



# ECALS辞書の新たな展開

- 欧州eCl@ssとの提携 -

技術標準専門委員会



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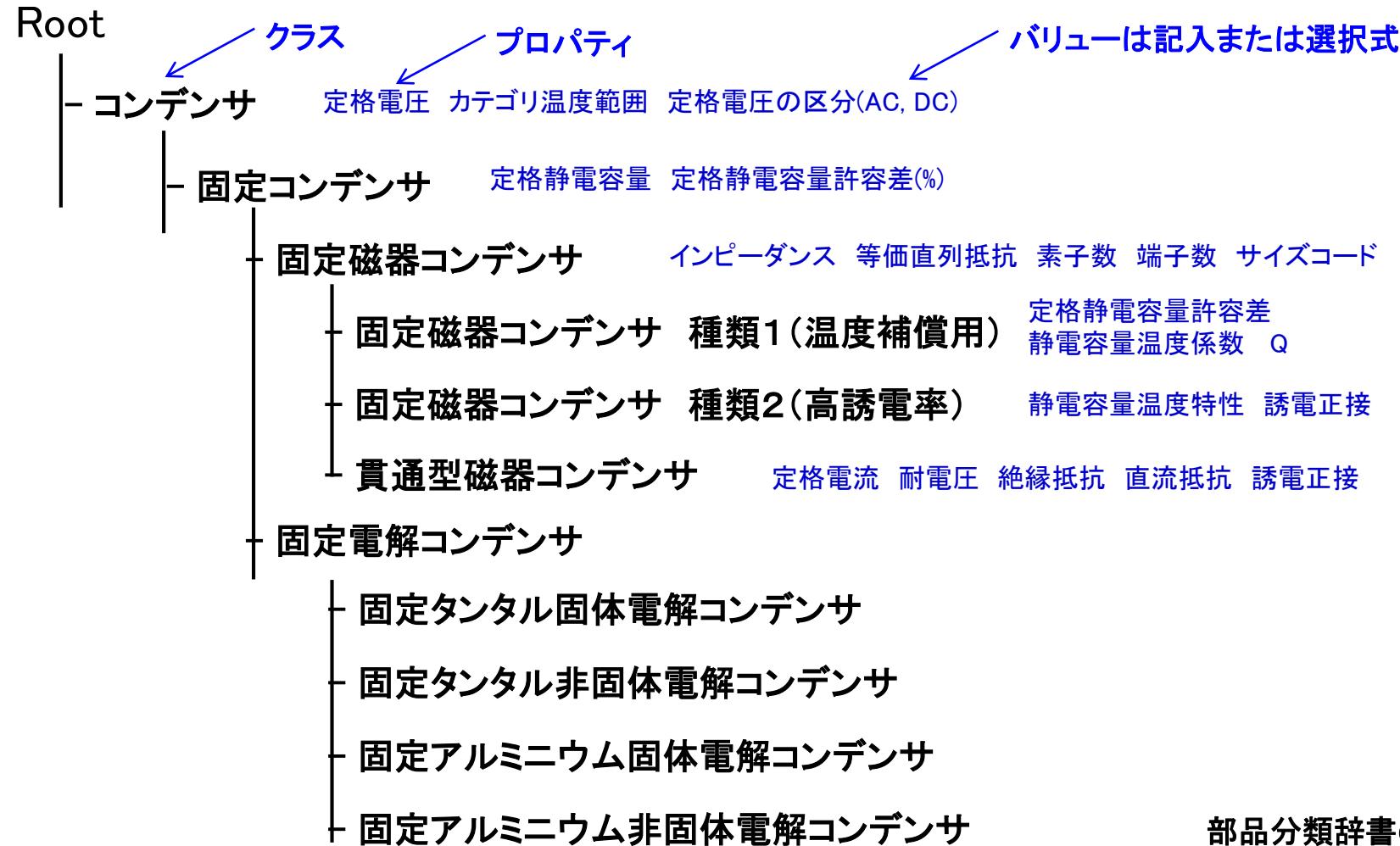
IEC CDDとECALS辞書の差分比較

関連情報サイトURL

# 1. ECALS辞書とIEC61360-4(CDD)の概要

# ECALS辞書: 部品仕様記述に関するJEITA標準

## IEC61360-2/ISO13584-42(PLIB)に準拠した構造



部品分類辞書の記述規約書: ECALSDS02

# IEC61360-4(CDD):部品仕様記述に関する国際標準

CDD(Common Data Dictionary)には以下の3規格が登録されている

## IEC61360-4(Electric/electronic components)

IEC61987(Process automation)

IEC62683(Low voltage switchgear)

\* IEC61360-2発行後しばらくは電気/電子部品分野の辞書しかなく、"Component" Data Dictionary と呼ばれていた

\* 当初は紙の規格書として発行されていたが、2012年以降は右のようなWeb DBとして公開されている

IEC International Electrotechnical Commission  
IEC 61360 - Common Data Dictionary (CDD - V2.0014.0016)

Domain: Electric/electronic components (IEC 61360-4)

Open all | Close all

- Electric/electronic components (IEC 61360-4)
  - 0112/2///61360\_4#AAA001 - component
    - AAA002 - electric/ electronic component
      - AAA003 - amplifier
      - AAA013 - antenna
      - AAA017 - battery
      - AAA020 - capacitor
        - AAA021 - fixed capacitor
          - AAA031 - variable capacitor
      - AAA032 - conductor
      - AAA041 - delay line
      - AAA042 - diode device
      - AAA056 - filter
      - AAA057 - integrated circuit
      - AAA074 - inductor
      - AAA075 - lamp
      - AAA076 - liquid crystal display
      - AAA077 - optoelectronic device
      - AAA087 - oscillator
      - AAA088 - piezoelectric device
      - AAA089 - resistor
      - AAA103 - sensor
      - AAA111 - transformer
      - AAA118 - transistor
      - AAA131 - trigger device
      - AAA138 - tube

# JEITAは2001年よりIEC CDD拡充に協力

2001: JEITA ECセンターはIECとMoUを締結。規格発行直後でCDDコンテンツが乏しかった時期にECALS辞書データを一括提供

2010~14: 新たにECALS辞書に追加になった17クラスを順次提案しIEC規格化

年	辞書バージョン	クラス数	プロパティ数	備考
(1998)	—	—	—	IEC61360-2/ISO13584-42(PLIB)第1版発行
1999	Ver. 0.7	228	2008	内部プロジェクト向け公開
2000	Ver. 1.1	580	2690	EIAJ会員公開
2001	Ver. 1.3	725	2685	一般公開; IEC61360-4へ辞書コンテンツ提供 (MoU)
2002	Ver. 3.2	745	2958	RosettaNetへ辞書コンテンツ提供 (MoU)
2005	Ver. 6.2	862	4123	水晶デバイスでQIAJと協業; EIAK(韓国)と辞書マッピング
2007	Ver. 9.1	640	3798	電池分野でBAJと協業
2014	Ver. 16.1	672	4209	ECALS辞書・追加17クラスのIEC規格化完了
2017	Ver. 17.1	672	4211	eCl@ssへ辞書コンテンツおよびCDDマッピング資料提供 (MoU)
2018	Ver. 17.3	672	4211	

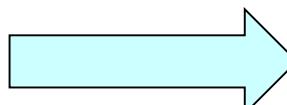
# 現在のIEC CDDの内容

2001年のECALSデータ提供、および2010年からの新規IEC提案により、電子部品に関しては多くのクラスでECALSとIEC CDDが「同一または類似」となっている

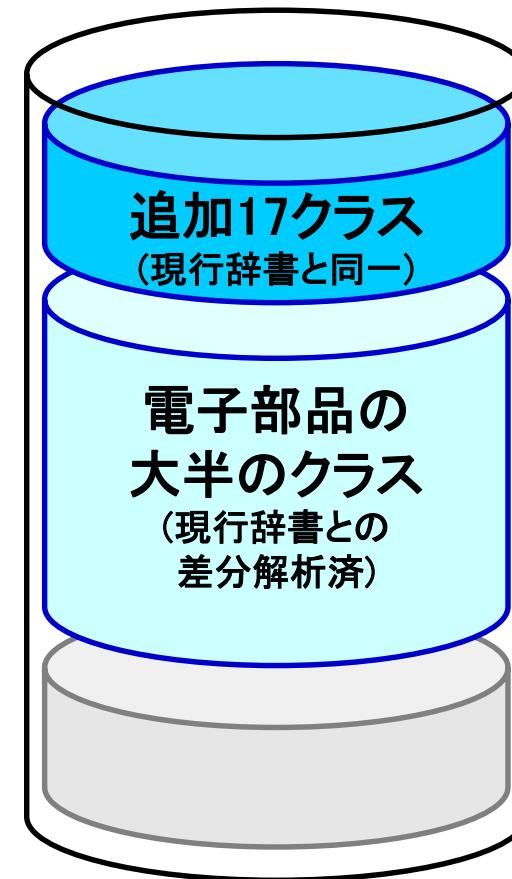
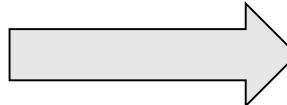
2010年以降IECに新規提案した  
ECALS辞書コンテンツ



2001年にデータ提供した  
ECALS辞書コンテンツ  
(Ver. 1.3、アップデート未対応)



ECALS以外に由来するコンテンツ  
Philips社内辞書、材料領域など



IEC61360-4  
(Electric/electronic  
components)

## 2. eCl@ss/eCl@ss辞書とは

# eCl@ssとは

欧洲大手企業からなる購買辞書の標準化団体  
運営は「ドイツ経済研究所(IW)」のコンサル部門である「IW Consulting」が担当



- ~ 150 active members
- ~ 3500 users worldwide
- international offices
  - Austria, Southern and Eastern European countries
  - China
  - France
  - Portugal and Spain
- 16 available languages
- since 2000 in the market
- cooperations with market-leaders in CAx
- international network of service providers
- liaisons to international standards (e.g. IEC)
- widely used in medical engineering, mechanical engineering, plant manufacturing and public procurement

# eCI@ss Members

- Ordinary members with seat in the Steering Committee (27)



Audi  
Vorsprung durch Technik



**BOSCH**  
Invented for life



As of March 2018

# eCl@ss Members

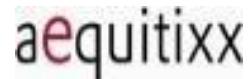
- Ordinary members (89)



As of March 2018

# eCl@ss Members

- Supporting members (25)



As of March 2018

# eCl@ss Cooperation Partners

- Cooperations worldwide (outside Europe)



# eCl@ss Cooperation Partners

- Cooperations in Europe (excluding Germany)



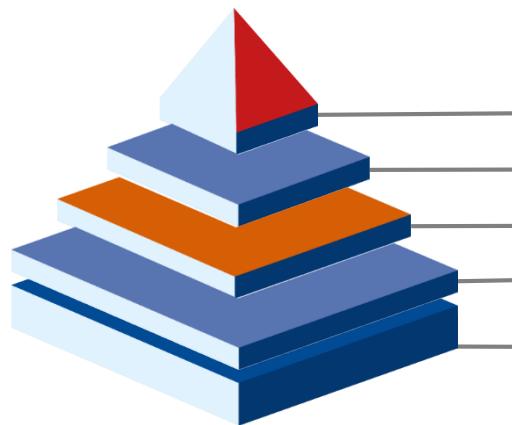
# eCl@ss Cooperation Partners

- Cooperations in Germany



# eCl@ss辞書とは

電子商取引(EDI)向けの製品仕様辞書として開発。近年はIndustrie 4.0/IoTの流れを受け、用途がERP領域に拡大



- 38 Segments
- 720 Main Groups
- 5284 Groups
- 36174 Sub-Groups
- > 18800 Properties for product description
- > 57400 Keywords (GER)
- > 55600 Keywords (EN)
- > 25400 Keywords (JA)

} > 42200 Classification Classes

Merkmal	Werte	Einheit
Mechanische und elektrische Konstruktion		
Gehäuse		
Nettogewicht	0,0060	kg
Anzahl der Ausführungen der Gehäuseteile	1	
Ausführung der Gehäuseteile		
Werkstoff des Gehäuseteiles	PA	
Bezeichnung des Gehäuseteiles	grau	
Hüllkörper Quader		
Typ des Hüllkörpers	Hüllkörper Quader	
Tiefe	49,1000	mm
Breite	5,2000	mm
Hohe	57,8000	mm
Einbauform	Reiheneinbau	



Technical Properties

Commercial Properties



5



Identification



Documentation

Date	User	Type	Description	Status	Notes
03/15	Admin	Module X	DE/EN	Intermediate	Site Admin/Programmers
03/14	Admin	Module Y	DE/EN	Intermediate	Site Admin/Programmers
03/14	Admin	Module Z	DE/EN	Intermediate	Site Admin/Programmers
03/18	Admin	Module X	DE	Intermediate	Completed
03/23/2017	Admin	Module Y	DE	Intermediate	This does the and that...
03/23/2017	Admin	Module Z	DE	Intermediate	This does the and that...

# eCl@ss辞書とは

データ構造はECALS/IEC CDDと同じIEC61360-2/ISO13584-42(PLIB)に準拠  
対象品目は工業製品以外にも食品、医薬品、物流、サービスなど広範にわたる

**eCl@ss®**  
CLASSIFICATION AND PRODUCT DESCRIPTION

Search eCl@ss content for classes, properties and values

Version: 10.0 (BASIC) Language:

Please click here for searching in eCl@ss ADVANCED

Search in: Classification

**eCl@ss Version 10.0 (en)**

- 13 Development (Service)
- 14 Logistics (Service)
- 15 Maintenance (Service)
- 16 Food, beverage, tobacco
- 17 Machine, device (for special applications)
- 18 Equipment f. mining, metallurgical plant, rolling mill a. foundry
- 19 Information, communication and media technology
- 20 Packing material
- 21 Manufacturing facility, workshop equipment, tool
- 22 Construction technology
- 23 Machine element, fixing, mounting
- 24 Office product, facility and technic, papeterie
- 25 General service
- 26 Energy, extraction product, secondary raw material and residue
- 27 Electric engineering, automation, process control engineering
- 28 Automotive technology
- 29 Home economics, Home technology

← 電気・電子関連、プロセスオートメーションはセグメント27

# eCl@ss辞書 - 固定抵抗器の例



Search eCl@ss content for classes, properties and values

eCl@ss Home | Contact | Imprint

Terms of Use | Download eCl@ss

Version: 10.0 (BASIC)

Language:

Please click here for searching in eCl@ss  
ADVANCED

Search in: Classification

for:

## eCl@ss Version 10.0 (en)

- 13 Development (Service)
- 14 Logistics (Service)
- 15 Maintenance (Service)

- 27-10 Network control technology
- 27-11 Lighting installation, device
- 27-13 Protection installation, device (electric)
- 27-14 Electrical installation, device
- 27-15 Analysis technology, device
- 27-16 Overhead line technology
- 27-18 Electrical cabinet, housing, rack
- 27-20 Measurement technology, process measurement technology
- 27-21 Signal processing
- 27-22 Actuator (fitting)
- 27-23 Process control system (PCS)
- 27-24 Control
- 27-26 Component (electronic)
  - 27-26-01 Resistance
    - 27-26-01-02 Resistor, linear
    - 27-26-01-03 Varistor
    - 27-26-01-04 Positive Temperature Coefficient
    - 27-26-01-05 Negative Temperature Coefficient
    - 27-26-01-06 Fusing resistor
    - 27-26-01-07 Potentiometer
    - 27-26-01-08 Surface mounted device resistor**
    - 27-26-01-09 Sheet resistance

Classification: 27-26-01-08 Surface mounted device resistor [ADJ139007]

Preferred name: Surface mounted device resistor

Definition: -

- [0173-1#02-AAO735#003](#) - name of supplier
- [0173-1#02-AAO736#004](#) - product a
- [0173-1#02-AAO742#002](#) - Brand
- [0173-1#02-AAW336#001](#) - Supplier product type
- [0173-1#02-AAW337#001](#) - Supplier product order suffix
- ★ [0173-1#02-BAB574#004](#) - Power**
- ★ [0173-1#02-BAA303#005](#) - Power loss, static, current-independent [Pls]**
- ★ [0173-1#02-BAB113#005](#) - Resistance**
- ★ [0173-1#02-BAB072#005](#) - Tolerance**

固定抵抗器固有のプロパティ



固定抵抗器のクラス“27-26-01-02”

# 辞書仕様は国際規格に準拠、標準化団体と広く連携

- Relying on existing international standards:

- Data model based on ISO 13584 / IEC 61360

- every structural element is identified by a globally unique identifier (IRDI, ISO 29002)



- Standardized ReleaseProcess according to ISO 22274



- eCl@ss recommend to use for the data transfer the ISO 29002



- Cooperation and harmonization with branch-specific solutions

- e.g. ETIM, proficl@ss, PROLIST, bau:class, PI (CECED), ECALS

- e.g. EDMA, IMT



bau:class

JEITA

Japan  
Electronics and Information Technology  
Industries Association



IMT  
Informationssystem  
Medizintechnik



proficl@ss  
Wir beschreiben Standards.



# 関連標準化団体辞書の取り込み

## Harmonization of branch standards into eCl@ss 7.0

- ETIM
  - 1,600 classes
  - 2,500 properties incl. definition
  - more than 2,000 value lists
- proficl@ss
  - 1,500 classes
  - 1,500 properties incl. definition
  - more than 2,000 value lists
- PROLIST
  - 1,500 classes
  - 1,500 properties incl. definition
  - implementation of new classification criteria
  - cardinality, polymorphism, aspects, composite devices, ...
  - Organizational integration of PROLIST e.V. into eCl@ss e.V. in 01/2013



### 3. IEC辞書の新たな動き – eCl@ssとの提携

# IEC中央事務局がeCl@ssと提携

eCl@ssの対象品目は広いが、近年はIndustrie 4.0/IoTの流れを受け、セグメント27(電気・電子、FA分野)の辞書拡充を重視。2016年秋にはIEC中央事務局と辞書マッピング(d-m@p PJ)を目的にCooperation Agreementを締結



[Home](#) | [Contact](#) | [Imprint](#)



- The eCl@ss standard
  - ▶ Overview
  - ▶ Search in eCl@ss
  - ▶ Language versions
  - ▶ To acquire and implement



- eCl@ss best practice
  - ▶ In procurement
  - ▶ In sales
  - ▶ In controlling
  - ▶ For IT solution provider



- About the eCl@ss association
  - ▶ The objectives of eCl@ss
  - ▶ The members of eCl@ss
  - ▶ Cooperation
  - ▶ Consulting offers



- Developing the standard
  - ▶ The workflow
  - ▶ Change requests
  - ▶ Expert groups
  - ▶ Rules for development

Industry hails the harmonization of standards in electrical engineering and electronics as a great breakthrough for digital data exchange and an important gain for the sector

The IEC (International Electrotechnical Commission) the world's leading organization that prepares and publishes globally relevant International Standards for all electric and electronic devices and systems supports all forms of conformity assessment and administers four Conformity Assessment Systems that certify that components, equipment and systems, and eCl@ss e. V., the industry association providing the classification and description system eCl@ss, have signed a cooperation agreement which aims to facilitate the automatic transfer of shared content between the IEC Common Data Dictionaries (CDD) and eCl@ss dictionaries.

The cooperation between the IEC and eCl@ss e. V. centres on the requirements of international and digital information exchange based on globally implemented Standards of the IEC. In the framework of the project "d-m@p," experts from the IEC and eCl@ss e. V. are developing a mapping system that makes product data characteristics and attributes reciprocally readable. As digitization proceeds, companies are increasingly faced with the challenge of electronic data exchange.

Under this Cooperation Agreement the content for mapping belongs to IEC 61987, Industrial-process measurement and control - Data structures and elements in process equipment catalogues; IEC 61360, Standard data element types with associated classification scheme for electric components; and eCl@ss Segment 27: Electric engineering, automation, process control engineering. For the benefit of eCl@ss and IEC CDD users, common content shall be identified and easily accessible in a harmonized form.

Markus Reigl, head of the central department of technical regulation and standardization at

# d-m@p PJ: IEC-eCl@ss間で辞書相互利用を目指す

## Theoretical observation: Conclusion for work



2

### Delta Report

negative

positive

6 1:m

7 enter into IEC\*

8 out of scope

1

*Loading IEC structure elements / information objects into eCl@ss mapping tool at the development environment (work area)*

3 out of scope

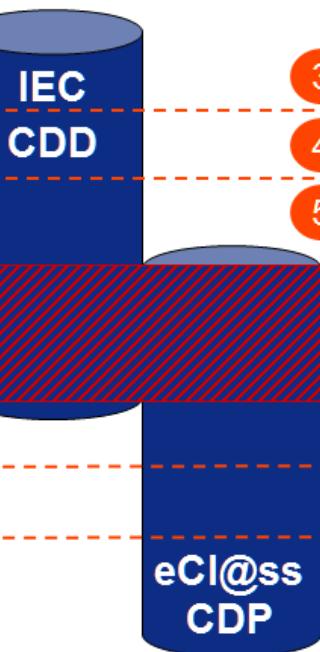
4 enter into eCl@ss\*

5 n:1

1:1

10

*Manual mapping on both parties in the sg*



### Parallel elaboration of technical solution

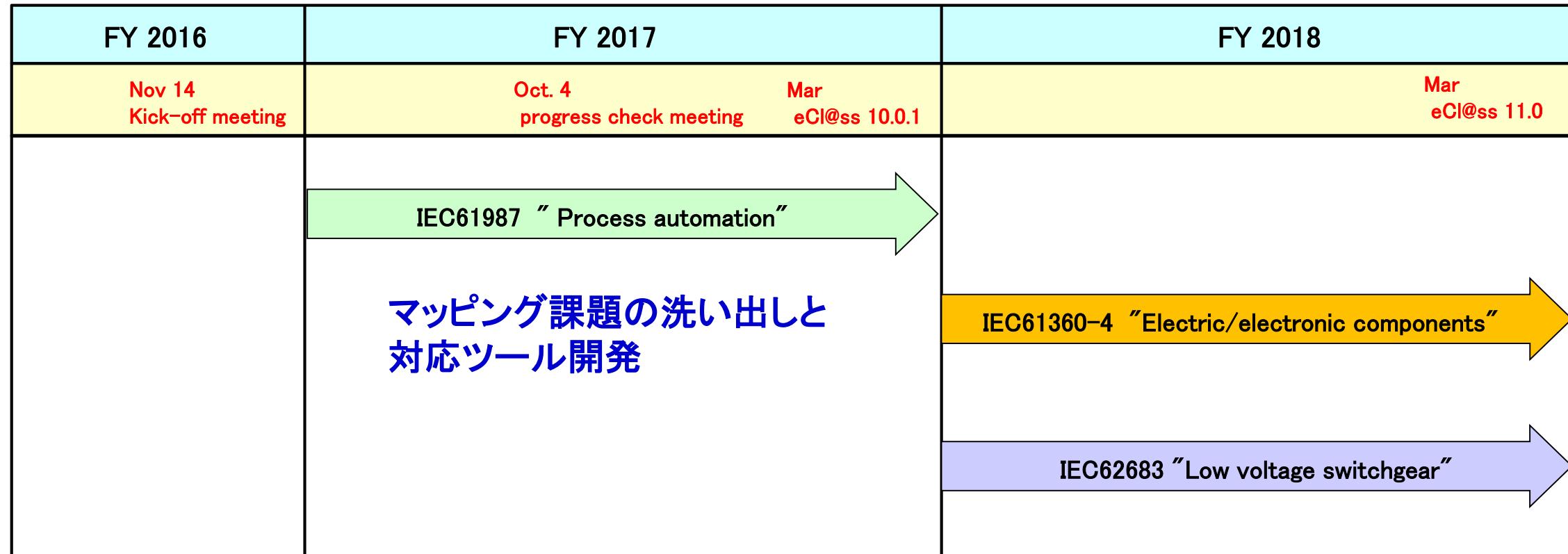
9

\* The 'normal' processes for standardizing content shall apply

Notice: this drawing is not the real relationship concerning similar structure elements / information objects

# d-m@p PJ 全体スケジュール

構造の複雑なIEC61987“Process automation (TC65)”をトライアルとして先行着手  
マッピング作業の課題洗い出し後に、IEC61987“Low voltage switchgear”と  
IEC61360-4“Electric/electronic components(SC3D)”のマッピングにとりかかる



## 4. d-m@p PJへの協力と ECALS辞書の今後の展開

# JEITAとeCI@ssがパートナー覚書を交換

2018年度のIEC CDDマッピング開始に備え、2017年7月にJEITAとeCI@ssがCooperation Partner覚書を締結。今後はd-m@p PJへの協力のみならず、国際・業界交流TFメンバーとeCI@ss間で定期的交流を持つ予定



# d-m@p PJ スケジュール

2018年5月よりECALS辞書が関係するIEC61360-4のマッピング作業に着手  
2019年3月発行の「eCl@ss Ver. 11.0」への取り込みをターゲットに進行中

FY 2018 1H		FY 2018 2H	
4/18 "d-m@p" PJ Meeting (ケルン)	5月 マッピング開始	7月 第1回進捗 打ち合わせ(予定)	10月 第2回進捗 打ち合わせ(予定)
	IEC61360-4 "Electric/electronic components"		3月 eCl@ss 11.0発行 12月 マッピング完了

# d-m@p PJ後のECALS辞書の展開

d-m@p PJにより、ECALS辞書がCDD経由でeCl@ss辞書に取り込まれ、eCl@ss利用企業間のB2Bデータ交換に使われる環境が整う

d-m@p PJ完了後には、JEITA会員企業向けの説明会を開催予定

会員企業の国際化・業界化活動へ役立てることを検討する

## 5. 補足資料

- IEC CDDとECALS辞書の差分比較
- 関連情報サイトURL

# IEC CDDとECALS辞書の差分比較

ECALS 全521クラス/4,211プロパティについて、2016年に分析・資料化済

ECALS v17.1							IEC CDD										
CODE	L0	L1	L2	L3	L4	PREFNAME.JA	PREFNAME.EN	CODE	L0	L1	L2	L3	L4	L5	L6		
XJA001	XJA001					ECALS/JEITA ROOT COMPONE	component	AAA001	AAA001								
							electric/ electronic component	AAA002	AAA001	AAA002							
							electromechanical component	AAA147	AAA001	AAA147							
XJA002	XJA001	XJA002				RESISTORS	resistor	AAA089	AAA001	AAA002	AAA089						
XJA003	XJA001	XJA002	XJA003			FIXED RESISTORS	fixed resistor	AAA090	AAA001	AAA002	AAA089	AAA090					
							fixed linear resistor	AAA091	AAA001	AAA002	AAA089	AAA090	AAA091				
							single linear resistor	AAA092	AAA001	AAA002	AAA089	AAA090	AAA091	AAA092			
XJA004	XJA001	XJA002	XJA003	XJA004		FIXED PRECISION RESISTORS	fixed precision resistor	AAA509	AAA001	AAA002	AAA089	AAA090	AAA091	AAA092	AAA509		
XJA005	XJA001	XJA002	XJA003	XJA005		FIXED POWER RESISTORS	fixed power resistor	AAA510	AAA001	AAA002	AAA089	AAA090	AAA091	AAA092	AAA510		
XJA006	XJA001	XJA002	XJA003	XJA006		FIXED LOW-POWER RESISTORS	fixed low-power resistor	AAA511	AAA001	AAA002	AAA089	AAA090	AAA091	AAA092	AAA511		
XJA007	XJA001	XJA002	XJA003	XJA007		FIXED RESISTOR NETWORKS	linear resistor network	AAA093	AAA001	AAA002	AAA089	AAA090	AAA091	AAA093			
XJA771	XJA001	XJA002	XJA003	XJA771		FIXED CHIP RESISTORS	fixed chip resistor	AAA512	AAA001	AAA002	AAA089	AAA090	AAA091	AAA092	AAA512		
XJA768	XJA001	XJA002	XJA003	XJA768		FIXED RESISTOR NETWORKS F	linear resistor network	AAA093	AAA001	AAA002	AAA089	AAA090	AAA091	AAA093			
XJA009	XJA001	XJA002	XJA003	XJA009		FIXED FUSING RESISTORS	fixed fusing resistor	AAA514	AAA001	AAA002	AAA089	AAA090	AAA091	AAA092	AAA514		
XJA010	XJA001	XJA002	XJA003	XJA010		LINEAR POSITIVE TEMPERATURE	fixed thermostat resistor	AAA513	AAA001	AAA002	AAA089	AAA090	AAA091	AAA092	AAA513		
XJA967	XJA001	XJA002	XJA967			ZERO OHM RESISTORS	resistor	AAA089	AAA001	AAA002	AAA089						
XJB037	XJA001	XJA002	XJB037			SHUNT RESISTOR	resistor	AAA089	AAA001	AAA002	AAA089						
XJA968	XJA001	XJA002	XJA968			FIXED RESISTANCE ATTENUAT	resistor	AAA089	AAA001	AAA002	AAA089						
							fixed non-linear resistor	AAA094	AAA001	AAA002	AAA089	AAA090	AAA094				
							light dependent resistor	AAA095	AAA001	AAA002	AAA089	AAA090	AAA094	AAA095			
							variable resistor	AAA100	AAA001	AAA002	AAA089	AAA100					
							two-terminal variable resistor	AAA101	AAA001	AAA002	AAA089	AAA100	AAA101				
XJA011	XJA001	XJA002	XJA011			POTENTIOMETERS	potentiometer	AAA102	AAA001	AAA002	AAA089	AAA100	AAA102				
XJA012	XJA001	XJA002	XJA011	XJA012		PRECISION POTENTIOMETERS	potentiometer	AAA102	AAA001	AAA002	AAA089	AAA100	AAA102				
							rotary precision potentiometer	AAA607	AAA001	AAA002	AAA089	AAA100	AAA102	AAA607			
XJA013	XJA001	XJA002	XJA011	XJA013		ROTARY POWER POTENTIOMET	power rotary potentiometer	AAA608	AAA001	AAA002	AAA089	AAA100	AAA102	AAA608			
XJA014	XJA001	XJA002	XJA011	XJA014		ROTARY LOW-POWER POTENT	low-power rotary potentiometer	AAA609	AAA001	AAA002	AAA089	AAA100	AAA102	AAA609			
XJA015	XJA001	XJA002	XJA011	XJA015		PRESET POTENTIOMETERS	preset potentiometer	AAA516	AAA001	AAA002	AAA089	AAA100	AAA102	AAA516			

ECALS  
Ver.17.1

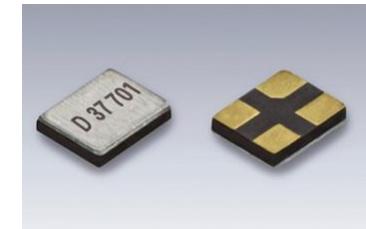
IEC61360-4

注：  
ECALS辞書  
最新版は  
その後の小  
修整により  
Ver. 17.3

# 2010年以降新規提案したクラスは同一内容

MHz帯水晶振動子 – ECALS XJA952 to CDD AFA006

ECALSプロパティ 13; IEC該当プロパティ 13 (13/13)

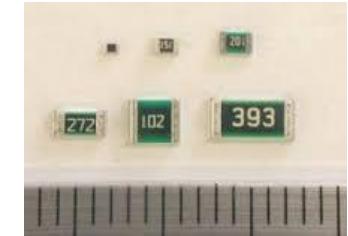


ECALS/JEITA ROOT COMPONENT (XJA001) → 水晶デバイス (XJA949) → 水晶振動子 (XJA950) → MHz帯水晶振動子 (XJA952)					「MHz band quartz crystal unit(AFA006)」とマッピング									
Property Code	PREFNAME. JA	UNITS	LEVEL	DATATYPE	DEFINITION. JA	Applicable at	Property Code	PREFNAME. EN	UNITS	LEVEL	DATATYPE	DEFINITION. EN		
XJK403	動作温度範囲	Cel	MinMax	RealM	水晶デバイスが規定の特性を維持しながら機能できる温度範囲（水晶振動子の場合、保持器上で測定した温度）	AFA003	AFD019	operating temperature range	° C	MinMax	RealM	range of temperature variance, over which the quartz crystal device will function maintaining its specified characteristics within the specified tolerances		
XJK404	保存温度範囲	Cel	MinMax	RealM	水晶デバイスの機能劣化や損傷をおこさないデバイス上で測定した温度範囲	AFA003	AFD020	storage temperature range	° C	MinMax	RealM	range of temperature variance as measured on the enclosure surface, specified by the minimum and maximum values, within which the quartz crystal device can be kept in storage without deterioration or damage to its performance		
XJK397	負荷容量	F	Nom	RealM	水晶振動子の負荷時共振周波数 $f_L$ を決定する実効的な外部容量	AFA004	AFD012	load capacitance	pF		RealM	effective external capacitance that determines load resonance frequency $f_L$ of a quartz crystal unit		
XJK398	直列抵抗	Ohm	Max	RealM	水晶振動子における等価回路の直列アームの抵抗	AFA004	AFD013	motional resistance	Ω		RealM	resistance in the motional series arm of the equivalent circuit		
XJK399	公称周波数	Hz	Nom	RealM	水晶振動子を識別するために使用される周波数	AFA004	AFD014	nominal frequency	Hz		RealM	frequency used to identify the quartz crystal device		
XJK400	周波数許容偏差	1.00E-05	MinMax	RealM	規定状態で動作しているときの水晶振動子の公称周波数に対する最大許容偏差	AFA004	AFD015	frequency tolerance	1	MinMax	RealM	maximum permissible deviation from the nominal frequency of the quartz crystal device when operating under the specified conditions		
XJK401	励振レベル	W	MinNomMax	RealM	水晶振動子が消費する電力または水晶発振回路における水晶ループの電力	AFA004	AFD016	level of drive	μW	MinNomMax	RealM	power consumption of the crystal unit or crystal loop in the crystal oscillator circuit		
XJK402	周波数経時変化	10***-6/year	MinMax	RealM	基準温度において、規定状態で最初の1年間の初期周波数からの最大変化率	AFA004	AFD018	frequency ageing	1	MinMax	RealM	maximum deviation of frequency from the initial frequency in evaluation during a specified period of time under the reference temperature and other specified conditions		
XJK405	並列容量	F	Max	RealM	水晶振動子の等価回路における直列アームと並列の容量	AFA004	AFD021	shunt capacitance	pF		RealM	capacitance in parallel with the motional arm of the equivalent circuit		
XJK409	動作可能温度範囲	Cel	MinMax	RealM	水晶振動子が永久的な損傷を受けることがない、保持器上で測定した温度範囲	AFA006	AFD025	operable temperature range	° C	MinMax	RealM	range of temperature as measured on the enclosure surface by minimum and maximum values, within which the crystal unit can operate without incurring permanent damage to its function		
XJK410	周波数温度特性	1.00E-05	MinMax	RealM	動作温度範囲にわたる規定基準温度の周波数からの偏差	AFA006	AFD027	frequency versus temperature characteristics	1	MinMax	RealM	deviation from the frequency at the reference temperature, over the operating temperature range, while other conditions are kept constant		
XJK411	オーバートーン次数		Nom		振動の倍音の程度を示す整数值	AFA006	AFD028	overtone order	1		Int	value of the overtone multiple of the fundamental harmonic resonance in a whole number		
XJK412	基準温度	Cel	MinNomMax	RealM	周波数を偏差で表す時に、基準となる周波数を得るためにの温度	AFA006	AFD029	reference temperature	° C	MinNomMax	RealM	ambient temperature used as the basis for defining operational characteristics		

# 2001年データ提供クラスの辞書改訂差分

## チップ固定抵抗器 – ECALS XJA771 to CDD AAA512

ECALSプロパティ 10; IEC該当プロパティ 9 (9/10)



ECALS/JEITA ROOT COMPONENT (XJA001) -> 抵抗器 (XJA002) -> 固定抵抗器 (XJA003) -> チップ固定抵抗器 (XJA771)					「fixed chip resistor (AAA512)」とマッピング									
Property Code	PREFNAME.JA	UNITS	LEVEL	DATATYPE	DEFINITION.JA	Applicable	Property Code	PREFNAME.EN	UNITS	LEVEL	DATATYPE	DEFINITION.EN		
XJF711	定格電力	W	Max	Realm	周囲温度70°Cでの耐久性試験で、抵抗値変化が規定値を超えない条件での最高許容電力	AAA002	AAE257	power dissipation	W	Max	Realm	permissible power which may be dissipated continuously, at specified conditions		
XJF712	定格抵抗値	Ohm	Nom	Realm	抵抗器がその抵抗値をもつように設計され、通常抵抗器の上に表示される抵抗値。	AAA091	AAE119	resistance	Ω	MinNomMax	Realm	value as specified by level (minmax) of the resistance of a fixed linear resistor or variable resistor		
XJF713	定格抵抗値の許容差	%	Nom	Realm	定格抵抗値に対する偏差。	AAA089	AAF100	resistance tolerance	%	Nom	Realm	nominal tolerance on resistance identifying a resistor		
XJF714	定格電圧	V	Max	Realm	定格抵抗値と定格電力との積の平方根からもとめられた直流または交流電圧の実効値の最大値。	AAJ010		rated voltage	V	Max	Realm	maximum dc or ac rms voltage calculated from the square root of the product of the rated resistance and the rated dissipation which may be applied continuously to a resistor at any operating temperature below the rated temperature		
XJF715	素子最高電圧	V	Max	Realm	抵抗器または抵抗素子の端子間に連続して印加できる最高の直流または交流電圧実効値	AAA089	AAE118	limiting element voltage (dc)	V	Max	IntM	maximum limiting dc voltage that may be applied to a resistor		
						AAA089	AAF281	limiting element voltage (ac)	V	Max	IntM	maximum limiting ac voltage that may be applied to a resistor		
XJF716	カテゴリ温度範囲	Cel	MinMax	Realm	抵抗器が連続的に動作するように設計された温度範囲。	AAJ056		category temperature	°C	MinMax	Realm	value as specified by level (minmax) of the category temperature range for a component		
XJF727	抵抗体の種類			ENUM	主として、抵抗を形成する素材を分類した物	AAA091	AAE116	resistive material			ENUM	code of the resistive material of a fixed linear or a variable resistor		
XJJ046	チップ抵抗器の形状			ENUM	抵抗器の外形形状を表す									
XJF729	サイズ			ENUM	チップ抵抗器に適用し、抵抗器の長さと幅（又は外径幅）を0.1ミリメートル単位の公称値4数字で構成した値。	AAJ008		size code			String	size code of a capacitor package intended for surface mounting		
XJK646	抵抗温度係数	10**-6/K	MinMax	Realm	二つの規定の温度間の抵抗値の相対的变化（平均的係数）を温度差で除した商で、通常、1°C当たりの百万分率(10**-6)で表す	AAA090	AAF350	temperature coefficient	1/K	MinMax	Realm	value as specified by level (minmax) of the temperature coefficient of a fixed resistor in temperature range between specified temperatures (T <sub>1</sub> and T <sub>2</sub> )		

# 2001年データ提供クラスの辞書改訂差分

## ノーマルモードチョークコイル – ECALS XJA757 to CDD AAA226



ECALSプロパティ 11; IEC該当プロパティ 6 (6/11)

Property Code	PREFNAME.JA	UNITS	LEVEL	DATATYPE	DEFINITION.JA	Applicable a	Property Code	PREFNAME.EN	LEVEL	DATATYPE	DEFINITION.EN
XJJ049	カテゴリ温度範囲	Cel	MinMax	Realm	設計上、フィルタが使用される周囲温度の範囲を指す。低温と高温で示される。		AAJ056	category temperature	MinMax	Realm	value as specified by level (minmax) of the category temperature range for a component
XJJ053	サイズコード			String	製品本体の公称幅及びそれに続く公称長さを0.1mm単位で表す。						
XJJ104	AC/DC区分			ENUM	ACラインに使用されるか、DCラインに使用されるかを示す						
XJE468	素子数(回路数)		Nom		1チップに入る素子数						
XJK692	定格電圧	V	Max	Realm	EMIフィルタに印加される定格の電圧		AAJ010	rated voltage	Max	Realm	maximum dc or ac rms voltage calculated from the square root of the product of the rated resistance and the rated dissipation which may be applied continuously to a resistor at any operating temperature below the rated temperature
XJK693	定格電流	A	Max	Realm	EMIフィルタに印加される定格の電流						
XJK694	絶縁抵抗	Ohm	Min	Realm	端子間に直流電圧を印加し、規定の時間が経過したときに示す電気抵抗		AAE063	insulation resistance	Min	Realm	minimum insulation resistance between terminals of a fixed capacitor, determined according to IEC 60384-1(4.5) (1984) at reference conditions
XJJ202	直流抵抗	Ohm	Max	Realm	等価的に示される直流抵抗	AAA074	AAF090	dc resistance	Max	Realm	maximum resistance to direct current of a coil of a wirewound component
XJL959	インダクタンス	H	MinNom	Realm	EMIフィルタが有するインダクタンス値	AAA074	AAE517	inductance	MinNomMax	Realm	value as specified by level (minNomax) of the inductance of an inductive antenna, inductor, motor or transformer at specified frequency
XJL960	インダクタンス許容差	%	MinMax	Realm	インダクタンス値の許容差	AAA074	AAJ076	inductance tolerance (%)	Nom	Realm	nominal tolerance of the value of inductance of an inductor
XJL961	インダクタンス測定周波数	Hz	Nom	Realm	インダクタンス特性を測定する周波数						

# 関連情報サイトURL

## \* JEITA ECセンター HP

<http://ec.jeita.or.jp/jp/>

## \* ECALS-IEC CDDマッピング資料(ECセンター会員サイト)

[https://ec.jeita.or.jp/committee/modules/contents04/index.php?content\\_id=3](https://ec.jeita.or.jp/committee/modules/contents04/index.php?content_id=3)

## \* IEC 61360-4(Common Data Dictionary)

<https://cdd.iec.ch/cdd/iec61360/iec61360.nsf/TreeFrameset?OpenFrameSet>

## \* eCl@ss HP

<https://www.eclasse.eu/en.html>

## \* eCl@ss 辞書サイト

<http://www.eclasscontent.com/>



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