

## DFE-800 SERIES:



### 800 Watt / Single Output

- 9.80 x 5.00 x 1.61" Enclosed with Fan Package

### Features:

- Universal AC Input
- 0~105% Voltage & Current Adjustment Range
- Current Share Function
- Constant Current Limit
- 5V @ 0.65A or 9V @ 0.3A Aux Output
- Overload / OverVoltage / Short Circuit Protection
- RS232, RS485 & I2C Interface
- Power OK Signal
- Remote On/Off, Remote Sense Functions
- 1-Year Product Warranty

### INPUT:

Input Voltage	90~264 VAC (Universal AC Input)
Input Frequency	47-63Hz
Input Current	9.3A maximum at 100VAC
Inrush Current	30A @ 115VAC
Input Protection	Single Fuse
Hold-Up Time	14ms Minimum
Harmonics	EN61000-3-2 Class A Compliant
Leakage	1ma@ 240VAC max

### GENERAL:

Efficiency	89-93%
Operating Temperature	-25 to +70°C, derate 2.5% / °C above 50°C
Storage Temperature	-40°C to +85°C
Cooling	Convection Cooled
Operating Humidity	5-95% RH, Non-Condensing
Vibration	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.
MTBF	>112k Hrs (according to MIL-HBK-217F) at 25°C

### OUTPUT:

Minimum Load	n/a
Output Adjustment	0-105% (typical)
Line Regulation	±1% max
Load Regulation	±1% max
Ripple & Noise	±1% typ. pk-pk @ 20MHz
Overload Protection	Auto-Recovery
Over Voltage	Auto-Recovery
Short Circuit Protection	Auto-Recovery

### STATUS / CONTROL

AUX Power	Selectable 5V @ 0.65A or 9V @ 0.3A Aux Output
Remote Sense	250mV Compensation
Remote On/Off	Included
DC OK	Included
Parallel Operation	Forced Current Sharing
Voltage Program	0-105% of Rated Voltage
Current Program	0-105% of Rated Current

### APPROVALS:

Emissions EN55022 "B", FCC Part 15 Subject J Class B

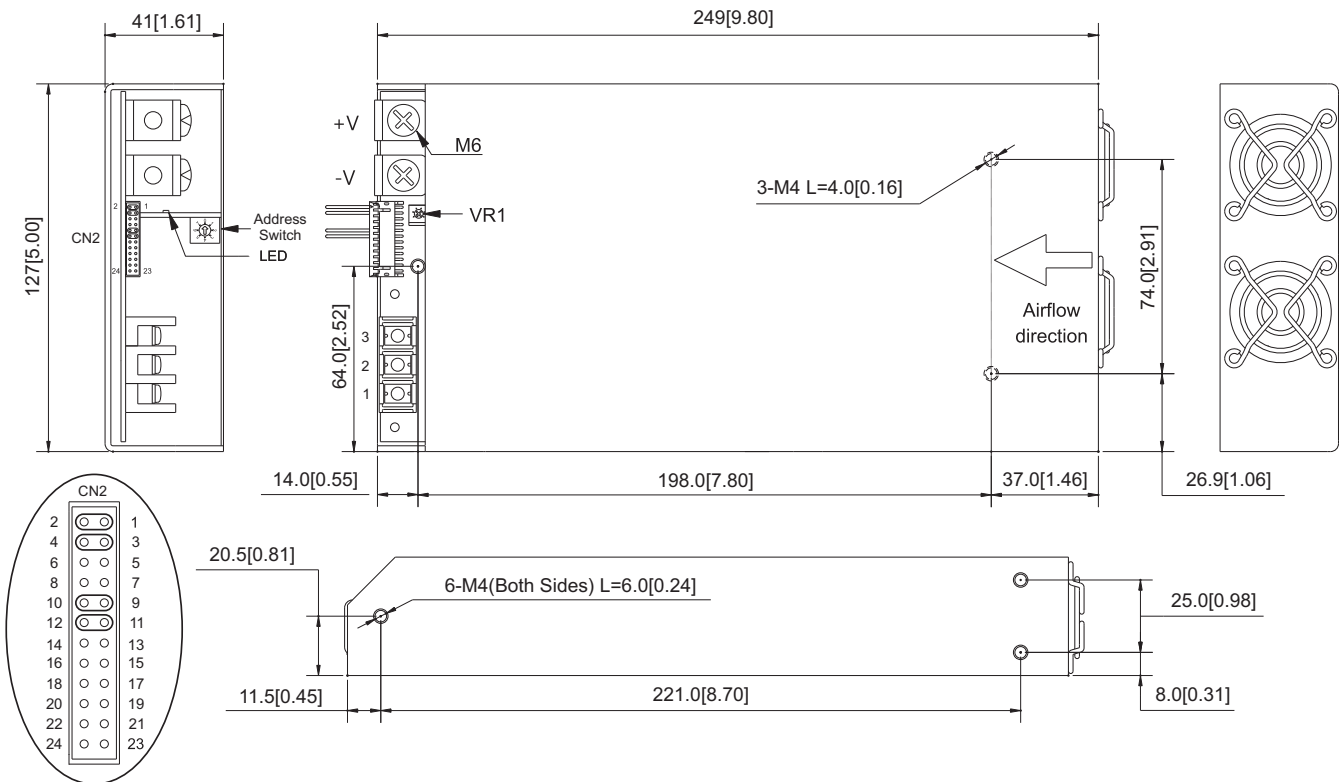
Safety Approvals UL/cUL EN60950-1  
 EN 60950-1  
 CB IEC 60950-1  
 CE Mark (LVD)



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**Output Specifications:**

Model:	V1	OUTPUT CURRENT	EFFICIENCY
DFE-800-12	12V	66.7A	89%
DFE-800-15	15V	53.4A	90%
DFE-800-24	24V	33.5A	92%
DFE-800-30	30V	26.7A	92%
DFE-800-36	36V	22.3A	92%
DFE-800-48	48V	16.7A	92%
DFE-800-60	60V	13.4A	93%



Pin No.	Assignment
1	ACL
2	ACN
3	⊥

Pin No.	Function	Description	Pin No.	Function	Description	Mating Housing / Contact	
1	VS+	Remote sense (+)	13	ACI	I Program	JST PHDR-24VS or equivalent	JST SPHD-002T-P0.5 or equivalent
2	VO+	Positive output voltage	14	GND	Ground		
3	VS-	Remote sense (-)	15	VCI	V Program		
4	VO-	Negative output voltage	16	GND	Ground		
5	POK	Power OK	17	AUX	+5V / 0.5A or +9V / 0.3A Auxiliary power		
6	GND	Ground	18	GND	Ground		
7	PAR	Parallel operation current share	19	SCL	Serial Clock used in the I <sup>2</sup> C interface		
8	VSET	Aux output setting	20	SDA	Serial Data used in the I <sup>2</sup> C interface		
9	EN-	Inhibit ON/OFF (-)	21	AUX	+5V / 0.5A or +9V / 0.3A Auxiliary power		
10	GND	Ground	22	GND	Ground		
11	EN+	Inhibit ON/OFF (+)	23	NC.	For RS232 Receiver function		
12	AUX	+5V / 0.5A or +9V / 0.3A Auxiliary power	24	NC.	For RS232 Transmission function		

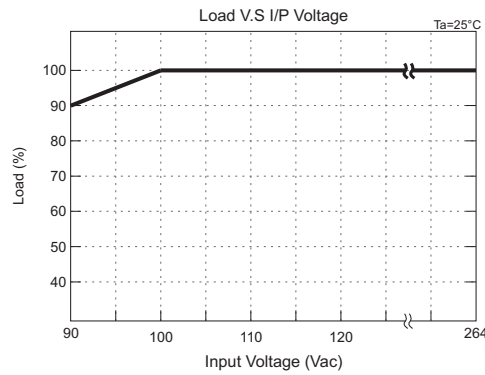
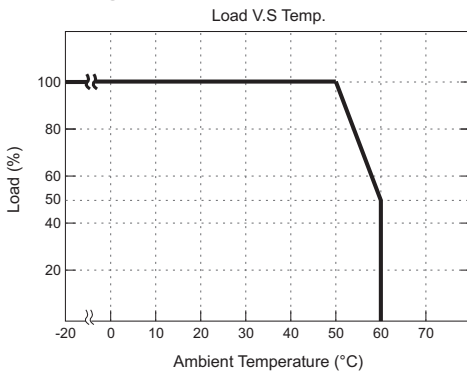
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### LED Status:

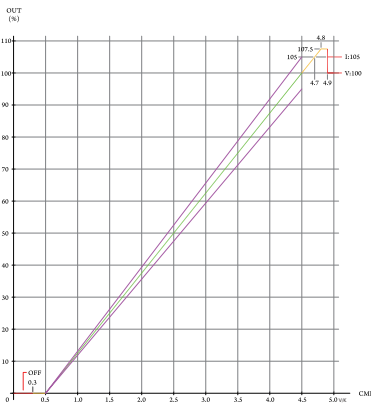
LED	LED Signal	Status
Solid(Green)		Power OK (Local mode)
Solid(Orange)		Power OK (Remote mode)
Slow Blink(Green)		Power Standby
Fast Blink(Red)		Over Voltage Protection ( OVP )
Solid(Red)		Over Load Protection ( OLP )
Slow Blink(Red)		Over Temperature Protection ( OTP )
Intermittent Blink(Red)		Fan Failure
Interface Blink(Red)		Power Failure

\*Local mode : Use ACI/VCI to control output current and voltage.  
 Remote mode : Use RS-232 or I<sup>2</sup>C command to control output current and voltage.

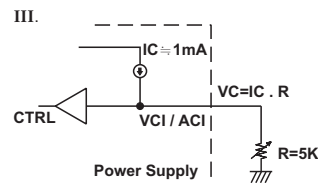
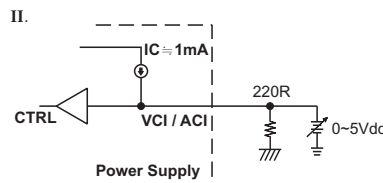
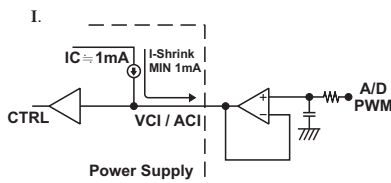
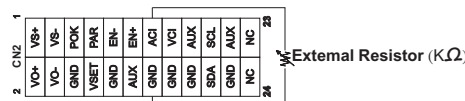
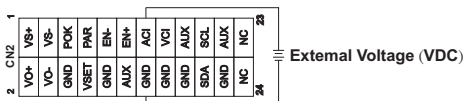
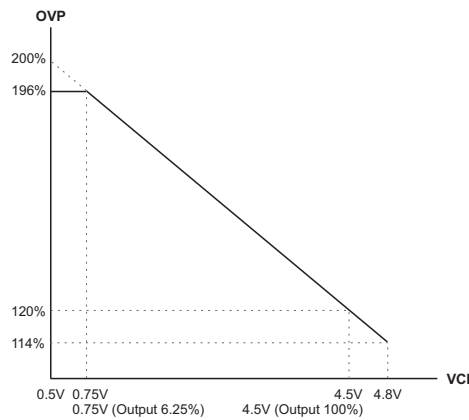
### De-rating Curve:



### CMD VS Output Curve:



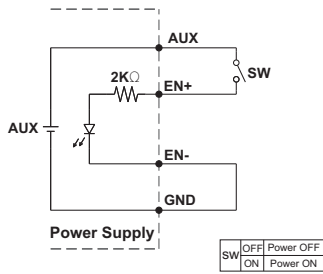
### VCI VS OVP Curve:



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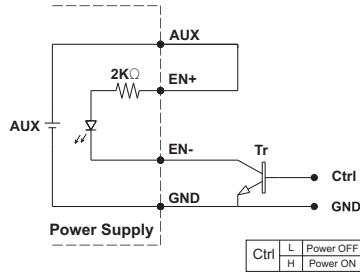
### Remote ON/OFF:

(A) Default Setting



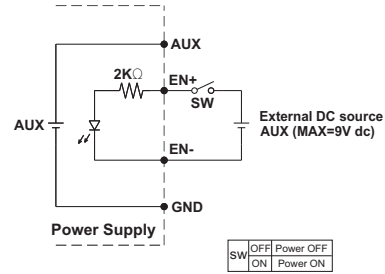
(A) Using internal 5V auxiliary source

(B)



(B) ON / OFF Control by NPN transistor

(C)

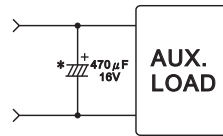
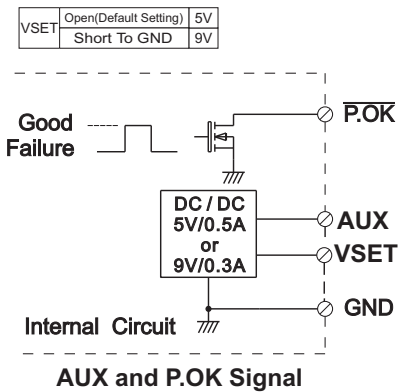


(C) Using external voltage source

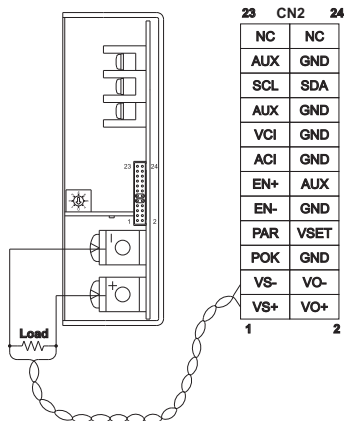
### Power OK Signal:

\*The grounding of "AUX" power should be connected to "GND" port. If "V-" is connected as Grounding, make sure to short the GND and V- ports.

\*Place an additional capacitor to have a better performance of auxiliary power operation.

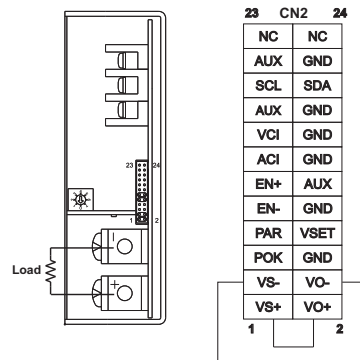


1. Remote Sense



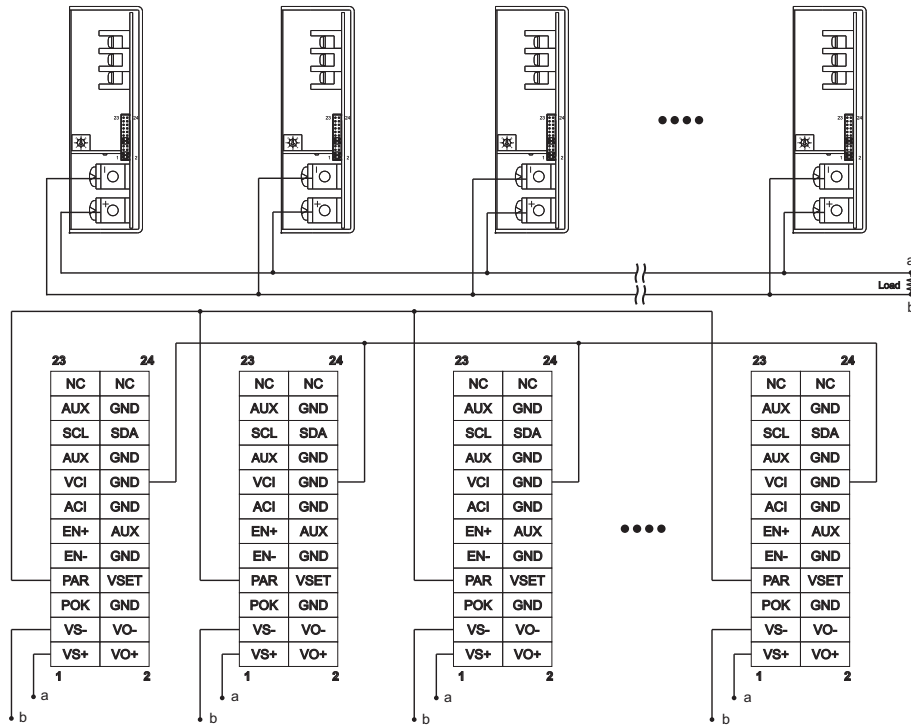
VS-,VS+ Compensation Voltage < 0.5V

2. Local Sense (Default setting)



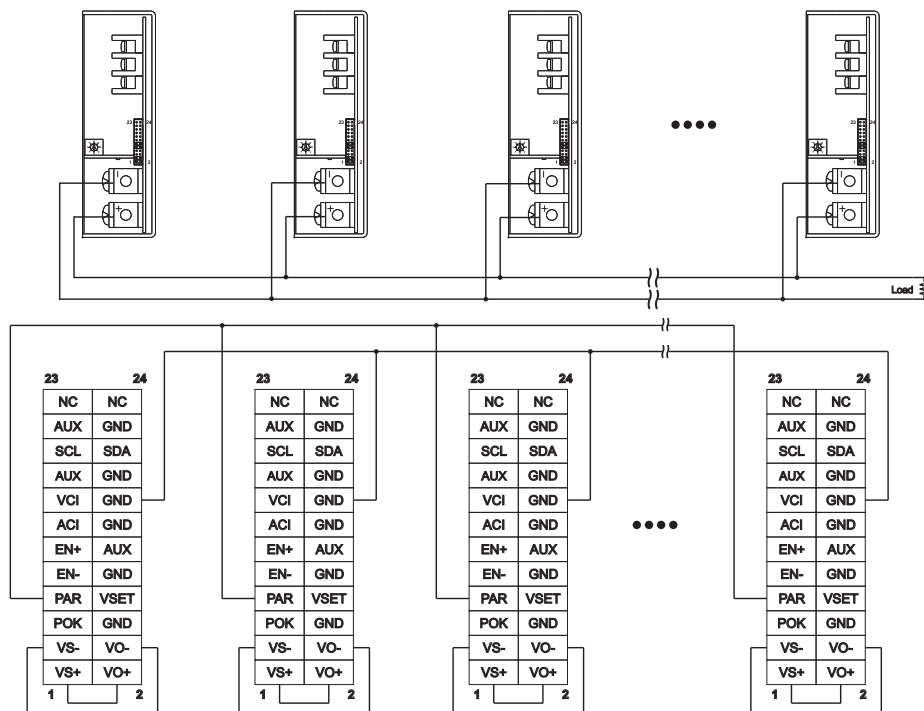
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### 3. Current Sharing with Remote Sensing (Parallel Connection)



Please connect PAR pins together for current sharing function

### 4. Current Sharing with Local Sensing



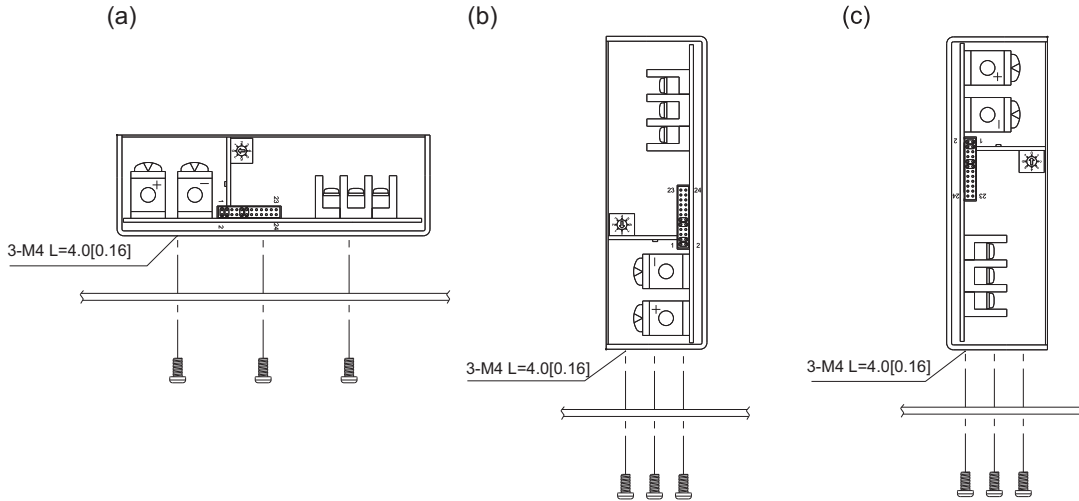
Please connect PAR pins together for current sharing function

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### Installation Instruction:

#### 1. Mounting Directions

1-1 Recommended standard mounting methods:



#### 2. Mounting Method

2-1 There are ventilating holes on the front and back side panels, do not obstruct; allow 50mm at least for air flow.

2-2 Recommended the torque of mounting screw:  
M4 screw: 1.27N · m (13.0kgf · cm)

