



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH1,2 can be adjustable from -5~+10%
- With power good and fail signal output(Optional)
- Built-in remote sense function for CH1,2
- 100% full load burn-in test
- CH4 can set to positive after consult us before delivery(Optional)
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty



SPECIFICATION

| MODEL | | QP-200D | | | | QP-200F | | | | QP-200-3A | | | |
|-----------------------|--|---|----------|-----------------------------|----------|-------------------|----------|--------------------|----------|------------------|----------|-------------------|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 |
| | DC VOLTAGE | 5V | 12V | 24V | -12V | 5V | 15V | 24V | -15V | 5V | 3.3V | 12V | -5V |
| | RATED CURRENT | 15A | 4A | 3A | 0.7A | 15A | 3A | 3A | 0.7A | 15A | 15A | 6A | 0.7A |
| | CURRENT RANGE | 3 ~ 20A | 0 ~ 6A | 0.4 ~ 5A | 0 ~ 1A | 3 ~ 20A | 0 ~ 5A | 0.4 ~ 5A | 0 ~ 1A | 3 ~ 20A | 0 ~ 20A | 0.5 ~ 8A | 0 ~ 1A |
| | RATED POWER | 203.4W | | | | 202.5W | | | | 200W | | | |
| | PEAK CURRENT <small>Note.4</small> | 20A | 7A | 6A | 1A | 20A | 6A | 6A | 1A | 20A | 20A | 8A | 1A |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 100mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 100mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 4.75 ~ 5.5V | | CH2: 11.4 ~ 13.2V | | CH1: 4.75 ~ 5.5V | | CH2: 14.25 ~ 16.5V | | CH1: 4.75 ~ 5.5V | | CH2: 3.14 ~ 3.63V | |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ± 3.0% | ± 3.0% | +10,-6% | ± 6.0% | ± 3.0% | ± 3.0% | +10,-6% | ± 6.0% | ± 3.0% | ± 3.0% | +8,-10% | ± 6.0% |
| | LINE REGULATION | ± 1.0% | ± 1.0% | ± 2.0% | ± 1.0% | ± 1.0% | ± 1.0% | ± 2.0% | ± 1.0% | ± 1.0% | ± 1.0% | ± 2.0% | ± 1.0% |
| | LOAD REGULATION | ± 2.0% | ± 2.0% | ± 6.0% | ± 2.0% | ± 2.0% | ± 2.0% | ± 6.0% | ± 2.0% | ± 2.0% | ± 2.0% | ± 6.0% | ± 2.0% |
| | SETUP, RISE TIME | 800ms, 50ms at full load | | | | | | | | | | | |
| HOLD UP TIME (Typ.) | 24ms at full load | | | | | | | | | | | | |
| INPUT | VOLTAGE RANGE <small>Note.5</small> | 90 ~ 264VAC | | 127 ~ 370VDC | | | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | | | | |
| | POWER FACTOR (Typ.) | PF>0.95/230VAC | | PF>0.98/115VAC at full load | | | | | | | | | |
| | EFFICIENCY (Typ.) | 75% | | | | 75% | | | | 72% | | | |
| | AC CURRENT (Typ.) | 3.5A/115VAC | | 2A/230VAC | | | | | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 30A | | | | | | | | | | | |
| | LEAKAGE CURRENT | <2mA / 240VAC | | | | | | | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | | | | | | | |
| | OVER VOLTAGE | CH1:5.75 ~ 6.75V | | CH2:13.8 ~ 16.2V | | CH1: 5.75 ~ 6.75V | | CH2:17.25 ~ 20.25V | | CH1:5.75 ~ 6.75V | | CH2:3.8 ~ 4.4V | |
| | | Protection type : Shut down o/p voltage, re-power on to recover | | | | | | | | | | | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | | | | | | |
| FUNCTION | POWER GOOD / POWER FAIL(OPTIONAL) | 10ms/1ms | | | | | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60°C (Refer to "Derating Curve") | | | | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85°C, 10 ~ 95% RH non-condensing | | | | | | | | | | | |
| | TEMP. COEFFICIENT | ± 0.03%/°C (0~50°C) | | | | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | | | | | | | |
| SAFETY & EMC (Note 6) | SAFETY STANDARDS | UL62368-1, TUV EN62368-1, EAC TP TC 004 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°C / 70% RH | | | | | | | | | | | |
| | EMC EMISSION | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020 | | | | | | | | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020 | | | | | | | | | | | |
| OTHERS | MTBF | 160.6K hrs min. MIL-HDBK-217F (25°C) | | | | | | | | | | | |
| | DIMENSION | 215*115*50mm (L*W*H) | | | | | | | | | | | |
| | PACKING | 1.2Kg; 12pcs/15.4Kg/0.92CUFT | | | | | | | | | | | |
| NOTE | <ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. 33.3% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power. Derating may be needed under low input voltages. Please check the derating curve for more details. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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 http://www.meanwell.com) 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). | | | | | | | | | | | | |



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH1,2 can be adjustable from -5~+10%
- With power good and fail signal output(Optional)
- Built-in remote sense function for CH1,2
- 100% full load burn-in test
- CH4 can set to positive after consult us before delivery(Optional)
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty



SPECIFICATION

| MODEL | QP-200-3B | | | | QP-200-3C | | | | QP-200-3D | | | | |
|--------------------------------------|---|---|----------|-------------------|-----------|-----------------------------|----------|-------------------|-----------|------------------|----------|-------------------|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 | CH1 | CH2 | CH3 | CH4 |
| | DC VOLTAGE | 5V | 3.3V | 12V | -12V | 5V | 3.3V | 15V | -15V | 5V | 3.3V | 24V | -12V |
| | RATED CURRENT | 15A | 15A | 6A | 0.7A | 15A | 15A | 5A | 0.7A | 10A | 15A | 4A | 0.7A |
| | CURRENT RANGE | 3 ~ 20A | 0 ~ 20A | 0.5 ~ 8A | 0 ~ 1A | 3 ~ 20A | 0 ~ 20A | 0.5 ~ 6A | 0 ~ 1A | 3 ~ 15A | 0 ~ 20A | 0.4 ~ 5A | 0 ~ 1A |
| | RATED POWER | 204.9W | | | | 210W | | | | 203.9W | | | |
| | PEAK CURRENT <small>Note.4</small> | 20A | 20A | 8A | 1A | 20A | 20A | 7A | 1A | 20A | 20A | 6A | 1A |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 4.75 ~ 5.5V | | CH2: 3.14 ~ 3.63V | | CH1: 4.75 ~ 5.5V | | CH2: 3.14 ~ 3.63V | | CH1: 4.75 ~ 5.5V | | CH2: 3.14 ~ 3.63V | |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ± 3.0% | ± 3.0% | +8,-10% | ± 6.0% | ± 3.0% | ± 3.0% | +10,-6% | ± 6.0% | ± 3.0% | ± 3.0% | +10,-6% | ± 6.0% |
| | LINE REGULATION | ± 1.0% | ± 1.0% | ± 2.0% | ± 1.0% | ± 1.0% | ± 1.0% | ± 2.0% | ± 1.0% | ± 1.0% | ± 1.0% | ± 2.0% | ± 1.0% |
| | LOAD REGULATION | ± 2.0% | ± 2.0% | ± 6.0% | ± 2.0% | ± 2.0% | ± 2.0% | ± 6.0% | ± 2.0% | ± 2.0% | ± 2.0% | ± 6.0% | ± 2.0% |
| | SETUP, RISE TIME | 800ms, 50ms at full load | | | | | | | | | | | |
| HOLD UP TIME (Typ.) | 24ms at full load | | | | | | | | | | | | |
| INPUT | VOLTAGE RANGE <small>Note.5</small> | 90 ~ 264VAC | | 127 ~ 370VDC | | | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | | | | |
| | POWER FACTOR (Typ.) | PF>0.95/230VAC | | | | PF>0.98/115VAC at full load | | | | | | | |
| | EFFICIENCY (Typ.) | 72% | | | | 72% | | | | 74% | | | |
| | AC CURRENT (Typ.) | 3.5A/115VAC | | 2A/230VAC | | | | | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 30A | | | | | | | | | | | |
| | LEAKAGE CURRENT | <2mA / 240VAC | | | | | | | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | | | | | | | |
| | OVER VOLTAGE | CH1:5.75 ~ 6.75V CH2:3.8 ~ 4.4V Protection type : Shut down o/p voltage, re-power on to recover | | | | | | | | | | | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | | | | | | |
| FUNCTION | POWER GOOD / POWER FAIL(OPTIONAL) | 10ms/1ms | | | | | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60°C (Refer to "Derating Curve") | | | | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85°C, 10 ~ 95% RH non-condensing | | | | | | | | | | | |
| | TEMP. COEFFICIENT | ± 0.03%/°C (0~50°C) | | | | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | | | | | | | |
| SAFETY & EMC <small>(Note 6)</small> | SAFETY STANDARDS | UL62368-1, TUV EN62368-1, EAC TP TC 004 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°C / 70% RH | | | | | | | | | | | |
| | EMC EMISSION | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020 | | | | | | | | | | | |
| OTHERS | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020 | | | | | | | | | | | |
| | MTBF | 160.6K hrs min. MIL-HDBK-217F (25°C) | | | | | | | | | | | |
| | DIMENSION | 215*115*50mm (L*W*H) | | | | | | | | | | | |
| | PACKING | 1.2Kg; 12pcs/15.4Kg/0.92CUFT | | | | | | | | | | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 33.3% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power. 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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 http://www.meanwell.com) 7. 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). | | | | | | | | | | | | |



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- CH1,2 can be adjustable from -5~+10%
- With power good and fail signal output(Optional)
- Built-in remote sense function for CH1,2
- 100% full load burn-in test
- CH4 can set to positive after consult us before delivery(Optional)
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty

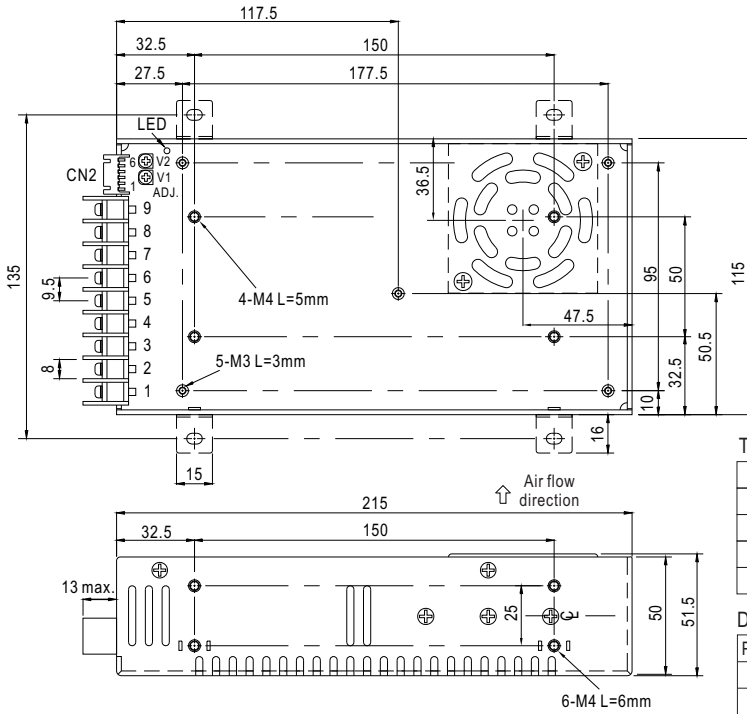


SPECIFICATION

| MODEL | | QP-200-3E | | | |
|--------------------------------------|---|---|---------|----------|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH4 |
| | DC VOLTAGE | 5V | 3.3V | 24V | -15V |
| | RATED CURRENT | 10A | 15A | 4A | 0.7A |
| | CURRENT RANGE | 3 ~ 15A | 0 ~ 20A | 0.4 ~ 5A | 0 ~ 1A |
| | RATED POWER | 206W | | | |
| | PEAK CURRENT <small>Note.4</small> | 20A | 20A | 6A | 1A |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 100mVp-p | | 150mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 4.75 ~ 5.5V CH2: 3.14 ~ 3.63V | | | |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ± 3.0% | | +10,-6% | ± 6.0% |
| | LINE REGULATION | ± 1.0% | | ± 2.0% | ± 1.0% |
| | LOAD REGULATION | ± 2.0% | | ± 6.0% | ± 2.0% |
| | SETUP, RISE TIME | 800ms, 50ms at full load | | | |
| HOLD UP TIME (Typ.) | 24ms at full load | | | | |
| INPUT | VOLTAGE RANGE <small>Note.5</small> | 90 ~ 264VAC 127 ~ 370VDC | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | POWER FACTOR (Typ.) | PF>0.95/230VAC PF>0.98/115VAC at full load | | | |
| | EFFICIENCY (Typ.) | 74% | | | |
| | AC CURRENT (Typ.) | 3.5A/115VAC 2A/230VAC | | | |
| | INRUSH CURRENT (Typ.) | COLD START 30A | | | |
| LEAKAGE CURRENT | <2mA / 240VAC | | | | |
| PROTECTION | OVERLOAD | 105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | |
| | OVER VOLTAGE | CH1:5.75 ~ 6.75V CH2:3.8 ~ 4.4V Protection type : Shut down o/p voltage, re-power on to recover | | | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | |
| FUNCTION | POWER GOOD / POWER FAIL(OPTIONAL) | 10ms/1ms | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60°C (Refer to "Derating Curve") | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85°C , 10 ~ 95% RH non-condensing | | | |
| | TEMP. COEFFICIENT | ± 0.03%/°C (0~50°C) | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | |
| SAFETY & EMC <small>(Note 6)</small> | SAFETY STANDARDS | UL62368-1, TUV EN62368-1, EAC TP TC 004 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°C / 70% RH | | | |
| | EMC EMISSION | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020 | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020 | | | |
| OTHERS | MTBF | 160.6K hrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 215*115*50mm (L*W*H) | | | |
| | PACKING | 1.2Kg; 12pcs/15.4Kg/0.92CUFT | | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 33.3% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power. 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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 http://www.meanwell.com) 7. 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). | | | | |

Mechanical Specification

Case No. 912B Unit:mm



Terminal Pin No. Assignment

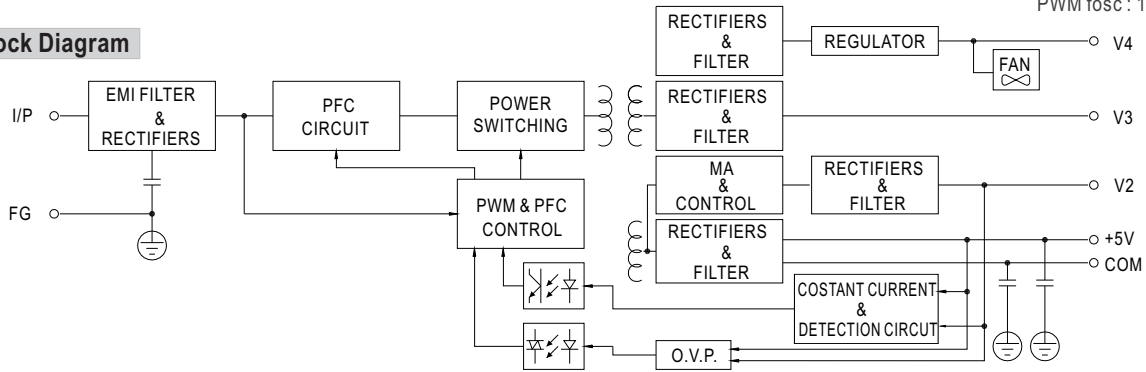
| Pin No. | Assignment | Pin No. | Assignment |
|---------|--------------|---------|---------------|
| 1 | AC/L | 5 | DC OUTPUT V3 |
| 2 | AC/N | 6 | DC OUTPUT V1 |
| 3 | FG \perp | 7,8 | DC OUTPUT COM |
| 4 | DC OUTPUT V4 | 9 | DC OUTPUT V2 |

DC Output Connector (CN2) : JST S6B-XH-A-1 or equivalent

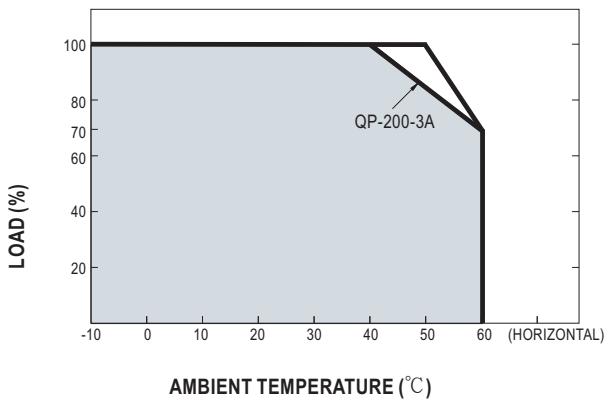
| Pin No. | Assignment | Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|---------|------------|-----------------------|---------------------------------|
| 1 | V1(+S) | 4 | V2(-S) | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 2 | V1(-S) | 5 | PF/PG | | |
| 3 | V2(+S) | 6 | GND | | |

PFC fosc : 67KHz
PWM fosc : 134KHz

Block Diagram



Derating Curve



Output Derating VS Input Voltage

