



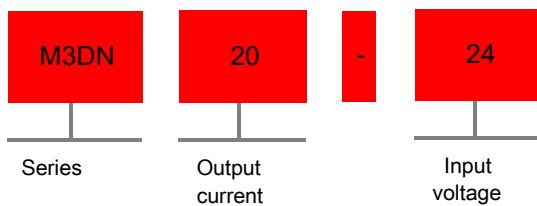
### ▲ Features

- Support 1+1 and N+1 redundancy system
- Channels: 2 input and 1 output
- Output current up to 20A
- Ultra wide operating Temp. -40~+80°C (> +60°C derating)
- Suitable for redundancy operation of 12V/24V/48V system
- Built-in 2 channels DC OK signal and alarm relay contact
- Ultra slim width: 32mm
- Cooling by free air convection
- Installation : TS35/7.5 or TS35/15
- 3 years warranty

### ▲ Applications

- Industrial control equipment
- Semi-conductor fabrication equipment
- Factory automation
- Electro-mechanical equipment

### ▲ Model encoding





## Specification

Input			
DC voltage	12Vdc	24Vdc	48Vdc
DC voltage range	9-14Vdc	19-29Vdc	36-60Vdc
Rated current	0-20A per input continuous		
Voltage drop ( Vin-Vout )	0.25V		
Peak current	0-30A per input 5Sec.		
Efficiency	98%		
Input reverse current ( Max. )	1mA		
Input reverse voltage ( Max. )	40Vdc	40Vdc	65Vdc
Output			
Rated current	0-20A continuous		
Peak current ( Max. )	30A 5Sec.		
Capacitance (Typ.)	320uF		
Standby power losses (Typ.)	1.5W		
Protection			
Over load	<30A,5Sec. No damage		
Short circuit	<30A,5Sec. No damage		
Redundancy	Support 1+1 and N+1 redundancy system		
Both input voltage alarm	<8.5V or >14.7V(±5%)	<18V or >31V(±5%)	<34.2V or >63V(±5%)
Relay	30Vdc/1A resistive load		
LED indicator	Green LED OK		
Safety & EMC			
Withstand voltage	IP/OP-Chassis:0.5KVac;IP/OP-Relay:0.5KVac;Relay-Chassis:0.5KVac		
Isolation resistance	IP/OP-Chassis,IP/OP-Relay, Relay-Chassis:>100MOhms/500Vdc/25°C/70%RH		
Safety standards	Design refer to EN IEC 62368-1、GB4943.1		
EMC emission	Parameter	Standard	Test Level/Note
	Conducted	EN55032	Class B
	Radiated	EN55032	Class B
	Voltage Flicker	.....	.....
EMC immunity	Harmonic Current	.....	.....
	Parameter	Standard	Test Level/Note
	ESD	EN61000-4-2	Level 4 15KV air;Level 3 8KV contact
	Radiated Susceptibility	EN61000-4-3	Level 3 10V/m
	EFT/Burest	EN61000-4-4	Level 3 2KV
	Surge	EN61000-4-5	Level 2 1KV/Line-Line;Level 3 2KV/Line-Line-Chassis
	Conucted	EN61000-4-6	Level 3 10V
Magnetic Field	EN61000-4-8	Level 4 30A/m	
Environment			
Operating Temp. *2	- 40 ~ +80 °C ( Refer to derating curve )		
Storage Temp.	-40 ~ +85°C		
Operating Humidity	5 ~ 95%RH, Non-condensing		
Vibration	10-500Hz,2G 10 Min/1 cycle. 60 Min. each along X,Y,Z axes		
Others			
MTBF	≥482.1Khrs MIL-HDBK-217F(25°C)		
Installation	TS35 DIN rail		
Protection class	IP20		
Weight	About 0.35kg		
Dimension	32*125.2*102mm(W*H*D)		
Ordering	Description	Model	
	M3DN 20A/12V	M3DN20-12	
	M3DN 20A/24V	M3DN20-24	
	M3DN 20A/48V	M3DN20-48	

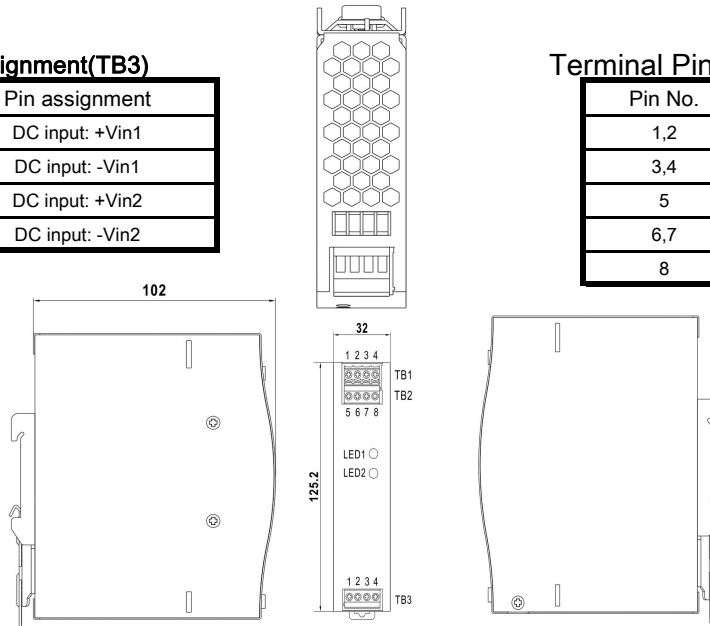
## Installation instruction

### Terminal Pin No. assignment(TB3)

Pin No.	Pin assignment
1	DC input: +Vin1
2	DC input: -Vin1
3	DC input: +Vin2
4	DC input: -Vin2

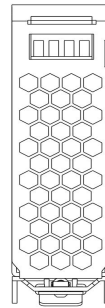
### Terminal Pin No. assignment(TB1,TB2)

Pin No.	Pin assignment
1,2	Alarm1 DC OK
3,4	Alarm2 DC OK
5	FG
6,7	DC output +Vout
8	DC output -Vout

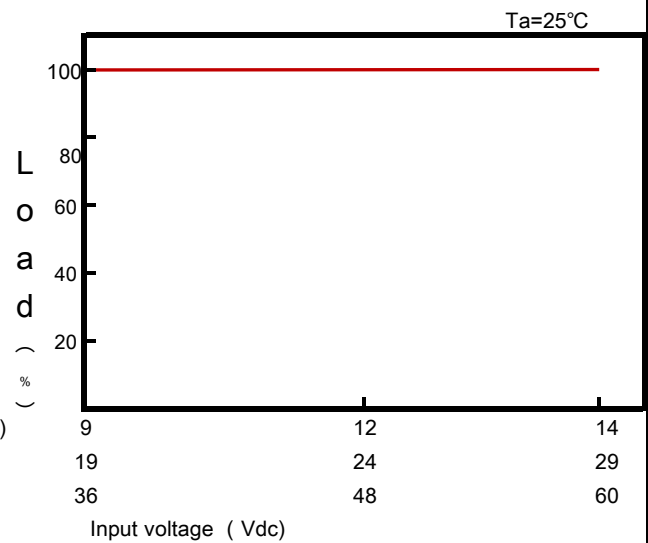
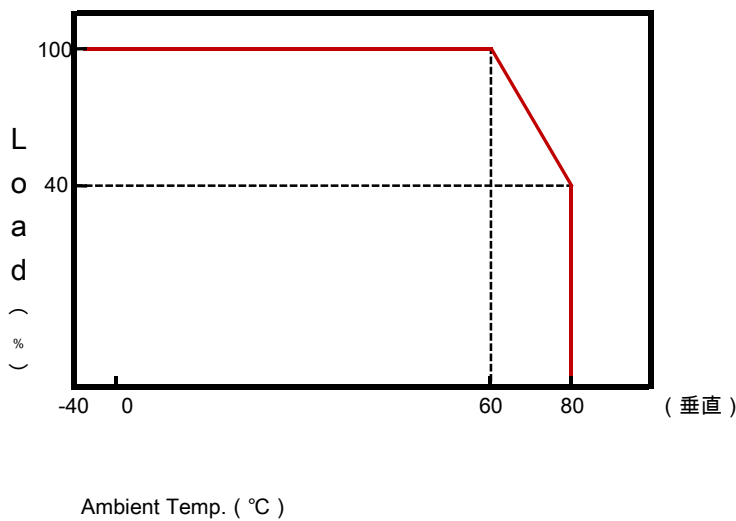


### DC OK relay contact

Contact rating(Max.)	30V/1A resistive load
Contact close(DCOK)	PSU turns on
Contact oper(DC Fail)	PSU turns off/over or under input voltage



### Derating curve



- Note:**
- 1.All parameters are measured at normal input(12V/24V/48V) , rated load and 25°C of ambient temp. if not mentioned specially
  - 2.Derating maybe needed over higher ambient temp. Please refer to Derating curve for more details
  - 3.The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft.)