



Technical guidelines general

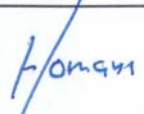
CAD DRAWING DIRECTIVES

Uniper Technologies B.V.
Galileistraat 33
3029 AL Rotterdam
The Netherlands
T +31 10 289 5711
www.benelux.uniper.energy

Client :
Order number :

UTBV B.V. order number :
Document number : UTBV-ATS 001

Revision : 5
Date : 16-02-2016
File name : ATS 001 EN.doc

	Author(s)		Dept. Head(s)			Techn. Director
	De Rooij		Homans			Landsbergen
Date	23-02-2016		23-02-16			23-2-16
Sign						

	Object name Technical guidelines General	Document number UTBV-ATS 001
CAD Drawing Directives.		

Date	Author	Version control list	
		Revision	Changes
10-06-2008	H.H. de Rooij	1	Updated
23-11-2009	H.H. de Rooij	2	Updated
02-08-2010	J. Reijmers	3	Rebranding EEN to ENT
26-11-2015	E. Joolen	4	Logo removed
16-02-2016	H.H. de Rooij	5	Rebranding ENT to UTVB

001.0 TABLE OF CONTENTS

	Page
001.1 General	3
001.1.1 Validity	3
001.1.2 Directives to be applied	3
001.1.3 CAD software	3
001.1.4 Additional software	3
001.1.5 Drawing exchange	3
001.1.6 Numbering	3
001.1.7 Requirements for the transfer of drawing files	3
001.2 Drawing Method	4
001.2.1 Paper size and units	4
001.2.2 Use of Xrefs	4
001.2.3 Use of model space	4
001.2.4 Use of paper space	4
001.2.5 Drawing dimensions	5
001.3 Final Provisions	5

	Object name Technical guidelines General	Document number UTBV-ATS 001
CAD Drawing Directives.		

001.1 GENERAL

001.1.1 Validity

001.1.1.1 These General CAD Directives shall be used during the production of CAD drawings for Uniper Technologies B.V. hereafter to be described as the "Principal", having due regard to company and/or department-oriented directives and standards.

001.1.2 Directives to be applied

001.1.2.1 All drawings produced by means of CAD shall satisfy the requirements laid down by the principal in specific directives, in addition to the requirements mentioned in this document.

001.1.2.2 Contractor is responsible for distribution of, and compliance with, these directives to and by his subcontractors.

001.1.3 CAD software

001.1.3.1 All drawings shall be supplied in AutoCAD 2010 DWG format. Older AutoCAD DWG formats are also allowed. If this is not possible the contractor shall make additional agreements in consultation with the principal.

001.1.4 Additional software

001.1.4.1 The use of additional software is only permitted if this has been agreed with the principal and has been confirmed in writing.

001.1.5 Drawing exchange

001.1.5.1 All "AS BUILT" drawings shall be handed over in accordance with this directive and directive UTVB-ATS 003.

001.1.6 Numbering

001.1.6.1 All drawings shall be numbered in a manner to be stipulated by the principal.

001.1.6.2 The filename of the drawing shall be equal to the principal's unique drawing number.

001.1.6.3 There shall never be more than one drawing in a DWG file.

001.1.6.4 The numbering on the drawing shall, in any event, comprise:

- The drawing file name.
- The principal's drawing number.
- The contractor's drawing number.

001.1.7 Requirements for the transfer of drawing files

001.1.7.1 Drawings to be transferred shall comply with the following requirements:

Date : 16-02-2016 Rev : 5	This document is the property of Uniper Technologies B.V. and contains confidential information. It may not be copied in parts or as a whole without prior written consent of Uniper Technologies B.V..	Page 3 of 5
------------------------------	---	-------------

	Object name Technical guidelines General	Document number UTBV-ATS 001
CAD Drawing Directives.		

- a) Drawing files shall be presented in AutoCAD 2010 DWG format. Older AutoCAD DWG formats are also allowed
- b) An identical copy of the DWG file, which can be requested by the principal, shall be kept by the contractor for up to one year after the date of transfer.
- c) If a drawing does not comply with the requirements laid down in this directive the contractor shall supply, free of charge, a new copy which does comply with all the requirements laid down.

001.2 DRAWING METHOD

Contractor can request standard drawing formats and pen-setting files for AutoCAD from the principal.
Drawings supplied in digital form shall have the following AutoCAD settings.

001.2.1 Paper size and units

- 001.2.1.1 The drawings shall be made in metrical units on metrical paper sizes according to ISO 216 A-Series.

001.2.2 Use of Xrefs

- 001.2.2.1 The use of Xrefs is prohibited. If any Xrefs were used in a drawing they must be binded before transfer.

001.2.3 Use of model space

- 001.2.3.1 When using model space, drawings shall be made in actual size (scale 1:1). This means that:
 - a) One Drawing unit = one mm.
 - b) The drawing format chosen shall be inserted as a block with the scale factor to be used.
 - c) The variable "DIMSCALE" shall be adjusted to the scale factor to be used.
 - d) The variable "LTSCALE" shall be set to 10x the value of the variable "DIMSCALE".
 - e) The limits shall be multiplied by the value of the variable "DIMSCALE".

001.2.4 Use of paper space

- 001.2.4.1 When using paper space, only one layout is permitted for each DWG file.
- 001.2.4.2 When using paper space, the model shall be placed in model space in actual size. This means 1 drawing unit is 1 mm.
- 001.2.4.3 When using paper space, the Dimensions, texts and the drawing format shall be placed in paper space. The size of the paper space shall be equal to the size of the printed drawing.
- 001.2.4.4 Color-pen coupling

Color no.	Color	Pen	Pen thickness	Print color

Date : 16-02-2016 Rev : 5	This document is the property of Uniper Technologies B.V. and contains confidential information. It may not be copied in parts or as a whole without prior written consent of Uniper Technologies B.V..	Page 4 of 5
------------------------------	---	-------------

	Object name Technical guidelines General	Document number UTBV-ATS 001
CAD Drawing Directives.		

		no.		
1	Red	1	0.18 mm	Black
2	Yellow	2	0.25 mm	Black
3	Green	3	0.35 mm	Black
4	Cyan	4	0.5 mm	Black
5	Blue	5	0.7 mm	Black
6	Magenta	6	1.0 mm	Black
7	White	7	0.18 mm	Black
8	Dark grey	8	0.18 mm	Black
9	Dark red	9	0.18 mm	Grey
10	Brown	10	0.25 mm	Grey
11	Moss green	11	0.35 mm	Grey
12	Light blue	12	0.5 mm	Grey
13	Dark blue	13	0.7 mm	Grey
14	Violet	14	1.0 mm	Grey
15	Light grey	15	0.18 mm	Grey
16	Light grey	16	0.18 mm	Grey
>16		-	0.18 mm	Will be printed in screen-color

001.2.5 Drawing dimensions

001.2.5.1 When using model space, the dimensions of the drawings must be multiplied by the scale of the drawing. The variable "DIMSCALE" must be set to the scale of the drawing. When using paper space, the dimensions of the paper must be equal to the limits in the following table.

Format name	Limits	Max. used area
A4 Vertical	0,0 – 210,297	17,9 – 207,280
A4 Horizontal	0,0 – 297,210	10,9 – 287,195
A3 Vertical	0,0 – 297,420	16,1 – 287,404
A3 Horizontal	0,0 – 420,297	17,9 – 417,280
A2	0,0 – 595,420	0,0 – 595,420
A1	0,0 – 841,595	0,0 – 841,595
A0	0,0 – 1189,841	0,0 – 1189,841

The use of B, C or Z formats is not permitted.

001.3 FINAL PROVISIONS

In all cases not provided for in this directive the contractor shall consult the principal.

All additional agreements between the contractor and the principal shall be confirmed in writing.