

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1619

DATE: MAY 1, 2024

PROJECT MP1 1968

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

Action	Subclass	Group(s)
SCHEME:		
Titles Changed:	H02P	1/00, 1/02, 1/10, 1/32
	H02P	3/00, 3/02, 3/04
	H02P	7/14, 7/295, 7/298
	H02P	8/00, 8/18, 8/36
	H02P	9/00, 9/006, 9/02
	H02P	11/00
	H02P	13/00
	H02P	15/00
	H02P	23/10
	H02P	25/034
Notes Deleted:	H02P	29/02
Notes Modified:	H02P	SUBCLASS
	H02P	8/02
DEFINITIONS:		
Definitions Modified:		
	H02P	SUBCLASS
	H02P	1/10, 1/20, 1/34, 1/50
	H02P	3/00
		4/00
		6/18
		7/066, 7/14, 7/32
		8/00, 8/36
		9/00, 9/006
		11/00
		13/00,
		15/00
		21/04
		25/20
		29/02

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)

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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 H02P - CONTROL OR REGULATION OF ELECTRIC MOTORS, ELECTRIC GENERATORS OR DYNAMO-ELECTRIC CONVERTERS; CONTROLLING TRANSFORMERS, REACTORS OR CHOKE COILS

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level</u> <u>Number of</u> <u>dots (e.g. 0, 1,</u> <u>2)</u>	<u>Title</u> <u>“CPC only” text should normally be</u> <u>enclosed in {curly brackets} **</u>	<u>Transferred to#</u>
U	H02P	Subclass	CONTROL OR REGULATION OF ELECTRIC MOTORS, ELECTRIC GENERATORS OR DYNAMO-ELECTRIC CONVERTERS; CONTROLLING TRANSFORMERS, REACTORS OR CHOKE COILS	
M	H02P1/00	0	Arrangements for starting electric motors or dynamo-electric converters (starting of synchronous motors with electronic commutators H02P6/20, H02P6/22; starting dynamo-electric motors rotating step by step H02P8/04; vector control H02P21/00)	
M	H02P1/02	1	Details {of starting control}	
M	H02P1/10	3	Manually-operated on/off switch controlling relays or contactors operating sequentially for starting a motor	
M	H02P1/32	3	by star/delta switching	
M	H02P3/00	0	Arrangements for stopping or slowing electric motors, generators, or dynamo-electric converters (stopping of synchronous motors with electronic commutators H02P6/24; stopping dynamo-electric motors rotating step by step H02P8/24; vector control H02P21/00)	
M	H02P3/02	1	Details {of stopping control}	
M	H02P3/04	2	Means for stopping or slowing by a separate brake, e.g. friction brake or eddy-current brake	
M	H02P7/14	3	of voltage applied to the armature with or without control of field	

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M	H02P7/295	7	of the kind having one thyristor or the like in series with the power supply and the motor	
M	H02P7/298	5	controlling armature and field supplies	
M	H02P8/00	0	Arrangements for controlling dynamo-electric motors rotating step by step	
M	H02P8/18	2	Shaping of pulses, e.g. to reduce torque ripple {(Reducing overshoot H02P8/32 takes precedence)}	
M	H02P8/36	1	Protection against faults, e.g. against overheating or step-out; Indicating faults	
M	H02P9/00	0	Arrangements for controlling electric generators for the purpose of obtaining a desired output	
M	H02P9/006	1	{Means for protecting the generator by using control (control effected upon generator excitation circuit to reduce harmful effects of overloads or transients H02P9/10)}	
M	H02P9/02	1	Details {of the control}	
M	H02P11/00	0	Arrangements for controlling dynamo-electric converters	
M	H02P13/00	0	Arrangements for controlling transformers, reactors or choke coils, for the purpose of obtaining a desired output	
M	H02P15/00	0	Arrangements for controlling dynamo-electric brakes or clutches (vector control H02P21/00)	
M	H02P23/10	1	Controlling by adding a dc current	
M	H02P25/034	3	Voice coil motors (voice coil motors driven by DC H02P7/025)	

*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).

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- 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 finalization projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.

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C. New, Modified or Deleted Note(s)

SUBCLASS H02P - CONTROL OR REGULATION OF ELECTRIC MOTORS, ELECTRIC GENERATORS OR DYNAMO-ELECTRIC CONVERTERS; CONTROLLING TRANSFORMERS, REACTORS OR CHOKE COILS

Type*	Location	Old Note	New/Modified Note
M	H02P	3. In this subclass, the following terms or expressions are used with the meanings indicated: – "control" means influencing a variable in any way, e.g. changing its direction or its value (including changing it to or from zero), maintaining it constant or limiting its range of variation; – "regulation" means maintaining a variable at a desired value, or within a desired range of values, by comparison of the actual value with the desired value.	Delete NOTE 3.
M	H02P 8/02	Groups H02P 8/005 and H02P 8/02 take precedence over groups H02P 8/04 - H02P 8/42	{ Groups H02P 8/005 and H02P 8/02 take precedence over groups H02P 8/04 - H02P 8/42 }
D	H02P 29/02	<u>NOTE</u> Informative note References listed below indicate places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group: Emergency protective circuit arrangements with automatic interruption if supply, in general H02H 7/08; Emergency protective circuit arrangements for limiting excess current or voltage without disconnection in general H02H 7/08	Delete the entire <u>NOTE</u> .

*N = new note, M = modified note, D = deleted note

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

2. A. DEFINITIONS (Modified)

H02P

References

Delete: The following reference from the Limiting references table.

Limiting references

This place does not cover:

Hybrid vehicle, conjoint control, arrangements for mounting	B60K, B60W
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Insert: The following two new references in the Informative references table.

Informative references

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

Hybrid vehicle, conjoint control, arrangements for mounting	B60K, B60W
Circuit arrangement or systems for supplying or distributing electric power; Systems for storing electric energy, connection or control of one generator, transformer, reactor, choke coil or dynamo-electric converter with regard to conjoint operation with similar or other source of supply	H02J

Replace: The existing Glossary of terms text with the following updated text.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

control	means influencing a variable in any way, e.g. changing its direction or its value (including changing it to or from zero), maintaining it constant, limiting its range of variation
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regulation	means maintaining a variable automatically at a desired value or within a desired range of values, in which the variable is detected in the system and fed back for determining its deviation from the desired value. The determined deviation is used by the means for maintaining the variable to its desired value or values. Regulation is a form of "control".
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H02P 1/10

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

Informative references

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

Sequence determined by power-operated multi-position switch	H02P 1/08
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H02P 1/20

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

Informative references

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

PWM controlled semiconductors	H02M 3/00
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H02P 1/34

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

Informative references

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

PWM controlled semiconductors	H03M 3/00
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H02P 1/50

References

Delete: The following reference from the Limiting references table.

Limiting references

This place does not cover:

Pole changing for purposes other than starting	H02P25/20
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Insert: The following new Informative references section.

Informative references

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

Pole changing for purposes other than starting	H02P25/20
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H02P 3/00**References**

Delete: All references except the following three references from the Limiting references table, so that the updated table appears as follows.

Limiting references

This place does not cover:

Stopping of synchronous motors with electronic commutators except reluctance motors,	H02P6/24
Stopping dynamo-electric motors rotating step by step	H02P8/24
Vector control	H02P21/00

Insert: The following new Informative references section.

Informative references

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

Arrangements for controlling dynamo-electric brakes or clutches	H02P15/00
Electrodynamical brake systems for vehicles in general	B60L7/00
Dynamic electric resistor braking	B60L7/02
Dynamic electric regenerative braking	B60L7/10
Eddy-current braking	B60L7/28

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H02P 4/00

References

Delete: The following two references from the Limiting references table.

Limiting references

This place does not cover:

Starting	H02P1/00
Stopping or slowing	H02P3/00

Insert: The following new Informative references section.

Informative references

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

Starting	H02P1/00
Stopping or slowing	H02P3/00

H02P6/18

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

Informative references

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

Circuit arrangements for detecting position	H02P 6/16
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H02P 7/066

Replace: The existing Definition statement text with the following updated text.

Definition statement

This place covers:

Tirill regulator: A device for regulating the voltage of a generator, in which the field resistance of the exciter is short-circuited temporarily when the voltage drops.

H02P 7/14

Delete: The phrase "(From Wikipedia)." from the last line of the current Definition statement, so that the updated statement reads as follows.

Definition statement

This place covers:

A Ward Leonard drive is a high-power amplifier in the multi-kilowatt range, built from rotating electrical machinery. A Ward Leonard drive unit consists of a motor and generator with shafts coupled together. The motor, which turns at a constant speed, may be AC or DC powered. The generator is a DC generator, with field windings and armature windings. The input to the amplifier is applied to the field windings, and the output comes from the armature windings. The amplifier output is usually connected to a second motor, which moves the load, such as an elevator. With this arrangement, small changes in current applied to the input, and thus the generator field, result in large changes in the output, allowing smooth speed control. Armature voltage control only controls the motor speed from zero to motor base speed. If higher motor speeds are needed the motor field current can be lowered, however by doing this the available torque at the motor armature will be reduced. Another advantage for this method is that the speed of the motor can be controlled in both directions of rotation.

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H02P 7/32

Delete: The text beginning with “Source:” and the text that follows from the Glossary of terms section, so that the updated Glossary of terms section appears as follows.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

<p>metadyne, amplidyne</p>	<p>The Metadyne and Amplidyne are special-purpose DC generators historically used as high power electro-mechanical amplifiers in control systems. In use, such machines are driven at constant speed by a motor. The electrical output is varied by control of field excitation, as in a Ward-Leonard system. The Metadyne and the Amplidyne include an arrangement of cross-connected brushes on one axis and a further set of brushes on a perpendicular axis. This arrangement allows the machine to provide very high gain, that is, large changes of output may be controlled by small changes in the controlling field current.</p>
<p>rototrol (American Westinghouse Co.)</p>	<p>The rototrol is a two-stage machine with static and dynamic characteristics similar to those of the Amplidyne. The Rototrol may also be operated as a three-stage machine (also known as a Magnicon) in which the output is further used to excite a pole winding.</p>

H02P 8/00

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

Informative references

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

<p>Vector control</p>	<p>H02P 21/00</p>
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H02P 8/36

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

Informative references

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

Emergency protective arrangements with automatic interruption of supply	H02H 7/08
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H02P 9/00

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

Informative references

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

Ward-Leonard arrangements	H02P 7/34
Vector control	H02P 21/00
Feeding a network by two or more generators	H02J
For charging batteries	H02J 7/14

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H02P 9/006

References

Replace: The existing Limiting references table with the following updated table.

Limiting references

This place does not cover:

Control effected upon generator excitation circuit to reduce harmful effects of overloads or transients	H02P 9/10
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Insert: The following new Informative references section.

Informative references

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

Emergency protective arrangements with automatic interruption of supply	H02H 7/06
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H02P 11/00

References

Delete: The entire Limiting references section.

Insert: The following new Informative references section.

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

Starting	H02P1/00
Stopping	H02P3/00
Synchronous motors or other dynamo-electric motors with electronic commutators in dependence on the rotor position	H02P6/00 , H02P6/32
Vector control	H02P21/00
Feeding a network in conjunction with a generator or another converter	H02J

H02P 13/00**References**Delete: The entire Limiting references section.Insert: The following new Informative references section.**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Starting	H02P1/00
Stopping	H02P3/00
Synchronous motors or other dynamo-electric motors with electronic commutators in dependence on the rotor position	H02P6/00 , H02P6/32
Vector control	H02P21/00
Feeding a network in conjunction with a generator or another converter	H02J

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H02P 15/00

References

Delete: The following reference from the Limiting references table.

Limiting references

This place does not cover:

Controlling speed of dynamo electric motors by means of a separate brake	H02P 29/04
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Insert: The following new Informative references section.

Informative references

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

Controlling speed of dynamo-electric motors by means of a separate brake	H02P 29/04
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H02P 21/04

References

Insert: The following new reference in the Informative references table.

Informative references

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

Arrangements for starting by vector control	H02P 21/34
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H02P 25/20

Delete: The entire Definition statement section.

Insert: The following new Informative references section.

References

Informative references

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

Pole changing for starting an individual polyphase induction motor	H02P 1/38
Pole changing for starting an individual synchronous motor	H02P 1/46

H02P 29/02

Insert: The following new reference in the Informative references table.

Informative references

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

Emergency protective circuit arrangements specially adapted for specific types of electric machines or apparatus or for sectionalised protection of cable or line systems, and effecting automatic switching in the event of an undesired change from normal working conditions for dynamo-electric motors	H02H 7/08
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