

EUROPEAN PATENT OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1024

DATE: JANUARY 1, 2021

PROJECT RP0673

The following classification changes will be effected by this Notice of Changes:

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
<b>SCHEME:</b>		
Symbols Deleted:	H02K	1/226
	H02K	2005/1287
	H02K	9/005
Symbols New:	H02K	5/203, 5/207
	H02K	9/223, 9/225, 9/227
Titles Changed:	H02K	1/00, 1/04, 1/27
	H02K	3/00, 3/02, 3/30, 3/32, 3/50
	H02K	5/10, 5/24
	H02K	7/065, 7/14, 7/18, 7/20
	H02K	9/24, 9/28
	H02K	16/04
	H02K	17/34
	H02K	23/30, 23/32, 23/66, 23/68
	H02K	27/30
	H02K	29/06, 29/14
	H02K	41/06
	H02K	49/00, 49/04
Warnings New:	H02K	5/20, 5/203, 5/207
	H02K	9/20, 9/22, 9/223, 9/225, 9/227
<b>DEFINITIONS:</b>		
Definitions Deleted:	H02K	9/005
Definitions New:	H02K	9/223, 9/225, 9/227, 23/68
Definitions Modified:	H02K	Subclass
	H02K	1/04, 1/27
	H02K	3/32, 3/50
	H02K	5/10, 5/24
	H02K	7/065, 7/14
	H02K	9/24
	H02K	17/34
	H02K	29/06, 29/14
	H02K	49/00

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**No other subclasses/groups are impacted by this Notice of Changes.**

**This Notice of Changes includes the following [Check the ones included]:**

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)
- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)

- 3.  REVISION CONCORDANCE LIST (RCL)
- 4.  CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
- 5.  CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

**SUBCLASS H02K – DYNAMO-ELECTRIC MACHINES (dynamo-electric relays H01H 53/00; conversion of DC or AC input power into surge output power {H03K 3/53})**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> “CPC only” text should normally be enclosed in {curly brackets}**	<u>Transferred to<sup>#</sup></u>
M	H02K 1/00	0	Details of the magnetic circuit (magnetic circuits for relays H01H 50/16)	
M	H02K 1/04	1	characterised by the material used for insulating the magnetic circuit or parts thereof	
D	H02K 1/226	4	{of the claw-pole type}	<administrative transfer to H02K 21/044>
M	H02K 1/27	3	Rotor cores with permanent magnets	
M	H02K 3/00	0	Details of windings	
M	H02K 3/02	1	Windings characterised by the conductor material	
M	H02K 3/30	1	Windings characterised by the insulating material	
M	H02K 3/32	1	Windings characterised by the shape, form or construction of the insulation	
M	H02K 3/50	2	Fastening of winding heads, equalising connectors, or connections thereto	
M	H02K 5/10	2	with arrangements for protection from ingress, e.g. water or fingers	
D	H02K 2005/1287	4	{Details of sleeves or discs}	<administrative transfer to H02K 5/128>
C	H02K 5/20	2	with channels or ducts for flow of cooling medium	H02K 5/20, H02K 5/203, H02K 5/207
N	H02K 5/203	3	{specially adapted for liquids, e.g. cooling jackets}	
N	H02K 5/207	3	{with openings in the casing specially adapted for ambient air}	
M	H02K 5/24	1	specially adapted for suppression or reduction of noise or vibrations	
M	H02K 7/065	2	Electromechanical oscillators; Vibrating magnetic drives	
M	H02K 7/14	1	Structural association with mechanical loads, e.g. with hand-held machine tools or fans (with fan or impeller for cooling the machine H02K 9/06)	

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<b>Type*</b>	<b>Symbol</b>	<b>Indent Level Number of dots (e.g. 0, 1, 2)</b>	<b>Title</b> <b>“CPC only” text should normally be enclosed in {curly brackets}**</b>	<b>Transferred to#</b>
M	H02K 7/18	1	Structural association of electric generators with mechanical driving motors, e.g. with turbines	
M	H02K 7/20	1	Structural association with auxiliary dynamo-electric machines, e.g. with electric starter motors or exciters	
D	H02K 9/005	1	{Details of cooling systems with unspecified cooling medium flowing through channels in or between the conductors}	<administrative transfer to H02K 9/00>
C	H02K 9/20	2	wherein the cooling medium vaporises within the machine casing	H02K 9/20, H02K 9/225
C	H02K 9/22	1	by solid heat conducting material embedded in, or arranged in contact with, the stator or rotor, e.g. heat bridges	H02K 9/22, H02K 9/223, H02K 9/225, H02K 9/227
N	H02K 9/223	2	{Heat bridges}	
N	H02K 9/225	2	{Heat pipes}	
N	H02K 9/227	2	{Heat sinks}	
M	H02K 9/24	1	Protection against failure of cooling arrangements, e.g. due to loss of cooling medium or due to interruption of the circulation of cooling medium	
M	H02K 9/28	1	Cooling of commutators, slip-rings or brushes e.g. by ventilating	
M	H02K 16/04	1	Machines with one rotor and two stators	
M	H02K 17/34	2	Cascade arrangement of an asynchronous motor with another dynamo-electric motor or converter	
M	H02K 23/30	2	having lap or loop windings	
M	H02K 23/32	2	having wave or undulating windings	
M	H02K 23/66	1	Structural association with auxiliary electric devices influencing the characteristic of, or controlling, the machine, e.g. with impedances or switches	
M	H02K 23/68	1	Structural association with auxiliary mechanical devices, e.g. with clutches or brakes	
M	H02K 27/30	1	Structural association with auxiliary mechanical devices, e.g. with clutches or brakes	
M	H02K 29/06	1	with position sensing devices (H02K 29/03 takes precedence)	
M	H02K 29/14	1	with speed sensing devices (H02K 29/03 takes precedence)	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level Number of dots (e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be enclosed in {curly brackets}**</u>	<u>Transferred to<sup>#</sup></u>
M	H02K 41/06	1	Rolling motors, i.e. motors having the rotor axis parallel to the stator axis and following a circular path as the rotor rolls around the inside or outside of the stator { ; Nutating motors, i.e. having the rotor axis parallel to the stator axis inclined with respect to the stator axis and performing a nutational movement as the rotor rolls on the stator }	
M	H02K 49/00	0	Dynamo-electric clutches; Dynamo-electric brakes	
M	H02K 49/04	2	of the eddy-current hysteresis type	

\*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- \*\*No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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B. New, Modified or Deleted Warning(s)

**SUBCLASS H02K – DYNAMO-ELECTRIC MACHINES (dynamo-electric relays H01H 53/00; conversion of DC or AC input power into surge output power {H03K 3/53})**

<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
N	H02K 5/20		Group H02K 5/20 is impacted by reclassification into groups H02K 5/203 and H02K 5/207. Groups H02K 5/20, H02K 5/203, and H02K 5/207 should be considered in order to perform a complete search.
N	H02K 5/203		Group H02K 5/203 is incomplete pending reclassification of documents from group H02K 5/20. Groups H02K 5/20 and H02K 5/203 should be considered in order to perform a complete search.
N	H02K 5/207		Group H02K 5/207 is incomplete pending reclassification of documents from group H02K 5/20. Groups H02K 5/20 and H02K 5/207 should be considered in order to perform a complete search.
N	H02K 9/20		Group H02K 9/20 is impacted by reclassification into group H02K 9/225. Groups H02K 9/20 and H02K 9/225 should be considered in order to perform a complete search.
N	H02K 9/22		Group H02K 9/22 is impacted by reclassification into groups H02K 9/223, H02K 9/225, and H02K 9/227. All groups listed in this Warning should be considered in order to perform a complete search.
N	H02K 9/223		Group H02K 9/223 is incomplete pending reclassification of documents from group H02K 9/22. Groups H02K 9/22 and H02K 9/223 should be considered in order to perform a complete search.
N	H02K 9/225		Group H02K 9/225 is incomplete pending reclassification of documents from groups H02K 9/20 and H02K 9/22. Groups H02K 9/20, H02K 9/22, and H02K 9/225 should be considered in order to perform a complete search.
N	H02K 9/227		Group H02K 9/227 is incomplete pending reclassification of documents from group H02K 9/22. Groups H02K 9/22 and H02K 9/227 should be considered in order to perform a complete search.

\*N = new warning, M = modified warning, D = deleted warning

NOTE: The “Location” column only requires the symbol PRIOR to the location of the warning. No further directions such as “before” or “after” are required.

## 2. A. DEFINITIONS (new)

Insert the following new definitions.

### H02K 9/223

#### Definition statement

*This place covers:*

Passive solid heat conducting materials creating a path of least resistance for heat transfer between the stator or the rotor and another solid material.

#### Synonyms and Keywords

*In patent documents, the following words/expressions are often used as synonyms:*

- Thermal bridge
- Cold bridge
- Thermal bypass

### H02K 9/225

#### Definition statement

*This place covers:*

Vessels (e.g. pipes) containing a medium undergoing a phase transition and transferring heat between a first interface of the vessel in contact with the stator or the rotor and a second interface of the vessel in contact with a cooling medium (e.g. air, a liquid or a solid).

### H02K 9/227

#### Definition statement

*This place covers:*

Passive solid heat conducting materials in thermal contact with the stator or the rotor and transferring heat to a fluid medium (e.g. air or a liquid coolant).

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## H02K 23/68

### References

#### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Control arrangements external to the machine	H02P
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2. B. DEFINITIONS QUICK FIX

<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference symbol or text</u>	<u>Action; New symbol; New text</u>
H02K	Limiting references		<u>Insert</u> the following <u>new</u> row in the existing Limiting references table.  Conversion of DC or AC input power into surge output power <b>H03K 3/53</b>
H02K	Application-oriented references	Conversion of DC or AC input power into surge output power H03K 3/53	<u>Delete</u> the following existing row from the Application-oriented references table.  Conversion of DC or AC input power into surge output power H03K 3/53
H02K 1/04	Limiting references		<u>Delete</u> the entire Limiting references section.
H02K 1/04	Application-oriented references		<u>Insert</u> the following <u>new</u> Application-oriented references section.  <b><i>Application-oriented references</i></b> <i>Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:</i>  Materials used for the insulation of the windings <b>H02K 3/30</b>
H02K 1/27	Limiting references		<u>Delete</u> the entire Limiting references section.

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<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference symbol or text</u>	<u>Action; New symbol; New text</u>
H02K 1/27	Informative references		<p><u>Insert</u> the following <u>new</u> row in the existing Informative references table.</p> <p>Rotor cores with permanent magnets in which the excitation flux is regulated by mechanical means <span style="float: right;">H02K 21/021</span></p>
H02K 3/32	Limiting references		<p><u>Delete</u> the entire Limiting references section.</p>
H02K 3/32			<p><u>Insert</u> the following <u>new</u> Application-oriented references section.</p> <p><b><i>Application-oriented references</i></b>  <i>Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:</i></p> <p>Insulators having also supporting functions, e.g. bobbins;  supporting structures for the coil ends <span style="float: right;">H02K 3/46</span></p>
H02K 3/50	Limiting references		<p><u>Delete</u> the entire Limiting references section.</p>
H02K 3/50	Application-oriented references		<p><u>Insert</u> the following <u>new</u> Application-oriented references section.</p> <p><b><i>Application-oriented references</i></b>  <i>Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:</i></p>

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<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference symbol or text</u>	<u>Action; New symbol; New text</u>
			Fastening salient pole windings or connections thereof H02K 3/52
H02K 5/10	Limiting references		<u>Delete</u> the entire Limiting references section.
H02K 5/10	Informative references		<u>Insert</u> the following <u>new</u> row in the existing Informative references section.  Means for protecting brushes or brush holders H02K 5/14
H02K 5/24	Limiting references		<u>Delete</u> the entire Limiting references section.
H02K 5/24	Informative references		<u>Insert</u> the following two <u>new</u> rows in the existing Informative references section.  Elastic means for supporting brush holders H02K 5/14  Elastic means for supporting bearings H02K 5/16
H02K 7/065	Limiting references		<u>Delete</u> the Limiting references section.
H02K 7/065	Application-oriented references		<u>Insert</u> the following <u>new</u> Application-oriented references section.  <b>Application-oriented references</b> <i>Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:</i>

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<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference symbol or text</u>	<u>Action; New symbol; New text</u>
			Magnetic means for converting oscillatory to rotary motion in time-pieces <b>G04C 5/00</b>
H02K 7/14	Limiting references	Structural association of a motor with the drive train of a motor vehicle H02K 7/006	<u>Delete</u> the existing row from the Limiting references table.  Structural association of a motor with the drive train of a motor vehicle <b>H02K 7/006</b>
H02K 7/14	Application-oriented references		<u>Insert</u> the following <u>new</u> Application-oriented references section.  <b><i>Application-oriented references</i></b> <i>Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:</i>  Structural association of a motor with the drive train of a motor vehicle <b>H02K 7/006</b>
H02K 9/005	Definition		<u>Delete</u> the entire existing Definition.
H02K 9/24	Limiting references		<u>Delete</u> the entire existing Limiting references section.
H02K 9/24	Informative references		<u>Insert</u> the following <u>new</u> Informative section.  <b><i>Informative references</i></b> <i>Attention is drawn to the following places, which may be of interest for search:</i>  Emergency protective circuit arrangements <b>H02H 7/00</b>

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<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference symbol or text</u>	<u>Action; New symbol; New text</u>
H02K 17/34	Informative references	Machines in general with rotors and rotary stators connected in a cascade H02K 16/025	<u>Replace</u> the reference in the Informative references table with the following updated reference.  Machines with rotors and moving stators connected in a cascade <b>H02K 16/025</b>
H02K 17/34	Informative references		<u>Insert</u> in the existing Informative references table the following <u>new</u> row.  Control of cascade-arrangements <b>H02P</b>
H02K 29/06	Limiting references		<u>Insert</u> the following <u>new</u> Limiting section.  <b>Limiting references</b> <i>This place does not cover:</i>  With a magnetic circuit specially adapted for avoiding torque ripples or self-starting problems <b>H02K 29/03</b>
H02K 29/14	Limiting references		<u>Insert</u> the following <u>new</u> Limiting references section.  <b>Limiting references</b> <i>This place does not cover:</i>  With a magnetic circuit specially adapted for avoiding torque ripples or self-starting problems <b>H02K 29/03</b>
H02K 49/00	Limiting references		<u>Delete</u> the entire Limiting references section.

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<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference symbol or text</u>	<u>Action; New symbol; New text</u>
H02K 49/00	Informative references		<p><u>Insert</u> the following <u>new</u> row in the Informative references table.</p> <p>Dynamo-electric clutches or brakes adapted for use as dynamometers <b>G01L</b></p>

NOTES:

- The table above is used for corrections or modifications to existing definitions, e.g. delete an entire definition or part thereof; propose new wording or modify wording of a section, change the symbol the definition is associated with, change or delete a reference symbol, etc.
- Do not delete (F) symbol definitions.

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3. REVISION CONCORDANCE LIST (RCL)

<b>Type*</b>	<b>From CPC Symbol (existing)</b>	<b>To CPC Symbol(s)</b>
D	H02K 1/226	<administrative transfer to H02K 21/044>
D	H02K 2005/1287	<administrative transfer to H02K 5/128>
C	H02K 5/20	H02K 5/20, H02K 5/203, H02K 5/207
D	H02K 9/005	<administrative transfer to H02K 9/00>
C	H02K 9/20	H02K 9/20, H02K 9/225
C	H02K 9/22	H02K 9/22, H02K 9/223, H02K 9/225, H02K 9/227

\* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the “To” column, do not use ranges of symbols.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“To”) symbol, however it is required to specify “<no transfer>” in the “To” column for such cases.
- RCL is not needed for finalisation projects.

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4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
H02K 1/226		DELETE
H02K 2005/1287		DELETE
H02K 5/203	H02K 5/20	NEW
H02K 5/207	H02K 5/20	NEW
H02K 9/005		DELETE
H02K 9/223	H02K 9/22	NEW
H02K 9/225	H02K 9/22	NEW
H02K 9/227	H02K 9/22	NEW

\*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are not included in the CICL table above.
- T and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.