40W Single Output with Battery Charger (UPS Function)

DRC-40 series

UL62368-1 BS EN/EN62368-1 IEC62368-1 TPTC004

Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Battery low protection / Battery reverse polarity protection by fuse
- Can be installed on DIN rail TS-35/7.5 or 15
- Alarm signal for AC OK and Battery low (via TTL open collector, optional via relay)
- Cooling by free air convection
- Pass LPS
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

Applications

- Security system
- Emergency lighting system
- Alarm system
- DC UPS system
- Central monitoring system
- Access systems

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

DRC-40 is a 40W AC/DC DIN rail type security power supply series. In addition to the primary output, there is a charger output with a smaller rated current, enabling the backup power supply application the security access systems require. DRC-40 accepts the universal input between 90VAC and 264VAC, and supplies 13.8VDC and 27.6VDC at output, respectively. With the efficiency up to 87%, it can operate with air convection cooling under -30℃ through 70℃. In addition to the key protection features such as overload protection, over voltage protection, battery low cut off, and battery reverse polarity protection (by fuse), the alarm signal for AC OK and battery low signaling is provided, via TTL open collector output for the standard model (via relay contact output as the optional model), to facilitate the system design.

Model Encoding

DRC - 40 A

- A: Output voltage
- 40: Output wattage
- DRC: Series name

SPECIFICATION

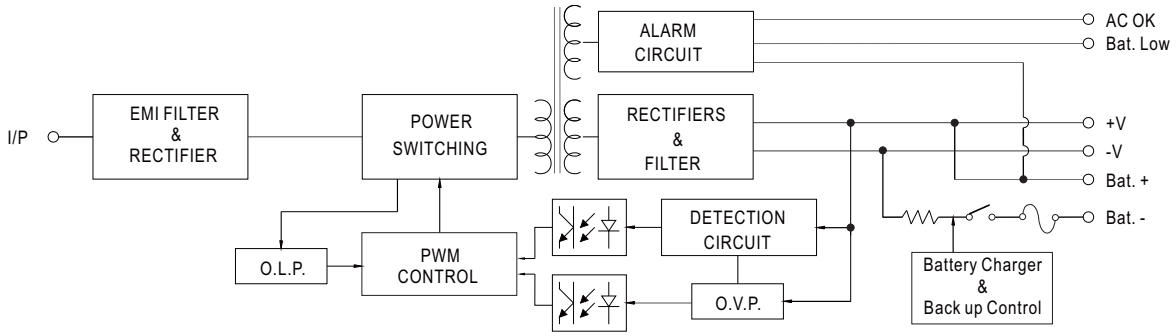
MODEL		DRC-40A		DRC-40B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	13.8V	13.8V	27.6V	27.6V
	RATED CURRENT	1.9A	1A	0.95A	0.5A
	CURRENT RANGE	0 ~ 2.9A	--------	0 ~ 1.45A	--------
	RATED POWER	40.02W		40.02W	
	RIPPLE & NOISE (max.) Note.2	120mVp-p	--------	200mVp-p	--------
	VOLTAGE ADJ. RANGE	CH1:12 ~ 15V		CH1:24 ~ 30V	
	VOLTAGE TOLERANCE Note.3	±1.0%	--------	±1.0%	--------
	LINE REGULATION	±0.5%	--------	±0.5%	--------
	LOAD REGULATION	±0.5%	--------	±0.5%	--------
	SETUP, RISE TIME Note.4	400ms, 50ms/230VAC 800ms, 50ms/115VAC at full load			
	HOLD UP TIME (Typ.)	50ms/230VAC 10ms/115VAC at full load			
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC [DC input operation possible by connecting AC/L(+), AC/N(-)]			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	86%		87%	
	AC CURRENT (Typ.)	0.8A/115VAC 0.6A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 30A/115VAC 60A/230VAC			
PROTECTION	OVERLOAD	105 ~ 150% rated output power			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	CH1:14.49 ~ 18.63V		CH1:28.98 ~ 37.26V	
		Protection type : Shut down o/p voltage, re-power on to recover			
	BATTERY CUT OFF	10±0.5V		20±1V	
FUNCTION	AC OK	Open collector output, CONTACT : AC OK ; CUT OFF : AC Fail ; max. rating : 50V/30mA			
	BATTERY LOW	Open collector output, CUT OFF : Battery ; CONTACT : Battery Low ; max. rating : 50V/30mA			
		Battery low voltage : < 11V		Battery low voltage : < 22V	
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 55℃) on CH1 output			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004, AS/NZS 60950.1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020			
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61204-3, light industry level, EAC TP TC 020			
OTHERS	MTBF	2496.2K hrs min. Telcordia SR-332 (Bellcore) ; 536.6K hrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	40*90*100mm (W*H*D)			
	PACKING	0.3Kg; 42pcs/13.6Kg/0.82CUFT			

NOTE

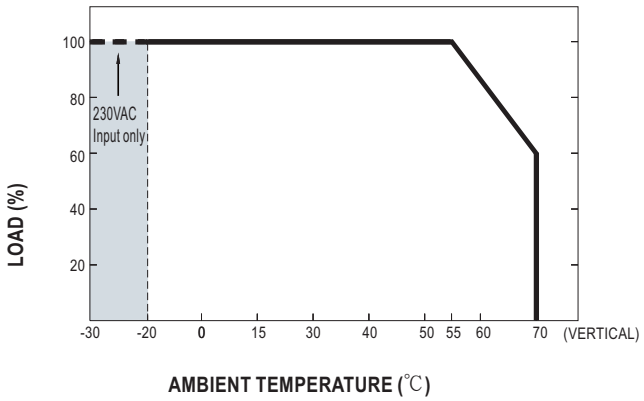
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
6. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended.
7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
8. The battery voltage is lower than the CUTOFF voltage and cannot perform AC reset charging.

※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

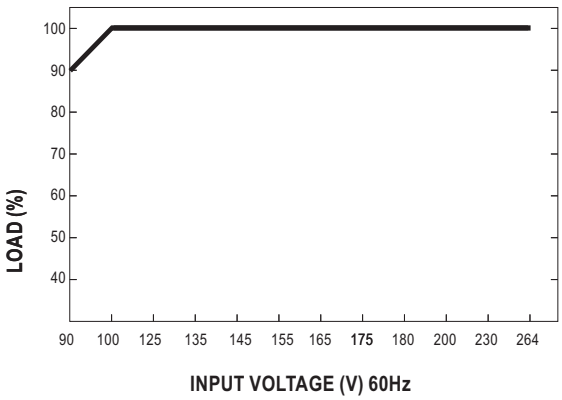
■ Block Diagram



■ Derating Curve



■ Static Characteristics



■ Suggested Application

1.Backup connection for AC interruption

(1) Please refer to Fig1.1 for suggested connection.

The power supply charges the battery and provides energy to the load at the same time when AC mains is OK.

The battery starts to supply power to the load when AC mains fails.

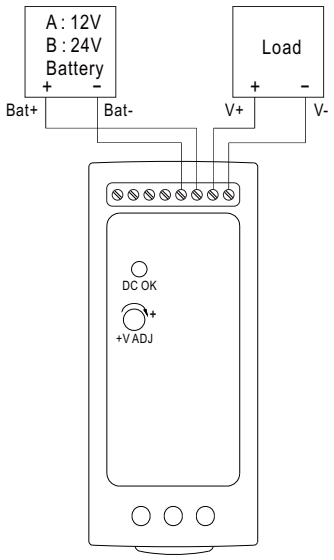


Fig 1.1 Suggested system connection

2.Alarm signal for AC OK and battery low

(1) Alarm signal is sent out through " AC OK " & " Battery Low " pins.(TTL open collector output is provided for standard model, and relay contact output is provided as optional model.)

(2) An external voltage source is required for this function. The maximum applied voltage is 50V and the maximum sink current is 30mA. Please refer to Fig 2.2.

(3) Table2.1 explains the alarm function built in the power supply

Function	Description	Output of alarm
AC OK	The signal is "Low" when the power supply turns ON.	Low (0.3V max. at 30mA)
	The signal turns to be "High" when the power supply turns OFF.	High or open (External applied voltage 50V max.)
Battery Low	The signal is "Low" when the voltage of battery is under A:11V, B:22V.	Low (0.3V max. at 30mA)
	The signal is "High" when the voltage of battery is above A:11V, B:22V.	High or open (External applied voltage 50V max.)

Table 2.1 Explanation of alarm signal

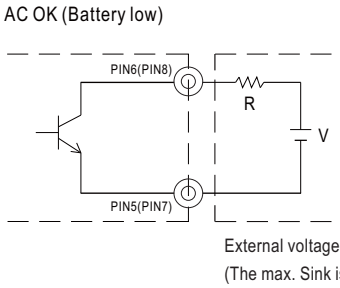
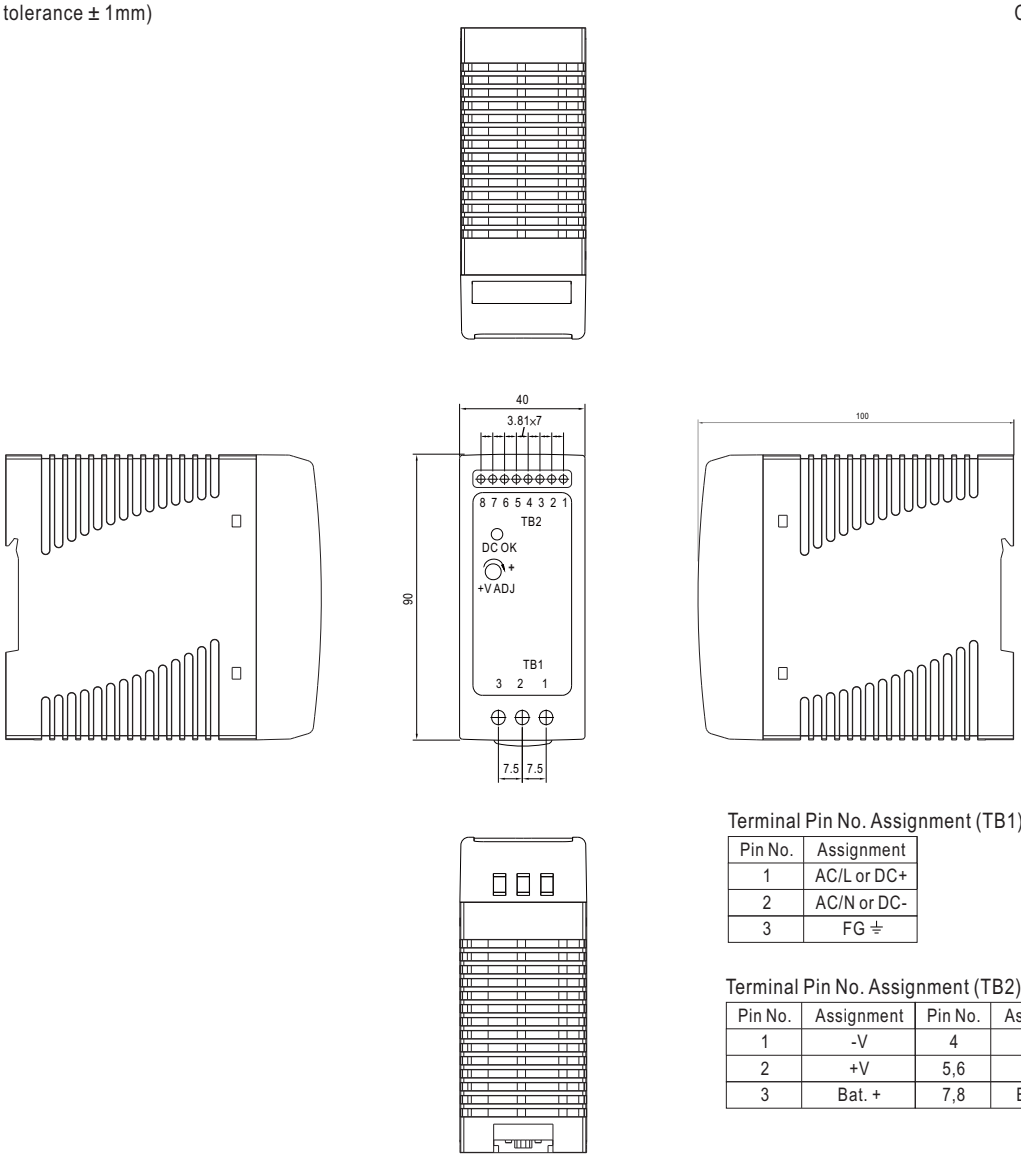


Fig 2.2 Internal circuit of AC OK (Battery Low), via TTL open collector

■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)

Case No.962A



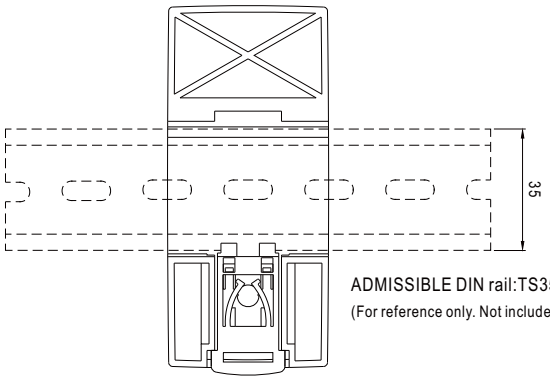
Terminal Pin No. Assignment (TB1):

Pin No.	Assignment
1	AC/L or DC+
2	AC/N or DC-
3	FG ⏚

Terminal Pin No. Assignment (TB2):

Pin No.	Assignment	Pin No.	Assignment
1	-V	4	Bat. -
2	+V	5,6	AC OK
3	Bat. +	7,8	Bat. Low

■ Installation Instruction



ADMISSIBLE DIN rail:TS35/7.5 OR TS35/15

(For reference only. Not included with unit.)

Back View

This series fits DIN rail TS35/7.5 or TS35/15.

For installation details, please refer to the Instruction manual.

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html

60W Single Output with Battery Charger (UPS Function) DRC-60 series

UL62368-1 BS EN/EN62368-1 IEC62368-1 TPTC004

Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Battery low protection / Battery reverse polarity protection by fuse
- Can be installed on DIN rail TS-35/7.5 or 15
- Alarm signal for AC OK and Battery low via relay contact
- Cooling by free air convection
- Pass LPS
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

Applications

- Security system
- Emergency lighting system
- Alarm system
- DC UPS system
- Central monitoring system
- Access systems

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

DRC-60 is a 60W AC/DC DIN rail type security power supply series. In addition to the primary output, there is a charger output with a smaller rated current, enabling the backup power supply application the security access systems require. DRC-60 accepts the universal input between 90VAC and 264VAC, and supplies 13.8VDC and 27.6VDC at output, respectively. With the efficiency up to 88%, it can operate with air convection cooling under -30℃ through 70℃. In addition to the key protection features such as overload protection, over voltage protection, battery low cut off, and battery reverse polarity protection (by fuse), the alarm signal for AC OK and battery low signaling is provided, via relay contact output, to facilitate the system design.

Model Encoding

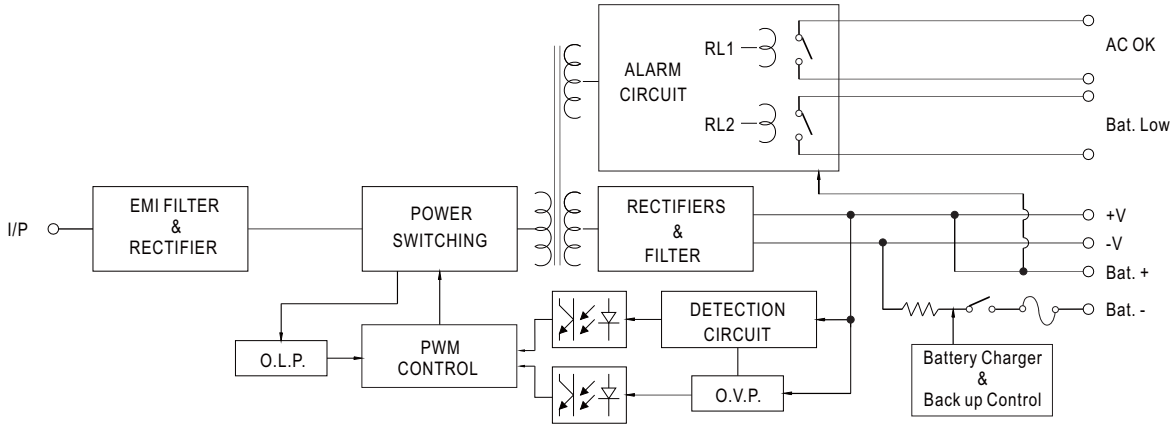
DRC - 60 A

- A: Output voltage
- 60: Output wattage
- DRC: Series name

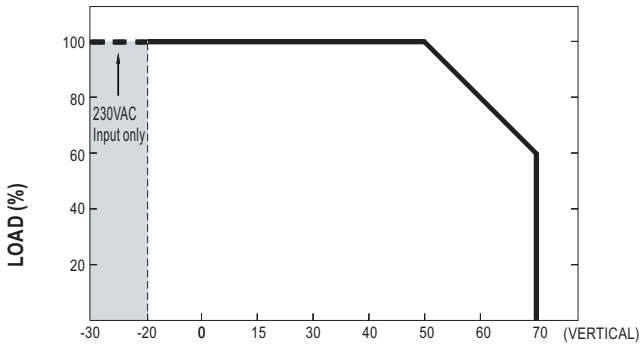
SPECIFICATION

MODEL		DRC-60A		DRC-60B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	13.8V	13.8V	27.6V	27.6V
	RATED CURRENT	2.8A	1.5A	1.4A	0.75A
	CURRENT RANGE	0 ~ 4.3A	--------	0 ~ 2.15A	--------
	RATED POWER	59.34W		59.34W	
	RIPPLE & NOISE (max.) Note.2	120mVp-p	--------	200mVp-p	--------
	VOLTAGE ADJ. RANGE	CH1:12 ~ 15V		CH1:24 ~ 30V	
	VOLTAGE TOLERANCE Note.3	±1.0%	--------	±1.0%	--------
	LINE REGULATION	±0.5%	--------	±0.5%	--------
	LOAD REGULATION	±0.5%	--------	±0.5%	--------
	SETUP, RISE TIME Note.4	400ms, 50ms/230VAC 800ms, 50ms/115VAC at full load			
	HOLD UP TIME (Typ.)	50ms/230VAC 10ms/115VAC at full load			
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC [DC input operation possible by connecting AC/L(+), AC/N(-)]			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	86%		88%	
	AC CURRENT (Typ.)	1.3A/115VAC 0.8A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 30A/115VAC 60A/230VAC			
PROTECTION	OVERLOAD	105 ~ 150% rated output power			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	CH1:14.49 ~ 18.63V		CH1:28.98 ~ 37.26V	
		Protection type : Shut down o/p voltage, re-power on to recover			
	BATTERY CUT OFF	10±0.5V		20±1V	
FUNCTION	AC OK	Relay contact output, ON : AC OK ; OFF : AC Fail ; max. rating : 30V/1A			
	BATTERY LOW	Relay contact output, OFF : Battery OK ; ON : Battery Low ; max. rating : 30V/1A			
		Battery low voltage : < 11V		Battery low voltage : < 22V	
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃) on CH1 output			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004, AS/NZS 60950.1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020			
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61204-3, light industry level, EAC TP TC 020			
OTHERS	MTBF	1854.1K hrs min. Telcordia SR-332 (Bellcore) ; 504.1K hrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	40*90*100mm (W*H*D)			
	PACKING	0.3Kg; 42pcs/13.6Kg/0.82CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ & 47 μ F parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. 5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.(as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) 6. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended. 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). 8. The battery voltage is lower than the CUTOFF voltage and cannot perform AC reset charging. ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx				

■ Block Diagram

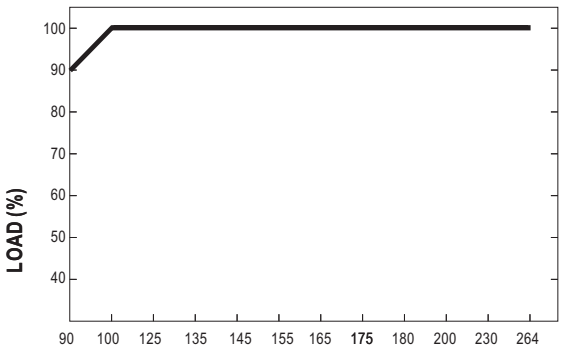


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



INPUT VOLTAGE (V) 60Hz

■ Suggested Application

1.Backup connection for AC interruption

(1) Please refer to Fig1.1 for suggested connection.

The power supply charges the battery and provides energy to the load at the same time when AC mains is OK.

The battery starts to supply power to the load when AC mains fails.

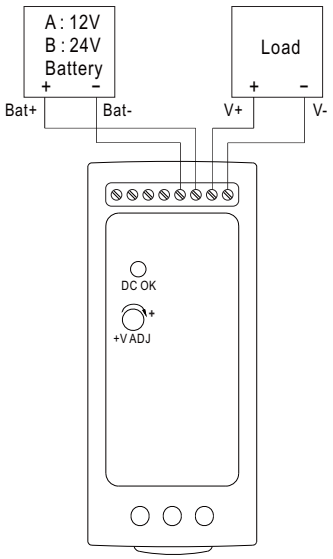


Fig 1.1 Suggested system connection

2.Alarm signal for AC OK and battery low

(1) Alarm Signal is sent out through " AC OK " & " Battery Low " pins via relay contact.

(2) An external voltage source is required for this function. The maximum applied voltage is 30V and the maximum sink current is 1A. Please refer to Fig 2.2.

(3) Table2.1 explains the alarm function built in the power supply

(4) AC OK signal (RL1,referring to Block Diagram) will go into hiccup mode when the overload protecton is activated.

Function	Description	Output of alarm
AC OK	The signal is "Low" when the power supply turns ON.	Low or short
	The signal turns to be "High" when the power supply turns OFF.	High or open (External applied voltage 30V max.)
Battery Low	The signal is "Low" when the voltage of battery is under A:11V, B:22V.	Low or short
	The signal is "High" when the voltage of battery is above A:11V, B:22V.	High or open (External applied voltage 30V max.)

Table 2.1 Explanation of alarm signal

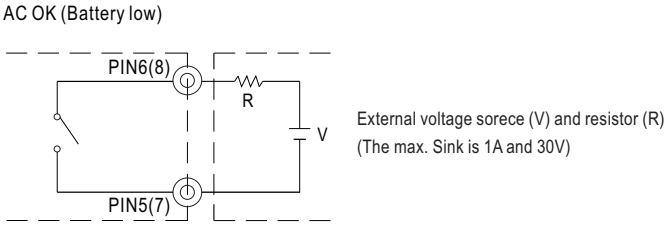
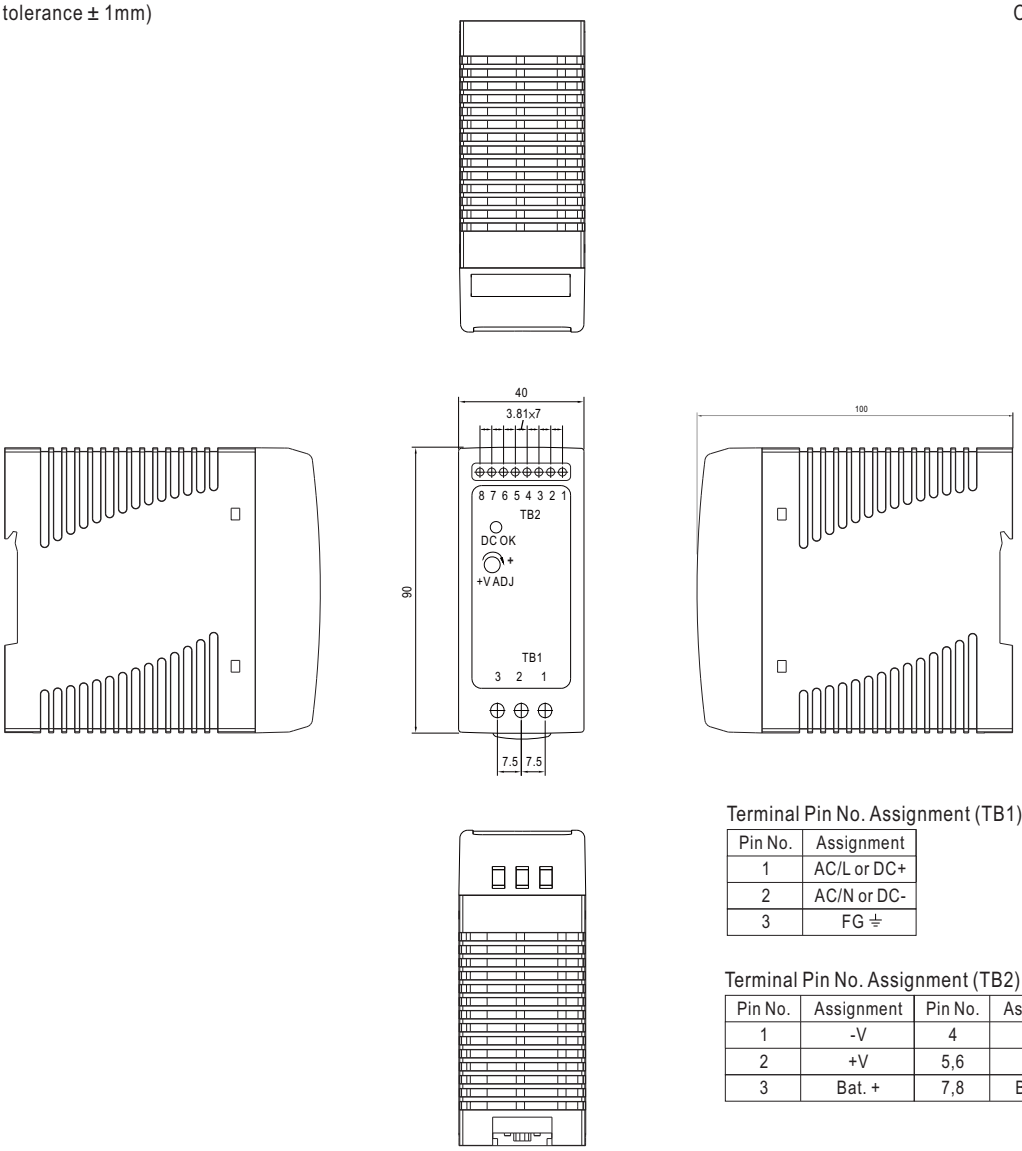


Fig 2.2 Internal circuit of AC OK (Battery Low), via relay contact

■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)

Case No.962A



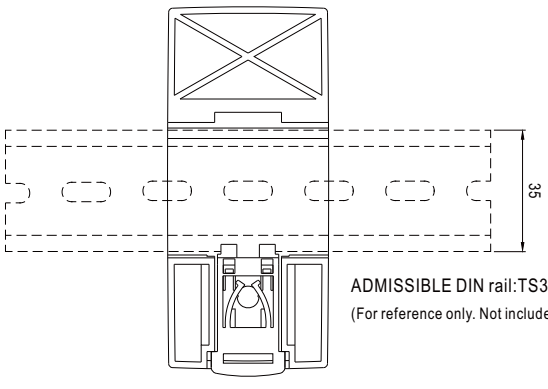
Terminal Pin No. Assignment (TB1):

Pin No.	Assignment
1	AC/L or DC+
2	AC/N or DC-
3	FG ⏚

Terminal Pin No. Assignment (TB2):

Pin No.	Assignment	Pin No.	Assignment
1	-V	4	Bat. -
2	+V	5,6	AC OK
3	Bat. +	7,8	Bat. Low

■ Installation Instruction



ADMISSIBLE DIN rail:TS35/7.5 OR TS35/15

(For reference only. Not included with unit.)

Back View

This series fits DIN rail TS35/7.5 or TS35/15.

For installation details, please refer to the Instruction manual.

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html

100W Single Output with Battery Charger (UPS Function) DRC-100 series

AS/NZS60950-1 UL62368-1 BS EN/EN62368-1 IEC62368-1 TPTC004

Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Battery low protection / Battery reverse polarity protection by fuse
- Can be installed on DIN rail TS-35/7.5 or 15
- Alarm signal for AC OK and Battery low (via relay)
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

Applications

- Security system
- Emergency lighting system
- Alarm system
- DC UPS system
- Central monitoring system
- Access systems

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

DRC-100 is a 96W AC/DC DIN rail type security power supply series. In addition to the primary output, there is a charger output with a smaller rated current, enabling the backup power supply application the security access systems require. DRC-100 accepts the universal input between 90VAC and 264VAC, and supplies 13.8VDC and 27.6VDC at output, respectively. With the efficiency up to 89%, it can operate with air convection cooling under -30℃ through 70℃. In addition to the key protection features such as overload protection, over voltage protection, battery low cut off, and battery reverse polarity protection (by fuse), the alarm signal for AC OK and battery low signaling is provided, via relay contact output, to facilitate the system design.

Model Encoding

DRC - 100 A

- A: Output voltage
- 100: Output wattage
- DRC: Series name

SPECIFICATION

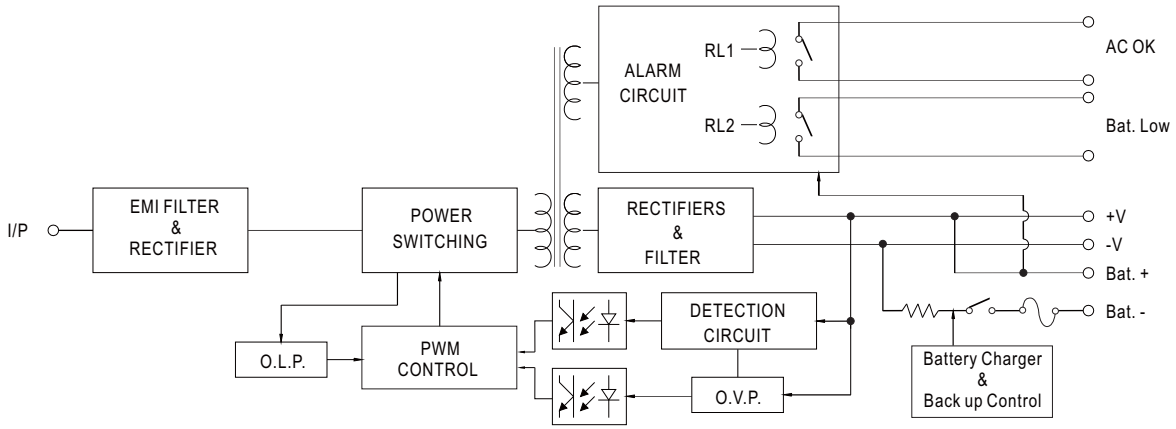
MODEL		DRC-100A		DRC-100B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	13.8V	13.8V	27.6V	27.6V
	RATED CURRENT	4.5A	2.5A	2.25A	1.25A
	CURRENT RANGE	0 ~ 7A	--------	0 ~ 3.5A	--------
	RATED POWER	96.6W		96.6W	
	RIPPLE & NOISE (max.) Note.2	120mVp-p	--------	240mVp-p	--------
	VOLTAGE ADJ. RANGE	CH1:12 ~ 15V		CH1:24 ~ 30V	
	VOLTAGE TOLERANCE Note.3	±1.0%	--------	±1.0%	--------
	LINE REGULATION	±0.5%	--------	±0.5%	--------
	LOAD REGULATION	±0.5%	--------	±0.5%	--------
	SETUP, RISE TIME Note.4	2400ms, 50ms/230VAC 2400ms, 50ms/115VAC at full load			
	HOLD UP TIME (Typ.)	50ms/230VAC 10ms/115VAC at full load			
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC [DC input operation possible by connecting AC/L(+), AC/N(-)]			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	87%		89%	
	AC CURRENT (Typ.)	1.8A/115VAC 1.1A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 30A/115VAC 60A/230VAC			
PROTECTION	OVERLOAD	105 ~ 150% rated output power			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	CH1:14.49 ~ 18.63V		CH1:28.98 ~ 37.26V	
		Protection type : Shut down o/p voltage, re-power on to recover			
	BATTERY CUT OFF	10±0.5V		20±1V	
FUNCTION	AC OK	Relay contact output, ON : AC OK ; OFF : AC Fail ; max. rating : 30V/1A			
	BATTERY LOW	Relay contact output, OFF : Battery OK ; ON : Battery Low ; max. rating : 30V/1A			
		Battery low voltage : < 11V		Battery low voltage : < 22V	
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃) on CH1 output			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004, AS/NZS 60950.1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020			
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11,BS EN/EN55035,BS EN/EN61204-3, light industry level, EAC TP TC 020 ; meet BS EN/EN54-4 for fire detection and fire alarm systems			
OTHERS	MTBF	1820.4K hrs min. Telcordia SR-332 (Bellcore) ; 410.1K hrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	55*90*100mm (W*H*D)			
	PACKING	0.37Kg; 30pcs/12.1Kg/0.82CUFT			

NOTE

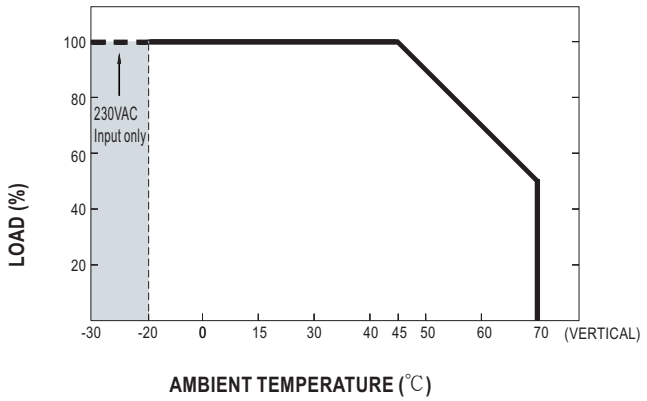
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
6. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended.
7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
8. The battery voltage is lower than the CUTOFF voltage and cannot perform AC reset charging.

※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

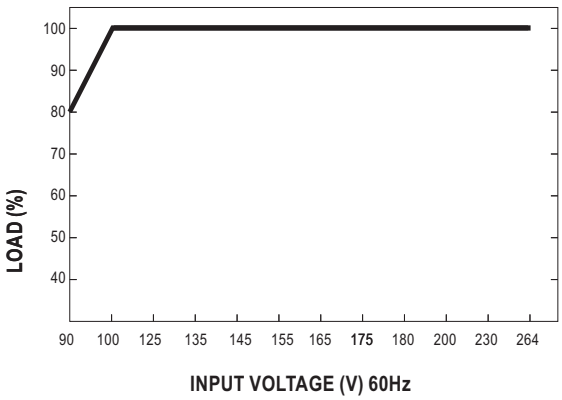
■ Block Diagram



■ Derating Curve



■ Static Characteristics



■ Suggested Application

1.Backup connection for AC interruption

(1) Please refer to Fig1.1 for suggested connection.

The power supply charges the battery and provides energy to the load at the same time when AC mains is OK.

The battery starts to supply power to the load when AC mains fails.

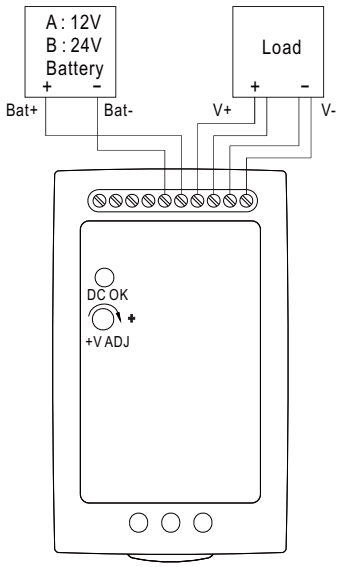


Fig 1.1 Suggested system connection

2.Alarm signal for AC OK and battery low

(1) Alarm signal is sent out through " AC OK " & " Battery Low " pins via relay contact.

(2) An external voltage source is required for this function. The maximum applied voltage is 30V and the maximum sink current is 1A. Please refer to Fig 2.2.

(3) Table2.1 explains the alarm function built in the power supply

(4) AC OK signal (RL1, referring to Block Diagram) will go into hiccup mode when the overload protection is activated.

Function	Description	Output of alarm
AC OK	The signal is "Low" when the power supply turns ON.	Low or short
	The signal turns to be "High" when the power supply turns OFF.	High or open (External applied voltage 30V max.)
Battery Low	The signal is "Low" when the voltage of battery is under A:11V, B:22V.	Low or short
	The signal is "High" when the voltage of battery is above A:11V, B:22V.	High or open (External applied voltage 30V max.)

Table 2.1 Explanation of alarm signal

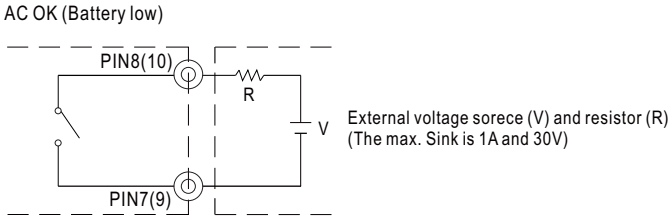
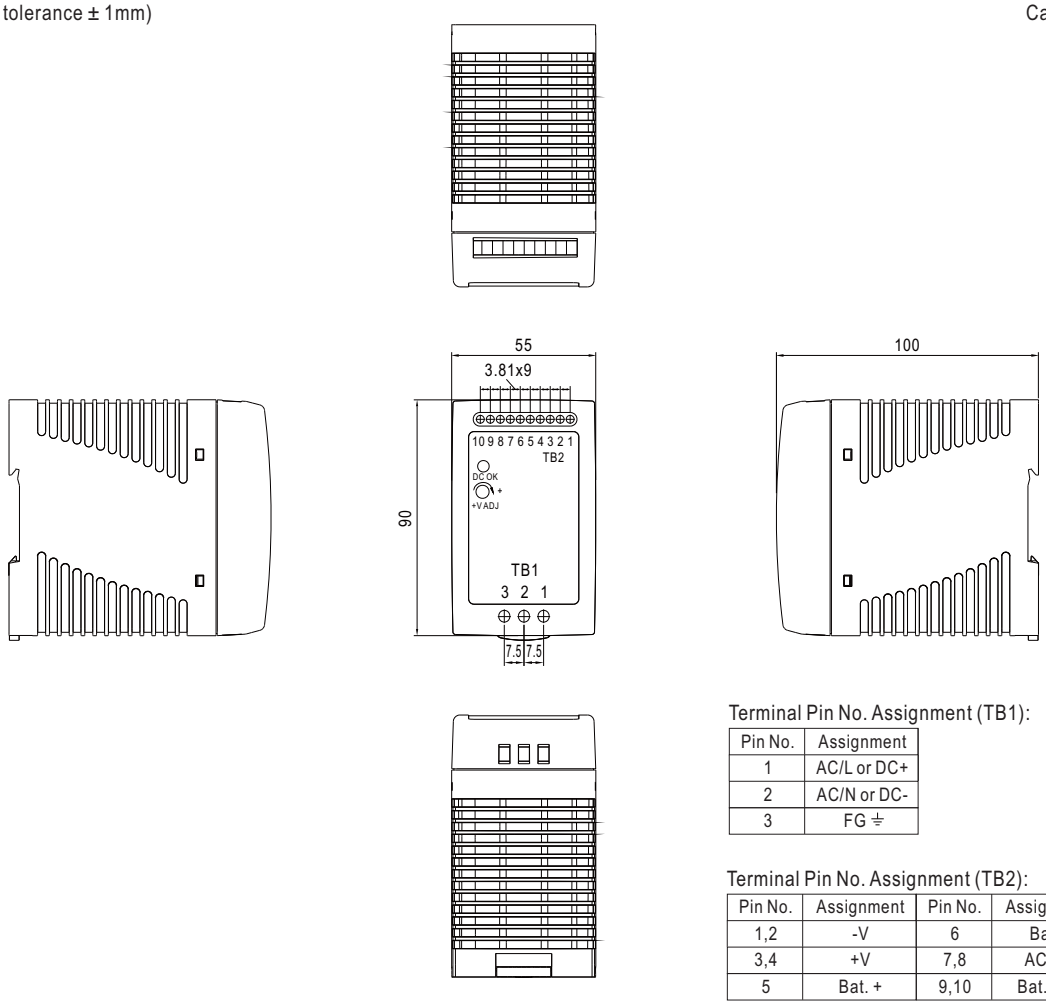


Fig 2.2 Internal circuit of AC OK (Battery Low), via relay contact

■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)

Case No.973A



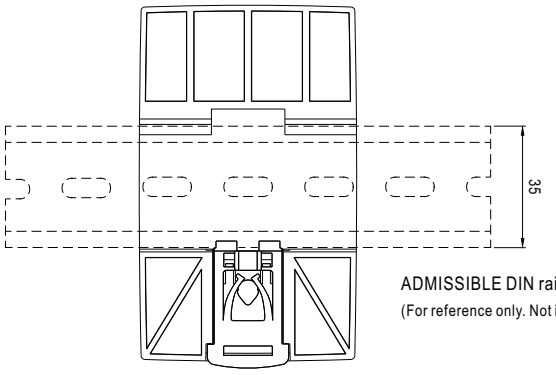
Terminal Pin No. Assignment (TB1):

Pin No.	Assignment
1	AC/L or DC+
2	AC/N or DC-
3	FG ⏚

Terminal Pin No. Assignment (TB2):

Pin No.	Assignment	Pin No.	Assignment
1,2	-V	6	Bat. -
3,4	+V	7,8	AC OK
5	Bat. +	9,10	Bat. Low

■ Installation Instruction



Back View

This series fits DIN rail TS35/7.5 or TS35/15.
For installation details, please refer to the Instruction manual.

ADMISSIBLE DIN rail:TS35/7.5 OR TS35/15
(For reference only. Not included with unit.)

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html

180W Single Output with Battery Charger(UPS Function) DRC-180 series

User's Manual

UL62368-1 BS EN/EN62368-1 TPTC004 AS/NZS 62368.1 IEC62368-1

Automate Industrial Security Network Telecom

Features

- Universal AC input / Full range
- Built-in active PFC function
- Alarm signal for AC OK and Battery Low(Via Relay)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Battery low protection / Battery reverse polarity protection by fuse
- Cooling by free air convection
- -20 ~ +70℃ wide operating temperature
- Can be installed on DIN rail TS-35/7.5 or 15
- DC output voltage adjustable (+20%)
- LED indication for Power on
- Operating altitude up to 5000 meters (Note.6)
- 3 years warranty

Applications

- Security system
- Emergency lighting system
- Alarm system
- UPS system
- Central monitoring system
- Access systems

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

DRC-180 is a 180W AC/DC DIN rail type security power supply series. In addition to the primary output, there is a charger output with a smaller rated current, enabling the backup power supply application the security access systems require. DRC-180 accepts the universal input between 90VAC and 264VAC, and supplies 13.8VDC and 27.6VDC at output, respectively. With the efficiency up to 90%, it can operate with air convection cooling under -20℃ through 70℃. In addition to the key protection features such as overload protection,over voltage protection, battery low cut off, and battery reverse polarity protection (by fuse), the alarm signal for AC OK and battery low signaling is provided, via relay contact output, to facilitate the system design.

Model Encoding

DRC- 180 A

- A: Output voltage(A: 13.8V , B: 27.6V)
- 180: Rated wattage
- DRC: Series name

180W Single Output with Battery Charger(UPS Function) DRC-180 series

SPECIFICATION

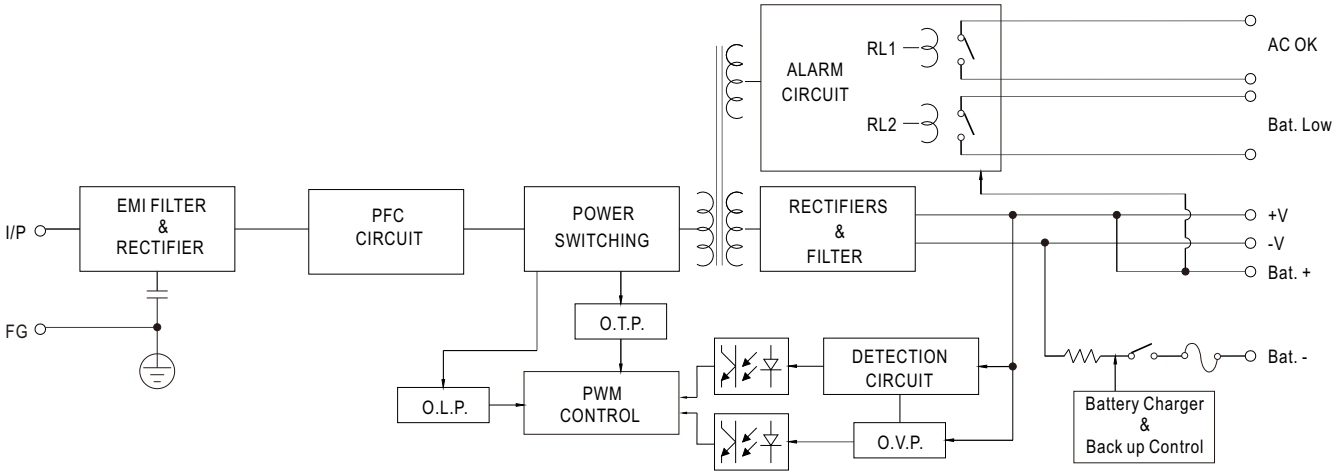
MODEL		DRC-180A		DRC-180B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	13.8V	13.8V	27.6V	27.6V
	RATED CURRENT	9A	4A (Battery charger)	4.5A	2A (Battery charger)
	CURRENT RANGE	0 ~ 13A	--------	0 ~ 6.5A	--------
	RATED POWER	179.4W		179.4W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	--------	240mVp-p	--------
	VOLTAGE ADJ. RANGE	CH1: 12 ~ 15V		CH1: 24 ~ 29V	
	VOLTAGE TOLERANCE Note.3	±1.0%	--------	±1.0%	--------
	LINE REGULATION	±0.5%	--------	±0.5%	--------
	LOAD REGULATION	±0.5%	--------	±0.5%	--------
	SETUP, RISE TIME Note.4	2000ms, 30ms/230VAC 2000ms, 30ms/115VAC at full load			
	HOLD UP TIME (Typ.)	20ms/230VAC 20ms/115VAC at full load			
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	PF≧0.95/230VAC PF≧0.98/115VAC at full load			
	EFFICIENCY (Typ.)	88%		90%	
	AC CURRENT (Typ.)	2.5A/115VAC 1.5A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 35A/115VAC 70A/230VAC			
	LEAKAGE CURRENT	<2mA / 240VAC			
PROTECTION	OVERLOAD	105 ~ 150% rated output power			
		Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	CH1:15.8 ~ 19.5V		CH1:30.5 ~ 37.7V	
		Protection type : Shut down o/p voltage, re-power on to recover			
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover			
	BATTERY CUT OFF	10±0.5V		20±1V	
ALARM FUNCTION	AC OK Note.5	Relay contact output, Closed : AC OK ; Open : AC Fail ; Max. rating : 30V / 1A			
	BATTERY LOW	Relay contact output, Open : Battery OK ; Closed : Battery Low ; Max. rating : 30V / 1A			
		Battery low voltage : < 11V		Battery low voltage : < 22V	
ENVIRONMENT	WORKING TEMP.	-20 ~ +70℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH non-condensing			
	TEMP. COEFFICIENT	±0.03%/℃ (0~40℃) on CH1 output			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
	OPERATING ALTITUDE Note.6	5000 meters / OVC Ⅱ			
	OVER VOLTAGE CATEGORY	Ⅱ; According to Dekra BS EN/EN62368-1; altitude up to 5000 meters			
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL62368-1, Dekra BS EN/EN62368-1, EAC TP TC 004, AS/NZS 62368.1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2.0KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMC EMISSION	**Parameter**	**Standard**	**Test Level / Note**	
		Radiated	BS EN/EN55032(CISPR32)	Class B	
		Conducted	BS EN/EN55032(CISPR32)	Class B	
	EMC IMMUNITY	BS EN/EN55024			
		Parameter	**Standard**	**Test Level / Note**	
		ESD	BS EN/EN61000-4-2	Level 3, 8KV air ; Level 2, 4KV contact ; criteria A	
		Radiated	BS EN/EN61000-4-3	Level 2, 3V/m ; criteria A	
		EFT / Burst	BS EN/EN61000-4-4	Level 2, 1KV ; criteria A	
		Surge	BS EN/EN61000-4-5	Level 3, 1KV/Line-Line 2KV/Line-Earth ; criteria A	
		Conducted	BS EN/EN61000-4-6	Level 2, 3V ; criteria A	
		Magnetic Field	BS EN/EN61000-4-8	Level 1, 1A/m ; criteria A	
		Voltage Dips and Interruptions	BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods	
OTHERS	MTBF	1536.3K hrs min. Telcordia SR-332 (Bellcore); 245.6K hrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	63*125.2*115mm (W*H*D)			
	PACKING	0.71Kg; 12pcs/10.5Kg/1.02CUFT			

NOTE

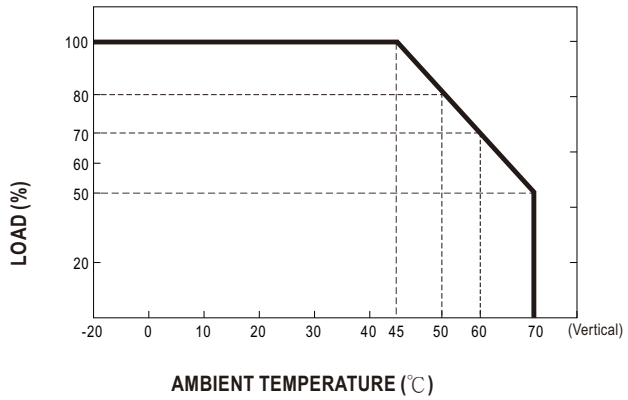
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
5. Please refer to suggested Application 2.(2)、(3) in page 4.
6. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
7. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)
8. The battery voltage is lower than the CUTOFF voltage and cannot perform AC reset charging.

※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

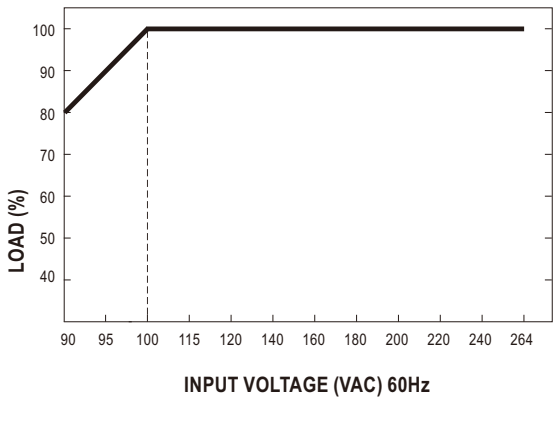
■ Block Diagram



■ Output Derating



■ Output Derating VS Input Voltage



■ Suggested Application

1.Backup connection for AC interruption

(1) Please refer to the Fig1.1 for suggested connection.

The power supply charges the battery and provides energy to the load at the same time when the AC main is OK.

The battery starts to supply power to the load when the AC mains fails.

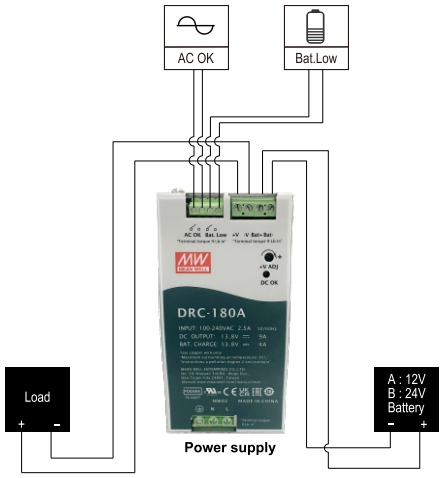


Fig 1.1 Suggested system connection

2.Alarm signal for AC OK and Battery Low

(1) Alarm signal is sent out through " AC OK " & " Battery Low " pins.(relay contact type)

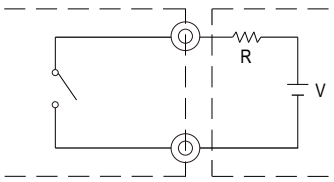
(2) An external voltage source is required for this function. The maximum applied voltage is 30V and the maximum sink current is 1A.

(3) Table2.1 explains the alarm function built in the power supply

Function	Description	Output of Alarm
AC OK	when the power supply turns ON	Closed
	when the power supply turns OFF	Open
Battery Low	when the voltage of battery is under A:11V, B:22V	Closed
	when the voltage of battery is above A:11V, B:22V	Open

Table 2.1 Explanation of Alarm Signal

AC OK (Battery Low)
TB3 Pin1(Pin3)



TB3 Pin2(Pin4)

External voltage source (V)
and resistor (R)
(The max. Sink is 1A and 30V)

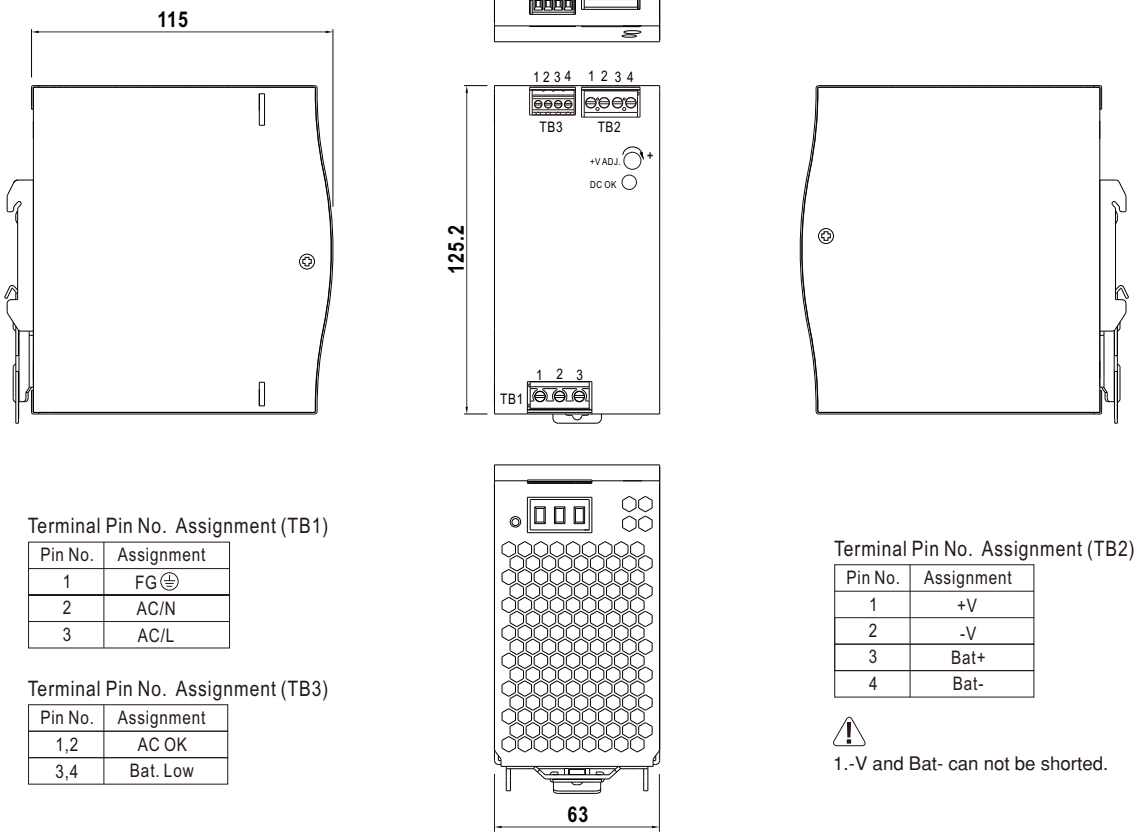
Fig 2.2 Internal circuit of AC OK (Battery Low)

(4) RL1 (AC OK)signal will go into hiccup mode when the overload protection is activating.

■ Mechanical Specification

(Unit: mm , tolerance ± 1mm)

Case No. 979G



Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin No. Assignment (TB3)

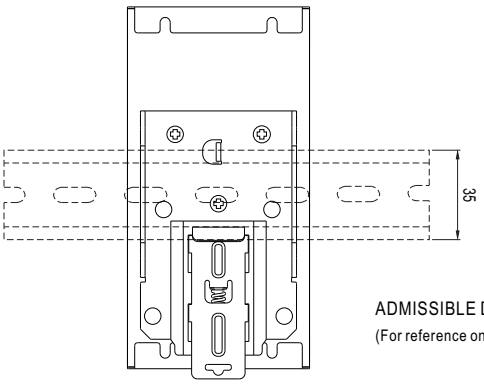
Pin No.	Assignment
1,2	AC OK
3,4	Bat. Low

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1	+V
2	-V
3	Bat+
4	Bat-

⚠ 1.-V and Bat- can not be shorted.

■ Installation Instruction



This series fits DIN rail TS35/7.5 or TS35/15.
For installation details, please refer to the Instruction manual.

ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15
(For reference only. Not included with unit.)

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html