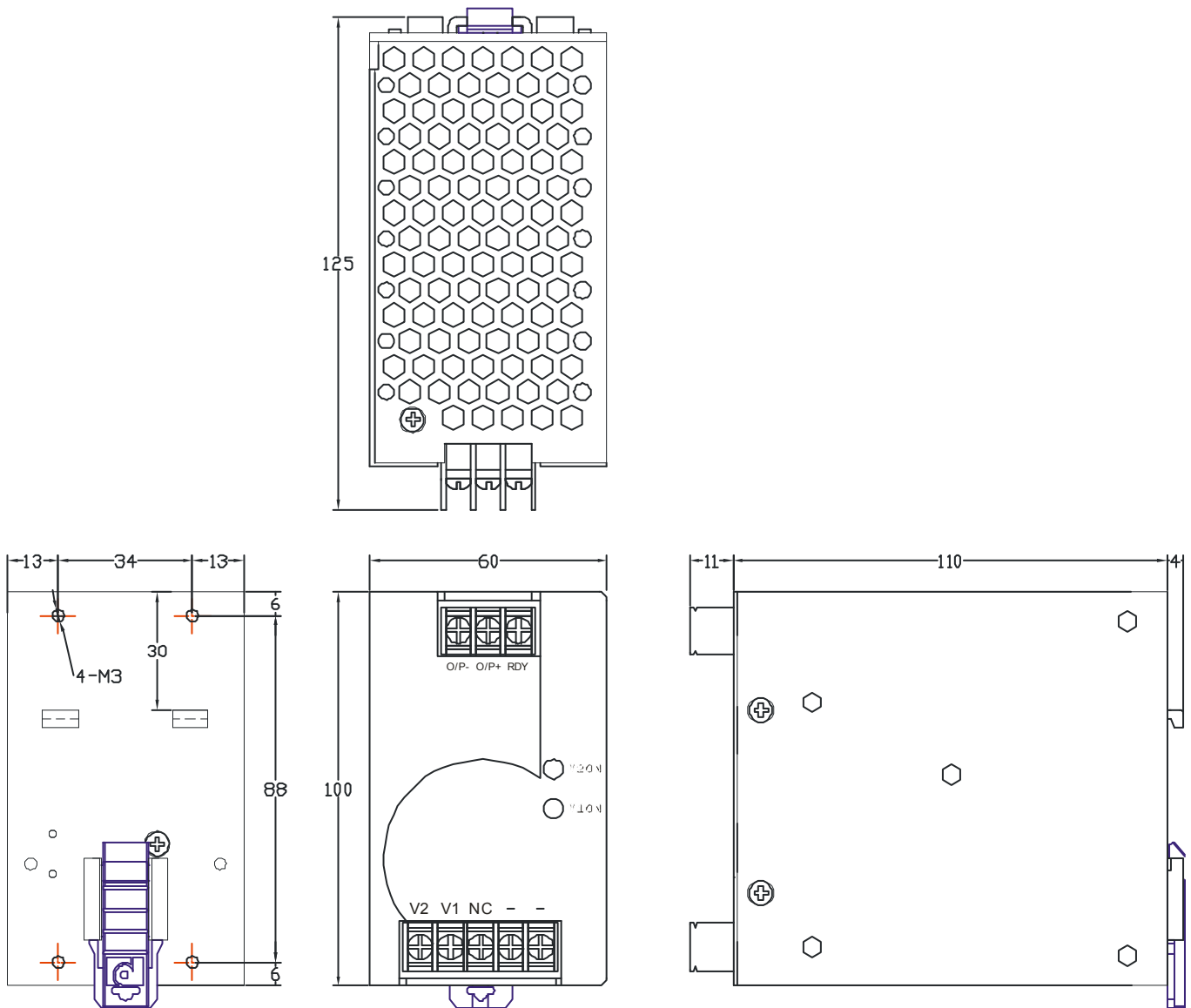


Figure 2

Note: Load current must be less or equal to output current.



Mechanical Details



CASE NO. : CS060DR

UNIT : mm

DIMENSION : 100(H)*110(D)*60(W)

MATERIAL : ALUMINUM

COLOR : ORIGINAL ALUMINUM

Symbol	Description
O/P-	DC Negative Output Terminal
O/P+	DC Positive Output Terminal
RDY	DC Output OK Signal, 10A Contact Relay 1A Current Rating
V1	DC V1 Positive Input Terminal
V2	DC V2 Positive Input Terminal
NC	No Output Terminal
-	DC Negative Input Terminal
V1 ON	V1 LED Indicator
V2 ON	V2 LED Indicator