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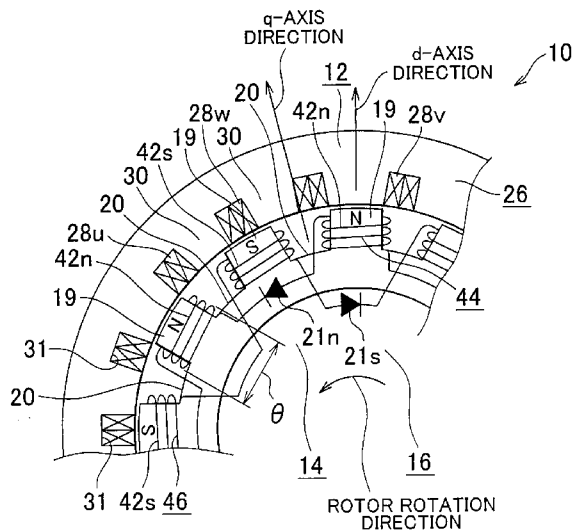
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[Continued on next page]

(54) Title: ROTARY ELECTRIC MACHINE DRIVING SYSTEM

FIG. 2



(57) Abstract: A stator (12) has multi-phase stator coils (28u, 28v and 28w) that are wound around a stator core (26) by concentrated winding. A rotor (14) has rotor coils (42n and 42s) that are wound at multiple portions of a rotor core (16) in the circumferential direction and diodes (21n and 21s) that serve as rectifier unit that is connected to the rotor coils (42n and 42s) and that varies the magnetic characteristics of the respective rotor coils (42n and 42s) alternately in the circumferential direction. A rotary electric machine driving system includes a decreasing/increasing pulse superimposing unit that superimposes decreasing pulse current for a pulse-shaped decrease on a q-axis current command for passing currents through the stator coils (28u, 28v and 28w) and that superimposes increasing pulse current for a pulse-shaped increase on a d-axis current command.





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B. FIELDS SEARCHED				
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	EP 2 207 255 A1 (TOYOTA CHUO KENKYUSHO KK [JP]; TOYOTA MOTOR CO LTD [JP]; TOYOTA JIDOSH) 14 July 2010 (2010-07-14) abstract sentence 30, paragraph 22 - paragraph 30; figures 1-3 paragraph [0038]; figure 8 -----	1-9		
A	JP 2010 098908 A (NIPPON SOKEN; DENSO CORP) 30 April 2010 (2010-04-30) abstract; figures 1-5,7-10 -----	1-9		
A	US 7 795 830 B2 (JOHNSON MICHAEL FREDERICK [ZA]) 14 September 2010 (2010-09-14) abstract; figures 1-8 -----	1-9		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
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