# project: CAD-Projektions System



Order: CAD-00115

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ma	LASER

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17.06

Behnke

project CAD-00115

CAD-00115 customer order number

1106CAD100 LAP order number

CAD-Pro distribution box cover sheet

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REV.: 1.0 =CPS Location

General project informations

When operating electrical installations, certain parts are inevitably under dangerous current. If the following instructions are not observed, severe injuries and material damages may occur.

### 1. Safety instructions

- Only a qualified electrician, or instructed persons under the guidance and supervision of a qualified electrician, are allowed to work on electrical installations or components in accordance with the national electro technical regulations.
- Before starting inspection, maintenance or repairs on machine and system parts, shut the current off and ensure it cannot be switched on again to prevent electrocution. Also protect and cover all the surrounding, connected electrical components to avoid accidental contact.
- The installation's electrical equipment is to be inspected/checked regularly. Defects must be immediately notified and removed.

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- Should work on live parts be necessary, a second person must be called in to turn the main switch off in case of emergency. Working areas must be shut off with a red and white safety chain and a warning sign. Use only electrically insulated tools.
- For replacement, only the same type of fuse must be used. In case of disturbance in the main power supply, switch off the installation immediately.
- Keep the switch cabinet closed. Water or uncontrolled manipulation could lead to life-threatening situations.
- In case of fire in electrical installations. no water may be used to extinguish the fire.

# 2. Assembly and commissioning instructions

- Before commissioning, verify that the machine which is connected to the switch cabinet conforms to the requirements of the EC directives.
- Do not set up the switch cabinet in rooms in which there is a risk of explosion.
- After installing and assembling the switch cabinet, check the firmness of all screw fittings on the bus bar
- Once the switch cabinet is connected with the machine, tests according to DIN EN60204/T1 must be carried out before the first start-up and after changes.
- In case of changes and extensions within the switch cabinet, the wiring color scheme must be observed.
- During assembly, the cables and cable crosscuts must be selected and laid according to DIN EN60204/T1.
- Cables and wires must be installed through the openings in the floor or subsequently installed cable ducts (depending on the local circumstances).
- Changes on/in the switch cabinet must be agreed with us.
- For the installation and connection of on-site equipment the assembly and operating instructions must be followed.

#### 3. Transport and storage

- For transport, the switch cabinet must be packed to avoid damage to the housing
- During transport, the switch cabinet must be fixed to avoid any shifting or tilting over.
- The switch cabinet must be transported appropriately and professionally.
- In case of intermediate storage, appropriate measures must be taken to avoid damage due to humidity, vibration and shock.

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CAD-Pro distribution box General project informations

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General project informations

#### 4. Wiring

Coloring of cable cores following DIN EN60204/T1

Main circuits; alternating and direct current (>60V) (BK) black Control circuits; alternating current (RD) (BU) Control circuits; direct current blue Potective earth PE resp. PEN green/yellow (GNYE) Neutral conductors N without safty function (BU) light blue (OG) Locking circuits; powered from external sources orange which keep voltage also the main switch is off Circuits which keep voltage also the main switch is off yelllow (YE) (Oelflex (tm))

#### 5. Notes of crosssectional areas

Measuring conductors

All non discribed conductors in main circuits, 1,5mm² (16AWG)

All non discribed conductors in control circuits, 0,75mm² (AWG20)(PLC wiring. 0,5mm² (AWG22)

Noted crosssectional areas are valid for a length of 10 m (33ft)

# 6. Short describtions following IEC 757

		old	
Schwarz	Black	sw	вк
Braun	Brown	br	BN
Rot	Red	rt	RD
Orange	Orange	or	OG
Gelb	Yellow	ge	YE
Grün	Green	gn	GN
Blau	Blue	bl	BU
Violett	Violet	vio	VT
Grau	Grey	gr	GY
Weiß	White	ws	WH
Rosa	Pink	rs	PK
Gold	Gold	-	GD
Türkis	Turquoise	tk	TQ
Silber	Silver	-	SR
grün-gelb	Green-Yellow	gnge	GNYE

# 7. Potential equation

By removing of the PE connection will be an insulation monitoring according to VDE 0100/60f.2 / IEC 60364 necessary

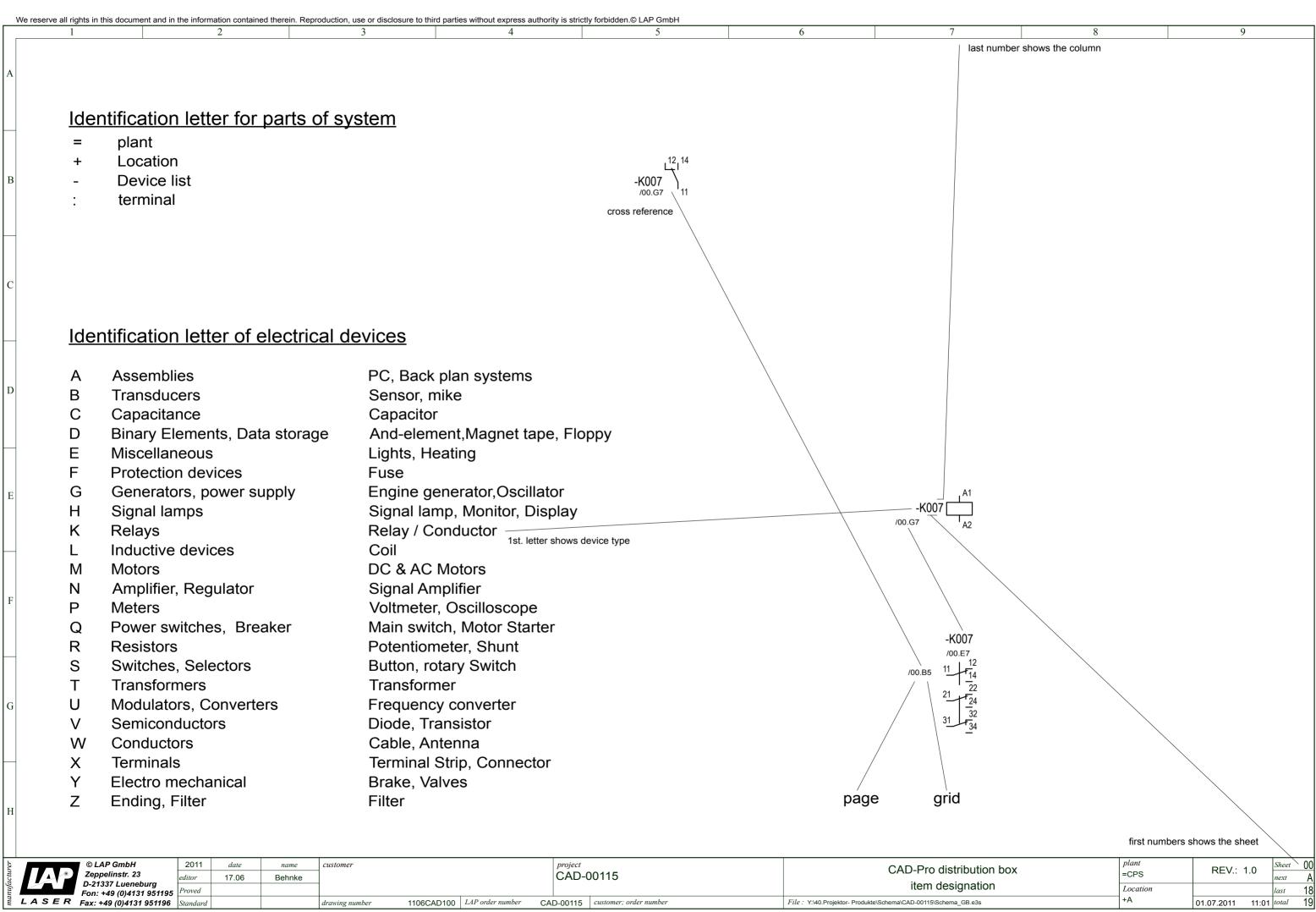
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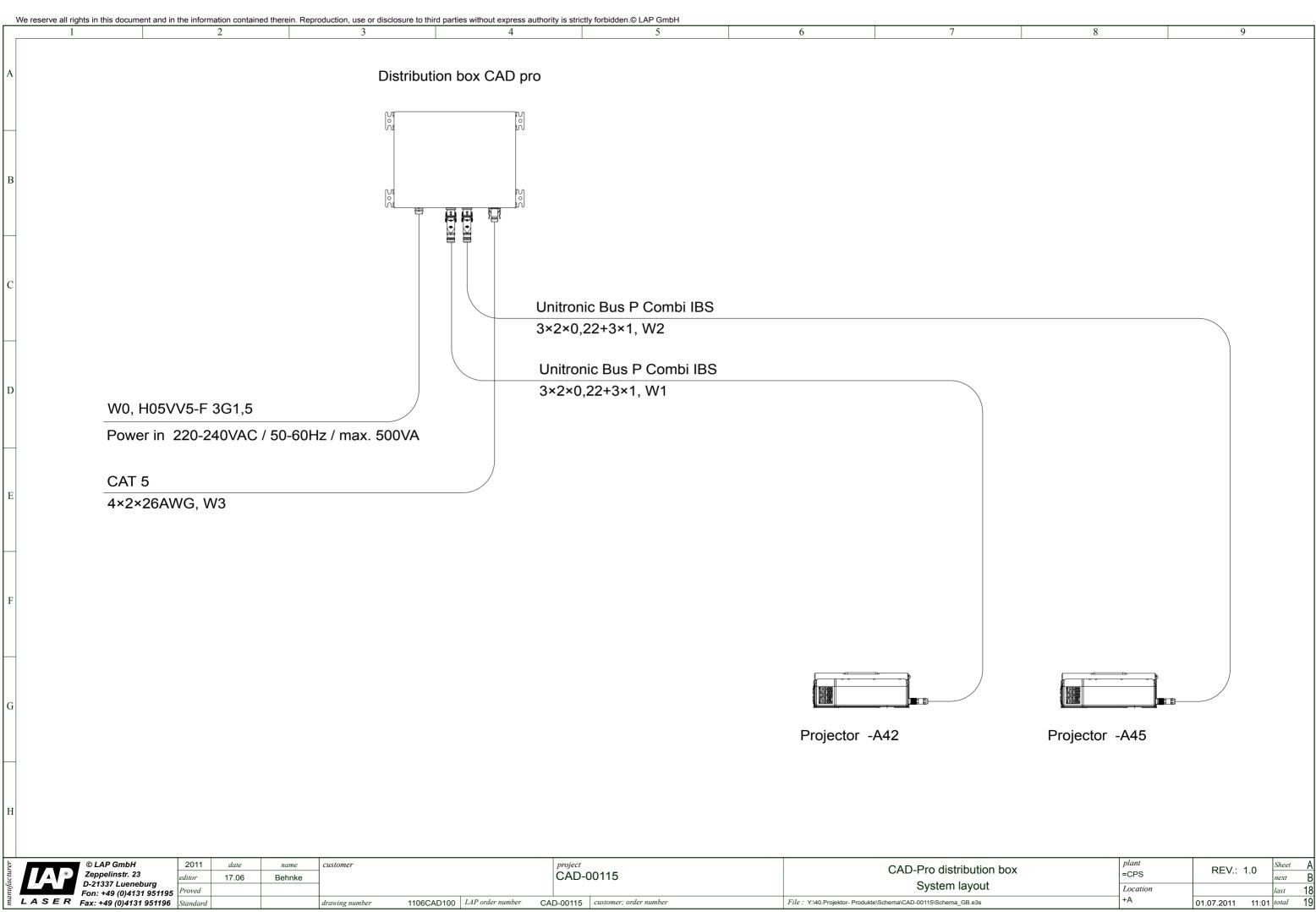
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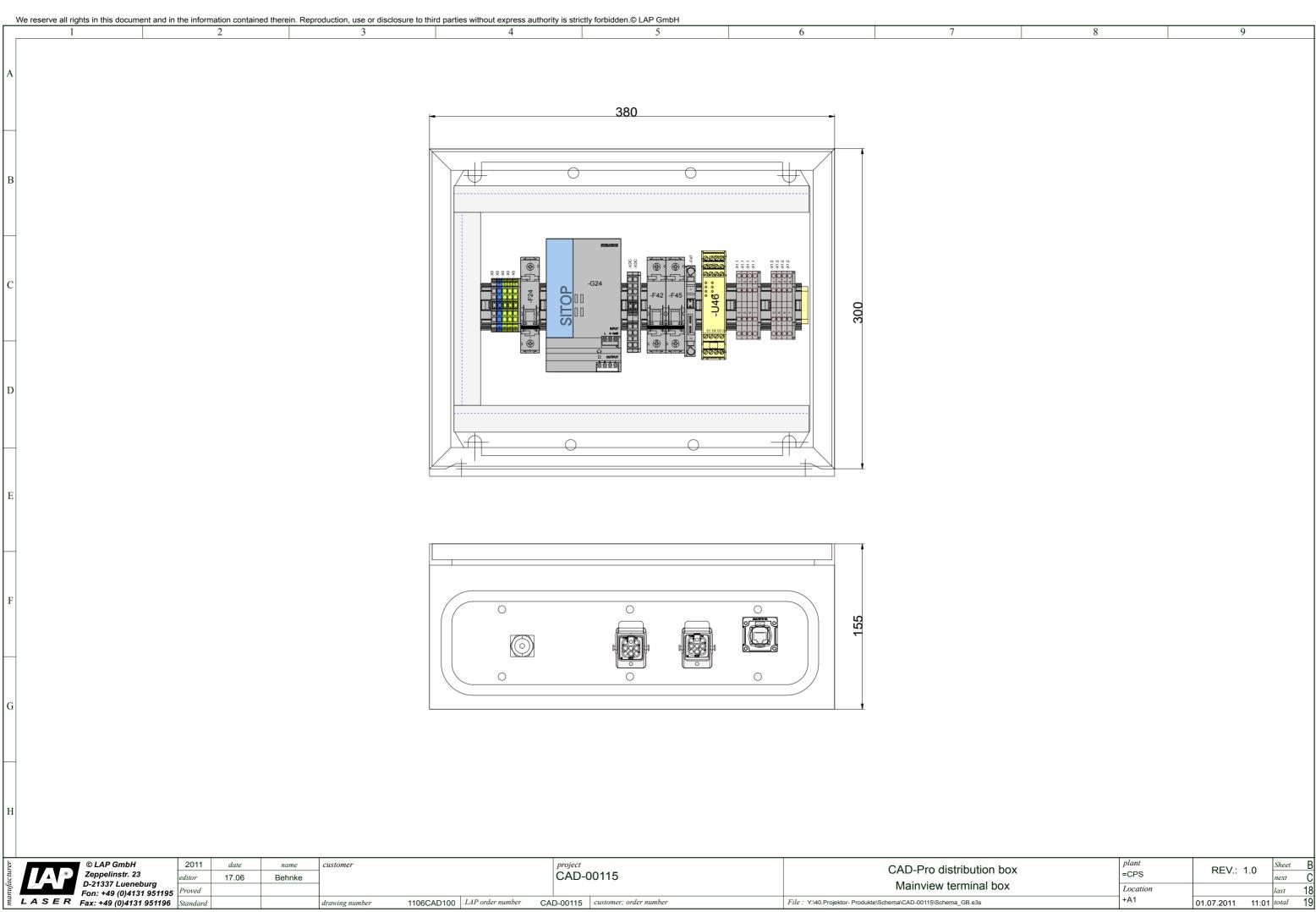
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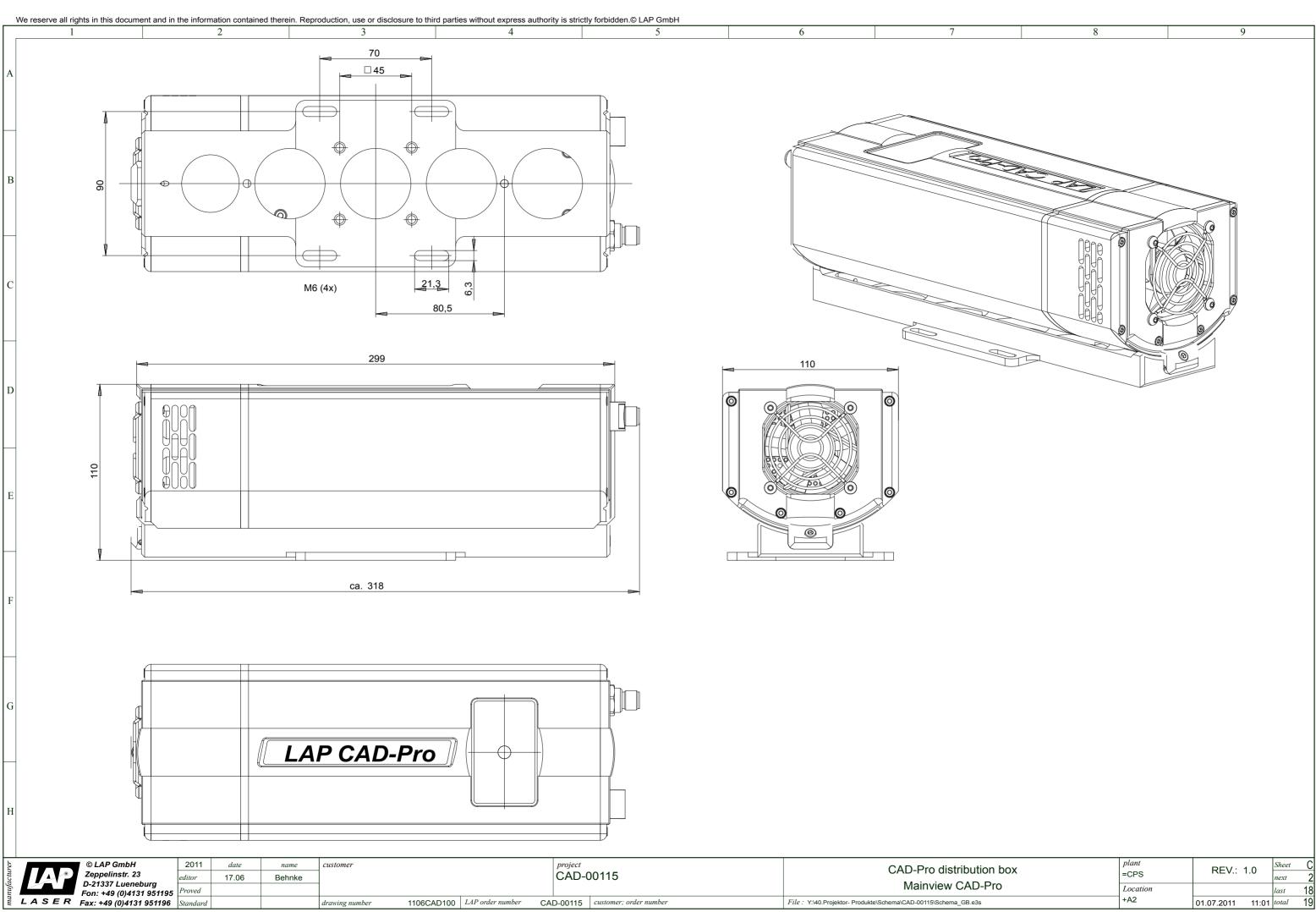
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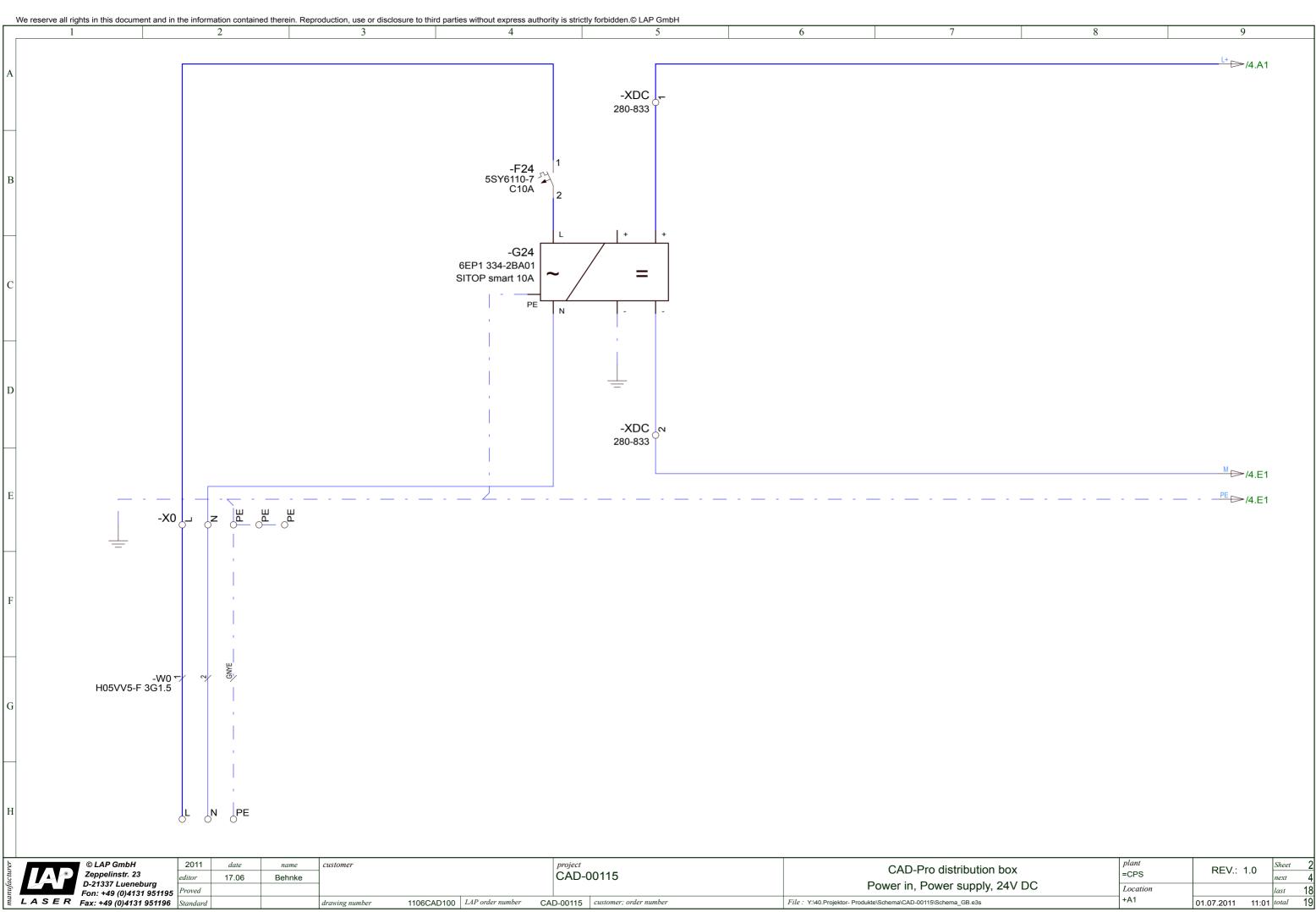
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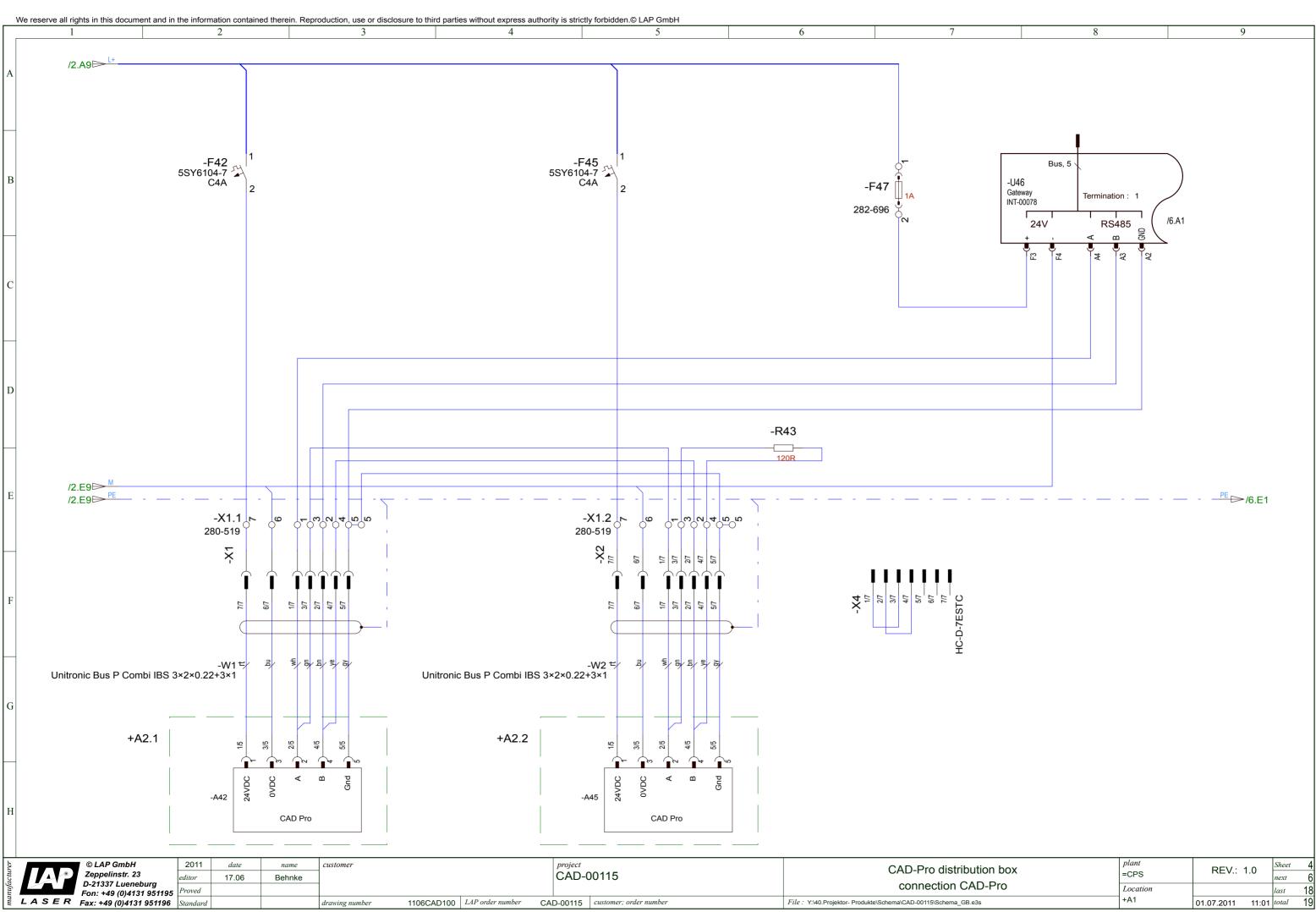


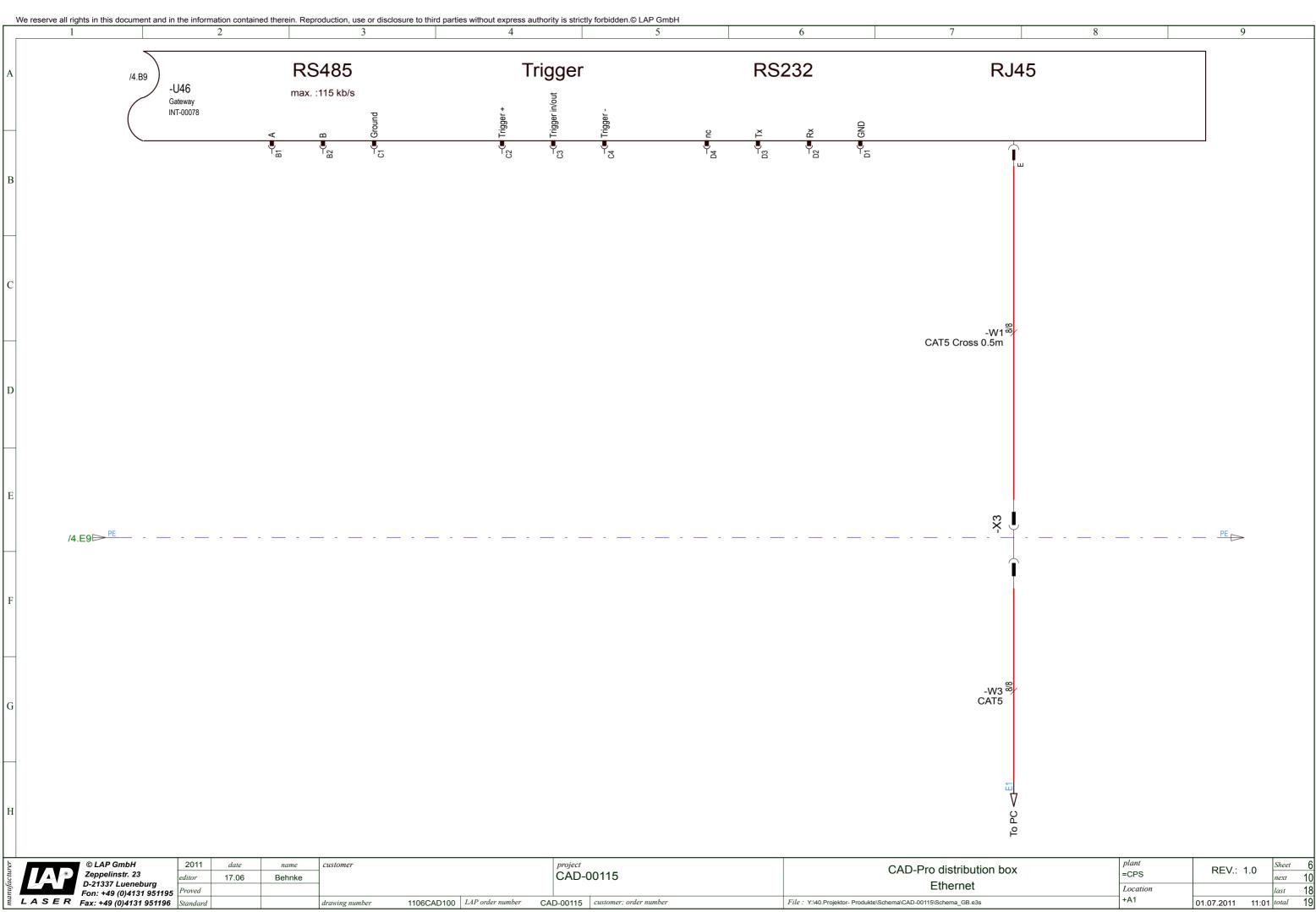


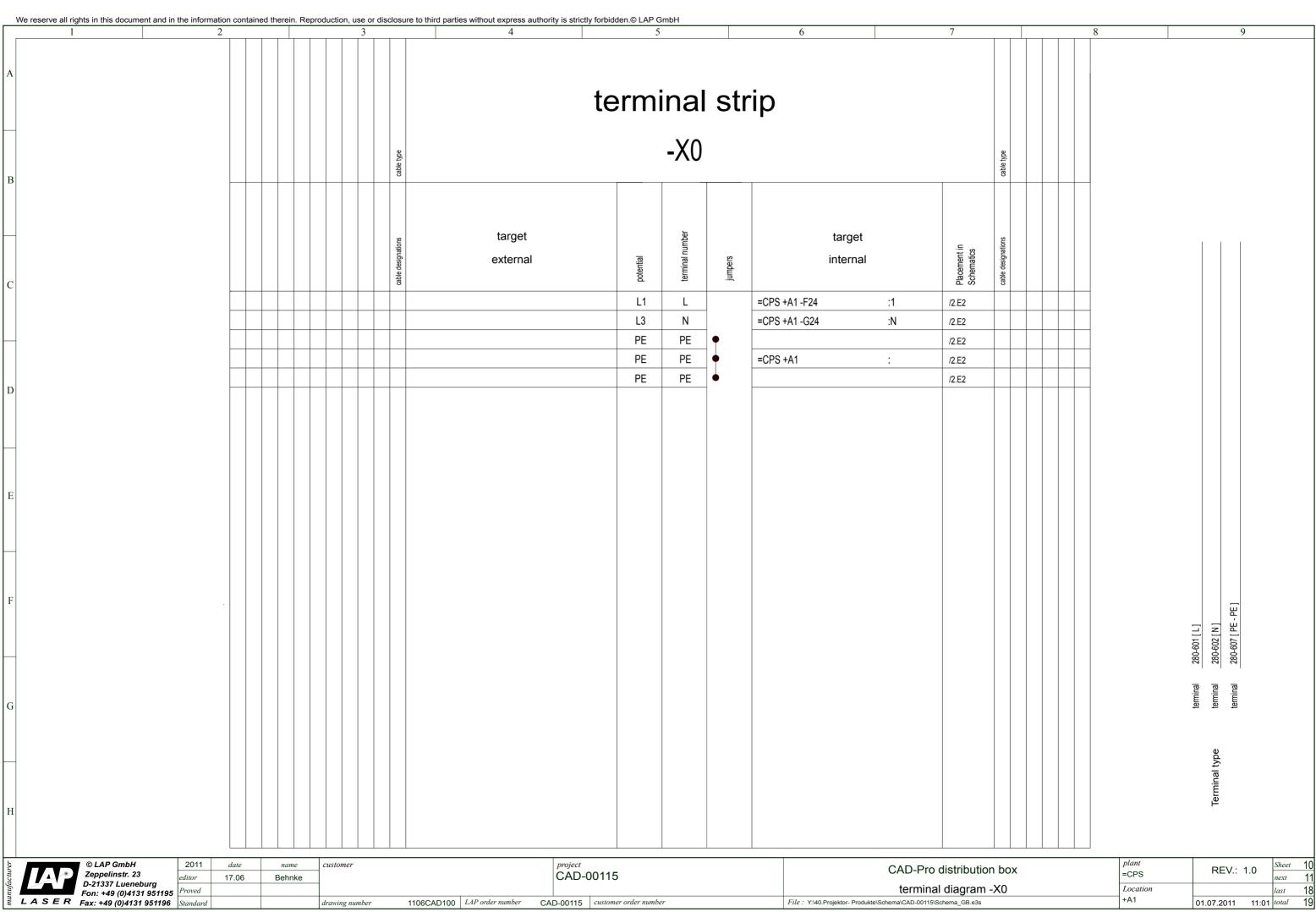


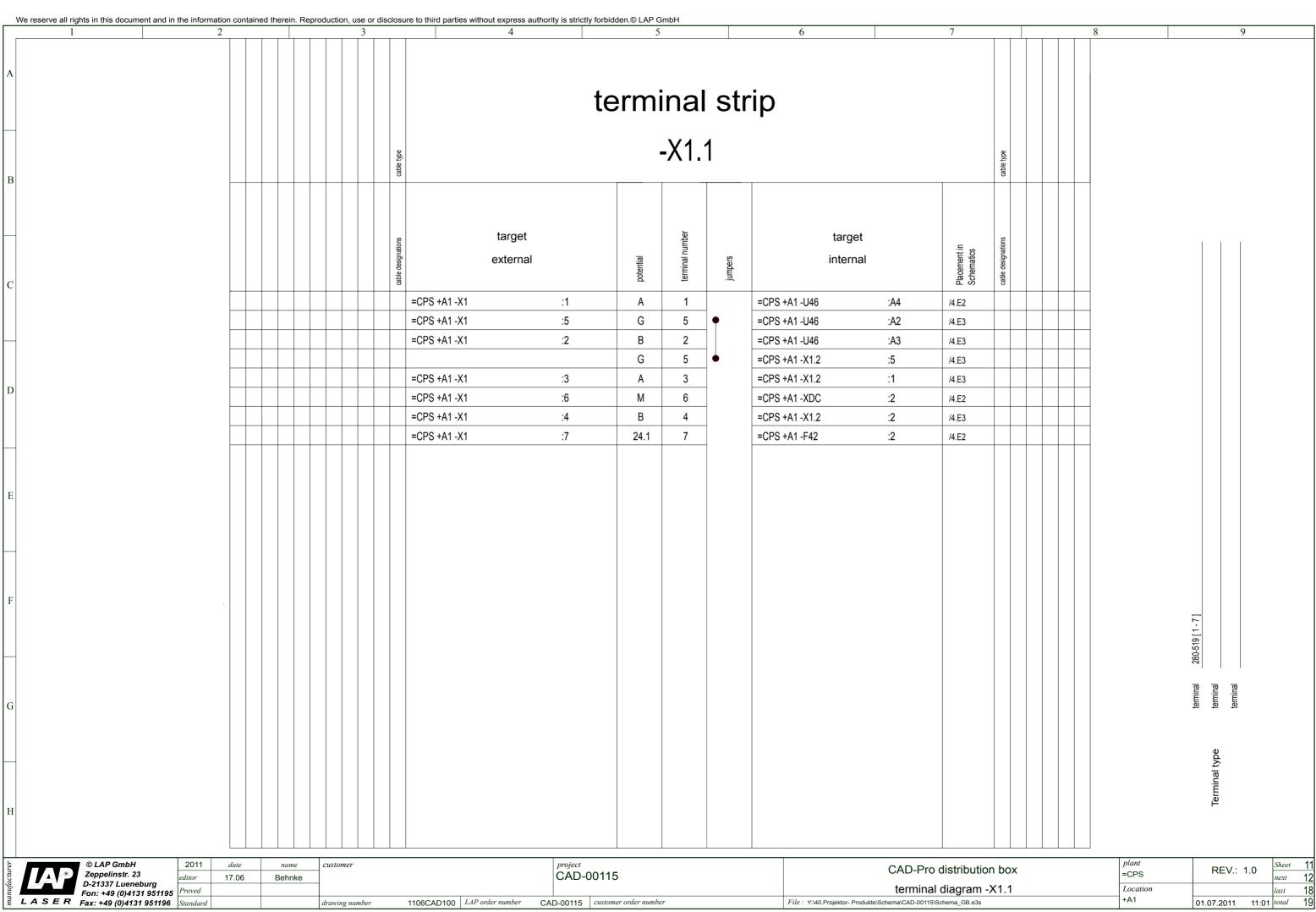


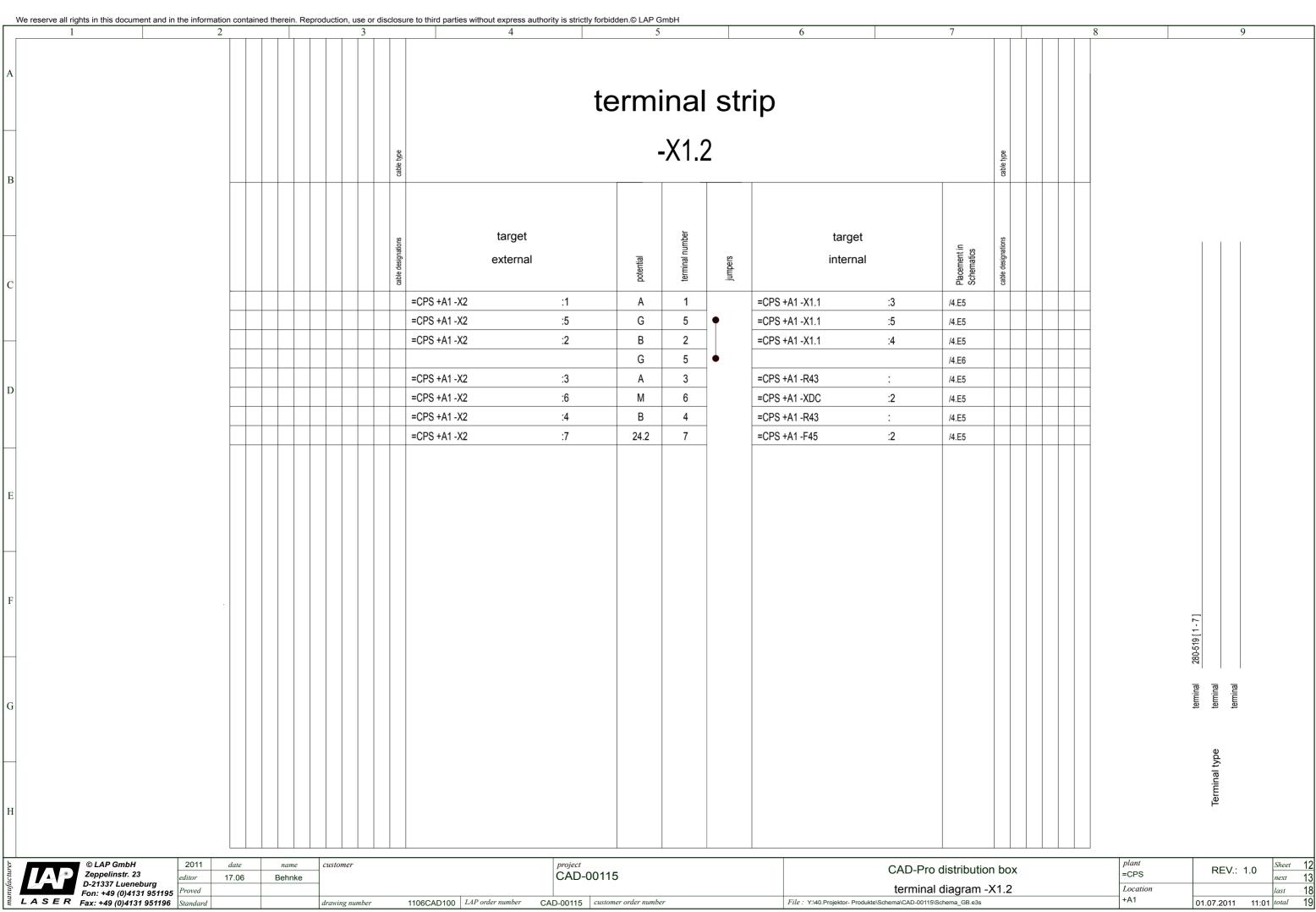












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- 119111		<u> </u>			<b>9</b>				
DevDe	samount	component	article des	ignation		manufacturer	Article Number		
-W1	1	1604888	Bulkhead hous	ing		Phoenix Contact	1604888		
-W1	1	713-99-1436-822-05	Female angled	connector, 5pole		Binder	713-99-1436-822-0	05	
-W1	1	HC-D-7ESTC	Plug 7pin			Phoenix Contact	17 72 24 3		
-W1	1	M20x1.5	Cable Gland			Lappkabel	M20x1,5		
-W2	1	1604888	Bulkhead housi	ing		Phoenix Contact	1604888		
-W2	1	713-99-1436-822-05	Female angled	connector, 5pole		Binder	713-99-1436-822-0	05	
-W2	1	HC-D-7ESTC	Plug 7pin			Phoenix Contact	17 72 24 3		
-W2	1	M20x1.5	Cable Gland			Lappkabel	M20x1,5		
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DevDesamount	component	article	designation	manufa	cturer Article Nu	ımber	
-A42 1	CAD Pro	CAD Pro		LAP	CAD-0003	38	

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