

THE VGB
REFERENCE
DESIGNATION
SYSTEM FOR
POWER PLANTS
RDS-PP®

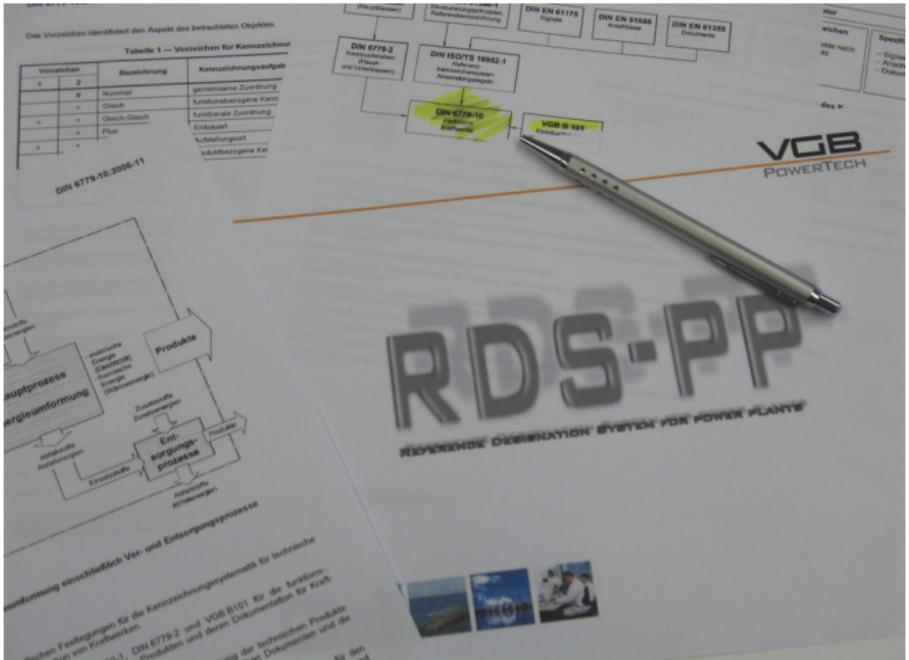
GENERALLY



What is RDS-PP[®]?

“Reference Designation System for Power Plants”

- RDS-PP[®] -



RDS-PP[®] is the designation system for all types of power plants and their *components*.

RDS-PP[®] is the consequent development of the well-established German KKS (Power Plant Designation) System. RDS-PP[®] offers a number of innovations and enhancements compared with KKS, keeping abreast of today's requirements for the designation of power plant components.

RDS-PP[®] makes it possible to designate the most varied forms of energy generation and storage for centralised and decentralised systems.

The designation system is based on the applicable international standards. VGB's “Reference Designation and Plant Documentation” working group has been significantly responsible for developing RDS-PP[®] and the international standards it is based on.

What is new about RDS-PP®?

RDS-PP® updates KKS

An essential mainstay in the development of the RDS-PP® has been the KKS, applied throughout the power plant industry for almost 30 years. This is why RDS-PP® reflects the basic structure and significant parts of the function codes found in KKS.

The familiar structuring principles of KKS have been reworked to enable a more consistent structuring at all levels. It has also been possible to eliminate some of the problems that arose when applying KKS.

In the course of standardisation, terms and structures in the function codes have been harmonized on an international level.

RDS-PP® not only enables aggregate or operating equipment based classification, but also provides a purpose and task based allocation. This makes structuring by function or functional units possible.

RDS-PP® has a wider field of application

Several additions have been introduced with RDS-PP® compared to KKS. These primarily affect the designation of new process control components such as bus systems, and the possibility of designating decentralised energy generation plants.

RDS-PP® also supports the uniform and standardized designation of signals, terminals and documents.

RDS-PP® is international

RDS-PP® is an international standardised designation system and consequently enjoys worldwide recognition.

Why do we need RDS-PP[®]?

RDS-PP[®] creates security

The international harmonisation of RDS-PP[®] and its consistent structuring helps to avoid errors and misunderstandings in labelling and identification. This not only increases plant safety, but is also the basis for a consistent HSE (health, safety & environment) concept.

Due to its integration in internationally agreed standards, RDS-PP[®] makes an important contribution in fulfilling the statutory protection targets, primarily defined in European directives, such as the Machinery Directive.

RDS-PP[®] saves costs

RDS-PP[®] is – as was KKS – a common standard for operators and manufacturers of power plants. The now worldwide recognition opens up further potential for long-term cost reduction in the planning, construction and operation of power plants.

RDS-PP[®] also provides a reference structure, which in the scope of a suitable IT solution opens up considerable synergy potential for a universal data and document management system.

RDS-PP[®] is IT compatible

Its consistent structure means that RDS-PP[®] can easily be employed in all established management and operating software. The unambiguous reference address significantly facilitates the IT-based tracking of components throughout their operational life. Based on international designation standards, the digital exchange of data between all those involved in the industry, such as planners, manufacturers and operators, is made significantly easier. It therefore has considerable advantages over in-house developed, non-standardised designation systems.

Who is RDS-PP[®] suitable for?

RDS-PP[®] is for all types of power plant

RDS-PP[®] is suitable for all types of power plant. It is therefore recommended that at least all new construction projects change over to RDS-PP[®] as soon as possible.

The RDS-PP[®] designations are now the only ones used for all wind power plants.

The VGB “Reference Designation and Plant Documentation” working group recommends the introduction and application of RDS-PP[®] wherever hydro, gas or coal power plants are expanded and upgraded.

Trademark protection for RDS-PP[®]

RDS-PP[®] is a registered trademark of VGB Power Tech. The trademark has been registered in order to exclude any other parallel development of designation systems using the name RDS-PP[®]. The registered trademark RDS-PP[®] is thus also assurance of future quality. Any products based on RDS-PP[®] may only bear this “seal of quality” if they have been developed in accordance with RDS-PP[®] rules as set out in the corresponding VGB publications. Designation schemes that do not, or only partially, correspond to these rules may not use the RDS-PP[®] seal.



RDS-PP

The VGB standards for RDS-PP®

All application guidelines that are required for practical designation are available as bilingual versions (English and German). This helps users in international markets and takes into account the global footprint of the company.

VGB Guideline B101 provides the system codes for the various systems and processes within the various power generation and storage systems. On the basis of this, it is possible to distinguish between systems in different power plant processes.

As a supplement to the system codes, VGB Guideline B102 provides the designations for the basic functions and product classes in power plants.

The application of RDS-PP®, especially in the power plant sector, is explained in VGB Guideline VGB S-823-01. This lists the special definitions and specifications for the fields of mechanical and process engineering, structural engineering, electrical and control engineering, and process control engineering.

VGB Application Guideline VGB S-823-32 covers the designations used in wind turbines.

VGB Application Guideline VGB S-823-31 describes the application for hydro power plants.

A change service is available for all the publications stated. Experiences made in the everyday application are integrated into the revision of the guideline, and change sheets are promptly provided for users to download free of charge on the VGB website.

This enables VGB PowerTech e.V. to provide its customers with all the relevant designation standards from a single source.

The path from KKS to RDS-PP[®]

The function and system codes in KKS and RDS-PP[®] are identical in many areas, or can be unambiguously assigned.

Relationships can be created for aggregate and operating equipment codes. Assistance with implementation is available from VGB.

The following table shows some examples of the conversion of KKS function codes to RDS-PP[®] system codes.

Variant	1:1	1:1	1:n	n:1
KKS	LAC	BAA	U	PB, PD,PH
RDS-PP[®]	LAC	MSA	U, Z	PU
Allocation	(a) = (b)	(a) → (b)	(a) → (b1), (b2)	(a1), (a2), (a3) → (b)
Comment	Identical	Unambiguous allocation	Allocation required	Allocation required
Explanation of the code letters:				
LAC		Feed water system		
BAA		Generator leads		
MSA		Generator leads		
PB		Circulating (main cooling) water treatment system		
PD		Service (secondary cooling) water treatment system, conventional area		
PH		Closed cooling water treatment system conventional plants		
PU		Common equipment for cooling water system		
U (in acc. with KKS)		Structures		
U (in acc. with RDS-PP [®])		Structures and areas inside of the Power Plant Process		
Z (in acc. with RDS-PP [®])		Structures and areas for systems outside the Power Plant Process		

Examples of the conversion from the KKS function code to the RDS-PP[®] system code

Any questions about RDS-PP®?

The VGB office and the experts from the VGB's "Reference Designation and Plant Documentation" working group are at your disposal should you have any questions or require further information:



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