

Interface

ARGE Master Data International 4.0

Import CSV in full



ARGE Neue Medien

Version 4.0

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Technologiepark 12
33100 Paderborn, Germany
Phone no.: +49 5251 87288-0
Fax no.: +49 5251 87288-19
Email: info@arge.de



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1 General framework

Within the ARGE master data CSV interface, the article master data of the international HVAC industry are represented. The interface consists of several CSV files. Within the interface, the following data areas are represented:

- Header data
- Articles
- Groups
- Long texts
- Spare parts lists
- Historical products

Repeatable substructures of individual data areas are represented by separate CSV files.

The following list shows all individual files and their respective uses:

CSV file	Content
header.csv	Header data on the delivery
article.csv	Basic data on the article
short_text.csv	Short texts on the articles
article_document_allocations.csv	Image- and document allocations to the article
article_measures.csv	Article dimensions
dimension_texts.csv	Dimension texts on the article
additional_article_texts.csv	Optional additional article texts
article_accessories.csv	Accessories of the article
artikelsets.csv	Article sets
raw_materials.csv	Information on the raw materials of the article
attributes_of_article.csv	Attributes of the article (individual or in relation to an attribute system, e.g. ETIM)
groups.csv	Definition of commodity groups, product groups, discount groups, and bonus groups
groups_document_allocations.csv	Documents allocated to the groups
long_text.csv	Definition of the long texts and long text lines
spare_parts_list.csv	Definition of spare parts lists
historical_products.csv	Basic data on historical products
hp_documents.csv	Document allocations to historical products



The following requirements apply comprehensively to all files:

Character set		UTF 8
Permitted characters	Alphanumeric characters:	A-Z, a-z, 0-9
	Umlauts:	Ä ä Ü ü Ö ö
	Special characters:	! " # \$ % & ' () * + , - . / : < = > ? @ ^ _ ` { } ~
Permitted characters for optional article texts (short article summary, article summary, marketing text, application note):	U0020 – U007F	Latin Basic without control characters
	U00A0 – U00FF	Latin-1 Supplement without control characters
	U0100 – U017F	Latin Extended-A
	U0370 – U03FF	Greek, Coptic
	U0400 – U04FF	Cyrillic
	U000A	Line feed
	U000D	Line break cf. Annex, permitted character set
Line separator		CR LF
Field separator		Semicolon (;)
Text isolation character/escape character		Double quote (")
Blank		
Decimal separator		Comma (,)
Thousands separator		n/a
Date format		DDMMYYYY (31122012) (valid range: 01011900-31122099)
Boolean		"true" / "false"
GTIN (EAN)		13 numeric digits with valid check digit
Code lists		Cf. Annex
Header		Each file has to contain a header.



2 Data contents

2.1 Table <header>

Serial no.	Column header (content)	Description	Mandatory	Format
1	manufacturer_ID	ID of the data supplier	yes	Integer 13
2	manufacturer_name	Abbreviated name of the data supplier	yes	String 20
3	manufacturer_abbreviation	GLN of the manufacturer	no	String 13
4	manufacturer_GLN	DUNS of the manufacturer	no	String 9
5	manufacturer_DUNS	ARGE manufacturer code of the data supplier	yes	String 2
6	catalogue_ID	ID of the catalogue	yes	String 35
7	catalogue_name	Name of the catalogue	yes	String 35
8	start_of_validity	Start of validity of the data delivery Please note: Any start of validity at article level always takes precedence.	yes	Date 21032018
9	end_of_validity	End of validity of the data delivery Please note: Any end of validity at article level always takes precedence.	yes	Date 21032018
10	data_delivery_designation	Designation of the data delivery	yes	String 35



2.2 Table <article>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number	yes	String 15
2	GTIN_EAN	GTIN (EAN) serves as an alternative to identify the article within the catalogue. If the GTIN is used, it has to be supplied consistently for all articles. For exceptions cf. article type.	no	GTIN
3	article_type	Type of article	yes	Code list article type
4	start_of_validity	Start of validity at article level	yes	Date
5	end_of_validity	End of validity at article level	yes	Date
6	commodity_group_ID	Reference to the commodity group Please note: The group has to be included in the <groups> table sheet.	yes	String 3
7	product_group_ID	Reference to the product group Please note: The group has to be included in the <groups> table sheet.	yes	String 10
8	discount_group_ID	Reference to the discount group Please note: The group has to be included in the <groups> table sheet.	yes	String 4
9	bonus_group_ID	Reference to the bonus group Please note: The group has to be included in the <groups> table sheet.	no	String 35
10	min_order_quantity	Minimum order quantity	yes	Decimal 16,3
11	min_order_unit	Unit of the minimum order quantity	yes	Code list units
12	factory_article_number_catalogue	Additional factory article number as used e.g. in print media.	no	String 35



Serial no.	Column header (content)	Description	Mandatory	Format
13	alternative_article	Article from the assortment to be used as an alternative.	no	String 15
14	expiring_articlenumber_1	Article number of a successor model_1 Please note: The article has to be included in the data delivery. The entry is mandatory and will only be made is the article is labelled as an expiring article (<Yes-Successor>).	no	String 15
15	expiring_articlenumber_2	Article number of a successor model_2 For articles that will be replaced by more than one successor model. The entry will only be made is the article is labelled as an expiring article (<Yes-Successor>).	no	String 15
16	expiring_articlenumber_3	Article number of a successor model_3 For articles that will be replaced by more than one successor model. The entry will only be made is the article is labelled as an expiring article (<Yes-Successor>).	no	String 15
17	long_text_number	Reference to the long text Please note: The long text to the article has to be included in the <long_text> table sheet.	no	String 8
18	expiring_article	Labelling of the expiring article as <Yes>, <No>, <Yes-Successor>	yes	Code list Discontinued Articles
19	expiring_date	Expected expiration date Please note: Mandatory with expiring articles (expiring article = <Yes>, <Yes-Successor>) Can only be indicated for expiring articles. Earliest possible deletion 12 months after expiration date.	no	Date



Serial no.	Column header (content)	Description	Mandatory	Format
20	ordering_ability_suppress	Labelling availability for order from the shop of the <i>SHK-Branchenportal</i> : <true>, <false>	no	Boolean
21	display_in	Control of the display of the article in the shop and spare parts system of the <i>SHK-Branchenportal</i>	no	Code list display
22	spare_parts_ID	Reference to the spare parts list The spare parts list has to be included in the defined spare parts lists	no	String 35
23	built_start	Start of the production period	no	Date
24	built_end	End of the production period	no	Date
25	construction_year_text	Notes regarding the year of manufacture	no	String 35
26	exportable	Indication as to whether an article is approved for exportation: <true> or <false>	yes	Boolean
27	commodity_number	Please note: Mandatory entry with export articles (label exportable = <true>)	no	Integer 8
28	country_of_origin	Indication of the country of origin of the article	no	Code list Countries
29	hazardous_material_ID	Indication as to whether the article is hazardous goods: <true> or <false>	yes	Boolean
30	UN_number	Please note: Indication is useful with hazardous goods (label hazardous goods = <true>). In the field of mixed products, there are hazardous goods without further information.	no	String 35



Serial no.	Column header (content)	Description	Mandatory	Format
31	danger_class	Please note: Indication is useful with hazardous goods (label hazardous goods = <true>). In the field of mixed products, there are hazardous goods without further information.	no	String 35
32	carriage_category	Please note: Indication is useful with hazardous goods (label hazardous goods = <true>). In the field of mixed products, there are hazardous goods without further information.	no	Code list Carriage Category
33	durability_period	Durability period of the article in months: the value 99 stands for unlimited durability.	yes	Integer 1-99
34	mark_UBA_positive_list	Indication as to whether the article is subject to the UBA positive list: <true> or <false>	yes	Boolean
35	mark_UBA_requirement	Indication as to whether the article fulfils the requirements of the UBA positive list. Please note: If label UBA positive list = <true>, this entry is mandatory.	no	Boolean
36	series	Name of the product series the article in question belongs to	no	String 80
37	model	Model number of the article	no	String 15
38	price_on_request	Indication as to whether a valid price will only be transmitted on request: <true> or <false> Please note: If label price on request = <true>, it is not possible to state further prices.	yes	Boolean
39	measure_A	Dimension a of the basic article	no	Decimal 16,3
40	measure_unit_A	Measurement unit for dimension a	no	Code list Length Units
41	measure_B	Dimension b of the basic article	no	Decimal 16,3
42	measure_unit_B	Measurement unit for dimension b	no	Code list Length Units



Serial no.	Column header (content)	Description	Mandatory	Format
43	measure_C	Dimension c of the basic article	no	Decimal 16,3
44	measure_unit_C	Measurement unit for dimension c	no	Code list Length Units
45	weight	Weight of the basic article	no	Decimal 16,3
46	weight_unit	Measurement unit for the weight	no	Code list Weight Units
47	packaging_quantity	Number of packages an article consists of	no	Integer 8
48	value_added_tax	Value added tax class of the article	yes	Code list Tax Code
49	energy_efficiency_class	Energy efficiency class of the article Please note: Mandatory entry if an energy efficiency class of the article is available.	no	Code list EEC
50	standard_delivery_period	Indication of the standard delivery period in days (calculated in workdays Mon thru Fri)	no	Integer 8
51	factory_list_price_value	Factory list price of the article Please note: Mandatory entry if the price is not labelled <price on request = yes>.	no	Decimal 15,2
52	factory_list_price_currency	Currency of the price value Please note: Mandatory entry if a factory list price is given as price value.	no	Code list Currency
53	factory_list_price_basis	Quantity of the article the price refers to; possible values are 1, 10, 100, and 1000. Please note: Mandatory entry if a factory list price is given as price value.	no	Integer 9



Serial no.	Column header (content)	Description	Mandatory	Format
54	factory_list_price_price_ quantity_unit	Quantity unit of the article the price refers to. Please note: Mandatory entry if a factory list price is given as price value.	no	Code list Units
55	RRP_price_value	RRP without VAT class of the article. Please note: Mandatory entry if a non-binding resale price recommendation has been given for the article.	no	Decimal 15,2
56	RRP_currency	Price currency Please note: Mandatory entry if an RRP without tax has been given as price value.	no	Code list Currency
57	RRP_price_basis	Quantity of the article that the price refers to: possible values are 1, 10, 100, and 1000. Please note: Mandatory entry if an RRP without tax has been given as price value.	no	integer 9
58	RRP_quantity_unit	Quantity unit of the article the price refers to. Please note: Mandatory entry if an RRP without tax has been given as price value.	no	Code list Units
59	packaging_unit_1_packaging _type	Type of packaging unit 1 (box, basket, ...)	no	Code list Package kind
60	packaging_unit_1_quantity	Number of basic articles included Please note: Mandatory entry if a packaging type was given before	no	Decimal 16,3
61	packaging_unit_1_GTIN_EA N	GTIN of packaging unit 1	no	GTIN
62	packaging_unit_1_measure_ A	Dimension a of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
63	packaging_unit_1_measure_ A_unit	Measurement unit for dimension a of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
64	packaging_unit_1_measure_ B	Dimension b of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3



Serial no.	Column header (content)	Description	Mandatory	Format
65	packaging_unit_1_measure_B_unit	Measurement unit for dimension b of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
66	packaging_unit_1_measure_C	Dimension c of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
67	packaging_unit_1_measure_C_unit	Measurement unit for dimension c of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
68	packaging_unit_1_weight	Weight of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
69	packaging_unit_1_weight_unit	Measurement unit of the weight of packaging unit 1 Please note: Mandatory entry if a packaging type was given before.	no	Code list Weight Units
70	packaging_unit_2_packaging_type	Type of packaging unit 2 (box, basket, ...)	no	Code list Package kind
71	packaging_unit_2_quantity	Number of basic articles included Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
72	packaging_unit_2_GTIN_EAN	GTIN of packaging unit 2	no	GTIN
73	packaging_unit_2_measure_A	Dimension a of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
74	packaging_unit_2_measure_A_unit	Measurement unit for dimension a of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
75	packaging_unit_2_measure_B	Dimension b of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3



Serial no.	Column header (content)	Description	Mandatory	Format
76	packaging_unit_2_measure_B_unit	Measurement unit for dimension b of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
77	packaging_unit_2_measure_C	Dimension c of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
78	packaging_unit_2_measure_C_unit	Measurement unit for dimension c of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
79	packaging_unit_2_weight	Weight of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
80	packaging_unit_2_weight_unit	Measurement unit of the weight of packaging unit 2 Please note: Mandatory entry if a packaging type was given before.	no	Code list Weight Units
81	packaging_unit_3_packaging_type	Type of packaging unit 3 (box, basket, ...)	no	Code list Package kind
82	packaging_unit_3_quantity	Number of basic articles included Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
83	packaging_unit_3_GTIN_EAN	GTIN of packaging unit 3	no	GTIN
84	packaging_unit_3_measure_A	Dimension a of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
85	packaging_unit_3_measure_A_unit	Measurement unit for dimension a of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
86	packaging_unit_3_measure_B	Dimension b of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3



Serial no.	Column header (content)	Description	Mandatory	Format
87	packaging_unit_3_measure_B_unit	Measurement unit for dimension b of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
88	packaging_unit_3_measure_C	Dimension c of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
89	packaging_unit_3_measure_C_unit	Measurement unit for dimension c of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
90	packaging_unit_3_weight	Weight of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
91	packaging_unit_3_weight_unit	Measurement unit of the weight of packaging unit 3 Please note: Mandatory entry if a packaging type was given before.	no	Code list Weight Units
92	packaging_unit_4_packaging_type	Type of the packaging unit 4 (box, basket, ...)	no	Code list Package kind
93	packaging_unit_4_quantity	Number of basic articles included Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
94	packaging_unit_4_GTIN_EAN	GTIN of the packaging unit 4	no	GTIN
95	packaging_unit_4_measure_A	Dimension a of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
96	packaging_unit_4_measure_A_unit	Measurement unit for dimension a of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units



Serial no.	Column header (content)	Description	Mandatory	Format
97	packaging_unit_4_measure_B	Dimension b of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
98	packaging_unit_4_measure_B_unit	Measurement unit for dimension b of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
99	packaging_unit_4_measure_C	Dimension c of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
100	packaging_unit_4_measure_C_unit	Measurement unit for dimension c of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
101	packaging_unit_4_weight	Weight of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
102	packaging_unit_4_weight_unit	Measurement unit of the weight of the packaging unit 4 Please note: Mandatory entry if a packaging type was given before.	no	Code list Weight Units
103	packaging_unit_5_packaging_type	Type of the packaging unit 5 (box, basket, ...)	no	Code list Package kind
104	packaging_unit_5_quantity	Number of basic articles included Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3



Serial no.	Column header (content)	Description	Mandatory	Format
105	packaging_unit_5_GTIN_EAN	GTIN of the packaging unit 5	no	GTIN
106	packaging_unit_5_measure_A	Dimension a of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
107	packaging_unit_5_measure_A_unit	Measurement unit for dimension a of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
108	packaging_unit_5_measure_B	Dimension b of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
109	packaging_unit_5_measure_B_unit	Measurement unit for dimension b of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
110	packaging_unit_5_measure_C	Dimension c of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3
111	packaging_unit_5_measure_C_unit	Measurement unit for dimension c of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Code list Length Units
112	packaging_unit_5_weight	Weight of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Decimal 16,3



Serial no.	Column header (content)	Description	Mandatory	Format
113	packaging_unit_5_weight_unit	Measurement unit of the weight of the packaging unit 5 Please note: Mandatory entry if a packaging type was given before.	no	Code list Weight Units
114	Reach	Indication as to whether an article or ingredient of an article is subject to the REACH Regulation: articles and ingredients of articles that are listed as substances of very high concern under REACH have to be labelled in the data delivery.	no	Code list REACH
115	Reach_date	Date of completion of the verification that an article/ingredient of an article is on the REACH list. Please note: Mandatory entry if label REACH = <true> or <false>	no	Date

2.1 Table <short_text>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number The article number has to be included in the <article.csv> table sheet.	yes	String 15
2	short_text_1	40 characters max., observe attribute order	yes	Text 40
3	short_text_2	40 characters max., logical separation from short text 1 without continuous text or hyphenation, observe attribute order	no	Text 40
4	deep_link_url	URL of a website to access further article information (deep link)	no	String 256
5	language	Indication of the language the short text was written in	yes	Code list language



2.2 Table <article_document_allocations>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number The article number has to be included in the <article.csv> table sheet.	yes	String 15
2	document	Name of the document file Please note: The file name has to be given in accordance with the DQR file naming convention. If there is a spare parts list for an article, providing at least one exploded drawing is mandatory. All exploded drawings provided have to fit to the spare parts lists.	yes	String 35
3	document_type	Type of document	yes	Code list Document type
4	image_Use	Use of the document: Web- or print image Please note: This entry can only be made with image documents (B_, S_, U_, V_, MI, DT, KV, LS). In case of no entry, <print> will generally be used.	no	Code list Picture Use
5	substitute_ID	The article image is a substitute of the article, i.e. it shows a similar depiction. Please note: This entry can only be made with images (B_, S_, U_, V_, MI, DT, KV, LS) if necessary.	no	Boolean
6	document_description	Description of the document	no	String 40
7	document_sort_sequence	Sequence of the document. When displaying the documents, it is used for sorting.	no	Integer 2
8	language	Indication of the language the short text was written in	yes	Code list language



2.3 Table <article_measures>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number The article number has to be included in the <article.csv> table sheet.	yes	String 15
2	measure_ID	Type of net dimension (length, weight, ...) of an article. Please note: Each code can only be used once per article.	yes	Code list Allowed Measurement Units
3	measure_value	Measurement/weight value Please note: The measurement value has to be greater than 0.	yes	Decimal 16,3
4	measure_unit	Unit of the measurement/weight information	yes	Code list Units

2.4 Table <dimension_texts>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number: The article number has to be included in the <article.csv> table sheet.	yes	String 15
2	dimension_text_line_number	Identification number of the dimension text line (the line number has to be greater than 0)	yes	Integer 2
3	dimension_text_line	Text line of the dimension text	yes	String 40
4	language	Indication of the language the text was written in	yes	Code list language



2.5 Table <additional_article_texts>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number: The article number has to be included in the <article.csv> table sheet	yes	String 15
2	article_short_summary	Unambiguous article-identifying description as unformatted continuous text. Please note: extended UTF-8 character set, cf. Chapter2 Fehler! Verweisquelle konnte nicht gefunden werden.	no	String 256
3	article_summary	Description of the technical features of an article, also possible in HTML format. Please note: extended UTF-8 character set, cf. Chapter2 Fehler! Verweisquelle konnte nicht gefunden werden.	no	String 10000
4	text_marketing	User-oriented description of an article, also possible in HTML format. Please note: extended UTF-8 character set, cf. Chapter2 Fehler! Verweisquelle konnte nicht gefunden werden.	no	String 10000
5	application_note	Advice on processing techniques, also possible in HTML format. Please note: extended UTF-8 character set, cf. Chapter2 Fehler! Verweisquelle konnte nicht gefunden werden.	no	String 512
6	language	Indication of the language the text was written in	yes	Code list Language



2.6 Table <article_accessories>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number: The article number has to be included in the <article.csv> table sheet	yes	String 15
2	accessories	Article number of the accessory part: The article number has to be included in the <article.csv> table sheet. Please note: The entry has to be unambiguous within the article	yes	String 15
3	product_labeling	Indication as to whether the accessory article is required for using the product.	yes	Boolean
4	amount	Number of associated articles as accessories (in relation to the basic unit of the article).	yes	Decimal 16,3

2.7 Table <article_sets>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number: The article number has to be included in the <article.csv> table sheet.	yes	String 15
2	associated_article	Article number of the associated article	yes	String 15
3	amount	Number of associated articles in the set (in relation to the basic unit of the article)	yes	Decimal 16,3



2.8 Table <raw_materials>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number: The article number has to be included in the <article.csv> table sheet.	yes	String 15
2	material	Raw material that the information refers to. Please note: The entry has to be unambiguous within the article.	yes	Code list Raw materials
3	weight_basis	Basic data that the weight refers to	yes	Decimal 18,4
4	basis_unit	Basic data unit that the given weight refers to	yes	Code list Units
5	proportion_by_weight	Weight proportion of the raw material	yes	Decimal 18,4
6	proportion_unit	Proportion unit of the raw material	yes	Code list Units
7	quotation_of_raw_material	Quotation (per 100 kg) of the raw material that has already been factored in.	yes	Decimal 15,2



2.9 Table <attributes_of_article>

Serial no.	Column header (content)	Description	Mandatory	Format
1	factory_article_number	Factory article number The article number has to be included in the <article.csv> table sheet.	yes	String 15
2	attribute_system	Indication of an attribute system that the attribute refers to, e.g. classification, ERP or keywords.	yes	Code list Attribute System
3	attribute_class	Allocation to an attribute class	no	String 35
4	attribute_name	Name of the attribute Please note: The entry has to be unambiguous within the article.	yes	String 35
5	attribute_value_1	Value of the attribute	yes	String 35
6	attribute_value_2	Value 2 of the attribute	yes	String 35
7	attribute_unit	Unit of the attribute	no	String 35
8	attribute_value_description	Complementary description of the attribute value	no	String 35



2.10 Table <groups>

Serial no.	Column header (content)	Description	Mandatory	Format
1	group_type	Type of group (commodity group, product group, ...) Please note: The combination of group type and -number has to be unambiguous.	yes	Code list Group type
2	group_number	Identification number of the group (character length depends on group type): Commodity group ID: String 3 Product group ID: String 10 Discount group ID: String 4 Bonus group ID: String 35	yes	String 35
3	group_designation	Description of the group	yes	String 40



2.11 Table <groups_document_allocations>

Serial no.	Column header (content)	Description	Mandatory	Format
1	group_type	Type of group (commodity group, product group, ...) Please note: The combination of group type and -number has to be unambiguous.	yes	Code list Group type
2	group_number	Identification number of the group (character length depends on group type): Commodity group ID: String 3 Product group ID: String 10 Discount group ID: String 4 Bonus group ID: String 35	yes	String 35
3	document	Name of the document file Please note: The file name has to be given in accordance with the DQR file naming convention. If there is a spare parts list for an article, providing an exploded drawing is mandatory.	yes	String 35
4	document_type	Type of document	yes	Code list Document type
5	image_Use	Use of the document: Web- or print image Please note: This entry can only be made with image documents (B_, S_, U_, V_, MI, DT, KV, LO, LS). In case of no entry, <print> will generally be used.	no	Code list Picture Use
6	document_description	Description of the document	no	String 40
7	document_sort_sequence	Pre-setting a sequence in document display. This will be used for sorting in downstream systems.	no	Integer 2
8	language	Indication of the language the text was written in	yes	Code list Language



2.12 Table <long_text>

Serial no.	Column headers (content)	Description	Mandatory	Format
1	long_text_number	Identification number of the long text Please note: The combination of long text number and long text line number has to be unambiguous.	yes	String 8
2	long_text_line_number	Consecutive line number of the long text	yes	integer 9
3	long_text_line	Long text line	yes	String 40
4	language	Indication of the language the text was written in	yes	Code list Language



2.13 Table <spare_parts_list>

Serial no.	Content	Description	Mandatory	Format
1	spare_parts_ID	Identification number of the spare parts list	yes	String 35
2	line_number	Consecutive line number of the spare parts list	yes	Integer 3
3	line_type	Position number given on the associated exploded drawing. Please note: Mandatory entry if selected line type is <ETA>.	no	String 10
4	position_number	Article number of the spare part Please note: Mandatory entry if selected line type is <ETA>.	no	String 15
5	spare_part	Please note: Entry only possible if selected line type is <ETA>.	no	String 5
6	price_group	Description of the spare parts line	yes	String 35
7	text	ETA = spare parts line is a complete line set. ETT = spare parts line is only text.	yes	Code list Row set
8	year_of_construction_start	Please note: entry if selected line type is <ETA> and article reference type is <HP>	no	Date
9	article_reference_type	Active article (A) or historical product (HP) Please note: Mandatory entry if selected line type is <ETA>.	no	Code list Article link type
10	language	Indication of the language the text was written in	yes	Code list Language



2.14 Table <historical_products>

Serial no.	Inhalt	Description	Mandatory	Format
1	historical_product	Factory article number of the historical product	yes	String 15
2	year_of_construction_start	Start of the production period	yes	Date
3	year_of_construction_end	End of the production period	no	Date
4	year_of_construction_text	Comment on historically relevant information on the article	no	String 35
5	short_text_1	Article short text 1	yes	String 40
6	short_text_2	Article short text 2	no	String 40
7	GTIN_EAN	GTIN (EAN)	no	GTIN
8	commodity_group_ID	Reference to a commodity group: The group has to be included in the <groups.csv> table sheet.	yes	String 3
9	product_group_ID	Reference to a product group: The group has to be included in the <groups.csv> table sheet.	yes	String 10
10	spare_parts_list_number	Reference to a spare parts list: The spare parts list has to be included in the <Spare parts lists.csv> table sheet.	yes	String 35
11	language	Indication of the language the text was written in	yes	Code list Language



2.15 Table <hp_documents>

Serial no.	Inhalt	Description	Mandatory	Format
1	historical_product	Factory article number of the historical product	yes	String 15
2	year_of_construction_start	Start of the production period	yes	Date
3	document	Name of the document file	yes	String 35
4	document_type	Type of document	yes	Code list Document type
5	image_Use	Use of the document: Web- or print image Please note: This entry can only be made with image documents (B_, S_, U_, V_, MI, DT, KV, LS). In case of no entry, <print> will generally be used.	no	Code list Picture Use
6	substitute_ID	The article image is a substitute of the article, i.e. it shows a similar depiction. Please note: This entry can only be made with images (B_, S_, U_, V_, MI, DT, KV, LS) if necessary.	no	Boolean
7	document_description	Description of the document	no	String 40
8	document_sort_sequence	Pre-setting a sequence in document display. This will be used for sorting in downstream systems.	no	Integer 2
9	language	Indication of the language the text was written in	yes	Code list Language



3 Code lists

3.1 Articletype (Article type)

Code	Description
STD	Standard article
ERA	Spare part A
ERB	Spare part B
ERC	Spare part C
VA	Variant
MA	Customization
DLS	Service / Software
PAK	Package / Set
SON	Special article
KAL	Calculation item
STG	Bulk goods

3.2 Articlelinktype (Article reference type)

Code	Description
A	Article
HP	Historical product

3.3 Countries (countries of origin)

Code	Description
AF	Afghanistan
EG	Egypt
AX	Åland Islands
AL	Albania
DZ	Algeria
AS	American Samoa
VI	American Virgin Islands
AD	Andorra
AO	Angola
AI	Anguilla
AQ	Antarctica
AG	Antigua and Barbuda
GQ	Equatorial Guinea
AR	Argentina
AM	Armenia
AW	Aruba
AC	Ascension



Code	Description
AZ	Azerbaijan
ET	Ethiopia
AU	Australia
BS	Bahamas
BH	Bahrain
BD	Bangladesh
BB	Barbados
BY	Belarus
BE	Belgium
BZ	Belize
BJ	Benin
BM	Bermuda
BT	Bhutan
BO	Bolivia
BQ	Bonaire, Saint Eustace and Saba (Netherlands)
BA	Bosnia and Herzegovina
BW	Botswana
BV	Bouvet Island

Code	Description
BR	Brazil
VG	British Virgin Islands
IO	British Indian Ocean Territory
BN	Brunei Darussalam
BG	Bulgaria
BF	Burkina Faso
BU	Burma (now Myanmar)
BI	Burundi
EA	Ceuta, Melilla
CL	Chile
CN	China, People's Republic
CP	Clipperton (reserved for ITU)
CK	Cook Islands
CR	Costa Rica
CI	Côte d'Ivoire (Ivory Coast)
CW	Curaçao
DK	Denmark
DE	Germany
DG	Diego Garcia (reserved for ITU)



Code	Description
DM	Dominica
DO	Dominican Republic
DJ	Djibouti
EC	Ecuador
SV	El Salvador
ER	Eritrea
EE	Estonia
CE	European Community
EU	European Union
FK	Falkland Islands
FO	Faroe Islands
FJ	Fiji
FI	Finland
FR	France
FX	France, France métropolitaine
GF	French Guiana
PF	French Polynesia
TF	French Southern and Antarctic Territories
GA	Gabon

Code	Description
GM	Gambia
GE	Georgia
GH	Ghana
GI	Gibraltar
GD	Grenada
GR	Greece
GL	Greenland
GP	Guadeloupe
GU	Guam
GT	Guatemala
GG	Guernsey (Channel Island)
GN	Guinea
GW	Guinea-Bissau
GY	Guyana
HT	Haiti
HM	Heard Island and McDonald Islands
HN	Honduras
HK	Hongkong
IN	India



Code	Description
ID	Indonesia
IM	Isle of Man
IQ	Iraq
IR	Iran, Islamic Republic
IE	Ireland, Republic
IS	Iceland
IL	Israel
IT	Italy
JM	Jamaica
JP	Japan
YE	Yemen
JE	Jersey (Channel Island)
JO	Jordan
YU	Yugoslavia (formerly)
KY	Caiman Islands
KH	Cambodia
CM	Cameroon
CA	Canada
IC	Canary Islands

Code	Description
CV	Cape Verde
KZ	Kazakhstan
QA	Qatar
KE	Kenya
KG	Kyrgyzstan
KI	Kiribati
CC	Cocos (Keeling) Islands
CO	Colombia
KM	Comoros
CD	Democratic Republic of the Congo (formerly Zaire)
CG	Republic of the Congo
KP	Korea, Democratic People's Republic (North Korea)
KR	Korea, Republic (South Korea)
HR	Croatia
CU	Cuba
KW	Kuwait
LA	Laos, Democratic People's Republic
LS	Lesotho
LV	Latvia



Code	Description
LB	Lebanon
LR	Liberia
LY	Libya
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
MO	Macao
MG	Madagascar
MW	Malawi
MY	Malaysia
MV	Maldives
ML	Mali
MT	Malta
MA	Morocco
MH	Marshall Islands
MQ	Martinique
MR	Mauretania
MU	Mauritius
YT	Mayotte

Code	Description
MK	Macedonia, former Yugoslav Republic [2b]
MX	Mexico
FM	Micronesia
MD	Moldova
MC	Monaco
MN	Mongolia
ME	Montenegro
MS	Montserrat
MZ	Mozambique
MM	Myanmar (Burma)
NA	Namibia
NR	Nauru
NP	Nepal
NC	New Caledonia
NZ	New Zealand
NT	Neutral Zone (Saudi-Arabia and Iraq until 1993)
NI	Nicaragua
QU	Unspecified countries and territories
NL	Netherlands



Code	Description
AN	Netherlands Antilles (formerly)
NE	Niger
NG	Nigeria
NU	Niue
MP	Northern Mariana Islands
NF	Norfolk Island
NO	Norway
OM	Oman
AT	Austria
TL	East Timor
PK	Pakistan
PS	Palestinian Autonomous Territories
PW	Palau
PA	Panama
PG	Papua New Guinea
PY	Paraguay
PE	Peru
PH	Philippines
PN	Pitcairn Islands

Code	Description
PL	Poland
PT	Portugal
PR	Puerto Rico
RE	Réunion
RW	Ruanda
RO	Romania
RU	Russian Federation
SB	Solomon Islands
BL	Saint-Barthélemy
MF	Saint-Martin (French part)
ZM	Zambia
WS	Samoa
SM	San Marino
ST	São Tomé and Príncipe
SA	Saudi-Arabia
SE	Sweden
CH	Switzerland (Helvetic Confederation)
SN	Senegal
RS	Serbia



Code	Description
CS	Serbia and Montenegro (formerly)
SC	Seychelles
SL	Sierra Leone
ZW	Zimbabwe
SG	Singapore
SX	Sint Maarten (Dutch part)
SK	Slovakia
SI	Slovenia
SO	Somalia
ES	Spain
LK	Sri Lanka
SH	Saint Helena
KN	Saint Kitts and Nevis
LC	Saint Lucia
PM	Saint Pierre and Miquelon
VC	Saint Vincent and the Grenadines
ZA	South Africa
SD	Sudan
GS	South Georgia and the South Sandwich Islands

Code	Description
SS	South Sudan
SR	Suriname
SJ	Svalbard and Jan Mayen Islands
SZ	Swaziland
SY	Syrian Arab Republic
TJ	Tajikistan
TW	Republic of China (Taiwan)
TZ	Tanzania, United Republic
TH	Thailand
TG	Togo
TK	Tokelau
TO	Tonga
TT	Trinidad and Tobago
TA	Tristan da Cunha (governed by St. Helena, reserved for UPU)
TD	Chad
CZ	Czech Republic
CS	Czechoslovakia (formerly)
TN	Tunisia
TR	Turkey



Code	Description
TM	Turkmenistan
TC	Turks and Caicos Islands
TV	Tuvalu
SU	USSR (now: Russian Federation)
UG	Uganda
UA	Ukraine
HU	Hungary
UM	United States Minor Outlying Islands
UY	Uruguay
UZ	Uzbekistan
VU	Vanuatu
VA	Vatican City
VE	Venezuela
AE	United Arab Emirates
US	United States of America
GB	United Kingdom of Great Britain and Northern Ireland
VN	Vietnam
WF	Wallis and Futuna Islands
CX	Christmas Island

Code	Description
EH	Western Sahara
ZR	Zaire (now Democratic Republic of the Congo)
CF	Central African Republic
CY	Cyprus

3.4 Currency

Code	Description
EUR	Euro

3.5 Display

Code	Description
0	Not in the ordering- and spare parts information system
1	Only in the ordering system
2	Only in the spare parts information system
3	In the ordering- and spare parts information system

3.6 Document type (media type)

Code	Description
B_	Photorealistic product image in colour
S_	Photorealistic black-and-white image



Code	Description
U_	Image without dimensions (line drawing)
V_	Image with dimensions (line drawing)
X_	Exploded drawing
MI	Milieu image, bathroom scene
2D	2-D plan view
2F	2-D frontal view
2S	2-D lateral view
3C	3-D data
3B	3-D data
3A	3-D data for display in the browser
AN	Animation
DB	Datasheet
GG	HAZMAT datasheet
IS	Instruction/operating instructions
MA	Installation instructions
TI	Technical information
TZ	Technical drawing
VI	Video
WA	Maintenance instructions

Code	Description
PA	Planning instructions
PP	Brochures
ZL	Approval
SB	Wiring diagram
SF	Training slide
DT	Detail image/view
PF	Care instructions
KV	Key visuals
LS	Lifestyle (emotional images with people)
LO	Logo
LE	Construction Products Regulation
EL	ErP label
UP	UBA positive list
WL	WELL label



3.7 Grouptype (Group type)

Code	Description
PG	Product group
WG	Commodity group
RG	Discount group
BG	Bonus group

3.8 Packagekind (type of packaging)

Code	Description
BB	Coil
BG	Sack
BH	Bundle
BK	Basket
CF	Crate/Case
CG	Cage
CH	Lattice box
CT	Box
PA	Packet
PC	Parcel
PG	Disposable pallet

Code	Description
PK	Packing unit
PN	Euro-pallet
PU	case
RG	Ring
SC	Mixed pallet
HP	Half-pallet
TU	Tube
BTL	Bag
BX	Box
CO	Container
DY	Display
STG	Bar
TRO	Drum
PLA	Plate
CI	Jerrican
GEB	Package



3.9 Rawmaterials (raw material information)

Code	Description
AL	Aluminium
PB	Lead
CR	Chrome
AU	Gold
CD	Cadmium
CU	copper
MG	Magnesium
MS	Brass
NI	Nickel
PL	Platinum
AG	Silver
W	Tungsten
ZN	Zinc
SN	Tin

3.10 Rowset (Line type on spare parts list)

Code	Description
ETA	Spare part line is a complete line set

ETT	Spare part line is only text
-----	------------------------------

3.11 LengthUnits (length units)

Code	Description
CMT	Centimetre
KTM	Kilometre
MMT	Millimetre
MTR	Metre

3.12 WeightUnits (weight units)

Code	Description
GRM	Gram
KGM	Kilogram
TNE	Metric ton

3.13 Units (quantity units)

Code	Description
CMK	Square centimetre
CMQ	Cubic centimetre
CMT	Centimetre
DZN	Dozen



Code	Description
GRM	Gram
HLT	Hectolitre
KGM	Kilogram
KTM	Kilometre
LTR	Litre
MMT	Millimetre
MTK	Square metre
MTQ	Cubic metre
MTR	Metre
PCE	Piece
PR	Pair
SET	Set
TNE	Metric ton

3.14 AllowedMeasurementUnits

Measurement unit code	Description	Permitted measurement units
AAI	Filling quantity	CMQ, HLT, LTR, MTQ
BW	Weight	GRM, KGM, TNE

Measurement unit code	Description	Permitted measurement units
DI	Diameter	CMT, KTM, MMT, MTR
DP	Depth	CMT, KTM, MMT, MTR
DW	Left width	CMT, KTM, MMT, MTR
FN	Surface	CMK, MTK
HT	Height	CMT, KTM, MMT, MTR
LN	Length	CMT, KTM, MMT, MTR
ABJ	Volume	CMQ, HLT, LTR, MTQ
VW	Right width	CMT, KTM, MMT, MTR
WD	Width	CMT, KTM, MMT, MTR

3.15 PictureUse

Code	Description
Print	Image is suited for use in print media
Web	Image is suited for use on the web



3.16 CarryingCategory (Transportation category)

Code	Description
0	Maximum total quantity (in kg or litres) per transport unit: 0
1	Maximum total quantity (in kg or litres) per transport unit: 20
2	Maximum total quantity (in kg or litres) per transport unit: 333
3	Maximum total quantity (in kg or litres) per transport unit: 1000
4	Maximum total quantity (in kg or litres) per transport unit: unlimited

3.17 TaxCode (Value Added Tax)

Code	Description
0	Full VAT rate article
1	Half VAT rate article
7	Reverse charge mechanism as per Art. 13b UStG
8	VAT-exempt as per Art. 13b UStG "construction works"

3.18 EEC (Energy efficiency classes)

Code	Description
A+++	A+++
A++	A++
A+	A+
A	A
B	B
C	C
D	D
E	E
F	F
G	G

3.19 DiscontinuedArticle

Code	Description
Yes	Article will be discontinued
Yes-Successor	Article will be discontinued; successor model available
No	Article will not be discontinued



3.20 AttributeSystem (Attribute system)

Code	Description
ETIM 6	Version ETIM 6
ETIM 7	Version ETIM 7
ERP 1.15	ErP data as per requirements of version 1.15
ERP 2.0	ErP data as per requirements of version 2.0
INDIV	Individual attributes: e.g. keywords

3.21 Reach (REACH list)

Code	Description
true	Article was checked and is subject to the list
false	Article was checked and is not subject to the list
no data	No REACH information available

3.22 Languages

Code	Description
BE	Belgian
NL	Dutch
FR	French
EN	English

PL	Polish
CS	Czech
ES	Spanish
IT	Italian
DE	German
PT	Portuguese
DA	Danish
HU	Hungarian
SV	Swedish

4 Permitted character set

4.1 U0020 - U007F Latin Basic without control characters

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0021	!	21	EXCLAMATION MARK
U+0022	"	22	QUOTATION MARK
U+0023	#	23	NUMBER SIGN
U+0024	\$	24	DOLLAR SIGN
U+0025	%	25	PERCENT SIGN
U+0026	&	26	AMPERSAND
U+0027	'	27	APOSTROPHE
U+0028	(28	LEFT PARENTHESIS
U+0029)	29	RIGHT PARENTHESIS
U+002A	*	2a	ASTERISK
U+002B	+	2b	PLUS SIGN
U+002C	,	2c	COMMA
U+002D	-	2d	HYPHEN-MINUS
U+002E	.	2e	FULL STOP
U+002F	/	2f	SOLIDUS
U+0030	0	30	DIGIT ZERO
U+0031	1	31	DIGIT ONE
U+0032	2	32	DIGIT TWO
U+0033	3	33	DIGIT THREE
U+0034	4	34	DIGIT FOUR
U+0035	5	35	DIGIT FIVE
U+0036	6	36	DIGIT SIX
U+0037	7	37	DIGIT SEVEN
U+0038	8	38	DIGIT EIGHT
U+0039	9	39	DIGIT NINE
U+003A	:	3a	COLON
U+003B	;	3b	SEMICOLON
U+003C	<	3c	LESS-THAN SIGN
U+003D	=	3d	EQUALS SIGN
U+003E	>	3e	GREATER-THAN SIGN
U+003F	?	3f	QUESTION MARK
U+0040	@	40	COMMERCIAL AT

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0041	A	41	LATIN CAPITAL LETTER A
U+0042	B	42	LATIN CAPITAL LETTER B
U+0043	C	43	LATIN CAPITAL LETTER C
U+0044	D	44	LATIN CAPITAL LETTER D
U+0045	E	45	LATIN CAPITAL LETTER E
U+0046	F	46	LATIN CAPITAL LETTER F
U+0047	G	47	LATIN CAPITAL LETTER G
U+0048	H	48	LATIN CAPITAL LETTER H
U+0049	I	49	LATIN CAPITAL LETTER I
U+004A	J	4a	LATIN CAPITAL LETTER J
U+004B	K	4b	LATIN CAPITAL LETTER K
U+004C	L	4c	LATIN CAPITAL LETTER L
U+004D	M	4d	LATIN CAPITAL LETTER M
U+004E	N	4e	LATIN CAPITAL LETTER N
U+004F	O	4f	LATIN CAPITAL LETTER O
U+0050	P	50	LATIN CAPITAL LETTER P
U+0051	Q	51	LATIN CAPITAL LETTER Q
U+0052	R	52	LATIN CAPITAL LETTER R
U+0053	S	53	LATIN CAPITAL LETTER S
U+0054	T	54	LATIN CAPITAL LETTER T
U+0055	U	55	LATIN CAPITAL LETTER U
U+0056	V	56	LATIN CAPITAL LETTER V
U+0057	W	57	LATIN CAPITAL LETTER W
U+0058	X	58	LATIN CAPITAL LETTER X
U+0059	Y	59	LATIN CAPITAL LETTER Y
U+005A	Z	5a	LATIN CAPITAL LETTER Z
U+005B	[5b	LEFT SQUARE BRACKET
U+005C	\	5c	REVERSE SOLIDUS
U+005D]	5d	RIGHT SQUARE BRACKET
U+005E	^	5e	CIRCUMFLEX ACCENT
U+005F	_	5f	LOW LINE
U+0060	`	60	GRAVE ACCENT
U+0061	a	61	LATIN SMALL LETTER A
U+0062	b	62	LATIN SMALL LETTER B
U+0063	c	63	LATIN SMALL LETTER C
U+0064	d	64	LATIN SMALL LETTER D

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0065	e	65	LATIN SMALL LETTER E
U+0066	f	66	LATIN SMALL LETTER F
U+0067	g	67	LATIN SMALL LETTER G
U+0068	h	68	LATIN SMALL LETTER H
U+0069	i	69	LATIN SMALL LETTER I
U+006A	j	6a	LATIN SMALL LETTER J
U+006B	k	6b	LATIN SMALL LETTER K
U+006C	l	6c	LATIN SMALL LETTER L
U+006D	m	6d	LATIN SMALL LETTER M
U+006E	n	6e	LATIN SMALL LETTER N
U+006F	o	6f	LATIN SMALL LETTER O
U+0070	p	70	LATIN SMALL LETTER P
U+0071	q	71	LATIN SMALL LETTER Q
U+0072	r	72	LATIN SMALL LETTER R
U+0073	s	73	LATIN SMALL LETTER S
U+0074	t	74	LATIN SMALL LETTER T
U+0075	u	75	LATIN SMALL LETTER U
U+0076	v	76	LATIN SMALL LETTER V
U+0077	w	77	LATIN SMALL LETTER W
U+0078	x	78	LATIN SMALL LETTER X
U+0079	y	79	LATIN SMALL LETTER Y
U+007A	z	7a	LATIN SMALL LETTER Z
U+007B	{	7b	LEFT CURLY BRACKET
U+007C		7c	VERTICAL LINE
U+007D	}	7d	RIGHT CURLY BRACKET
U+007E	~	7e	TILDE

4.2 U00A0 - U00FF Latin 1 Supplement

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+00A1	¡	c2 a1	INVERTED EXCLAMATION MARK
U+00A2	¢	c2 a2	CENT SIGN
U+00A3	£	c2 a3	POUND SIGN
U+00A4	¤	c2 a4	CURRENCY SIGN
U+00A5	¥	c2 a5	YEN SIGN
U+00A6	¦	c2 a6	BROKEN BAR
U+00A7	§	c2 a7	SECTION SIGN
U+00A8	¨	c2 a8	DIAERESIS
U+00A9	©	c2 a9	COPYRIGHT SIGN
U+00AA	ª	c2 aa	FEMININE ORDINAL INDICATOR
U+00AB	«	c2 ab	LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
U+00AC	¬	c2 ac	NOT SIGN
U+00AD		c2 ad	SOFT HYPHEN
U+00AE	®	c2 ae	REGISTERED SIGN
U+00AF	ˉ	c2 af	MACRON
U+00B0	°	c2 b0	DEGREE SIGN
U+00B1	±	c2 b1	PLUS-MINUS SIGN
U+00B2	²	c2 b2	SUPERSCRIFT TWO
U+00B3	³	c2 b3	SUPERSCRIFT THREE
U+00B4	´	c2 b4	ACUTE ACCENT
U+00B5	µ	c2 b5	MICRO SIGN
U+00B6	¶	c2 b6	PILCROW SIGN
U+00B7	·	c2 b7	MIDDLE DOT
U+00B8	¸	c2 b8	CEDILLA
U+00B9	¹	c2 b9	SUPERSCRIFT ONE
U+00BA	º	c2 ba	MASCULINE ORDINAL INDICATOR
U+00BB	»	c2 bb	RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
U+00BC	¼	c2 bc	VULGAR FRACTION ONE QUARTER
U+00BD	½	c2 bd	VULGAR FRACTION ONE HALF
U+00BE	¾	c2 be	VULGAR FRACTION THREE QUARTERS
U+00BF	¿	c2 bf	INVERTED QUESTION MARK
U+00C0	À	c3 80	LATIN CAPITAL LETTER A WITH GRAVE
U+00C1	Á	c3 81	LATIN CAPITAL LETTER A WITH ACUTE
U+00C2	Â	c3 82	LATIN CAPITAL LETTER A WITH CIRCUMFLEX
U+00C3	Ã	c3 83	LATIN CAPITAL LETTER A WITH TILDE

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+00C4	Ä	c3 84	LATIN CAPITAL LETTER A WITH DIAERESIS
U+00C5	Å	c3 85	LATIN CAPITAL LETTER A WITH RING ABOVE
U+00C6	Æ	c3 86	LATIN CAPITAL LETTER AE
U+00C7	Ç	c3 87	LATIN CAPITAL LETTER C WITH CEDILLA
U+00C8	È	c3 88	LATIN CAPITAL LETTER E WITH GRAVE
U+00C9	É	c3 89	LATIN CAPITAL LETTER E WITH ACUTE
U+00CA	Ê	c3 8a	LATIN CAPITAL LETTER E WITH CIRCUMFLEX
U+00CB	Ë	c3 8b	LATIN CAPITAL LETTER E WITH DIAERESIS
U+00CC	Ì	c3 8c	LATIN CAPITAL LETTER I WITH GRAVE
U+00CD	Í	c3 8d	LATIN CAPITAL LETTER I WITH ACUTE
U+00CE	Î	c3 8e	LATIN CAPITAL LETTER I WITH CIRCUMFLEX
U+00CF	Ï	c3 8f	LATIN CAPITAL LETTER I WITH DIAERESIS
U+00D0	Ð	c3 90	LATIN CAPITAL LETTER ETH
U+00D1	Ñ	c3 91	LATIN CAPITAL LETTER N WITH TILDE
U+00D2	Ò	c3 92	LATIN CAPITAL LETTER O WITH GRAVE
U+00D3	Ó	c3 93	LATIN CAPITAL LETTER O WITH ACUTE
U+00D4	Ô	c3 94	LATIN CAPITAL LETTER O WITH CIRCUMFLEX
U+00D5	Õ	c3 95	LATIN CAPITAL LETTER O WITH TILDE
U+00D6	Ö	c3 96	LATIN CAPITAL LETTER O WITH DIAERESIS
U+00D7	×	c3 97	MULTIPLICATION SIGN
U+00D8	Ø	c3 98	LATIN CAPITAL LETTER O WITH STROKE
U+00D9	Ù	c3 99	LATIN CAPITAL LETTER U WITH GRAVE
U+00DA	Ú	c3 9a	LATIN CAPITAL LETTER U WITH ACUTE
U+00DB	Û	c3 9b	LATIN CAPITAL LETTER U WITH CIRCUMFLEX
U+00DC	Ü	c3 9c	LATIN CAPITAL LETTER U WITH DIAERESIS
U+00DD	Ý	c3 9d	LATIN CAPITAL LETTER Y WITH ACUTE
U+00DE	Þ	c3 9e	LATIN CAPITAL LETTER THORN
U+00DF	ß	c3 9f	LATIN SMALL LETTER SHARP S
U+00E0	à	c3 a0	LATIN SMALL LETTER A WITH GRAVE
U+00E1	á	c3 a1	LATIN SMALL LETTER A WITH ACUTE
U+00E2	â	c3 a2	LATIN SMALL LETTER A WITH CIRCUMFLEX
U+00E3	ã	c3 a3	LATIN SMALL LETTER A WITH TILDE
U+00E4	ä	c3 a4	LATIN SMALL LETTER A WITH DIAERESIS
U+00E5	å	c3 a5	LATIN SMALL LETTER A WITH RING ABOVE
U+00E6	æ	c3 a6	LATIN SMALL LETTER AE
U+00E7	ç	c3 a7	LATIN SMALL LETTER C WITH CEDILLA

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+00E8	è	c3 a8	LATIN SMALL LETTER E WITH GRAVE
U+00E9	é	c3 a9	LATIN SMALL LETTER E WITH ACUTE
U+00EA	ê	c3 aa	LATIN SMALL LETTER E WITH CIRCUMFLEX
U+00EB	ë	c3 ab	LATIN SMALL LETTER E WITH DIAERESIS
U+00EC	ì	c3 ac	LATIN SMALL LETTER I WITH GRAVE
U+00ED	í	c3 ad	LATIN SMALL LETTER I WITH ACUTE
U+00EE	î	c3 ae	LATIN SMALL LETTER I WITH CIRCUMFLEX
U+00EF	ï	c3 af	LATIN SMALL LETTER I WITH DIAERESIS
U+00F0	ð	c3 b0	LATIN SMALL LETTER ETH
U+00F1	ñ	c3 b1	LATIN SMALL LETTER N WITH TILDE
U+00F2	ò	c3 b2	LATIN SMALL LETTER O WITH GRAVE
U+00F3	ó	c3 b3	LATIN SMALL LETTER O WITH ACUTE
U+00F4	ô	c3 b4	LATIN SMALL LETTER O WITH CIRCUMFLEX
U+00F5	õ	c3 b5	LATIN SMALL LETTER O WITH TILDE
U+00F6	ö	c3 b6	LATIN SMALL LETTER O WITH DIAERESIS
U+00F7	÷	c3 b7	DIVISION SIGN
U+00F8	ø	c3 b8	LATIN SMALL LETTER O WITH STROKE
U+00F9	ù	c3 b9	LATIN SMALL LETTER U WITH GRAVE
U+00FA	ú	c3 ba	LATIN SMALL LETTER U WITH ACUTE
U+00FB	û	c3 bb	LATIN SMALL LETTER U WITH CIRCUMFLEX
U+00FC	ü	c3 bc	LATIN SMALL LETTER U WITH DIAERESIS
U+00FD	ý	c3 bd	LATIN SMALL LETTER Y WITH ACUTE
U+00FE	þ	c3 be	LATIN SMALL LETTER THORN
U+00FF	ÿ	c3 bf	LATIN SMALL LETTER Y WITH DIAERESIS

4.3 U0100 - U017F Latin Extended-A

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0100	Ā	c4 80	LATIN CAPITAL LETTER A WITH MACRON
U+0101	ā	c4 81	LATIN SMALL LETTER A WITH MACRON
U+0102	Ă	c4 82	LATIN CAPITAL LETTER A WITH BREVE
U+0103	ă	c4 83	LATIN SMALL LETTER A WITH BREVE
U+0104	Ą	c4 84	LATIN CAPITAL LETTER A WITH OGONEK
U+0105	ą	c4 85	LATIN SMALL LETTER A WITH OGONEK
U+0106	Ć	c4 86	LATIN CAPITAL LETTER C WITH ACUTE
U+0107	ć	c4 87	LATIN SMALL LETTER C WITH ACUTE
U+0108	Ĉ	c4 88	LATIN CAPITAL LETTER C WITH CIRCUMFLEX
U+0109	ĉ	c4 89	LATIN SMALL LETTER C WITH CIRCUMFLEX
U+010A	Č	c4 8a	LATIN CAPITAL LETTER C WITH DOT ABOVE
U+010B	č	c4 8b	LATIN SMALL LETTER C WITH DOT ABOVE
U+010C	Č	c4 8c	LATIN CAPITAL LETTER C WITH CARON
U+010D	č	c4 8d	LATIN SMALL LETTER C WITH CARON
U+010E	Ď	c4 8e	LATIN CAPITAL LETTER D WITH CARON
U+010F	ď	c4 8f	LATIN SMALL LETTER D WITH CARON
U+0110	Đ	c4 90	LATIN CAPITAL LETTER D WITH STROKE
U+0111	đ	c4 91	LATIN SMALL LETTER D WITH STROKE
U+0112	Ē	c4 92	LATIN CAPITAL LETTER E WITH MACRON
U+0113	ē	c4 93	LATIN SMALL LETTER E WITH MACRON
U+0114	Ĕ	c4 94	LATIN CAPITAL LETTER E WITH BREVE
U+0115	ĕ	c4 95	LATIN SMALL LETTER E WITH BREVE
U+0116	Ė	c4 96	LATIN CAPITAL LETTER E WITH DOT ABOVE
U+0117	ė	c4 97	LATIN SMALL LETTER E WITH DOT ABOVE
U+0118	Ę	c4 98	LATIN CAPITAL LETTER E WITH OGONEK
U+0119	ę	c4 99	LATIN SMALL LETTER E WITH OGONEK
U+011A	Ě	c4 9a	LATIN CAPITAL LETTER E WITH CARON
U+011B	ě	c4 9b	LATIN SMALL LETTER E WITH CARON
U+011C	Ĝ	c4 9c	LATIN CAPITAL LETTER G WITH CIRCUMFLEX
U+011D	ĝ	c4 9d	LATIN SMALL LETTER G WITH CIRCUMFLEX
U+011E	Ğ	c4 9e	LATIN CAPITAL LETTER G WITH BREVE
U+011F	ğ	c4 9f	LATIN SMALL LETTER G WITH BREVE
U+0120	Ġ	c4 a0	LATIN CAPITAL LETTER G WITH DOT ABOVE
U+0121	ġ	c4 a1	LATIN SMALL LETTER G WITH DOT ABOVE
U+0122	Ģ	c4 a2	LATIN CAPITAL LETTER G WITH CEDILLA

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0123	ġ	c4 a3	LATIN SMALL LETTER G WITH CEDILLA
U+0124	Ĥ	c4 a4	LATIN CAPITAL LETTER H WITH CIRCUMFLEX
U+0125	ĥ	c4 a5	LATIN SMALL LETTER H WITH CIRCUMFLEX
U+0126	Ħ	c4 a6	LATIN CAPITAL LETTER H WITH STROKE
U+0127	ħ	c4 a7	LATIN SMALL LETTER H WITH STROKE
U+0128	Ĩ	c4 a8	LATIN CAPITAL LETTER I WITH TILDE
U+0129	ĩ	c4 a9	LATIN SMALL LETTER I WITH TILDE
U+012A	Ī	c4 aa	LATIN CAPITAL LETTER I WITH MACRON
U+012B	ī	c4 ab	LATIN SMALL LETTER I WITH MACRON
U+012C	İ	c4 ac	LATIN CAPITAL LETTER I WITH BREVE
U+012D	ı	c4 ad	LATIN SMALL LETTER I WITH BREVE
U+012E	Ĳ	c4 ae	LATIN CAPITAL LETTER I WITH OGONEK
U+012F	į	c4 af	LATIN SMALL LETTER I WITH OGONEK
U+0130	İ	c4 b0	LATIN CAPITAL LETTER I WITH DOT ABOVE
U+0131	ı	c4 b1	LATIN SMALL LETTER DOTLESS I
U+0132	IJ	c4 b2	LATIN CAPITAL LIGATURE IJ
U+0133	ij	c4 b3	LATIN SMALL LIGATURE IJ
U+0134	Ĵ	c4 b4	LATIN CAPITAL LETTER J WITH CIRCUMFLEX
U+0135	ĵ	c4 b5	LATIN SMALL LETTER J WITH CIRCUMFLEX
U+0136	Ķ	c4 b6	LATIN CAPITAL LETTER K WITH CEDILLA
U+0137	ķ	c4 b7	LATIN SMALL LETTER K WITH CEDILLA
U+0138	κ	c4 b8	LATIN SMALL LETTER KRA
U+0139	Ĺ	c4 b9	LATIN CAPITAL LETTER L WITH ACUTE
U+013A	ĺ	c4 ba	LATIN SMALL LETTER L WITH ACUTE
U+013B	Ľ	c4 bb	LATIN CAPITAL LETTER L WITH CEDILLA
U+013C	ļ	c4 bc	LATIN SMALL LETTER L WITH CEDILLA
U+013D	Ļ	c4 bd	LATIN CAPITAL LETTER L WITH CARON
U+013E	ļ	c4 be	LATIN SMALL LETTER L WITH CARON
U+013F	Ł	c4 bf	LATIN CAPITAL LETTER L WITH MIDDLE DOT
U+0140	ł	c5 80	LATIN SMALL LETTER L WITH MIDDLE DOT
U+0141	Ł	c5 81	LATIN CAPITAL LETTER L WITH STROKE
U+0142	ł	c5 82	LATIN SMALL LETTER L WITH STROKE
U+0143	Ń	c5 83	LATIN CAPITAL LETTER N WITH ACUTE
U+0144	ń	c5 84	LATIN SMALL LETTER N WITH ACUTE
U+0145	Ñ	c5 85	LATIN CAPITAL LETTER N WITH CEDILLA
U+0146	ñ	c5 86	LATIN SMALL LETTER N WITH CEDILLA

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0147	Ň	c5 87	LATIN CAPITAL LETTER N WITH CARON
U+0148	ň	c5 88	LATIN SMALL LETTER N WITH CARON
U+0149	ḥ	c5 89	LATIN SMALL LETTER N PRECEDED BY APOSTROPHE
U+014A	Ŋ	c5 8a	LATIN CAPITAL LETTER ENG
U+014B	ŋ	c5 8b	LATIN SMALL LETTER ENG
U+014C	Ō	c5 8c	LATIN CAPITAL LETTER O WITH MACRON
U+014D	ō	c5 8d	LATIN SMALL LETTER O WITH MACRON
U+014E	Ö	c5 8e	LATIN CAPITAL LETTER O WITH BREVE
U+014F	ö	c5 8f	LATIN SMALL LETTER O WITH BREVE
U+0150	Ő	c5 90	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
U+0151	ő	c5 91	LATIN SMALL LETTER O WITH DOUBLE ACUTE
U+0152	Œ	c5 92	LATIN CAPITAL LIGATURE OE
U+0153	œ	c5 93	LATIN SMALL LIGATURE OE
U+0154	Ŕ	c5 94	LATIN CAPITAL LETTER R WITH ACUTE
U+0155	ŕ	c5 95	LATIN SMALL LETTER R WITH ACUTE
U+0156	Ŗ	c5 96	LATIN CAPITAL LETTER R WITH CEDILLA
U+0157	ŗ	c5 97	LATIN SMALL LETTER R WITH CEDILLA
U+0158	Ř	c5 98	LATIN CAPITAL LETTER R WITH CARON
U+0159	ř	c5 99	LATIN SMALL LETTER R WITH CARON
U+015A	Ś	c5 9a	LATIN CAPITAL LETTER S WITH ACUTE
U+015B	ś	c5 9b	LATIN SMALL LETTER S WITH ACUTE
U+015C	Ŝ	c5 9c	LATIN CAPITAL LETTER S WITH CIRCUMFLEX
U+015D	ŝ	c5 9d	LATIN SMALL LETTER S WITH CIRCUMFLEX
U+015E	Ş	c5 9e	LATIN CAPITAL LETTER S WITH CEDILLA
U+015F	ş	c5 9f	LATIN SMALL LETTER S WITH CEDILLA
U+0160	Š	c5 a0	LATIN CAPITAL LETTER S WITH CARON
U+0161	š	c5 a1	LATIN SMALL LETTER S WITH CARON
U+0162	Ţ	c5 a2	LATIN CAPITAL LETTER T WITH CEDILLA
U+0163	ţ	c5 a3	LATIN SMALL LETTER T WITH CEDILLA
U+0164	Ť	c5 a4	LATIN CAPITAL LETTER T WITH CARON
U+0165	ť	c5 a5	LATIN SMALL LETTER T WITH CARON
U+0166	Ƨ	c5 a6	LATIN CAPITAL LETTER T WITH STROKE
U+0167	Ƨ	c5 a7	LATIN SMALL LETTER T WITH STROKE
U+0168	Ŭ	c5 a8	LATIN CAPITAL LETTER U WITH TILDE
U+0169	ũ	c5 a9	LATIN SMALL LETTER U WITH TILDE
U+016A	Ū	c5 aa	LATIN CAPITAL LETTER U WITH MACRON

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+016B	ū	c5 ab	LATIN SMALL LETTER U WITH MACRON
U+016C	Ŭ	c5 ac	LATIN CAPITAL LETTER U WITH BREVE
U+016D	ů	c5 ad	LATIN SMALL LETTER U WITH BREVE
U+016E	Ů	c5 ae	LATIN CAPITAL LETTER U WITH RING ABOVE
U+016F	ů	c5 af	LATIN SMALL LETTER U WITH RING ABOVE
U+0170	Ű	c5 b0	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
U+0171	ű	c5 b1	LATIN SMALL LETTER U WITH DOUBLE ACUTE
U+0172	Ų	c5 b2	LATIN CAPITAL LETTER U WITH OGONEK
U+0173	ų	c5 b3	LATIN SMALL LETTER U WITH OGONEK
U+0174	Ŵ	c5 b4	LATIN CAPITAL LETTER W WITH CIRCUMFLEX
U+0175	ŵ	c5 b5	LATIN SMALL LETTER W WITH CIRCUMFLEX
U+0176	Ŷ	c5 b6	LATIN CAPITAL LETTER Y WITH CIRCUMFLEX
U+0177	ŷ	c5 b7	LATIN SMALL LETTER Y WITH CIRCUMFLEX
U+0178	Ÿ	c5 b8	LATIN CAPITAL LETTER Y WITH DIAERESIS
U+0179	Ž	c5 b9	LATIN CAPITAL LETTER Z WITH ACUTE
U+017A	ž	c5 ba	LATIN SMALL LETTER Z WITH ACUTE
U+017B	Ž	c5 bb	LATIN CAPITAL LETTER Z WITH DOT ABOVE
U+017C	ž	c5 bc	LATIN SMALL LETTER Z WITH DOT ABOVE
U+017D	Ž	c5 bd	LATIN CAPITAL LETTER Z WITH CARON
U+017E	ž	c5 be	LATIN SMALL LETTER Z WITH CARON
U+017F	ſ	c5 bf	LATIN SMALL LETTER LONG S
U+0180	ƀ	c6 80	LATIN SMALL LETTER B WITH STROKE
U+0181	Ɓ	c6 81	LATIN CAPITAL LETTER B WITH HOOK
U+0182	Ƃ	c6 82	LATIN CAPITAL LETTER B WITH TOPBAR
U+0183	ƃ	c6 83	LATIN SMALL LETTER B WITH TOPBAR
U+0184	Ƅ	c6 84	LATIN CAPITAL LETTER TONE SIX
U+0185	ƅ	c6 85	LATIN SMALL LETTER TONE SIX
U+0186	Ɔ	c6 86	LATIN CAPITAL LETTER OPEN O
U+0187	Ƈ	c6 87	LATIN CAPITAL LETTER C WITH HOOK
U+0188	ƈ	c6 88	LATIN SMALL LETTER C WITH HOOK
U+0189	Ɖ	c6 89	LATIN CAPITAL LETTER AFRICAN D
U+018A	Ɗ	c6 8a	LATIN CAPITAL LETTER D WITH HOOK
U+018B	Ƌ	c6 8b	LATIN CAPITAL LETTER D WITH TOPBAR
U+018C	ƌ	c6 8c	LATIN SMALL LETTER D WITH TOPBAR
U+018D	ƍ	c6 8d	LATIN SMALL LETTER TURNED DELTA
U+018E	Ǝ	c6 8e	LATIN CAPITAL LETTER REVERSED E

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+018F	Ɔ	c6 8f	LATIN CAPITAL LETTER SCHWA
U+0190	Ǝ	c6 90	LATIN CAPITAL LETTER OPEN E
U+0191	Ƒ	c6 91	LATIN CAPITAL LETTER F WITH HOOK
U+0192	ƒ	c6 92	LATIN SMALL LETTER F WITH HOOK
U+0193	Ɠ	c6 93	LATIN CAPITAL LETTER G WITH HOOK
U+0194	Ɣ	c6 94	LATIN CAPITAL LETTER GAMMA
U+0195	ɦ	c6 95	LATIN SMALL LETTER HV
U+0196	Ɣ	c6 96	LATIN CAPITAL LETTER IOTA
U+0197	Ƨ	c6 97	LATIN CAPITAL LETTER I WITH STROKE
U+0198	ƨ	c6 98	LATIN CAPITAL LETTER K WITH HOOK
U+0199	Ʃ	c6 99	LATIN SMALL LETTER K WITH HOOK
U+019A	ƪ	c6 9a	LATIN SMALL LETTER L WITH BAR
U+019B	Ƭ	c6 9b	LATIN SMALL LETTER LAMBDA WITH STROKE
U+019C	Ƭ	c6 9c	LATIN CAPITAL LETTER TURNED M
U+019D	Ʈ	c6 9d	LATIN CAPITAL LETTER N WITH LEFT HOOK
U+019E	Ʒ	c6 9e	LATIN SMALL LETTER N WITH LONG RIGHT LEG
U+019F	ƺ	c6 9f	LATIN CAPITAL LETTER O WITH MIDDLE TILDE
U+01A0	ƻ	c6 a0	LATIN CAPITAL LETTER O WITH HORN
U+01A1	Ƽ	c6 a1	LATIN SMALL LETTER O WITH HORN
U+01A2	Ƽ	c6 a2	LATIN CAPITAL LETTER OI
U+01A3	ƽ	c6 a3	LATIN SMALL LETTER OI
U+01A4	ƿ	c6 a4	LATIN CAPITAL LETTER P WITH HOOK
U+01A5	ƾ	c6 a5	LATIN SMALL LETTER P WITH HOOK
U+01A6	ƿ	c6 a6	LATIN LETTER YR
U+01A7	ƿ	c6 a7	LATIN CAPITAL LETTER TONE TWO
U+01A8	ƿ	c6 a8	LATIN SMALL LETTER TONE TWO
U+01A9	ƿ	c6 a9	LATIN CAPITAL LETTER ESH
U+01AA	ƿ	c6 aa	LATIN LETTER REVERSED ESH LOOP
U+01AB	ƿ	c6 ab	LATIN SMALL LETTER T WITH PALATAL HOOK
U+01AC	ƿ	c6 ac	LATIN CAPITAL LETTER T WITH HOOK
U+01AD	ƿ	c6 ad	LATIN SMALL LETTER T WITH HOOK
U+01AE	ƿ	c6 ae	LATIN CAPITAL LETTER T WITH RETROFLEX HOOK
U+01AF	ƿ	c6 af	LATIN CAPITAL LETTER U WITH HORN
U+01B0	ƿ	c6 b0	LATIN SMALL LETTER U WITH HORN
U+01B1	ƿ	c6 b1	LATIN CAPITAL LETTER UPSILON
U+01B2	ƿ	c6 b2	LATIN CAPITAL LETTER V WITH HOOK

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+01B3	Ÿ	c6 b3	LATIN CAPITAL LETTER Y WITH HOOK
U+01B4	ŷ	c6 b4	LATIN SMALL LETTER Y WITH HOOK
U+01B5	Ẑ	c6 b5	LATIN CAPITAL LETTER Z WITH STROKE
U+01B6	ẑ	c6 b6	LATIN SMALL LETTER Z WITH STROKE
U+01B7	Ʒ	c6 b7	LATIN CAPITAL LETTER EZH
U+01B8	Ʒ̃	c6 b8	LATIN CAPITAL LETTER EZH REVERSED
U+01B9	Ʒ̥	c6 b9	LATIN SMALL LETTER EZH REVERSED
U+01BA	Ʒ̧	c6 ba	LATIN SMALL LETTER EZH WITH TAIL
U+01BB	2̣	c6 bb	LATIN LETTER TWO WITH STROKE
U+01BC	5̣	c6 bc	LATIN CAPITAL LETTER TONE FIVE
U+01BD	5̥	c6 bd	LATIN SMALL LETTER TONE FIVE
U+01BE	ɀ	c6 be	LATIN LETTER INVERTED GLOTTAL STOP WITH STROKE
U+01BF	ƿ	c6 bf	LATIN LETTER WYNN
U+01C0	ɪ̥	c7 80	LATIN LETTER DENTAL CLICK
U+01C1	ɪ̬	c7 81	LATIN LETTER LATERAL CLICK
U+01C2	ɪ̦	c7 82	LATIN LETTER ALVEOLAR CLICK
U+01C3	ɪ̧	c7 83	LATIN LETTER RETROFLEX CLICK
U+01C4	DŽ	c7 84	LATIN CAPITAL LETTER DZ WITH CARON
U+01C5	Dž	c7 85	LATIN CAPITAL LETTER D WITH SMALL LETTER Z WITH CARON
U+01C6	dž	c7 86	LATIN SMALL LETTER DZ WITH CARON
U+01C7	LJ	c7 87	LATIN CAPITAL LETTER LJ
U+01C8	Lj	c7 88	LATIN CAPITAL LETTER L WITH SMALL LETTER J
U+01C9	lj	c7 89	LATIN SMALL LETTER LJ
U+01CA	NJ	c7 8a	LATIN CAPITAL LETTER NJ
U+01CB	Nj	c7 8b	LATIN CAPITAL LETTER N WITH SMALL LETTER J
U+01CC	nj	c7 8c	LATIN SMALL LETTER NJ
U+01CD	Ǻ	c7 8d	LATIN CAPITAL LETTER A WITH CARON
U+01CE	ǻ	c7 8e	LATIN SMALL LETTER A WITH CARON
U+01CF	Ǫ	c7 8f	LATIN CAPITAL LETTER I WITH CARON
U+01D0	ǫ	c7 90	LATIN SMALL LETTER I WITH CARON
U+01D1	Ǿ	c7 91	LATIN CAPITAL LETTER O WITH CARON
U+01D2	ǿ	c7 92	LATIN SMALL LETTER O WITH CARON
U+01D3	Ǫ̃	c7 93	LATIN CAPITAL LETTER U WITH CARON
U+01D4	ǻ̃	c7 94	LATIN SMALL LETTER U WITH CARON
U+01D5	Ů̃	c7 95	LATIN CAPITAL LETTER U WITH DIAERESIS AND MACRON
U+01D6	ů̃	c7 96	LATIN SMALL LETTER U WITH DIAERESIS AND MACRON

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+01D7	Ů	c7 97	LATIN CAPITAL LETTER U WITH DIAERESIS AND ACUTE
U+01D8	ů	c7 98	LATIN SMALL LETTER U WITH DIAERESIS AND ACUTE
U+01D9	Ű	c7 99	LATIN CAPITAL LETTER U WITH DIAERESIS AND CARON
U+01DA	ű	c7 9a	LATIN SMALL LETTER U WITH DIAERESIS AND CARON
U+01DB	Û	c7 9b	LATIN CAPITAL LETTER U WITH DIAERESIS AND GRAVE
U+01DC	û	c7 9c	LATIN SMALL LETTER U WITH DIAERESIS AND GRAVE
U+01DD	ə	c7 9d	LATIN SMALL LETTER TURNED E
U+01DE	Ā	c7 9e	LATIN CAPITAL LETTER A WITH DIAERESIS AND MACRON
U+01DF	ā	c7 9f	LATIN SMALL LETTER A WITH DIAERESIS AND MACRON
U+01E0	Ă	c7 a0	LATIN CAPITAL LETTER A WITH DOT ABOVE AND MACRON
U+01E1	ă	c7 a1	LATIN SMALL LETTER A WITH DOT ABOVE AND MACRON
U+01E2	Æ	c7 a2	LATIN CAPITAL LETTER AE WITH MACRON
U+01E3	æ	c7 a3	LATIN SMALL LETTER AE WITH MACRON
U+01E4	Ĝ	c7 a4	LATIN CAPITAL LETTER G WITH STROKE
U+01E5	g	c7 a5	LATIN SMALL LETTER G WITH STROKE
U+01E6	Ĝ	c7 a6	LATIN CAPITAL LETTER G WITH CARON
U+01E7	ĝ	c7 a7	LATIN SMALL LETTER G WITH CARON
U+01E8	Ķ	c7 a8	LATIN CAPITAL LETTER K WITH CARON
U+01E9	ķ	c7 a9	LATIN SMALL LETTER K WITH CARON
U+01EA	Ų	c7 aa	LATIN CAPITAL LETTER O WITH OGONEK
U+01EB	ų	c7 ab	LATIN SMALL LETTER O WITH OGONEK
U+01EC	Ų	c7 ac	LATIN CAPITAL LETTER O WITH OGONEK AND MACRON
U+01ED	ų	c7 ad	LATIN SMALL LETTER O WITH OGONEK AND MACRON
U+01EE	Ž	c7 ae	LATIN CAPITAL LETTER EZH WITH CARON
U+01EF	ž	c7 af	LATIN SMALL LETTER EZH WITH CARON
U+01F0	Ĵ	c7 b0	LATIN SMALL LETTER J WITH CARON
U+01F1	DZ	c7 b1	LATIN CAPITAL LETTER DZ
U+01F2	Dz	c7 b2	LATIN CAPITAL LETTER D WITH SMALL LETTER Z
U+01F3	dz	c7 b3	LATIN SMALL LETTER DZ
U+01F4	Ġ	c7 b4	LATIN CAPITAL LETTER G WITH ACUTE
U+01F5	ġ	c7 b5	LATIN SMALL LETTER G WITH ACUTE
U+01F6	Hu	c7 b6	LATIN CAPITAL LETTER HWAIR
U+01F7	ƿ	c7 b7	LATIN CAPITAL LETTER WYNN
U+01F8	Ñ	c7 b8	LATIN CAPITAL LETTER N WITH GRAVE
U+01F9	ñ	c7 b9	LATIN SMALL LETTER N WITH GRAVE
U+01FA	Á	c7 ba	LATIN CAPITAL LETTER A WITH RING ABOVE AND ACUTE

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+01FB	ǎ	c7 bb	LATIN SMALL LETTER A WITH RING ABOVE AND ACUTE
U+01FC	Æ	c7 bc	LATIN CAPITAL LETTER AE WITH ACUTE
U+01FD	æ	c7 bd	LATIN SMALL LETTER AE WITH ACUTE
U+01FE	Ø	c7 be	LATIN CAPITAL LETTER O WITH STROKE AND ACUTE
U+01FF	ø	c7 bf	LATIN SMALL LETTER O WITH STROKE AND ACUTE

4.4 U0100 - U017F Latin Extended-A

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0400	ѐ	d0 80	CYRILLIC CAPITAL LETTER IE WITH GRAVE
U+0401	Ё	d0 81	CYRILLIC CAPITAL LETTER IO
U+0402	Ђ	d0 82	CYRILLIC CAPITAL LETTER DJE
U+0403	Ѓ	d0 83	CYRILLIC CAPITAL LETTER GJE
U+0404	Є	d0 84	CYRILLIC CAPITAL LETTER UKRAINIAN IE
U+0405	Ѕ	d0 85	CYRILLIC CAPITAL LETTER DZE
U+0406	І	d0 86	CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I
U+0407	Ї	d0 87	CYRILLIC CAPITAL LETTER YI
U+0408	Ј	d0 88	CYRILLIC CAPITAL LETTER JE
U+0409	Љ	d0 89	CYRILLIC CAPITAL LETTER LJE
U+040A	Њ	d0 8a	CYRILLIC CAPITAL LETTER NJE
U+040B	Ћ	d0 8b	CYRILLIC CAPITAL LETTER TSHE
U+040C	Ќ	d0 8c	CYRILLIC CAPITAL LETTER KJE
U+040D	Ў	d0 8d	CYRILLIC CAPITAL LETTER I WITH GRAVE
U+040E	Ѹ	d0 8e	CYRILLIC CAPITAL LETTER SHORT U
U+040F	Ѻ	d0 8f	CYRILLIC CAPITAL LETTER DZHE
U+0410	А	d0 90	CYRILLIC CAPITAL LETTER A
U+0411	Б	d0 91	CYRILLIC CAPITAL LETTER BE
U+0412	В	d0 92	CYRILLIC CAPITAL LETTER VE
U+0413	Г	d0 93	CYRILLIC CAPITAL LETTER GHE
U+0414	Д	d0 94	CYRILLIC CAPITAL LETTER DE
U+0415	Е	d0 95	CYRILLIC CAPITAL LETTER IE
U+0416	Ж	d0 96	CYRILLIC CAPITAL LETTER ZHE
U+0417	З	d0 97	CYRILLIC CAPITAL LETTER ZE
U+0418	И	d0 98	CYRILLIC CAPITAL LETTER I
U+0419	Й	d0 99	CYRILLIC CAPITAL LETTER SHORT I
U+041A	К	d0 9a	CYRILLIC CAPITAL LETTER KA
U+041B	Л	d0 9b	CYRILLIC CAPITAL LETTER EL
U+041C	М	d0 9c	CYRILLIC CAPITAL LETTER EM
U+041D	Н	d0 9d	CYRILLIC CAPITAL LETTER EN
U+041E	О	d0 9e	CYRILLIC CAPITAL LETTER O
U+041F	П	d0 9f	CYRILLIC CAPITAL LETTER PE
U+0420	Р	d0 a0	CYRILLIC CAPITAL LETTER ER

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0421	С	d0 a1	CYRILLIC CAPITAL LETTER ES
U+0422	Т	d0 a2	CYRILLIC CAPITAL LETTER TE
U+0423	У	d0 a3	CYRILLIC CAPITAL LETTER U
U+0424	Ф	d0 a4	CYRILLIC CAPITAL LETTER EF
U+0425	Х	d0 a5	CYRILLIC CAPITAL LETTER HA
U+0426	Ц	d0 a6	CYRILLIC CAPITAL LETTER TSE
U+0427	Ч	d0 a7	CYRILLIC CAPITAL LETTER CHE
U+0428	Ш	d0 a8	CYRILLIC CAPITAL LETTER SHA
U+0429	Щ	d0 a9	CYRILLIC CAPITAL LETTER SHCHA
U+042A	Ъ	d0 aa	CYRILLIC CAPITAL LETTER HARD SIGN
U+042B	Ы	d0 ab	CYRILLIC CAPITAL LETTER YERU
U+042C	Ь	d0 ac	CYRILLIC CAPITAL LETTER SOFT SIGN
U+042D	Э	d0 ad	CYRILLIC CAPITAL LETTER E
U+042E	Ю	d0 ae	CYRILLIC CAPITAL LETTER YU
U+042F	Я	d0 af	CYRILLIC CAPITAL LETTER YA
U+0430	а	d0 b0	CYRILLIC SMALL LETTER A
U+0431	б	d0 b1	CYRILLIC SMALL LETTER BE
U+0432	в	d0 b2	CYRILLIC SMALL LETTER VE
U+0433	г	d0 b3	CYRILLIC SMALL LETTER GHE
U+0434	д	d0 b4	CYRILLIC SMALL LETTER DE
U+0435	е	d0 b5	CYRILLIC SMALL LETTER IE
U+0436	ж	d0 b6	CYRILLIC SMALL LETTER ZHE
U+0437	з	d0 b7	CYRILLIC SMALL LETTER ZE
U+0438	и	d0 b8	CYRILLIC SMALL LETTER I
U+0439	й	d0 b9	CYRILLIC SMALL LETTER SHORT I
U+043A	к	d0 ba	CYRILLIC SMALL LETTER KA
U+043B	л	d0 bb	CYRILLIC SMALL LETTER EL
U+043C	м	d0 bc	CYRILLIC SMALL LETTER EM
U+043D	н	d0 bd	CYRILLIC SMALL LETTER EN
U+043E	о	d0 be	CYRILLIC SMALL LETTER O
U+043F	п	d0 bf	CYRILLIC SMALL LETTER PE
U+0440	р	d1 80	CYRILLIC SMALL LETTER ER
U+0441	с	d1 81	CYRILLIC SMALL LETTER ES
U+0442	т	d1 82	CYRILLIC SMALL LETTER TE

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0443	у	d1 83	CYRILLIC SMALL LETTER U
U+0444	Ѡ	d1 84	CYRILLIC SMALL LETTER EF
U+0445	х	d1 85	CYRILLIC SMALL LETTER HA
U+0446	ц	d1 86	CYRILLIC SMALL LETTER TSE
U+0447	ч	d1 87	CYRILLIC SMALL LETTER CHE
U+0448	ш	d1 88	CYRILLIC SMALL LETTER SHA
U+0449	щ	d1 89	CYRILLIC SMALL LETTER SHCHA
U+044A	ъ	d1 8a	CYRILLIC SMALL LETTER HARD SIGN
U+044B	ы	d1 8b	CYRILLIC SMALL LETTER YERU
U+044C	ь	d1 8c	CYRILLIC SMALL LETTER SOFT SIGN
U+044D	ѣ	d1 8d	CYRILLIC SMALL LETTER E
U+044E	ю	d1 8e	CYRILLIC SMALL LETTER YU
U+044F	я	d1 8f	CYRILLIC SMALL LETTER YA
U+0450	ѐ	d1 90	CYRILLIC SMALL LETTER IE WITH GRAVE
U+0451	ё	d1 91	CYRILLIC SMALL LETTER IO
U+0452	ђ	d1 92	CYRILLIC SMALL LETTER DJE
U+0453	ѓ	d1 93	CYRILLIC SMALL LETTER GJE
U+0454	є	d1 94	CYRILLIC SMALL LETTER UKRAINIAN IE
U+0455	ѕ	d1 95	CYRILLIC SMALL LETTER DZE
U+0456	і	d1 96	CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I
U+0457	ї	d1 97	CYRILLIC SMALL LETTER YI
U+0458	ј	d1 98	CYRILLIC SMALL LETTER JE
U+0459	љ	d1 99	CYRILLIC SMALL LETTER LJE
U+045A	њ	d1 9a	CYRILLIC SMALL LETTER NJE
U+045B	ћ	d1 9b	CYRILLIC SMALL LETTER TSHE
U+045C	ќ	d1 9c	CYRILLIC SMALL LETTER KJE
U+045D	ѝ	d1 9d	CYRILLIC SMALL LETTER I WITH GRAVE
U+045E	џ	d1 9e	CYRILLIC SMALL LETTER SHORT U
U+045F	ѡ	d1 9f	CYRILLIC SMALL LETTER DZHE
U+0460	Ѣ	d1 a0	CYRILLIC CAPITAL LETTER OMEGA
U+0461	ѣ	d1 a1	CYRILLIC SMALL LETTER OMEGA
U+0462	Ѥ	d1 a2	CYRILLIC CAPITAL LETTER YAT
U+0463	ѥ	d1 a3	CYRILLIC SMALL LETTER YAT
U+0464	Ѧ	d1 a4	CYRILLIC CAPITAL LETTER IOTIFIED E

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0465	Ѧ	d1 a5	CYRILLIC SMALL LETTER IOTIFIED E
U+0466	Ѣ	d1 a6	CYRILLIC CAPITAL LETTER LITTLE YUS
U+0467	ѣ	d1 a7	CYRILLIC SMALL LETTER LITTLE YUS
U+0468	Ѥ	d1 a8	CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS
U+0469	ѥ	d1 a9	CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS
U+046A	Ѧ	d1 aa	CYRILLIC CAPITAL LETTER BIG YUS
U+046B	ѧ	d1 ab	CYRILLIC SMALL LETTER BIG YUS
U+046C	Ѩ	d1 ac	CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS
U+046D	ѩ	d1 ad	CYRILLIC SMALL LETTER IOTIFIED BIG YUS
U+046E	Ѫ	d1 ae	CYRILLIC CAPITAL LETTER KSI
U+046F	ѫ	d1 af	CYRILLIC SMALL LETTER KSI
U+0470	Ѱ	d1 b0	CYRILLIC CAPITAL LETTER PSI
U+0471	ѱ	d1 b1	CYRILLIC SMALL LETTER PSI
U+0472	Ѳ	d1 b2	CYRILLIC CAPITAL LETTER FITA
U+0473	ѳ	d1 b3	CYRILLIC SMALL LETTER FITA
U+0474	Ѵ	d1 b4	CYRILLIC CAPITAL LETTER IZHITSA
U+0475	ѵ	d1 b5	CYRILLIC SMALL LETTER IZHITSA
U+0476	Ѷ	d1 b6	CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE GRAVE ACCENT
U+0477	ѷ	d1 b7	CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE GRAVE ACCENT
U+0478	Ѹ	d1 b8	CYRILLIC CAPITAL LETTER UK
U+0479	ѹ	d1 b9	CYRILLIC SMALL LETTER UK
U+047A	Ѻ	d1 ba	CYRILLIC CAPITAL LETTER ROUND OMEGA
U+047B	ѻ	d1 bb	CYRILLIC SMALL LETTER ROUND OMEGA
U+047C	Ѽ	d1 bc	CYRILLIC CAPITAL LETTER OMEGA WITH TITLO
U+047D	ѽ	d1 bd	CYRILLIC SMALL LETTER OMEGA WITH TITLO
U+047E	Ѿ	d1 be	CYRILLIC CAPITAL LETTER OT
U+047F	ѿ	d1 bf	CYRILLIC SMALL LETTER OT
U+0480	Ѡ	d2 80	CYRILLIC CAPITAL LETTER KOPPA
U+0481	ѡ	d2 81	CYRILLIC SMALL LETTER KOPPA
U+0482	Ѣ	d2 82	CYRILLIC THOUSANDS SIGN
U+0483	ѣ	d2 83	COMBINING CYRILLIC TITLO

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+0484	~	d2 84	COMBINING CYRILLIC PALATALIZATION
U+0485	~	d2 85	COMBINING CYRILLIC DASIA PNEUMATA
U+0486	~	d2 86	COMBINING CYRILLIC PSILI PNEUMATA
U+0487	~	d2 87	COMBINING CYRILLIC POKRYTIE
U+0488	⸁	d2 88	COMBINING CYRILLIC HUNDRED THOUSAND SIGN
U+0489	⸂	d2 89	COMBINING CYRILLIC MILLIONS SIGN
U+048A	Ѐ	d2 8a	CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
U+048B	ё	d2 8b	CYRILLIC SMALL LETTER SHORT I WITH TAIL
U+048C	ѐ	d2 8c	CYRILLIC CAPITAL LETTER SEMISOFT SIGN
U+048D	ё	d2 8d	CYRILLIC SMALL LETTER SEMISOFT SIGN
U+048E	ђ	d2 8e	CYRILLIC CAPITAL LETTER ER WITH TICK
U+048F	ѓ	d2 8f	CYRILLIC SMALL LETTER ER WITH TICK
U+0490	Ґ	d2 90	CYRILLIC CAPITAL LETTER GHE WITH UPTURN
U+0491	ґ	d2 91	CYRILLIC SMALL LETTER GHE WITH UPTURN
U+0492	Ғ	d2 92	CYRILLIC CAPITAL LETTER GHE WITH STROKE
U+0493	ғ	d2 93	CYRILLIC SMALL LETTER GHE WITH STROKE
U+0494	Ҕ	d2 94	CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK
U+0495	ҕ	d2 95	CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK
U+0496	Җ	d2 96	CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER
U+0497	җ	d2 97	CYRILLIC SMALL LETTER ZHE WITH DESCENDER
U+0498	З	d2 98	CYRILLIC CAPITAL LETTER ZE WITH DESCENDER
U+0499	з	d2 99	CYRILLIC SMALL LETTER ZE WITH DESCENDER
U+049A	Қ	d2 9a	CYRILLIC CAPITAL LETTER KA WITH DESCENDER
U+049B	қ	d2 9b	CYRILLIC SMALL LETTER KA WITH DESCENDER
U+049C	Ҡ	d2 9c	CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE
U+049D	ҡ	d2 9d	CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE
U+049E	Ң	d2 9e	CYRILLIC CAPITAL LETTER KA WITH STROKE
U+049F	ң	d2 9f	CYRILLIC SMALL LETTER KA WITH STROKE
U+04A0	Ң	d2 a0	CYRILLIC CAPITAL LETTER BASHKIR KA
U+04A1	ң	d2 a1	CYRILLIC SMALL LETTER BASHKIR KA
U+04A2	Ң	d2 a2	CYRILLIC CAPITAL LETTER EN WITH DESCENDER
U+04A3	ң	d2 a3	CYRILLIC SMALL LETTER EN WITH DESCENDER
U+04A4	Ң	d2 a4	CYRILLIC CAPITAL LIGATURE EN GHE

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+04A5	Ѡ	d2 a5	CYRILLIC SMALL LIGATURE EN GHE
U+04A6	ѡ	d2 a6	CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK
U+04A7	Ѣ	d2 a7	CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK
U+04A8	Ѥ	d2 a8	CYRILLIC CAPITAL LETTER ABKHASIAN HA
U+04A9	ѥ	d2 a9	CYRILLIC SMALL LETTER ABKHASIAN HA
U+04AA	Ѧ	d2 aa	CYRILLIC CAPITAL LETTER ES WITH DESCENDER
U+04AB	ѧ	d2 ab	CYRILLIC SMALL LETTER ES WITH DESCENDER
U+04AC	Ѩ	d2 ac	CYRILLIC CAPITAL LETTER TE WITH DESCENDER
U+04AD	ѩ	d2 ad	CYRILLIC SMALL LETTER TE WITH DESCENDER
U+04AE	Ѫ	d2 ae	CYRILLIC CAPITAL LETTER STRAIGHT U
U+04AF	ѫ	d2 af	CYRILLIC SMALL LETTER STRAIGHT U
U+04B0	Ѭ	d2 b0	CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE
U+04B1	ѭ	d2 b1	CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE
U+04B2	Ѯ	d2 b2	CYRILLIC CAPITAL LETTER HA WITH DESCENDER
U+04B3	ѯ	d2 b3	CYRILLIC SMALL LETTER HA WITH DESCENDER
U+04B4	Ѱ	d2 b4	CYRILLIC CAPITAL LIGATURE TE TSE
U+04B5	ѱ	d2 b5	CYRILLIC SMALL LIGATURE TE TSE
U+04B6	Ѳ	d2 b6	CYRILLIC CAPITAL LETTER CHE WITH DESCENDER
U+04B7	ѳ	d2 b7	CYRILLIC SMALL LETTER CHE WITH DESCENDER
U+04B8	Ѵ	d2 b8	CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE
U+04B9	ѵ	d2 b9	CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE
U+04BA	Ѷ	d2 ba	CYRILLIC CAPITAL LETTER SHHA
U+04BB	ѷ	d2 bb	CYRILLIC SMALL LETTER SHHA
U+04BC	Ѹ	d2 bc	CYRILLIC CAPITAL LETTER ABKHASIAN CHE
U+04BD	ѹ	d2 bd	CYRILLIC SMALL LETTER ABKHASIAN CHE
U+04BE	Ѻ	d2 be	CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCENDER
U+04BF	ѻ	d2 bf	CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCENDER
U+04C0	Ѽ	d3 80	CYRILLIC LETTER PALOCHKA
U+04C1	ѽ	d3 81	CYRILLIC CAPITAL LETTER ZHE WITH BREVE
U+04C2	Ѿ	d3 82	CYRILLIC SMALL LETTER ZHE WITH BREVE
U+04C3	ѿ	d3 83	CYRILLIC CAPITAL LETTER KA WITH HOOK
U+04C4	Ѡ	d3 84	CYRILLIC SMALL LETTER KA WITH HOOK

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+04C5	Л̐	d3 85	CYRILLIC CAPITAL LETTER EL WITH TAIL
U+04C6	л̐	d3 86	CYRILLIC SMALL LETTER EL WITH TAIL
U+04C7	Ӏ	d3 87	CYRILLIC CAPITAL LETTER EN WITH HOOK
U+04C8	Ӏ	d3 88	CYRILLIC SMALL LETTER EN WITH HOOK
U+04C9	Ӑ	d3 89	CYRILLIC CAPITAL LETTER EN WITH TAIL
U+04CA	ӑ	d3 8a	CYRILLIC SMALL LETTER EN WITH TAIL
U+04CB	Ӣ	d3 8b	CYRILLIC CAPITAL LETTER KHAKASSIAN CHE
U+04CC	ӣ	d3 8c	CYRILLIC SMALL LETTER KHAKASSIAN CHE
U+04CD	Ӥ	d3 8d	CYRILLIC CAPITAL LETTER EM WITH TAIL
U+04CE	ӥ	d3 8e	CYRILLIC SMALL LETTER EM WITH TAIL
U+04CF	Ӧ	d3 8f	CYRILLIC SMALL LETTER PALOCHKA
U+04D0	Ӱ	d3 90	CYRILLIC CAPITAL LETTER A WITH BREVE
U+04D1	ӱ	d3 91	CYRILLIC SMALL LETTER A WITH BREVE
U+04D2	Ӳ	d3 92	CYRILLIC CAPITAL LETTER A WITH DIAERESIS
U+04D3	ӳ	d3 93	CYRILLIC SMALL LETTER A WITH DIAERESIS
U+04D4	Ӵ	d3 94	CYRILLIC CAPITAL LIGATURE A IE
U+04D5	ӵ	d3 95	CYRILLIC SMALL LIGATURE A IE
U+04D6	Ӷ	d3 96	CYRILLIC CAPITAL LETTER IE WITH BREVE
U+04D7	ӷ	d3 97	CYRILLIC SMALL LETTER IE WITH BREVE
U+04D8	Ӹ	d3 98	CYRILLIC CAPITAL LETTER SCHWA
U+04D9	ӹ	d3 99	CYRILLIC SMALL LETTER SCHWA
U+04DA	Ӻ	d3 9a	CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS
U+04DB	ӻ	d3 9b	CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS
U+04DC	Ӽ	d3 9c	CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS
U+04DD	ӽ	d3 9d	CYRILLIC SMALL LETTER ZHE WITH DIAERESIS
U+04DE	Ӿ	d3 9e	CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS
U+04DF	ӿ	d3 9f	CYRILLIC SMALL LETTER ZE WITH DIAERESIS
U+04E0	Ӡ	d3 a0	CYRILLIC CAPITAL LETTER ABKHASIAN DZE
U+04E1	ӡ	d3 a1	CYRILLIC SMALL LETTER ABKHASIAN DZE
U+04E2	Ӣ	d3 a2	CYRILLIC CAPITAL LETTER I WITH MACRON
U+04E3	ӣ	d3 a3	CYRILLIC SMALL LETTER I WITH MACRON
U+04E4	Ӥ	d3 a4	CYRILLIC CAPITAL LETTER I WITH DIAERESIS

Unicode Code pos.	Character	UTF-8 (hex.)	Name
U+04E5	Ѣ	d3 a5	CYRILLIC SMALL LETTER I WITH DIAERESIS
U+04E6	Ѧ	d3 a6	CYRILLIC CAPITAL LETTER O WITH DIAERESIS
U+04E7	ѧ	d3 a7	CYRILLIC SMALL LETTER O WITH DIAERESIS
U+04E8	Ѩ	d3 a8	CYRILLIC CAPITAL LETTER BARRED O
U+04E9	ѩ	d3 a9	CYRILLIC SMALL LETTER BARRED O
U+04EA	Ѫ	d3 aa	CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS
U+04EB	ѫ	d3 ab	CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS
U+04EC	Ѭ	d3 ac	CYRILLIC CAPITAL LETTER E WITH DIAERESIS
U+04ED	ѭ	d3 ad	CYRILLIC SMALL LETTER E WITH DIAERESIS
U+04EE	Ѯ	d3 ae	CYRILLIC CAPITAL LETTER U WITH MACRON
U+04EF	ѯ	d3 af	CYRILLIC SMALL LETTER U WITH MACRON
U+04F0	Ѱ	d3 b0	CYRILLIC CAPITAL LETTER U WITH DIAERESIS
U+04F1	ѱ	d3 b1	CYRILLIC SMALL LETTER U WITH DIAERESIS
U+04F2	Ѳ	d3 b2	CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE
U+04F3	ѳ	d3 b3	CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE
U+04F4	Ѵ	d3 b4	CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS
U+04F5	ѵ	d3 b5	CYRILLIC SMALL LETTER CHE WITH DIAERESIS
U+04F6	Ѷ	d3 b6	CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
U+04F7	ѷ	d3 b7	CYRILLIC SMALL LETTER GHE WITH DESCENDER
U+04F8	Ѹ	d3 b8	CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS
U+04F9	ѹ	d3 b9	CYRILLIC SMALL LETTER YERU WITH DIAERESIS
U+04FA	Ѻ	d3 ba	CYRILLIC CAPITAL LETTER GHE WITH STROKE AND HOOK
U+04FB	ѻ	d3 bb	CYRILLIC SMALL LETTER GHE WITH STROKE AND HOOK
U+04FC	Ѽ	d3 bc	CYRILLIC CAPITAL LETTER HA WITH HOOK
U+04FD	ѽ	d3 bd	CYRILLIC SMALL LETTER HA WITH HOOK
U+04FE	Ѿ	d3 be	CYRILLIC CAPITAL LETTER HA WITH STROKE
U+04FF	ѿ	d3 bf	CYRILLIC SMALL LETTER HA WITH STROKE