

AC-DC or DC-DC POWER SUPPLY up to 3000 Watts AL200

LOREME

• DIN RAIL or surface mounting

AL200HD 3000 Watts or up to 6 x 500 W outputs

AL200 2500 Watts or up to 5 x 500 W outputs

AL200L 2000 Watts or up to 4 x 500 W outputs

Output voltage: 12Vdc....240Vdc

AL200V: adjustable with potentiometer or by analogue input

AL200HV: High voltage input

• Input voltage: DC, 50Hz, 60Hz and 400Hz

85 265Vac single-phase

180550Vac Two-phase / Three-phase

9...36Vdc, 18...72Vdc, 40Vdc ...160Vdc,

120...340Vdc, 254...780Vdc,

200Vdc ...1500Vdc (photovoltaic)

• Fully protected: Short circuit, overload, thermal

• Options :

Ethernet link for remote monitoring

Internal ORing diode for parallel coupling,

Watchdog relay monitoring the output voltage,

Analogue output 0...10V, 4-20mA copy of output current



Strong industrial power supply, configurable on request, fully protected and available from 1 to 6 isolated outputs or with common ground. Application : Industrial, energy, photovoltaic, wind power, ...

Description :

- Switching power supply allowing high power density without heating due to the high efficiency of electronic.
- 1 to 6 isolated outputs allowing coupling the outputs in series or parallel, in order to have exotic or symmetrical output voltage, or to increase the output current.

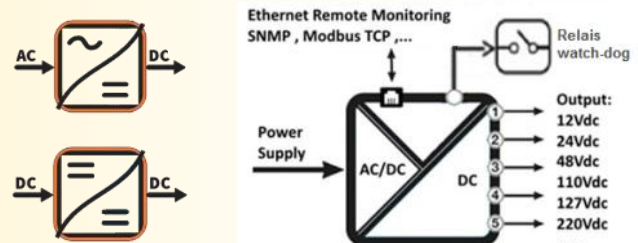
Features :

- DIN rail or wall mounting.
- Pluggable screw terminal blocks, connection up to 6mm² or fixed connectors up to 16mm² according to output current.
- Housing material: Polycarbonate fiber reinforced
- Flammability rating according to UL-94-V0
- Protection rating IP20.
- High resistance to vibration and shock.
- Low sensitivity to moisture and dust.
- Overload protection
- Continuous short circuit protected.
- Thermal protection (output power limitation).
- Forced ventilation cooling
(AL200: dual fan, AL200L single fan)
- Embedded EMC filter in accordance with EN55022 class A, Specific module on request:
- Single output : 24, 30, 48, 72, 110, 125V, 127V,....
- or symmetrical: +/-12 , +/-15, +/-24 , +/-48V, +/- 125V,.....

Implementation recommendations:

- Primary protection with fuse recommended (delayed 15A).
- Be careful at positioning to ensure proper ventilation.

Synoptic



Version and order code:

- AL200** -U-i : (redundant, dual ventilation cooling) 2500Watts max.
- AL200HD** -U-i : (high density, redundant ventilation) 3000 Watts max.
- AL200HT** -U-i : (High temperature version)
- AL200HV** -U-i : (High voltage input version) 300 Watts max.
- AL200L** -U-i : (single ventilation) 2000 Watts max.
- U : output voltage: 24V, ...110 V ... 127 V ... 220 V,...
- i : output current

- Option: - **D** Internal ORing diode for parallel coupling.
- **Wd** Watchdog relay monitoring the voltage output
- **S2,S3,S4,S5,S6** 2 to 6 isolated outputs (4 outputs for AL200L)
- **/S** Analog output 4...20mA, 0...10V. Image of output current.
- **/HT** High temperature version (75°C)
- **/NV** Natural convection cooling version
- Communication: (monitoring of output voltage and current)
- **SNMP** (Ethernet link, SNMP protocol)
- **CMTCP** (Ethernet link, Modbus-TCP protocol)

AL200R-WD : 2 internal redundant power supplies (in parallel) with 2 relays indicating proper operation of each power supply.

AL200V : Version with adjustable output

AL200FIL : filtered / rectified version (application : motor / contactor)

[Request a quote](#)

Power supply

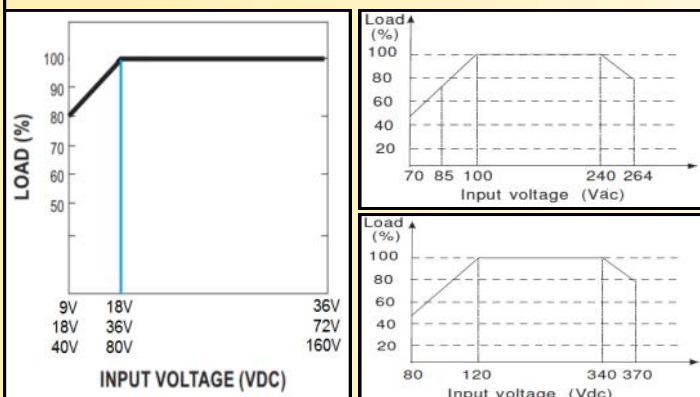
Standard input voltage	85....265 Vac / 100...370 Vdc
High input voltage	180....550 Vac / 254...780 Vdc
Input frequency	DC or 47....440 Hz
Typical efficiency	> 90 %
Power factor	> 0.94 @230Vac full load
Inrush current	60A typical

Output

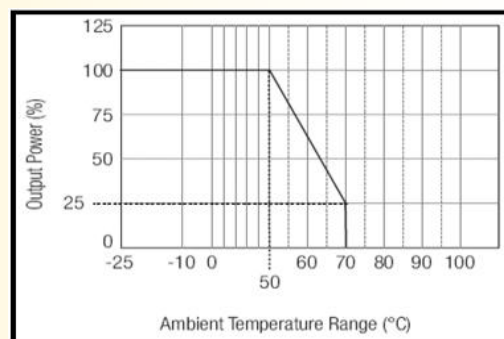
Accuracy of output setting	+/- 2 % max (+/- 1% on request)
Output regulation	+/- 2 % max. (full load)
Line regulation (input variation):	+/-0.5%.
Output ripple	< 1 % max (limited to 20MHz)
Thermal stability	+/- 0.02% / °C typical
Output regulation (output current change) :	+/-1%.
noise and ripple:	<100mVpp (20MHz bandwidth)
Continuous short circuit protected,	automatic restart.
Overload protection	110 % to 140% of rating current
Switching frequency	60 kHz typ.
Output hold time	50 ms typical.

Watchdog relay (characteristics according to model)

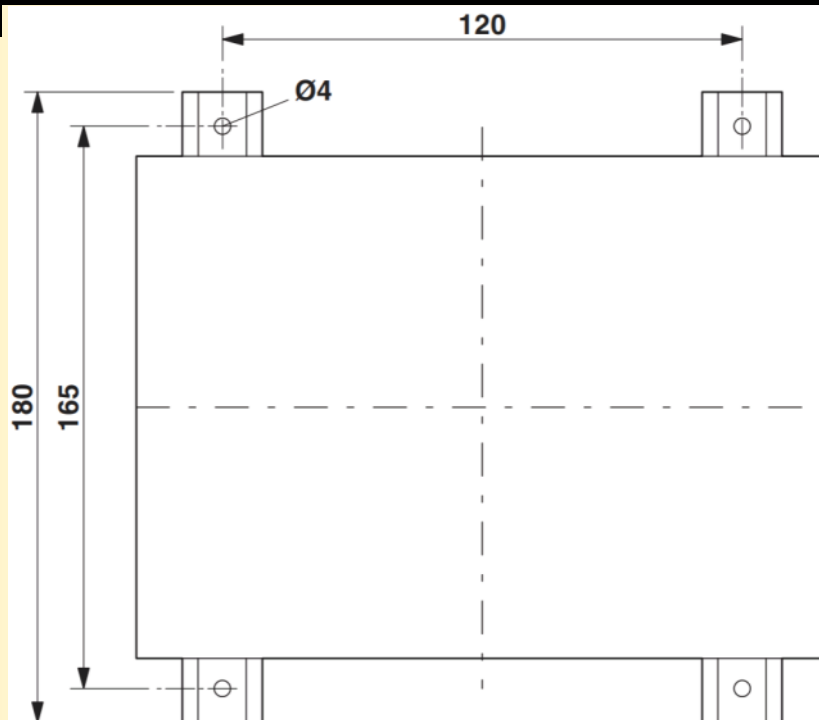
Free potential changeover contact	
Dielectric strength (isolation)	3000Vac or 500Vac
impulse withstand voltage (1.2 / 50μ)	2000V or 6000V
AC switching capacity: 250Vac (400Vac) 6Aac	2000VA
DC switching capacity: 300Vdc 0.3Adc	90W
DC switching capacity: 30Vdc 1Adc	30W

Output power function of input voltage**ENVIRONMENT**

Operating temperature for AL200	-25°C to 60 °C
Operating temperature for AL200-HT	-25°C to 75 °C
Operating temperature for AL200L	-25°C to 55 °C
Temperature derating : 2.5%/°C above 50°C	
Storage temperature	-40 °C to 85 °C
Thermal protection	100 °C internal
Humidity	85 % (not condensed)
Insulation resistance	> 100 MOhms
Dielectric strength	2500 Vac (input / output) 1500Vac (input / ground) 500Vac (output/ watchdog relay) 500Vac (output / ground)
Weight	3500 g
MTBF (+25 °C)	350 000 hours (off fan)
Lifetime	100 000 hours

Output power function of ambient temperature**Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE**

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	

**Center distance for surface mounting:**

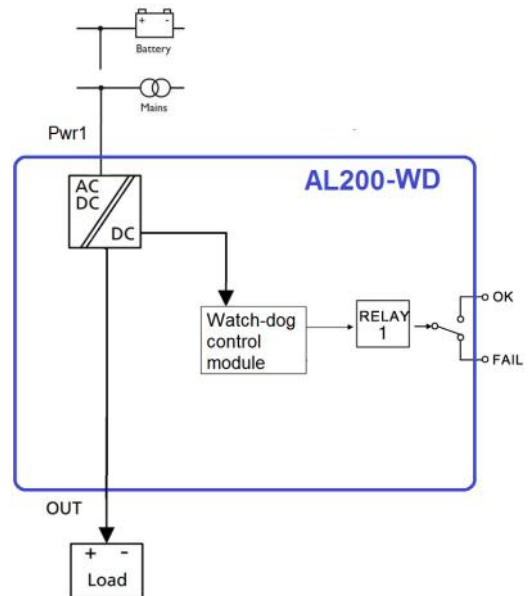
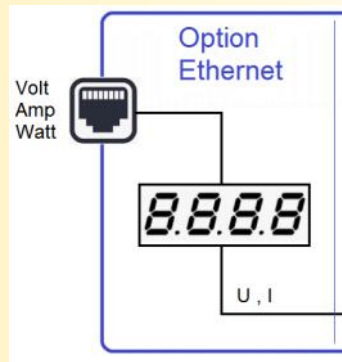
AL200-WD

Simple power supply without redundancy with Watchdog relay.

Possibility to use external redundancy modules.

www.loreme.fr/fichtech/MPA2_eng.pdf

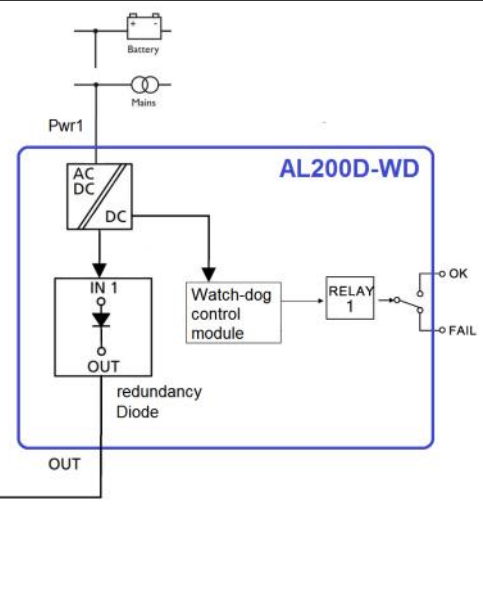
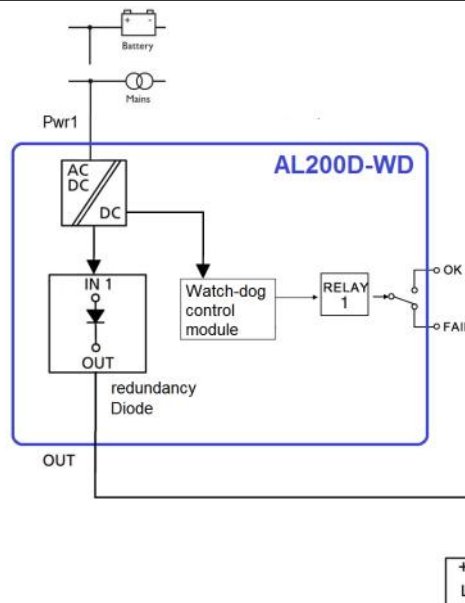
www.loreme.fr/fichtech/MPA3_eng.pdf



AL200D-WD

Power supply with Oring diode and watchdog relay.

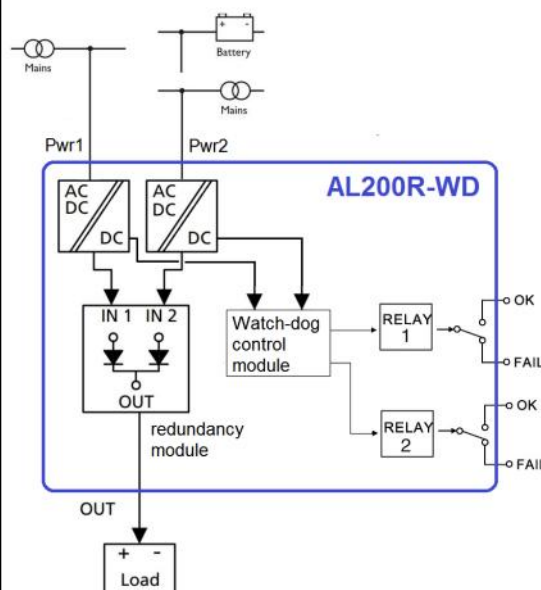
To ensure the redundancy function: (operation with a single power supply) the useful output power corresponds to the power of one power supply.



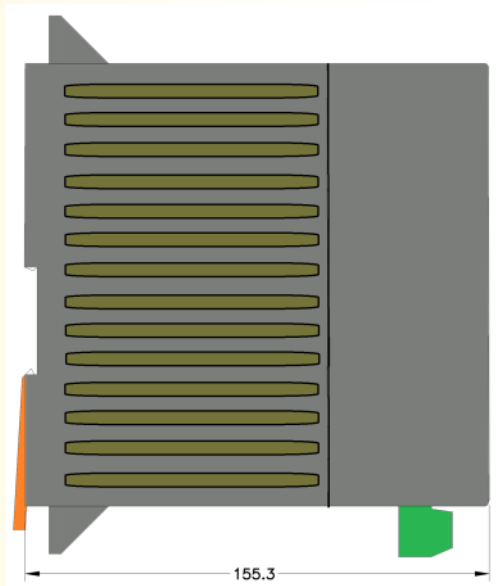
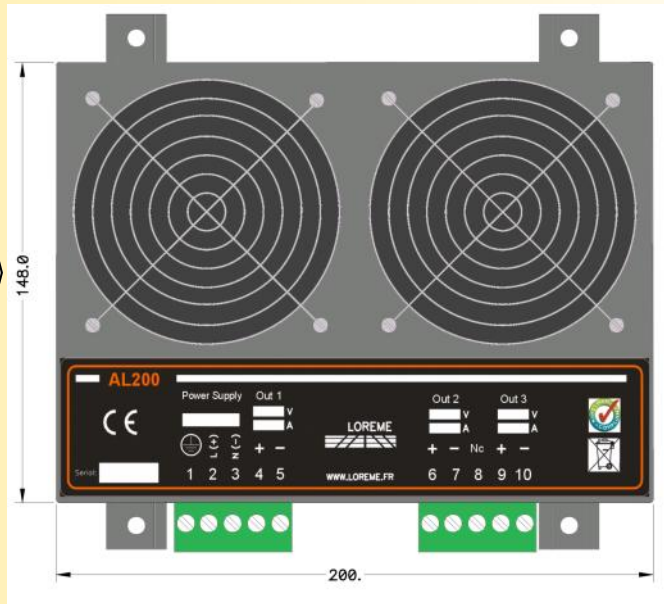
AL200R-WD

Dual power supply with redundancy module and two watchdog relays.

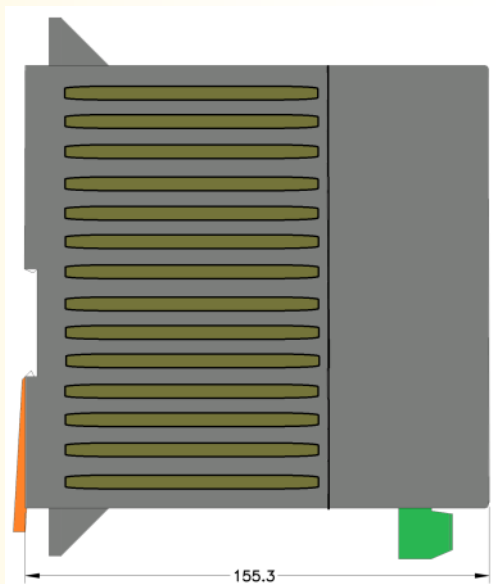
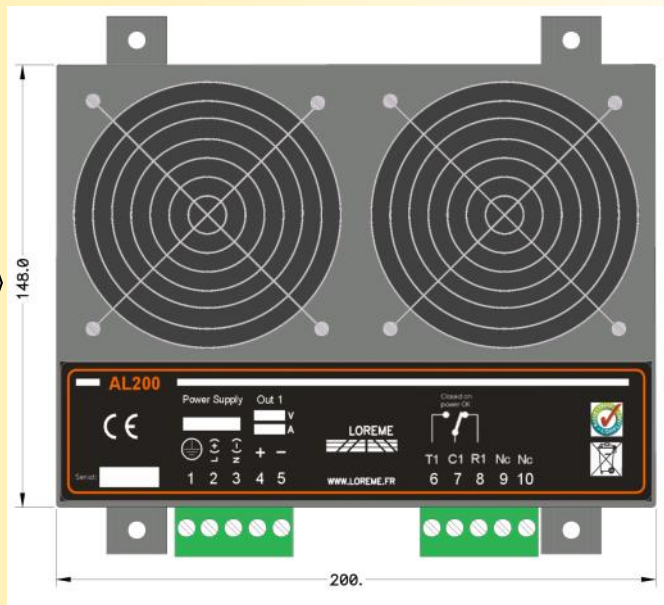
To ensure the redundancy function: (operation with a single power supply) the useful output power corresponds to the power of one of the two internal power supply blocks.



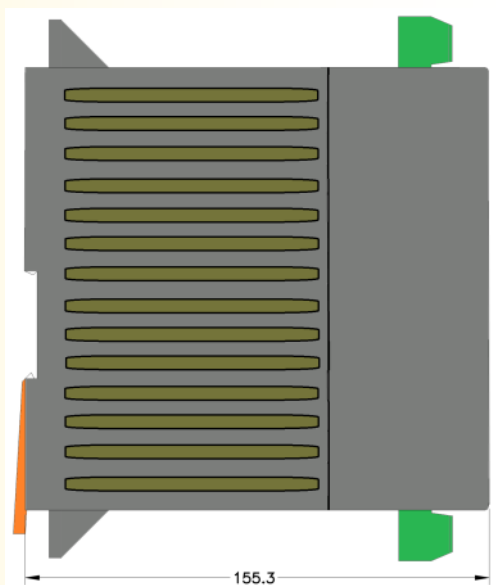
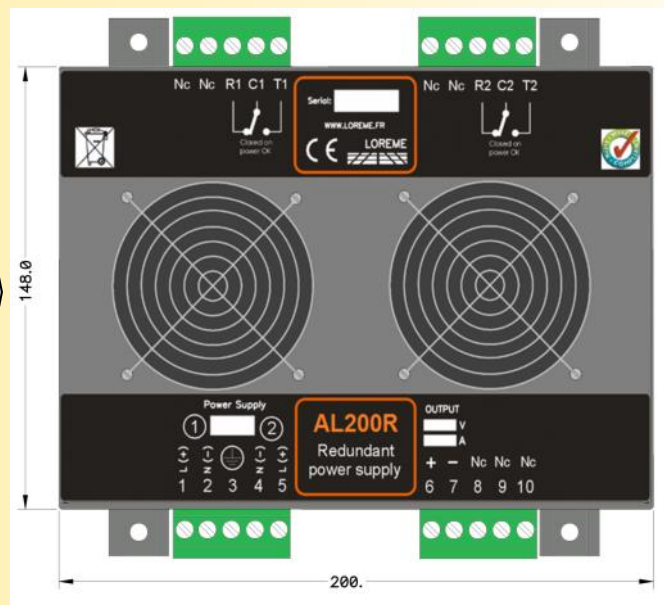
**AL200-S3
3 isolated
outputs**



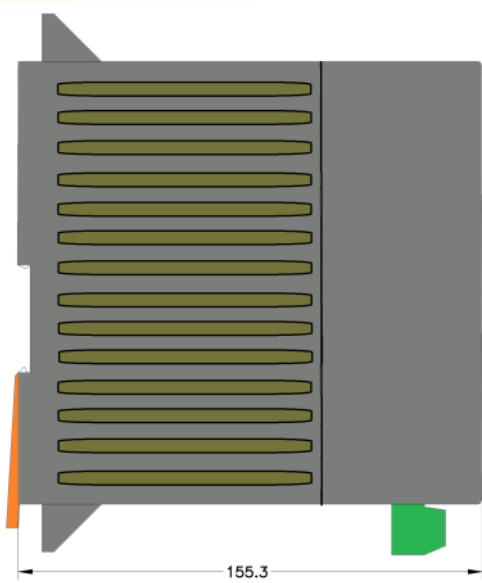
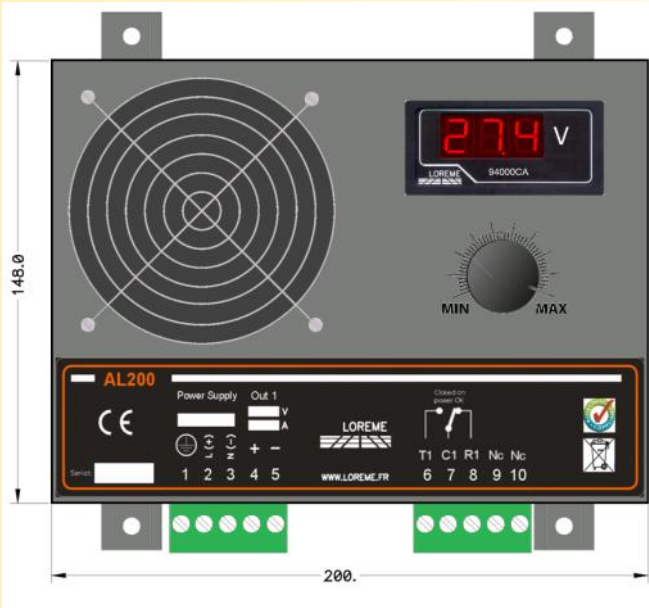
**AL200WD
with
watchdog
relay**



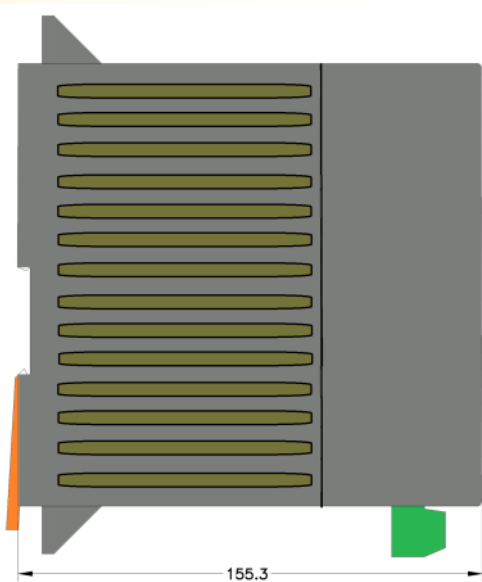
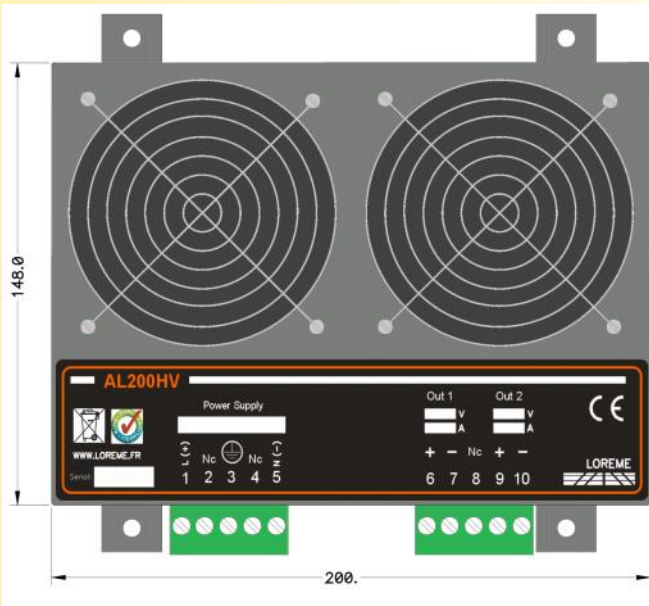
**AL200R
redundant
version
2 internal
power supplies
+2 watchdog
relays**



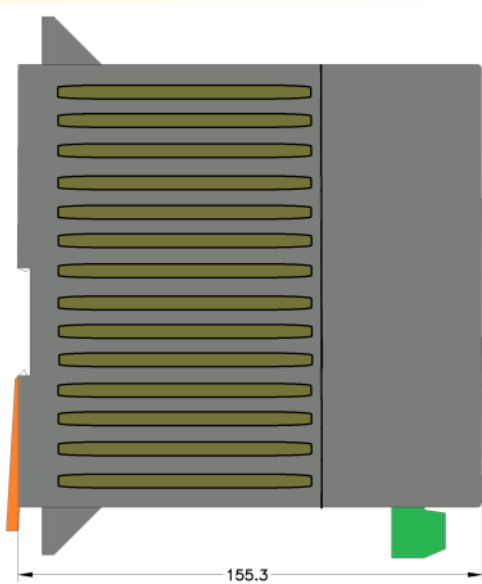
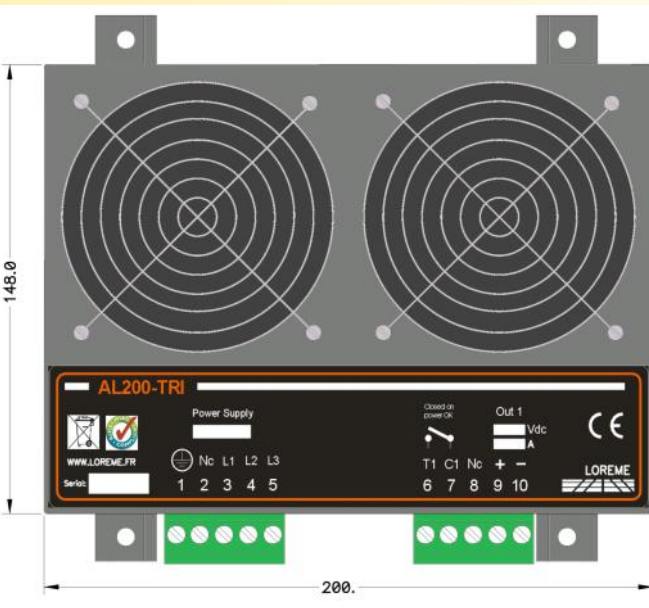
AL200V
1 adjustable
output



AL200HV
High voltage
input



AL200TRi
Supply
Three-phase
Without
neutral



Example of production

AL200 400Vac input
110Vdc / 600W output



AL200L 230Vac input
110Vdc /1000W output



AL200 230Vac input
127Vdc /2000W output



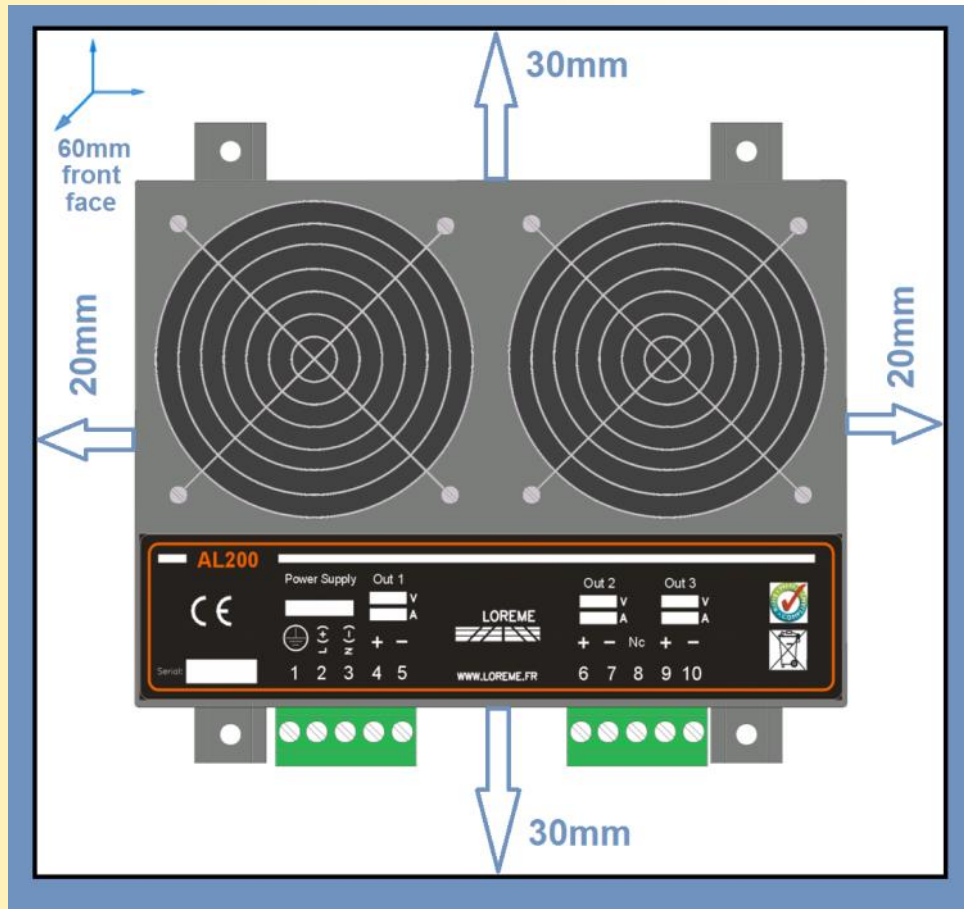
AL200R redundant two 230Vac inputs
one 127Vdc output 2x 1000W



AL200-S5 230Vac input
5 isolated outputs 115Vdc /200W (1000W total)



Clearance area recommended for an optimal cooling



The AL200D allows the sharing of current into one load (parallel coupling), diode and current balancing circuit are embedded.

