

Aimtec's Must HAVZ

Powering Control Boards

New **3W to 30W** AC-DC's 85-305VAC & 4000VAC in smaller packages @ lower costs!

Must-HAVZ Features



AMEM5-277HAVZ



AMEL10-277HAVZ



AMEM3-277HAVZ



AMEL15-277HAVZ



AMEL20-277HAVZ



AMEL30-277HAVZ

- Input voltage range of **85-305VAC / 100-430VDC**
- Operating temperature range **-40°C to 85°C**
- High isolation voltage **4000VAC**
- Low ripple & noise
- Low no-load power consumption
- Output short circuit, over-current, over-voltage protection
- **IEC/EN/UL62368, IEC/EN60335, IEC/EN61558**

Powering Various Applications

- Suitable for industrial controls, IoT, white goods and medical Class II applications.
- The main selling features are its cost effectiveness and compact size.



Industrial



IoT

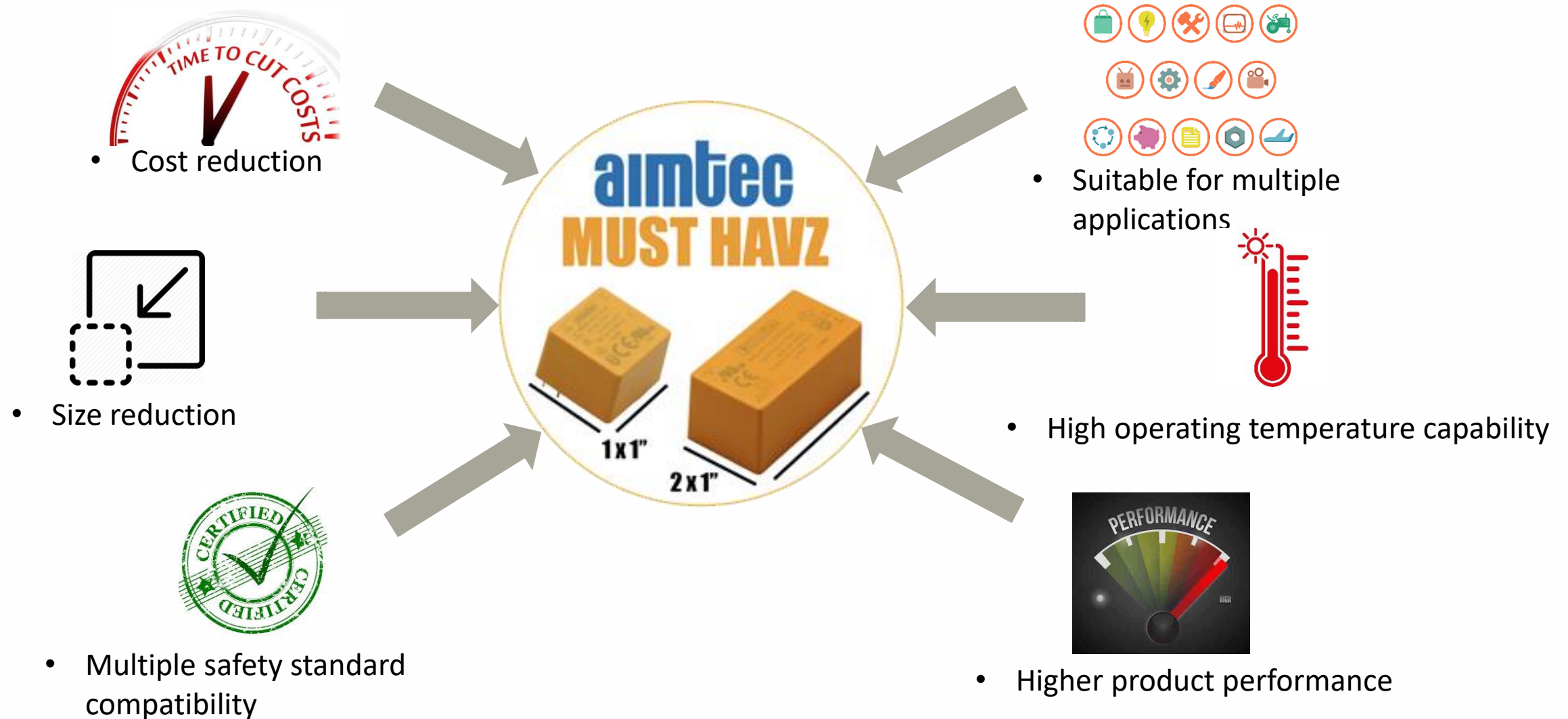


White goods



Medical

Why we Developed the Aimtec Must-HAVZ?





In-Depth Dive: Product Highlights



All New Advantages of the Must-HAVZ



3 & 5W model

◆ 1x1x0.7"

10W

◆ 1.58x1x0.83"

15W

◆ 1.87x1.06x0.92"

20W

◆ 2.06x1.07x0.94"

30W

◆ 2.74 x 1.54 x 0.95"



Cost Effectiveness

- ◆ 5-20% cost reduction compared to the previous generation



Outstanding Features

- ◆ Reduced EMC than previous generations
- ◆ 85 ~ 305VAC universal wide input range
- ◆ 4000VAC withstand voltage
- ◆ High output power at +85C



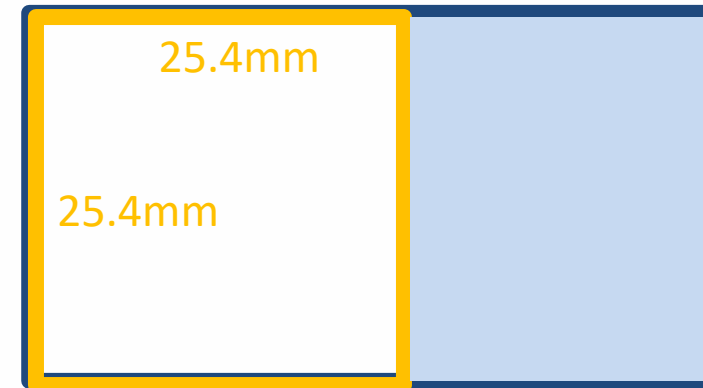
Meets Multiple Certifications

- ◆ EN/UL 62368 (Industrial grade)
- ◆ EN 60335/61558 (Applications for Household)
- ◆ Meets EN 60601 for 15W/20W (Medical grade)

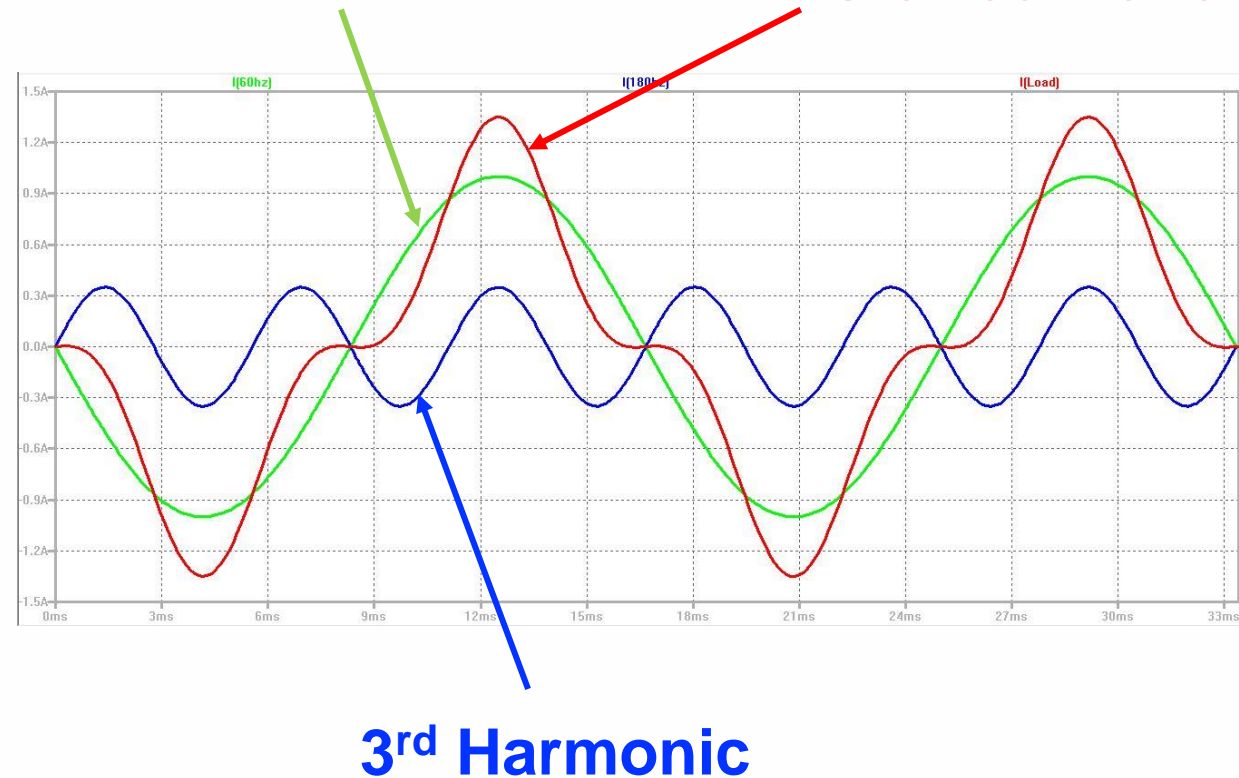
Compact Size

Aimtec's AMEM5-277HAVZ's compact size stands above its competition

20.5% to 54.5% smaller than the competition



Product Highlights – Wide Input Voltage



Benefits of 85~305VAC

1. Overcome unstable power grid distortion
2. Capable of sustaining higher input voltages and surges
3. Covers most industries applications

Reinforced Insulation

All **Must-HAVZ** comply with the reinforced insulation dictated by IEC62368-1 that provides up to **4KVAC** of reinforced insulation to covers various applications.

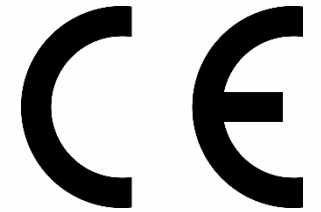
Nominal Mains System Voltage	Test Voltage for Basic Insulation or Supplementary Insulation	Test Voltage for Reinforced Insulation
V RMS	kV peak or DC	
Up to and including 250	2k VDC	4k VDC
Over 250 up to and including 600	2.5k VDC	5k VDC

277VAC => Required reinforced insulation of 3536VAC

EMC

Audio & Video, Information and Communication Equipment

EMC	Typical IEC/EN/UL 62368-1 components	Aimtec New HAVZ series
CISPR32 / EN55032	CLASS A	CLASS B
IEC/EN61000-4-2	Contact $\pm 4\text{KV}$; Air $\pm 8\text{KV}$	Contact $\pm 6\text{KV}$; Air $\pm 8\text{KV}$
IEC/EN61000-4-3	3V/m	10V/m
IEC/EN61000-4-4	$\pm 1\text{KV}$	$\pm 2\text{KV}$
IEC/EN61000-4-5	LINE - LINE $\pm 1\text{KV}$	LINE - LINE $\pm 1\text{KV}$
IEC/EN61000-4-6	3Vr.m.s	10Vr.m.s



EMC

Household and Similar Electrical Appliances



EMC	Typical IEC/EN 60335-1 IEC/EN 61558-1 IEC/EN 61558-2-16 components	Aimtec New Must-HAVZ
CISPR32 / EN55032	CLASS A	CLASS B
IEC/EN61000-4-2	Contact $\pm 4\text{KV}$; Air $\pm 8\text{KV}$	Contact $\pm 6\text{KV}$; Air $\pm 8\text{KV}$
IEC/EN61000-4-3	3V/m	10V/m
IEC/EN61000-4-4	$\pm 1\text{KV}$	$\pm 2\text{KV}$
IEC/EN61000-4-5	LINE - LINE $\pm 1\text{KV}$	LINE - LINE $\pm 1\text{KV}$
IEC/EN61000-4-6	3Vr.m.s	10Vr.m.s

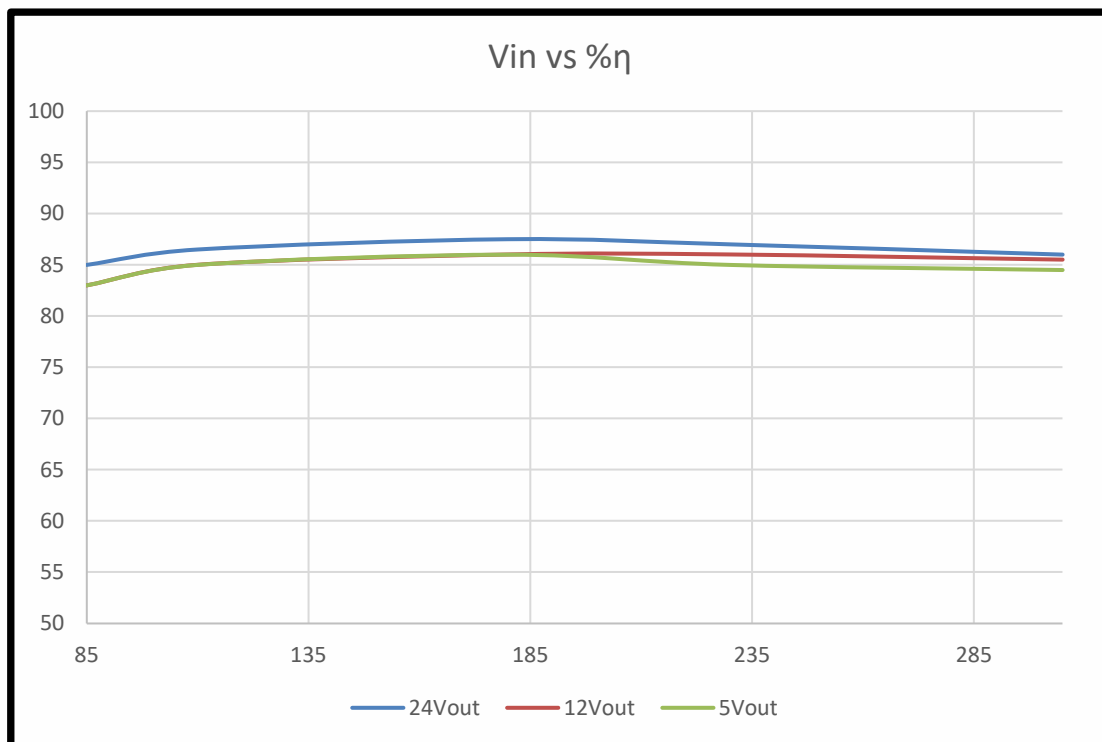
Meets Multiple Safety Certifications

- AMEL15/20-277HAVZ meet IEC/EN 60601-1 standard
- All the AMEM3/5-277HAVZ, AMEL10/15/20/30-277HAVZ compliant with IEC/EN 60335 and 61558 standards



Good efficiency across the input voltage range (85-305VAC)

- Graph of V_{in} vs $\% \eta$



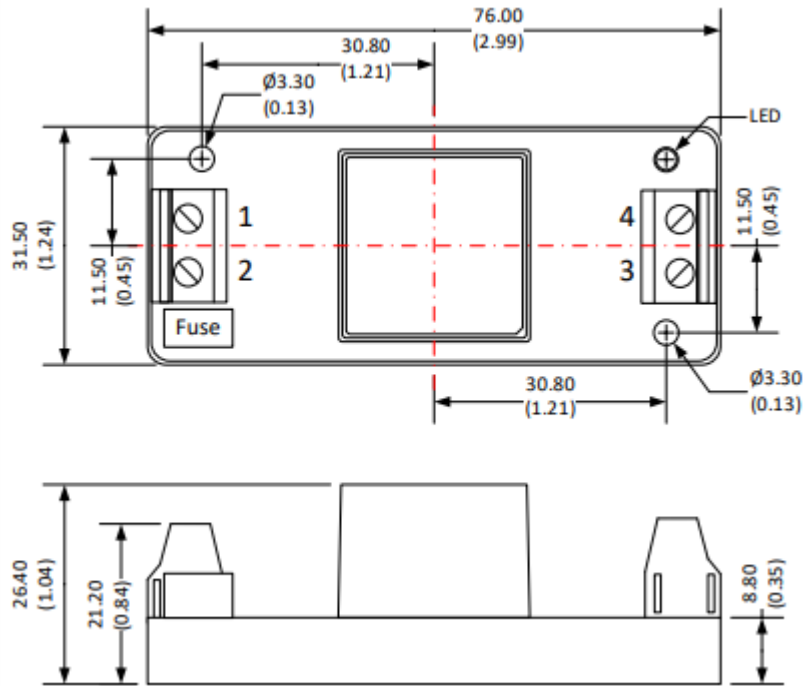
- Datasheet with Typical $\% \eta$ @230VAC

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Efficiency @ 230VAC Typ. (%)
AMEL20-3S277HAVZ	85-305/47-440	100-430	81
AMEL20-5S277HAVZ	85-305/47-440	100-430	85
AMEL20-9S277HAVZ	85-305/47-440	100-430	85
AMEL20-12S277HAVZ	85-305/47-440	100-430	86
AMEL20-15S277HAVZ	85-305/47-440	100-430	87
AMEL20-24S277HAVZ	85-305/47-440	100-430	87

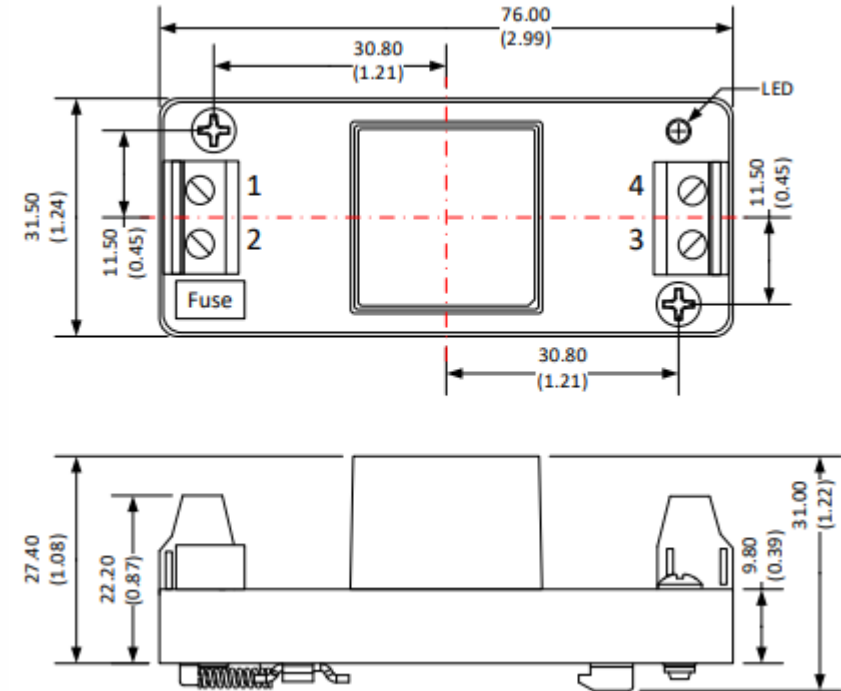
AMEL20-277HAVZ

Additional optional packages are available for all 277HAVZ models

- Screw Terminal Package



- Screw Terminal DIN RAIL Package



AMEM5-277HAVZ



Household Appliances



Global **White Goods** Market

OPPORTUNITIES AND FORECAST,
2021-2027

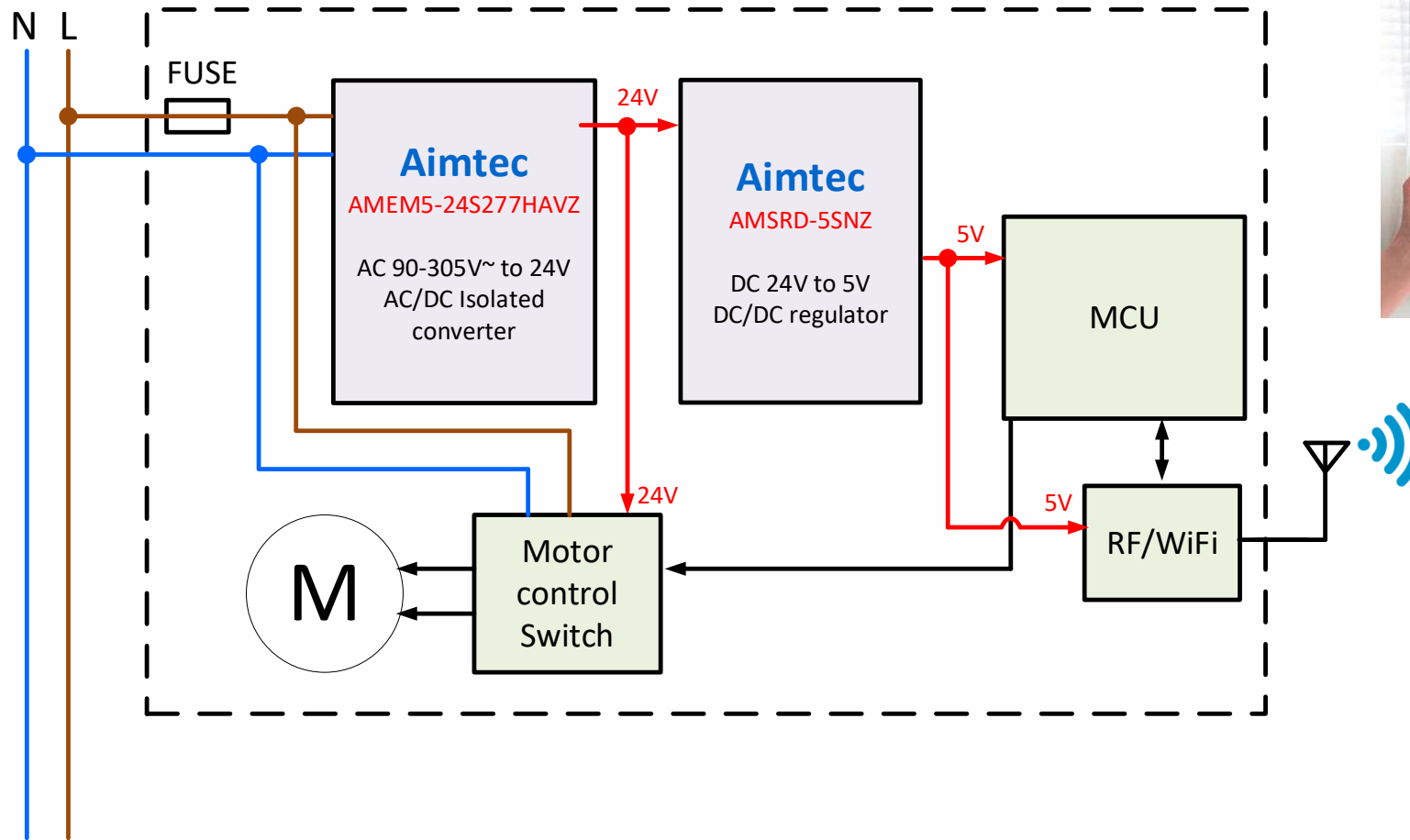
Global White Goods Market
is expected to reach
1,031.0 Billion by 2027.

Growing at a **CAGR of 7.8%**
(2021-2027)

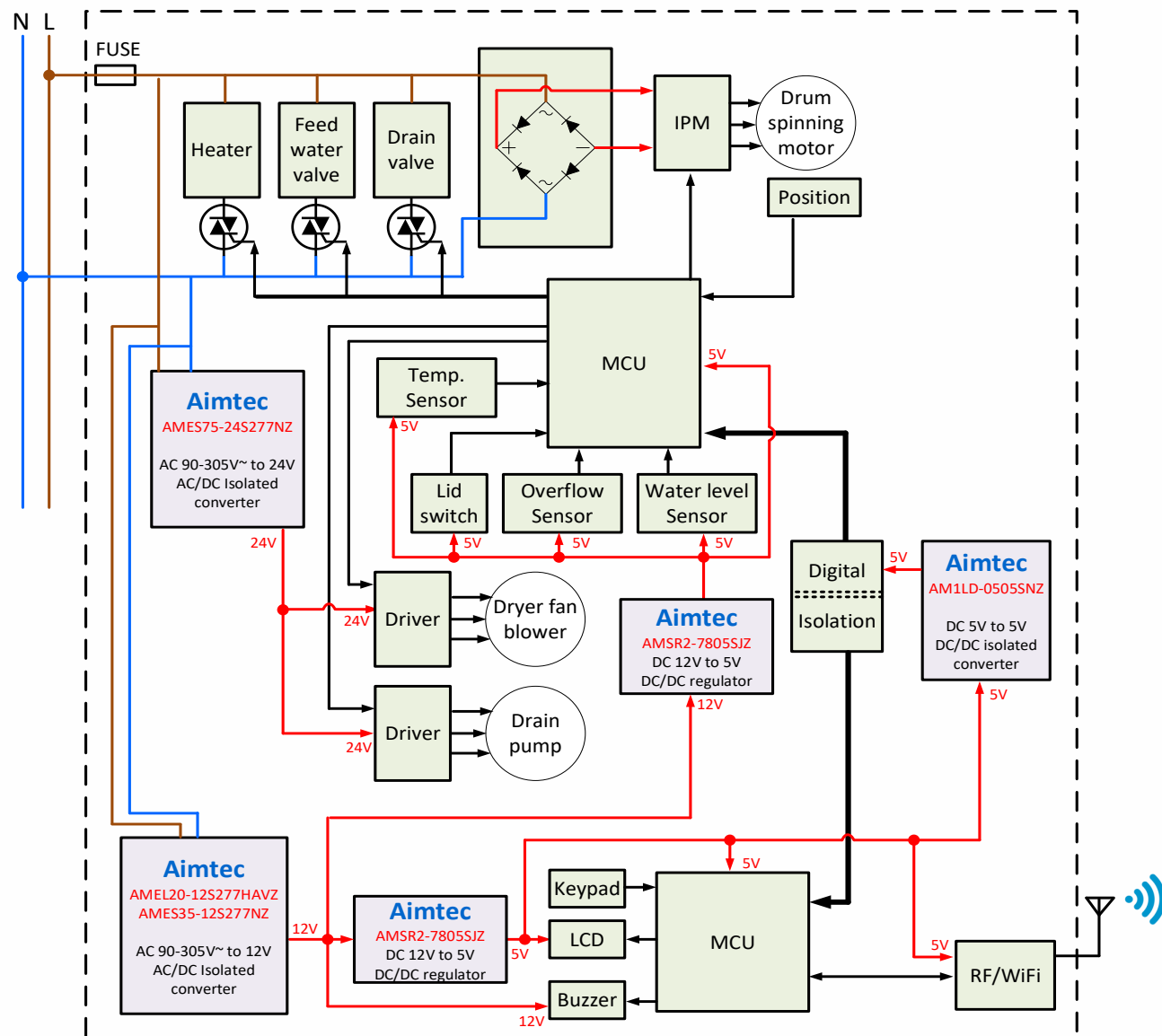


Allied
Market
Research

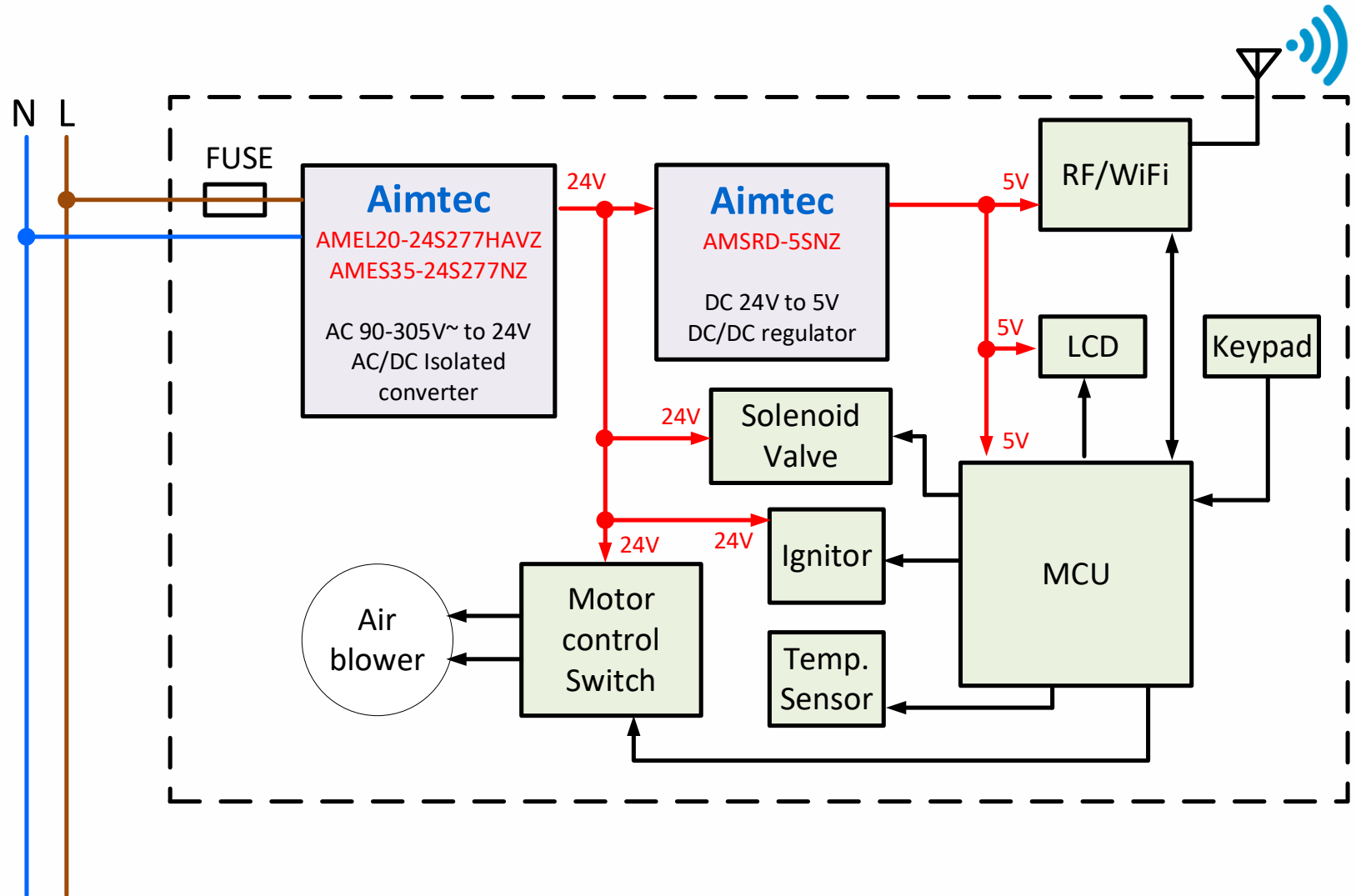
Block Diagram – Intelligent curtain



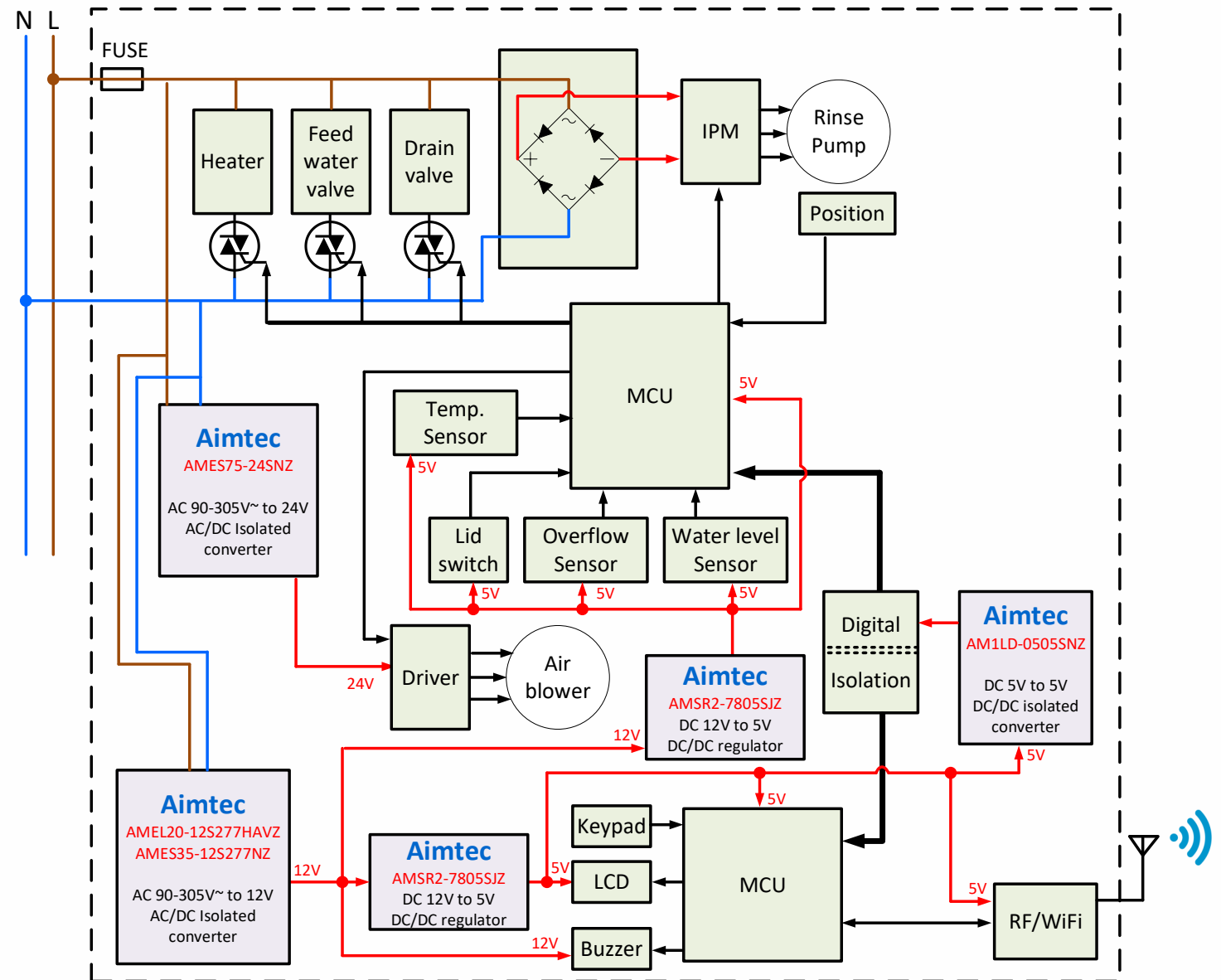
Block Diagram – Washer and Dryer



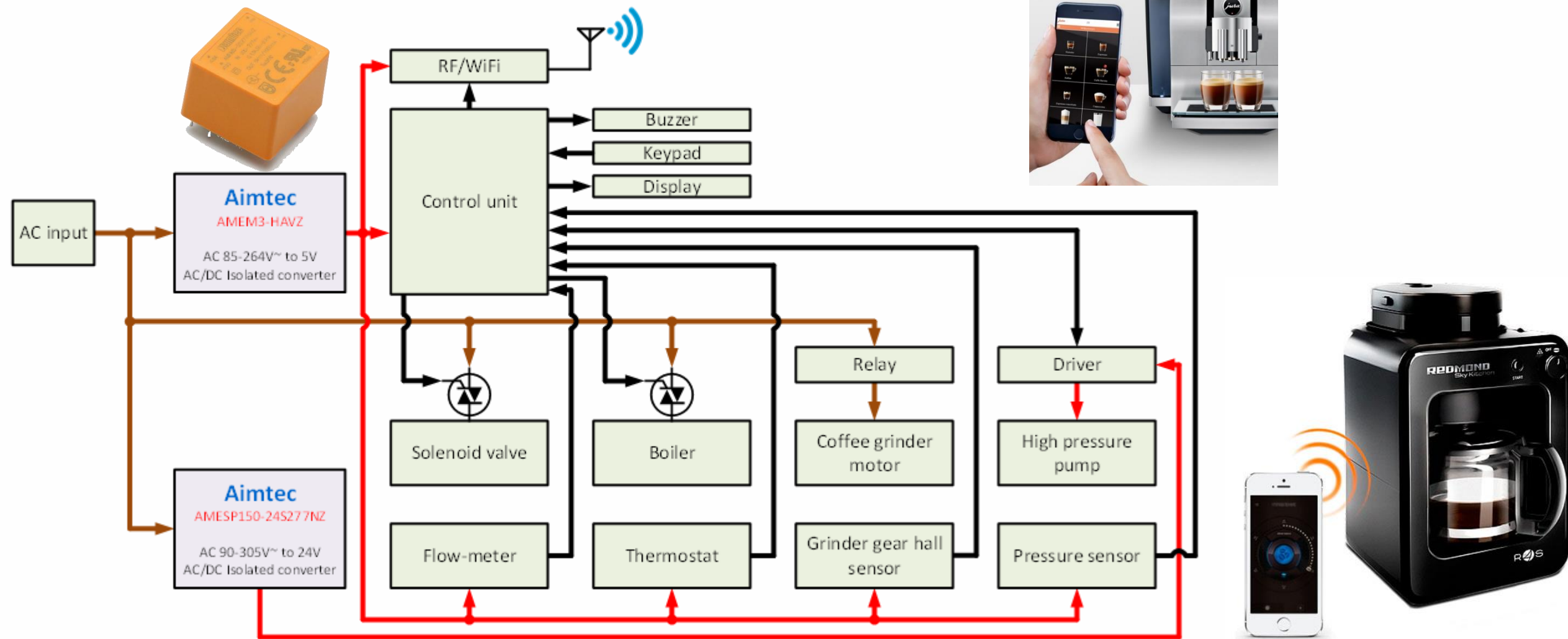
Block Diagram – Wall Mount Gas Boiler

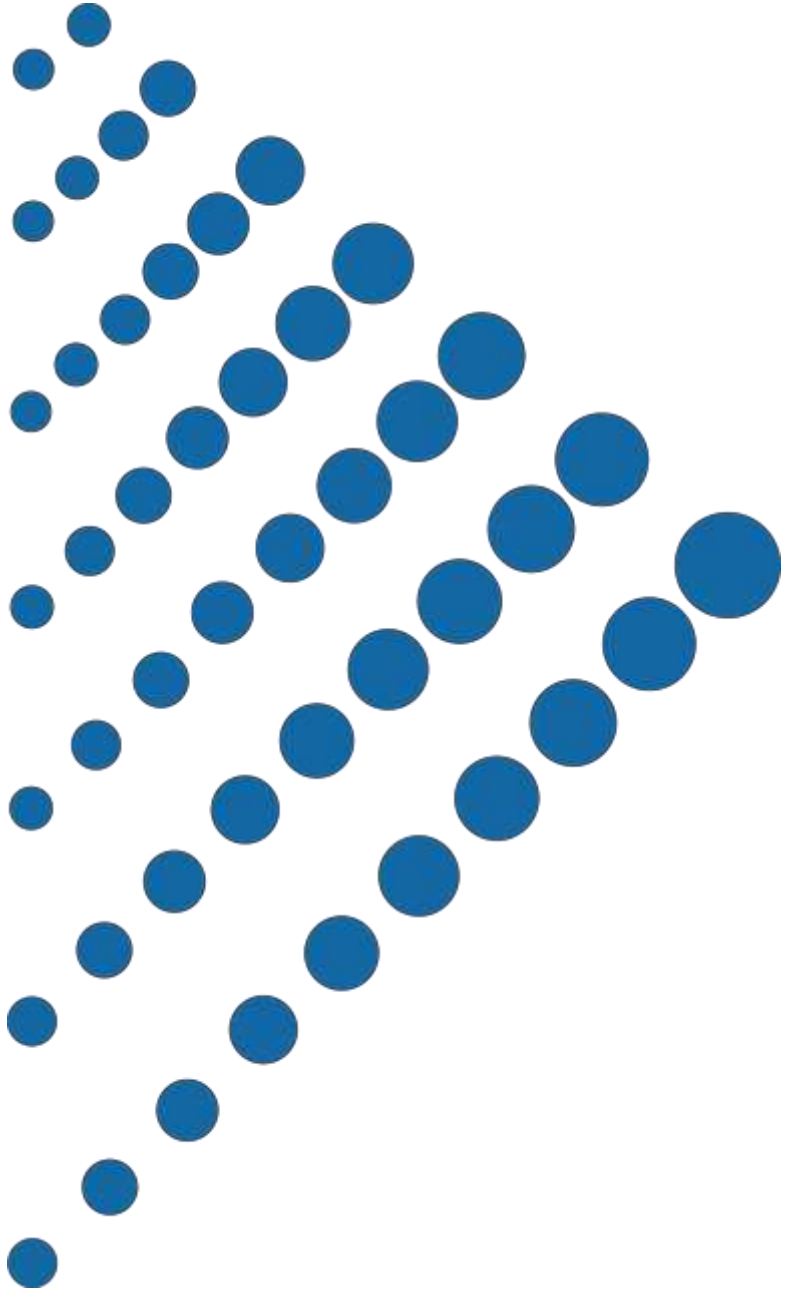


Block Diagram – Dishwasher



Block Diagram – Coffee Machine





Thank you