

# Hitachi High Voltage Monolithic ICs

## Motor Driver IC Series

### Status List

Date: Sept. 2010

Compliance status of RoHS directive

**C:** Compliant    **S.C:** Compliant (Included RoHS exemption substance)    **N:** Non compliant

Production Status

**M:** Mass production    **W:** Working sample    **UDT:** Under Development    **A:** Abolition

**Please order Hitachi High Voltage IC products 1,000pcs/M or 3,000pcs/Lot or more at the time of mass production.**

### Motor Driver IC (Single Chip Inverter IC)

◆ VSP Input Series (Charge pump system)  
Brushless motor application

No.	Type	Voltage(V)		Current(A)		Remarks	RoHS status	Status
		VCC	VSM	Peak	Average			
1	ECN30105SP/SPV/SPR	15	250	1.8	1.0		S.C	M
2	ECN30107SP/SPV/SPR	15	250	1.4 (@T <sub>J</sub> =135°C)	1.0	Power up sequence free	S.C	M
3	ECN30108P	15	250	1.4 (@T <sub>J</sub> =135°C)	1.0	Embedded hall amplifiers	S.C	W
4	ECN30204SP/SPV/SPR	15	500	1.5	0.7		S.C	M
5	ECN30206SP/SPV/SPR	15	500	1.5	0.7	Power up sequence free	S.C	M
6	ECN30208P	15	500	1.5	0.7	Embedded hall amplifiers	S.C	W
7	ECN30207SP/SPV/SPR	15	500	2.0 (@T <sub>J</sub> =135°C)	1.4	Power up sequence free	S.C	M

◆ Six Input Series (Charge pump system, but ECN3067 is bootstrap system)  
Brushless motor, Induction motor application

No.	Type	Voltage(V)		Current(A)		Remarks	RoHS status	Status
		VCC	VSM	Peak	Average			
8	ECN30611SP/SPV/SPR	15	250	1.4 (@T <sub>J</sub> =135°C)	1.0		S.C	M
9	ECN30601SP/SPV/SPR	15	500	1.5	0.7		S.C	M
10	ECN30603SP/SPV/SPR	15	500	1.5	0.7		S.C	M
11	ECN30604SP/SPV/SPR	15	500	2.0 (@T <sub>J</sub> =135°C)	1.4		S.C	M

### Sine Wave control solution set

◆ Chip set of Inverter IC and Microprocessor (Control software was installed)  
Brushless motor application

No.	Type	Voltage(V)		Current(A)		Remarks	RoHS status	Status
		VCC	VSM	Peak	Average			
12	ECN39100	15	250	1.4 (@T <sub>J</sub> =135°C)	1		S.C	W
13	ECN39200	15	500	2 (@T <sub>J</sub> =135°C)	1.4		S.C	W
14	ECN39300	15	500	1.5	0.7		S.C	W

# Status List

continue

## Gate Driver IC (Predriver IC for IGBT or Power MOSFET Drive)

### ◆ VSP Input Series (Charge pump system) Brushless motor application

No.	Type	Voltage(V)		Current(A)		Remarks	RoHS status	Status
		VCC	VSM	source	sink			
15	ECN30300S	15	250	top arm 0.10	top arm 0.25	Hall element inputs, FG output: 3pulses/period	C	W
16	ECN30301S			bottom arm 0.20	bottom arm 0.20	Hall element inputs, FG output: 1pulse/period		
17	ECN30350S	15	500	top arm 0.08	top arm 0.25	Hall element inputs, FG output: 3pulses/period	C	W
18	ECN30351S			bottom arm 0.20	bottom arm 0.20	Hall element inputs, FG output: 1pulse/period		

### ◆ Six Input Series (Bootstrap system) Brushless motor, Induction motor application

No.	Type	Voltage(V)		Current(A)		Remarks	RoHS status	Status
		VCC	VSM	source	sink			
19	ECN30531F	15	620	0.25	0.5		C	M
20	ECN30541F	15	620	0.25	0.5	Pin assignment modification of ECN30531	C	M

## To be Obsolete

Please ask sales representative in the reference about the substitution version part no.

No.	Type	Voltage(V)		Current(A)		Substitution version part no.	RoHS status	Status
		VCC	VSM	Peak	Average			
21	ECN30671SP/SPV/SPR	15	500	3.0 (@Tj=135°C)	1.5		S.C	A

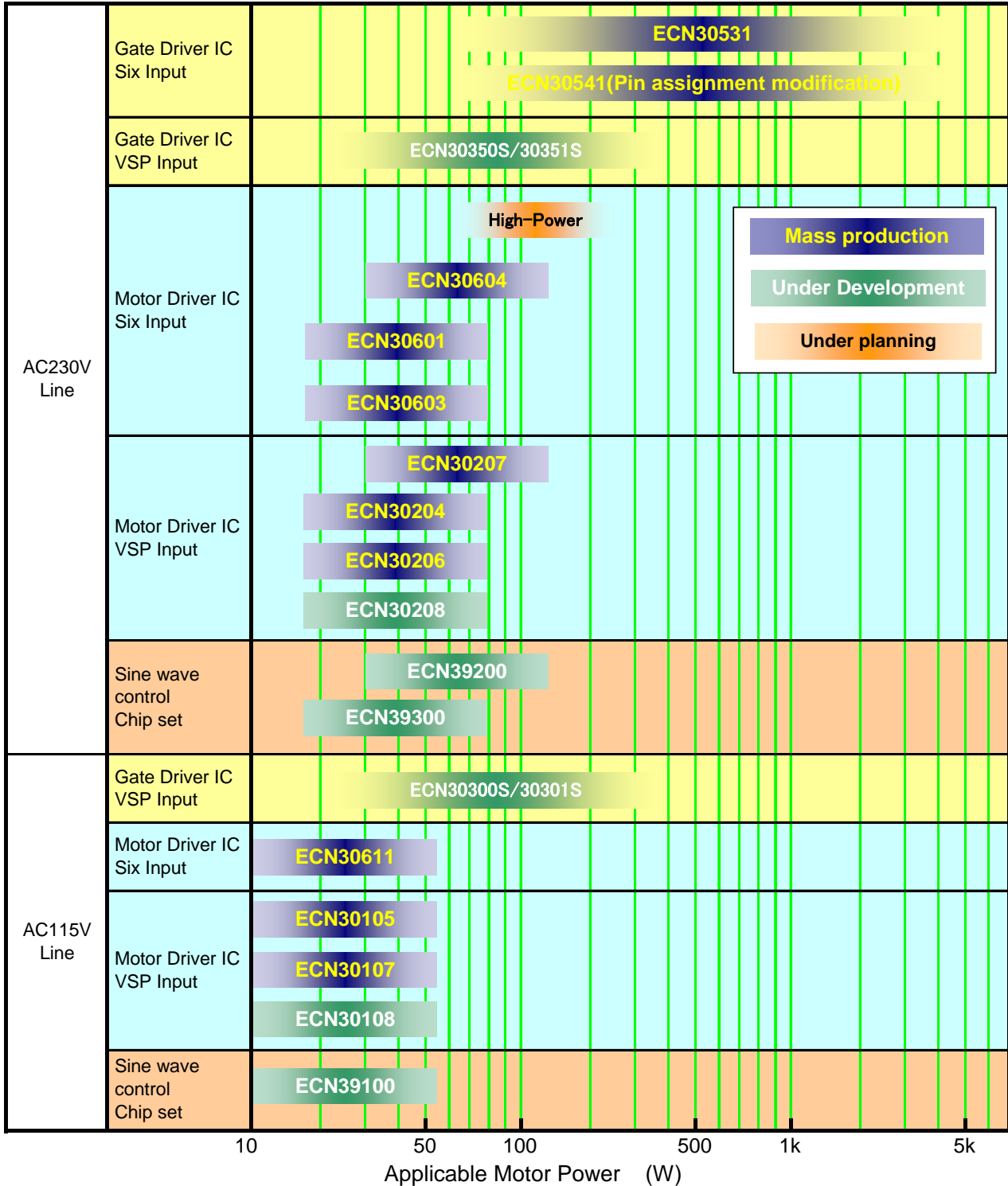
No.	Type	Voltage(V)		Current(A)		Remarks	RoHS status	Status
		VCC	VSM	source	sink			
22	ECN3030F	15	250	top arm 0.05	top arm and bottom arm 0.2	Reference Voltage for Over Current detection Vref 0.5V typ.	C	A
23	ECN3031F	15	250	bottom arm0.2	0.2	Reference Voltage for Over Current detection Vref 1.23V typ.	C	A
24	ECN3035F	15	500	top arm 0.05	top arm and bottom arm 0.2	Reference Voltage for Over Current detection Vref 1.25V typ.	C	A
25	ECN3036F	15	500	bottom arm0.2	0.2	Reference Voltage for Over Current detection Vref 0.5V typ.	C	A
26	ECN3053F	15	620	0.25	0.5		C	A
27	ECN3054F	15	620	0.25	0.5	Pin assignment modification of ECN3053	C	A

## Withdrawn products

Please ask sales representative in the reference about the substitution version part no.

No.	Type	Voltage(V)		Current(A)		Substitution version part no.	RoHS status	Status
		VCC	VSM	source	sink			
28	ECN30102SP/SPV/SPR	15	250	1.2	0.7	ECN30107SP/SPV/SPR	S.C	A
29	ECN3018SP/SPV/SPR	15	250	1.8	1.0	ECN30107SP/SPV/SPR	S.C	A
30	ECN3021SP/SPV/SPR	15	500	1.0	0.7	ECN30206SP/SPV/SPR	S.C	A
31	ECN3022SP/SPV/SPR	15	500	1.5	0.7		S.C	A
32	ECN3061SP/SPV/SPR	15	250	1.8	1.0	ECN30611SP/SPV/SPR	S.C	A
33	ECN3063SP/SPV/SPR	15	500	1.0	0.7	ECN30603SP/SPV/SPR	S.C	A
34	ECN3064SP/SPV/SPR	15	500	1.5	0.7		S.C	A
35	ECN3067SL/SLV/SLR	15	500	5.0	2.5	ECN30671SP/SPV/SPR	S.C	A

# Lineup by applicable motor power



Note) Applicable motor power is only for reference. It varies depend on the cooling and operating conditions.

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