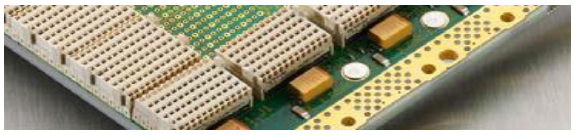
| POWER SUPPLY | AC/DC | kontron The Power of IoT |
|---|---|---|
| 3U 8HP 300W | CompactPCI® Serial |  |

## KEY FEATURES:

**Partnumber: D575.00520**


312W 3U 8HP Euro card package
Wide operating temperature range -40° C …+70° C
Hot swap, N+1 redundancy operation, active current sharing
Meet IEC 61000-3-2 harmonic correctiion
80 Plus Gold Efficiency
Fully compliant with PIGMG
PMBus communication
Safety Standard: IEC 60950-1 Class I

## GENERAL SPECIFICATION:

Efficiency: Typ. 90% at 230VAC
Switching Frequency: 85 - 100KHz
Operating temperature: -40° C … + 70° C (see note 3)
Derate linearly from 100% power at +50° C to 60% power at +70° C (refer to derating curve)
Storage temperature: -45° C … +85° C
Cooling: At least 200 LFM moving air is required to achieve full rating power 312W in confined area
Transient Response: Peak transient less than 134mV and recovers within 0,5mS after 25% load-chang
Dielectric Withstand: IEC60950-1 regulation
Remote ON/OFF: Available
Power Density: 5,7Watts / Cubic inch
CompactPCI format, Front Panel with Extractor handle
Construction: Eurocard 3U 8HP 160mm
Weight: 710g (25,1Oz)

NOTE: 1) All measurement are at nominal input, full load and +25°C unless otherwise specifications.
2) Due to requests in market and advances in technology, specifications subject to change without notification.
3) A warm-up time 10 minutes is required after cold start at temperature from -40°C to +0°C.
4) Tantalum capacitors connected to system is suggested for bettering Ripple & Noise against operating temperature from -40°C to +0°C.
5) 125°C OS-CON Long-life Solid capacitors are installed in secondary circuits.

CE

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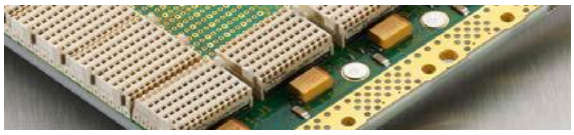
|---|---|---|
| 3U 8HP 300W | CompactPCI® Serial |  |

# ELECTRICAL SPECIFICATION

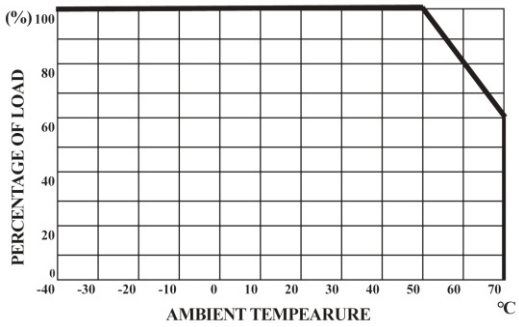
## INPUT SPECIFICATION

- Input Voltage: Typ. 90-264VAC
- Power Factor Correction: Meet Harmonic Correction IEC 61000-3-2 / Power Factor typ. 0.98 - 0.99
- Input Connector: FCI 51939-667LF
- Input Frequency: 47-63Hz
- Inrush Current: 5,3Arms at 230VAC
- Input Current: Typ. 3A at 115VAC / Typ. 1.5A at 230VAC
- Earth Leakage Current: Less than 0.7mA at 230VAC
- EMI/Emissions(conducted): Meet EN 55032 / FCC Class B
- Power Fail Signal: Available at [FAL#] pin
- Status LED: <Green> means valid input voltage
  <Red> means a critical fault
  <Green> means DC OK

## OUTPUT SPECIFICATION

- Output Voltage: See Ratings Chart
- Output Current: See Ratings Chart
- Output Connector: FCI 51939-667LF
- Line Regulation: Typ. 1%
- Load Regulation: Typ. VO1±1%, VO2 Typ.±5%
- Total Regulation: Typ. VO1±2%, VO2 Typ.±5%
- Noise & Ripple: Typ. 1% peak to peak
- Hold-up Time: 18mS at 115VAC and 230VAC
- Adjustability: Available at VO1
- Remote Sensing: Available at VO1
- PMBus Interface: Available
- Hot-Swap: Available
- Current Sharing: Active current sharing at VO1
- Over Voltage: Built-in
- Over Current: Installed
- Over Temperature: Installed NTC and thermostat for thermal sensor at [DEG#] PIN
- N+1 Redundancy: Installed with internal OR-ing diodes, all outputs for N+1 redundancy operation
- DC OK: Available for VO1 and +5Vsb(V2) output
- Over load Protection (OLP): Fully protected against output overload or short circuit. OLP set at 120-130% peak current at 115VAC. Consult the factory for special OLP setting.

## DERATING CURVE



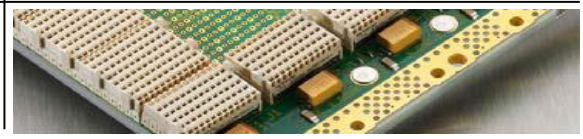

## OUTPUT VOLTAGE / CURRENTRATING CHART

| QUAD OUTPUT MODEL NO. | MAINVO1★@≡⊙ | | | | | STANDBYVO2★⊙ | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Min. | Typ. | **Volt.** | Max. | Peak | Min. | Typ. | **Volt.** | Max. | Peak |
| **D575.00520** | 0A | 25.0A | **12V** | 25.0A | 28.0A | 0A | 2.5A | **5V** | 2.5A | 3.0A |

**Symbol:** "★" OVP built-in."@" Adjustable. "#" Remote sensing. "≡" Active Load Sharing. ."⊙" Installed with Or-ing diode.

**Remark:** 1.Peak load less than 60sec. with duty cycle <10%.

2.Max. load is the continuous operating load of each rail. But the max. load of each rail can't be drawn from all outputs at the same time.
3.Please consult the factory if you have the special min load request of VO1.



## PMBUS SPECIFICATION

| Device identification | | | | | |
|---|---|---|---|---|---|
| A2 | A1 | A0 | PMBus Bits 7-1 | Alert Response Bits 7-1 | EEPROM Bits 7-1 |
| 0 | 0 | 0 | 0011 000 | 0001 100 | 1010 000 |
| 0 | 0 | 1 | 0011 001 | 0001 100 | 1010 001 |
| 0 | 1 | 0 | 0011 010 | 0001 100 | 1010 010 |
| 0 | 1 | 1 | 0011 011 | 0001 100 | 1010 011 |
| 1 | 0 | 0 | 0011 100 | 0001 100 | 1010 100 |
| 1 | 0 | 1 | 0011 101 | 0001 100 | 1010 101 |
| 1 | 1 | 0 | 0011 110 | 0001 100 | 1010 110 |
| 1 | 1 | 1 | 0011 111 | 0001 100 | 1010 111 |

## PMBUS COMMAND

| Code | Name | Protocol | Data Format | Scope |
|---|---|---|---|---|
| 00h | PAGE | Read/Write Byte | Byte | Common*1 |
| 03h | CLEAR_FAULTS | Send Byte | n/a | Common |
| 19h | CAPABILITY | Read Byte | Byte | Common |
| 42h | VOUT_OV_WARN_LIMIT | Read Word | Linear*3 | Page*2 |
| 43h | VOUT_UV_WARN_LIMIT | Read Word | Linear | Page |
| 4Ah | IOUT_OC_WARN_LIMIT | Read Word | Linear | Page |
| 4Fh | OT_FAULT_LIMIT | Read Word | Linear | Page |
| 51h | OT_WARN_LIMIT | Read Word | Linear | Page |
| 52h | UT_WARN_LIMIT | Read Word | Linear | Page |
| 6Ah | POUT_OP_WARN_LIMIT | Read Word | Linear | Page |
| 78h | STATUS_BYTE | Read Byte | Byte | Page |
| 79h | STATUS_WORD | Read Word | Word | Page |
| 7Ah | STATUS_VOUT | Read Byte | Byte | Page |
| 7Bh | STATUS_IOUT | Read Byte | Byte | Page |
| 7Dh | STATUS_TEMPERATURE | Read Byte | Byte | Page |
| 7Eh | STATUS_CML | Read Byte | Byte | Common |
| 81h | STATUS_FANS_1_2 | Read Byte | Byte | Common |
| 8Bh | READ_VOUT | Read Word | Linear | Page |
| 8Ch | READ_IOUT | Read Word | Linear | Page |
| 8Dh | READ_TEMPERATURE_1 | Read Word | Linear | Common |
| 8Eh | READ_TEMPERATURE_2 | Read Word | Linear | Common |
| 96h | READ_POUT | Read Word | Linear | Page |
| 98h | PMBUS_REVISION | Read Byte | Byte | Common |

| Code | Name | Protocol | Data Format | Scope |
|---|---|---|---|---|
| 9Ah | MFR_MODEL | Read Block | String | Common |
| 9Bh | MFR_REVISION | Read Block | String | Common |
| 9Ch | MFR_LOCATION | Read Block | String | Common |
| 9Dh | MFR_DATE | Read Block | String | Common |
| 9Eh | MFR_SERIAL | Read Block | String | Common |
| A0h | MFR_VIN_MIN | Read Word | Linear | Common |
| A1h | MFR_VIN_MAX | Read Word | Linear | Common |
| A2h | MFR_IIN_MAX | Read Word | Linear | Common |
| A3h | MFR_PIN_MAX | Read Word | Linear | Common |
| A4h | MFR_VOUT_MIN | Read Word | Linear | Page |
| A5h | MFR_VOUT_MAX | Read Word | Linear | Page |
| A6h | MFR_IOUT_MAX | Read Word | Linear | Page |
| A7h | MFR_POUT_MAX | Read Word | Linear | Page |
| A8h | MFR_TAMBIENT_MAX | Read Word | Linear | Common |
| A9h | MFR_TAMBIENT_MIN | Read Word | Linear | Common |

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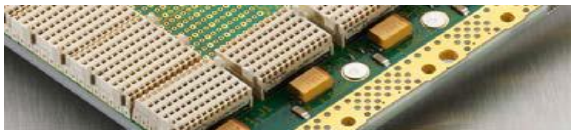
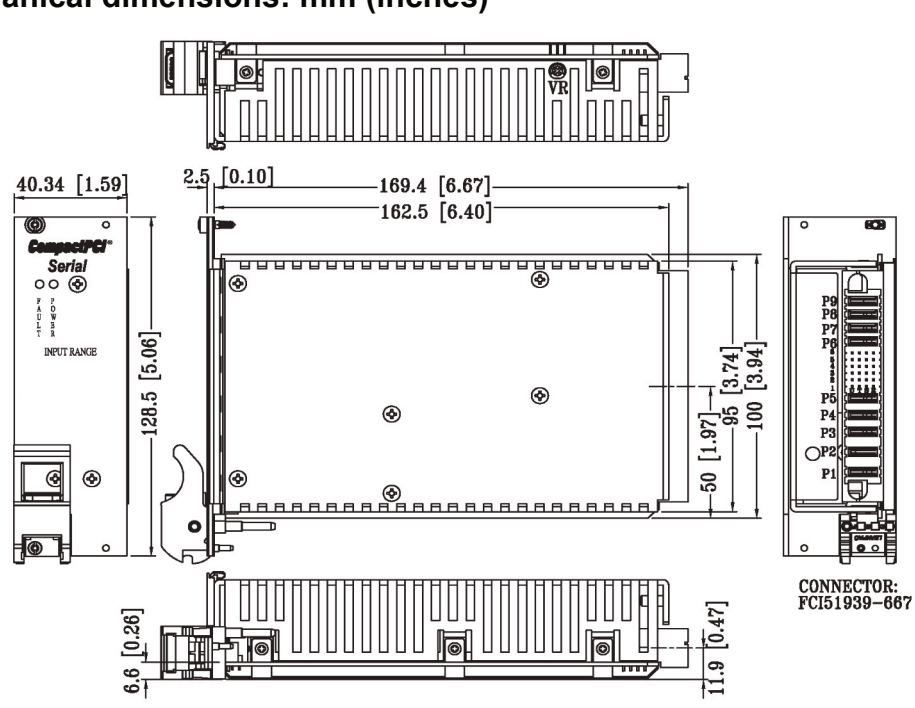
|---|---|---|
| 3U 8HP 300W | CompactPCI® Serial |  |

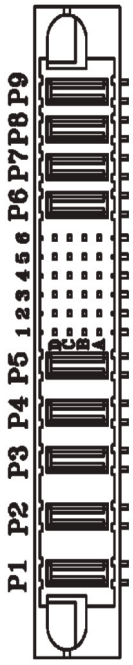
## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

| P1 | P2 | P3 | P4 | P5 | D1 | D2 | D3 | D4 | D5 | D6 | P6 | P7 | P8 | P9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | N/A | FAL | PS_P | COM | DEG | 5Vsb | | | | |
| | | | | | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** | | | | |
| | | | | | N/A | N/A | COM | A0 | ALERT | 5Vsb | | | | |
| LINE | NEUTRAL | GND | N/A | N.A | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | COM | COM | VO1 +12V | VO1 +12V |
| | | | | | N/A | 12VCS | PSON | A1 | SCL | COM | | | | |
| | | | | | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** | | | | |
| | | | | | N/A | -VS | +VS | A2 | SDA | EN | | | | |

Remark: mating connector FCI 51940-350LF

## Mechanical dimensions: mm (inches)




For the details of safety approval, please consult the factory