

POWER SUPPLY

AC/DC

HARTMANN ELECTRONIC

3U 8HP 300W

**CompactPCI®
Serial**



KEY FEATURES:

- 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 correction
- 80 Plus Gold Efficiency
- Fully compliant with PIGMG
- PMBus communication
- Safety Standard: IEC 60950-1 Class I

Partnumber: D575.00520

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-change
- 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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ELECTRICAL SPECIFICATION

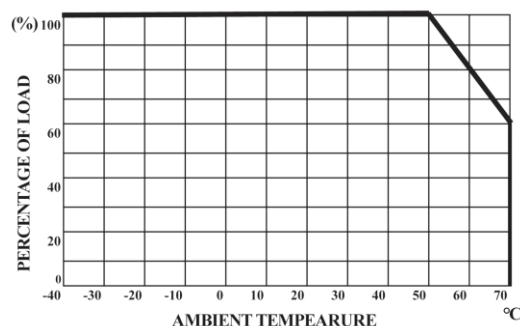
INPUT SPECIFICATION

- 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 / CURRENT RATING CHART

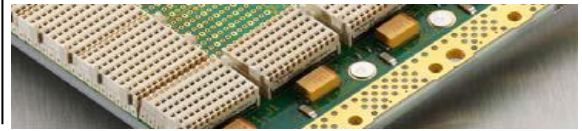
QUAD OUTPUT MODEL NO.	MAIN VO1★@≡⊙					STANDBY VO2★⊙				
	Min.	Typ.	Volt.	Max.	Peak	Min.	Typ.	Volt.	Max.	Peak
D575.00520	0A	25.0A	12V	25.0A	28.0A	0A	2.5A	5V	2.5A	3.0A

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

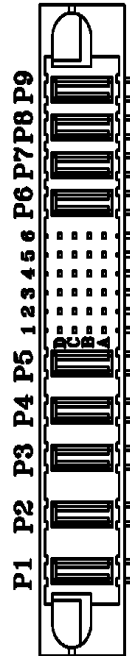
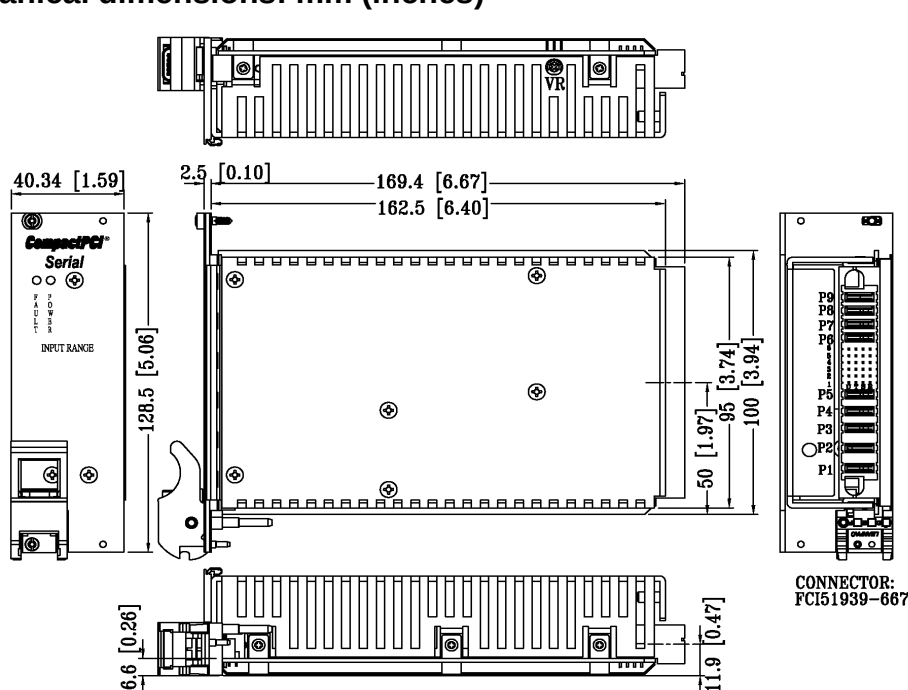
PMBUS COMMAND

Code	Name	Protocol	Data Format	Scope	Code	Name	Protocol	Data Format	Scope
00h	PAGE	Read/Write Byte	Byte	Common*1	9Ah	MFR_MODEL	Read Block	String	Common
03h	CLEAR_FAULTS	Send Byte	n/a	Common	9Bh	MFR_REVISION	Read Block	String	Common
19h	CAPABILITY	Read Byte	Byte	Common	9Ch	MFR_LOCATION	Read Block	String	Common
42h	VOUT_OV_WARN_LIMIT	Read Word	Linear*3	Page*2	9Dh	MFR_DATE	Read Block	String	Common
43h	VOUT_UV_WARN_LIMIT	Read Word	Linear	Page	9Eh	MFR_SERIAL	Read Block	String	Common
4Ah	IOUT_OC_WARN_LIMIT	Read Word	Linear	Page	A0h	MFR_VIN_MIN	Read Word	Linear	Common
4Fh	OT_FAULT_LIMIT	Read Word	Linear	Page	A1h	MFR_VIN_MAX	Read Word	Linear	Common
51h	OT_WARN_LIMIT	Read Word	Linear	Page	A2h	MFR_IIN_MAX	Read Word	Linear	Common
52h	UT_WARN_LIMIT	Read Word	Linear	Page	A3h	MFR_PIN_MAX	Read Word	Linear	Common
6Ah	POUT_OP_WARN_LIMIT	Read Word	Linear	Page	A4h	MFR_VOUT_MIN	Read Word	Linear	Page
78h	STATUS_BYTE	Read Byte	Byte	Page	A5h	MFR_VOUT_MAX	Read Word	Linear	Page
79h	STATUS_WORD	Read Word	Word	Page	A6h	MFR_IOUT_MAX	Read Word	Linear	Page
7Ah	STATUS_VOUT	Read Byte	Byte	Page	A7h	MFR_POUT_MAX	Read Word	Linear	Page
7Bh	STATUS_IOUT	Read Byte	Byte	Page	A8h	MFR_TAMBIENT_MAX	Read Word	Linear	Common
7Dh	STATUS_TEMPERATURE	Read Byte	Byte	Page	A9h	MFR_TAMBIENT_MIN	Read Word	Linear	Common
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					

**POWER SUPPLY****AC/DC****HARTMANN ELECTRONIC****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
LINE	NEUTRAL	GND	N/A	N.A	N/A	FAL	PS_P	COM	DEG	5Vsb	COM	COM	VO1 +12V	VO1 +12V
					C1	C2	C3	C4	C5	C6				
					N/A	N/A	COM	A0	ALERT	5Vsb				
					B1	B2	B3	B4	B5	B6				
					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)**Germany**

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For the details of safety approval, please consult the factory