NIM crate 7 units

Model NC305.

WARRANTY

NAICAM S.R.L. warrants this product to be free from defects in material and workmanship for a period of 1 year from date of shipment from headquarter in Italy.

NAICAM SRL warrants the following items for one year from the date of shipment: probes, cables, and documentation of specified equipment.

During the warranty period, we will, at our option, either repair or replace any product that proves to be defective.

To exercise this warranty, write or call your local NAICAM SRL representative, or contact NAICAM SRL headquarters in Italy. You will be given prompt assistance and return instructions. Send the product, transportation prepaid, to the indicated service facility. Repairs will be made, and the product returned, transportation prepaid. Repaired or replaced products are warranted for the balance of the original warranty period.

LIMITATION OF WARRANTY

This warranty does not apply to defects resulting from product modification without NAICAM SRL express written consent, or misuse of any product or part.

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GND
+6
-12
+24

1. GENERAL DESCRIPTION.

1.1 DESCRIPTION.

The NAICAM Mod. NC305 is a 7U ventilated NIM crate. This 19 inch module has 12 slot crate and available with or without pluggable 300W (optional version 450W) power supply. The Unit can be powered by 110 or 230 VAC, 50-60 Hz. The Mod NC305 is equipped with a smart FAN. On control panel of FAN unit housed LCD display and test pin for all DC voltages.

1.2 PERFORMANCE.

- The crate has 12 slots 19" x 7U enclosure ventilated NIM bin. All 12 NIM connectors that are connected in parallel each voltage.
- Pluggable linear power supplies NPS300W, NPS450W:

Table 1. Voltage and current limit of both plug able power supplies.

Voltage	Max. Current(A)	Over/Under Protection (%)	Over Load Protection (A)	Over Heat Protection (C)
+ 24 Volt	3	130/70	4	75(+/-3)
- 24 Volt	3	130/70	4	75(+/-3)
+12 Volt	4	130/70	5	75(+/-3)
- 12 Volt	4	130/70	5	75(+/-3)
+ 6 Volt	17	130/70	20	75(+/-3)
- 6 Volt	17	130/70	20	75(+/-3)
117AC	0,5A	Optional		

- Over/Under and overload protections have each voltage of power supply.
- over heating protection done by thermal switch.

Stability of Output voltage: ≤ +/- 0.05% for +/- 12 V +/- 24 V
≤+/- 0.5% for +/- 6 Volt.

- Output impedance for the dc outputs: ≤ 0.3 ohm (up to 100 kHz).

- Temperature stability: < 0.02%/°C, 0 to 60°C.

- Ripple < 3 mVpp @ ±6V, ±12 V, ±24 V (Typ.)
< 5 mVpp @ ±6V, ±12 V, ±24 V (Max.)
(20 MHz Bandwidth)

- Recovery time: +/- 0.1% 100 us (for 12, 24 Volt); +/- 0,5% 100 us (+/- 6 Volt).

- Storage temperature -10 +70C.

- Test Points (six voltage and ground) are placed on front panel of FAN unit
- Control panel with LCD 128x64 graphic display.

2. TECHNICAL SPECIFICATIONS.

2.1 OPERATING INSTRUCTIONS.

The crate NC305 has pluggable power supply and smart FAN unit.

The Graphic Display on the front panel of FAN unit display status of the crate. After pug in power cable to NPS300 power supply the user can switch ON and OFF the crate, control voltage and temperatures inside crate By two switches F1 and F2 on the front panel of the FAN unit.

The first start FAN unit and after delay about 1 sec delay start power supply. After switch of the first switch off power supply and after 3 second switch of FAN unit.

2.2 INPUT/OUTPUT CONNECTIONS AND SIGNAL CHARACTERISTIC

The NPS300W power supply has one connection (Power Connector) with backplane of the crate, DSUB 25 connector with FAN unit and Power Plug (220VAC).
All 12 BIN connectors have standard pin out according NIM standard.

Table 2. Standard Pin out NIM BIN connector.

PIN	Function	PIN	Function
1	+3 V	23	Reserved
2	- 3 V	24	Reserved
3	Spare bus	25	Reserved
4	Reserved bus	26	Spare
5	Coaxial	27	Spare
6	Coaxial	28	+24 V
7	Coaxial	29	- 24 V
8	200 V DC	30	Spare bus
9	Spare	31	Spare
10	+6 V	32	Spare
11	- 6 V	33	117 V AC
12	Reserved bus	34	Power return ground
13	Spare	35	Reset (Scaler)
14	Spare	36	Gate
15	Reserved	37	Reset (Auxiliary)
16	+12 V	38	Coaxial
17	- 12 V	39	Coaxial
18	Spare bus	40	Coaxial
19	Reserved bus	41	117 V AC (neutral)
20	Spare	42	High-quality ground
21	Spare	G	Ground guide pin
22	Reserved		

Note: The 117 VAC is optional voltage. Usually if the crate is used out of UE the client must specified in order this alimentation in crate. Blue marked pins if wired in parallel in crate.

Table 3. Pin out of Power Connector between BIN and pluggable power supply.

Description	PIN
Sense -24 Volt	5
Sense return -24 Volt	1
-24 Volt	9
Sense +24 Volt	29
Sense return +24 Volt	33
+24 Volt	25
Sense -12 Volt	6
Sense return -12 Volt	2
-12 Volt	10
Sense +12 Volt	30
Sense return +12 Volt	34
+12 Volt	26
Sense -6 Volt	7
Sense return -6 Volt	3
-6 Volt	11,12,15
Sense +6 Volt	31
Sense return +6 Volt	35
+6 Volt	23,27,28
Ground	8,16,17,18,
Ground	19,20,24,32

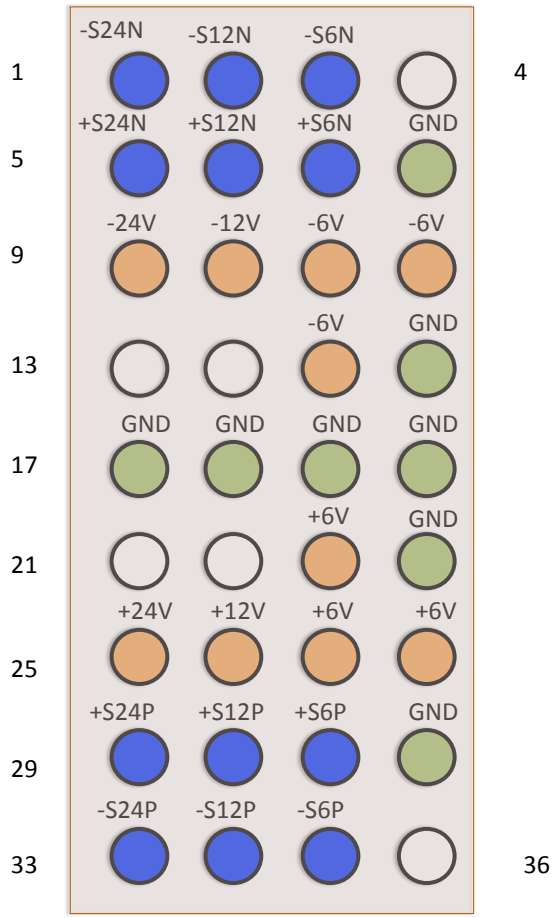

-S24N
-S12N
-S6N
1
4
+S24N
+S12N
+S6N
GND
5
-24V
-12V
-6V
-6V
9
-6V
GND
13
GND
GND
GND
GND
17
+6V
GND
21
+24V
+12V
+6V
+6V
25
+S24P
+S12P
+S6P
GND
29
-S24P
-S12P
-S6P
33
36

Table 4. Pin out of DSUB 25 connector.

Description	PIN
+ 6 Volt	1
+ 6 Volt Current	14
- 6 Volt	2
- 6 Volt current	15
+ 12 Volt	3
+ 12 Volt Current	16
- 12 Volt	4
- 12 Volt current	17
+ 24 Volt	5
+ 24 Volt Current	18
- 24 Volt	6
- 24 Volt current	19
GND	7
N.C.	20
Start	8
OVERLOAD	21
N.C.	9
N.C.	22
N.C.	10
OVER TEMP.	23
LINE OFF	11
N.C.	24
N.C.	12
BUZZER	25
N.C.	13

2.3 INTERNAL HARDWARE SETTINGS

The module has 18 internal trimmers to set cut off current, output voltage, short current. There are 6 additional trimmers that permit adjust monitor current on the display. Usually, these optional trimmers are not present on the boards.

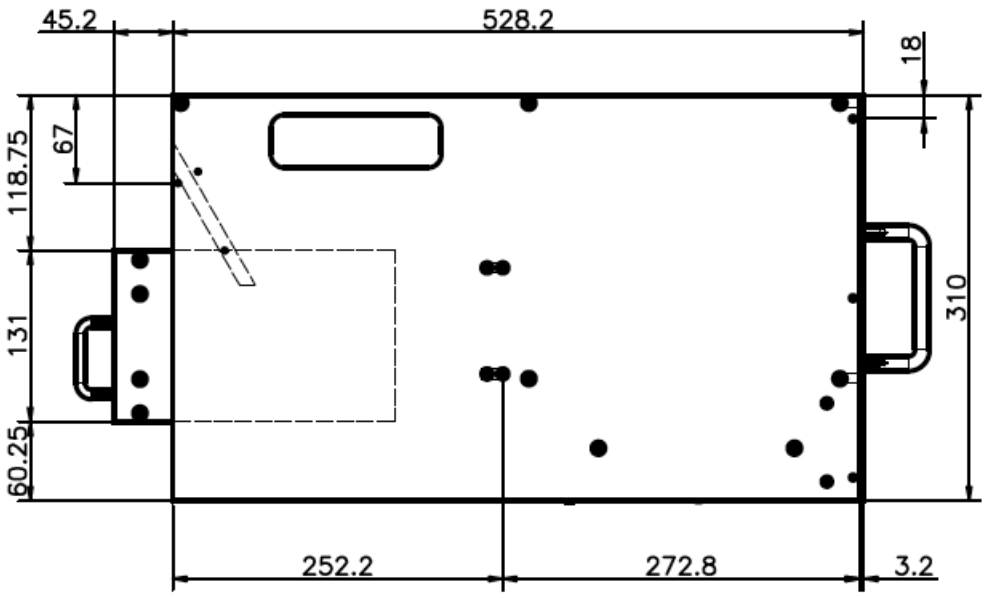
2.4 POWER REQUIREMENTS

The input power 220VAC + 10%, 50 Hz. The power input can be modified to 110VAC+10% in ordering. Maximum input power is less then 700 Watt is determine by input fuse 3,15A.

2.5 DIMENSION AND WEIGHT

DIMENSIONS

On the picture X shown maximum dimensions of the crate.



The crate has 19" width and 7U height dimensions. The maximum deep of module is 625mm. Module enclosure corresponds to standard DOE/ER-0457T.

WEIGHT
Common crate weight are 31 kg. with NPS300W and 34 kg. with NPS450W power supplies.

For More information on NAICAM products and applications contact your local NAICAM representative:

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