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Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

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Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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Applications

变频冰箱

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概要

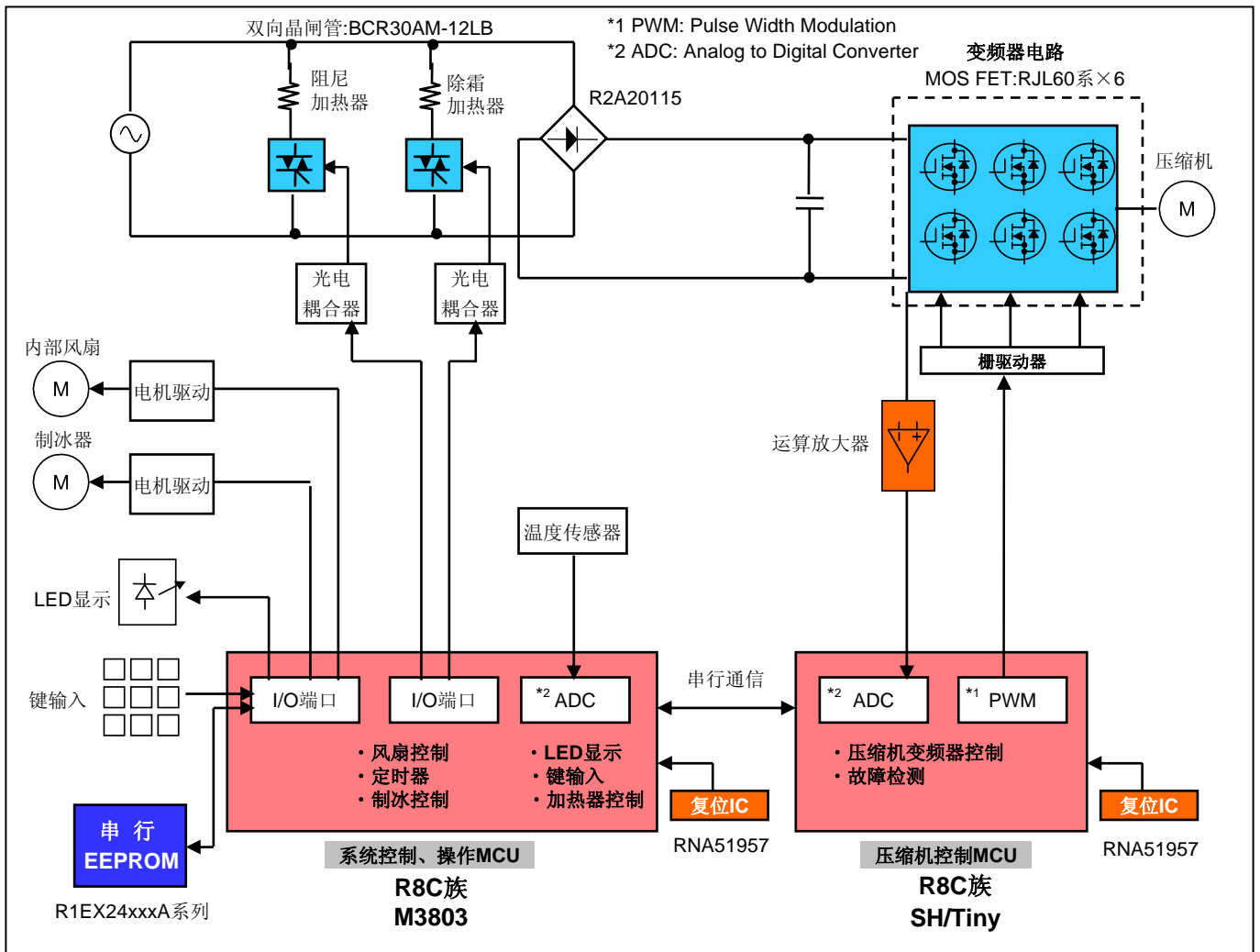
变频冰箱作为环保家电，为了稳定工作，被强烈要求具有低功耗。另外，为了扩大容量，电机小型化及高效率化，以及作为生活环境中的一员所需要的静音化要求也被提出。

从构造上看，冰箱是在压缩机内安置电机的，这样无传感器控制就变成必须。而如果用变频器控制无传感器的无刷电机，这些要求就可以得到满足。

瑞萨拥有适合冰箱变频器控制的R8C族,SH/Tiny、可以实现冰箱的环保化。对于冰箱的系统控制方面，为了精确控制室内温度而集成了丰富AD变换器的R8C族为最佳。

系统框图

2009年12月最新信息



所推荐的瑞萨元件

2009年12月最新信息

Block	半导体	推荐产品名	特点等
控制MCU	MCU	R8C族	定时器、5V工作、小型PKG、16位CPU
		3803H群	定时器、5V工作
		3803L群	
	复位	RNA519xx系列	3V, 5V系列 复位
	EEPROM	R1EX24xxxA系列	I ² C总线接口 *1
电机MCU	MCU	SH/Tiny系列	三相PWM定时器、5V工作、内置A/D
		R8C族	三相PWM定时器、5V工作、小型PKG
通用浪涌吸收电路保护等	齐纳二极管	RKZxxKG系列	2引脚表贴封装 最适合高ESD时浪涌吸收用
		HZMxNB系列	3引脚(内有一个元件)表贴封装 最适合高ESD时浪涌吸收用
		HZ/HZS系列	2引脚玻璃插入式外形 最适合高ESD时浪涌吸收用
	开关二极管	HSU119/HSC119	2引脚表贴封装
		HSM2838C,HSM123	3引脚(内有两个元件)表贴封装
		1S2076,1SS119	2引脚玻璃插入式外形
	肖特基势垒二极管	HRC0103C	2引脚表贴封装(低VF, 低漏电流)
		HRB0502A	3引脚表贴封装(低VF)
HRV103B, RKR104BKH等		2引脚小型表贴封装(I _o =1A) 最适合低I _r 时的电流保护用	
变频器部分	MOSFET/IGBT	RJL60xx系列,RJH60Dx系列	
加热器	TRIAC	BCR30AM-12LB	
MCU外围	复位IC	RNA51957	检测电压可变
PFC电源	MOS FET	RJK60xx	
		PFC IC	R2A20114
	R2A20115		连续模式 单一
	R2A20111		
	R2A20108		
	R2A20117		临界模式 交错
R2A20112			

*1 I²C : Inter-Integrated Circuit

相关应用手册/参考代码

名称	文档编号
SH7080/SH7146/SH7125/SH7200系列应用手册 3相互补PWM输出	REG05B0051-0100
R2A20114应用手册	-
R2A20108应用手册	-
R2A20117应用手册	-
R2A20112应用手册	-
R2A20121应用手册	-

相关评估板

名称	型号名
R2A20114系列评估板	-
R2A20115评估板	-
R2A20111评估板	-
R2A20108评估板	-
R2A20117评估板	-
R2A20112评估板	-
R2A20121评估板	-

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