



DESCRIPTION

AC-DC power supply unit with dual output of 24V / 5.2A. The output-1 is fully regulated and works as a master. The output-2 tracks the master output and works as slave of output-1. They can be connected in series, parallel or independently.

There is no restriction for connecting both outputs in series or parallel but, when they are used independently, it must be taken into account the following:

- For a proper working, the master output requires a load > 20% of the slave output.
- For a proper cross regulation, the slave output requires a minimum load of 0.1A.

INPUT

Input AC (rms) voltage	230Vca.
Input AC voltage range	187...255Vca.
Input frequency range	47...63Hz
Inrush current	< 12A
Input current	< 1.5Arms
Power factor	> 97%
Efficiency	89% typical at full load

OUTPUT

	1 (Master)	2 (Slave)	
Output voltage	24	24	V
Output voltage range	-5,+15	-5,+15	%
Maximum output current	5.2	5.2	A
Line regulation	0.1	0.1	%
Load regulation	0.2	4	%
Ripple	50	50	mVpp
Ripple + Noise (BW 20MHz)	150	150	mVpp
Hold-up time at full load	15	15	ms
Total output power	125	125	W

ENVIRONMENTAL

Storage temperature	-40...85°C
Operating temperature range	-40...70°C
Cooling	Natural convection
Operating relative humidity	5...100% (100% at 30°C)
Operating altitude	1500m
Operating vibration	2.3m/s ² 5Hz...2000Hz three axis
Operating shock	20m/s ² 11ms
Environmental regulations	RoHS according to directive 2002/95/EC



EMC

EMI test according to EN50121-4

TEST	NORM	PORT	FREQUENCY	LIMITS
Radiated emissions	CISPR11	Case	30MHz-230MHz	Class-A 40dB(μV/m) Qpk at 10m
			230MHz-1GHz	Class-A 47dB(μV/m) Qpk at 10m
Conducted emissions	CISPR11	AC Input	150kHz-500kHz	Class-A 79dB(μV) Qpk
				Class-A 66dB(μV) Av
			500kHz-5MHz	Class-A 73dB(μV) Qpk
				Class-A 60dB(μV) Av
			5MHz-30MHz	Class-A 73dB(μV) Qpk
				Class-A 60dB(μV) Av

Immunity test according to EN50121-4

TEST	NORM	PORT	SEVERITY	CONDITIONS	CRIT.
Magnetic field	IEC61000-4-8	X/Y/Z Axis	300A/m	50/60Hz	A
Radiated high-frequency	IEC61000-4-3	X/Y/Z Axis	20V/m	80...1000MHz M. 80% 1kHz	A
		X/Y/Z Axis	10V/m	1.4...2.1GHz M. 80% 1kHz	A
		X/Y/Z Axis	5V/m	2.1...2.5GHz M. 80% 1kHz	A
Conducted RF	IEC61000-4-6	Input	10V	0.15...80MHz M. 80% 1kHz	A
		Output	10V	0.15...80MHz M. 80% 1kHz	A
		Signal	10V	0.15...80MHz M. 80% 1kHz	A
Electrostatic discharge	IEC61000-4-2	Case	±8kV	Air (isolated parts)	B
		Case	±6kV	Contact (conductive parts)	B
Fast transients	IEC61000-4-4	Input to PE	±2kV	Tr/Th: 5/50 ns	A
		Output to PE	±2kV	Tr/Th: 5/50 ns	A
		Signal to PE	±1kV	Tr/Th: 5/50 ns	A
Surges	IEC61000-4-5	Input L to L	±2kV	Tr/Th: 1.2/50μs	B
		Input L to PE	±2kV	Tr/Th: 1.2/50μs	B
		Signal to PE	±1kV	Tr/Th: 1.2/50μs	B
		Output + to -	±1kV	Tr/Th: 1.2/50μs	B
		Output to PE	±2kV	Tr/Th: 1.2/50μs	B
Voltage DIPS/SAGS	IEC61000-4-11	AC Input	0%	20ms (zero crossing)	B
		AC Input	40%	0.2s (zero crossing)	C
		AC Input	70%	0.5s (zero crossing)	C
		AC Input	0%	4s (zero crossing)	C

SAFETY

Safety according to norm/s

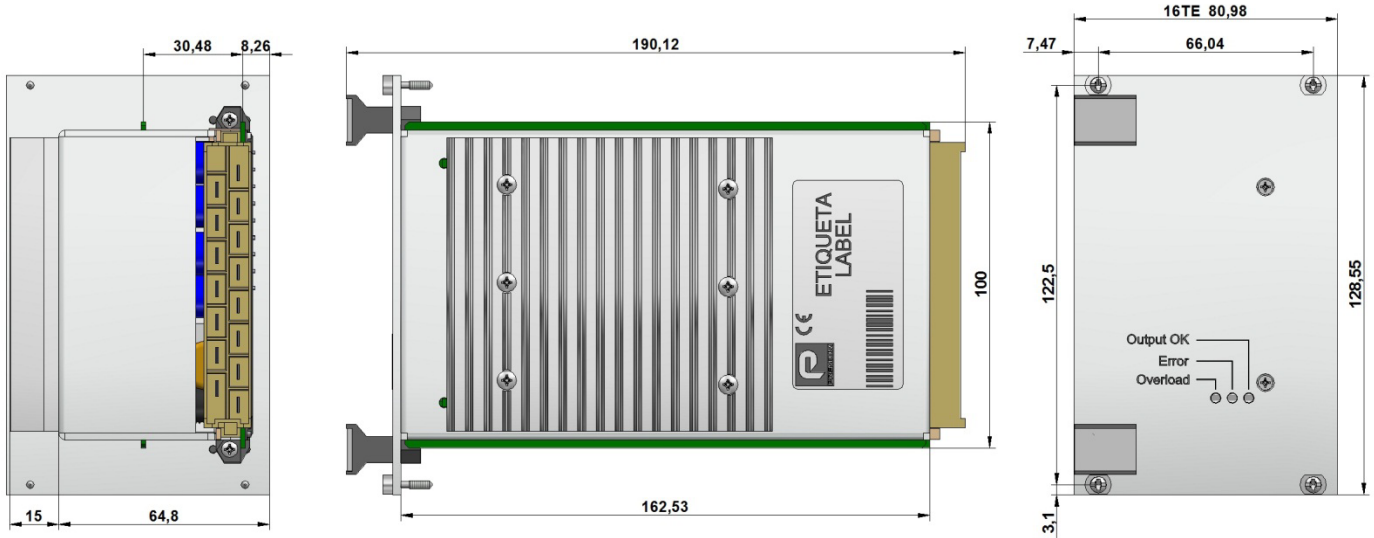
EN60950-1, Class I, pollution degree 2

	Dielectric strength	Creepage	Clearance	Insulation type
Input/Output	3000Vca 1min	≥ 6mm	≥ 6mm	Basic
Input/Earth	1500Vca 1min	≥ 3mm	≥ 3mm	Reinforced
Output/Earth	1000Vca 1min	≥ 1.4mm	≥ 1.4mm	Operational
Output1/Output2	100Vca 1min	≥ 1mm	≥ 1mm	Operational

Note: chassis connected to earth

MECHANICAL

Mechanical shape Euro cassette
 Dimensions 3U 16Te Depth 160mm
 Connections DIN 41612 H15



CONNECTION	PIN
Input line	30, 32
Input neutral	26, 28
Earth	24
+ Ouput master	12
- Ouput master	14
+ Ouput slave	4, 6
- Ouput slave	8, 10
Inhibit	18

PROTECTIONS

- Outputs protected against overloads and shortcircuits
- Input protected against over current by fuse (T 4A 250V)
- Over temperature lockout (Automatic recovery)
- Input undervoltage lockout (Automatic recovery)
- Output master overvoltage lockout (Recovery by input switch off)
- Outputs protected against transients over voltage by means of a ZVS diode.
- PCBs conformal coated

CONTROL

- Inhibit: The PSU is disabled when the pin Inhibit is open. The unit is enabled when the pin Inhibit is connected to –Output master.
- LEDs:

Output OK	Green	On when all functions are working correctly
Error	Red	On when input under voltage, over temperature, output overvoltage or remote inhibit
Overload	Red	On when the output drops because of an overload.