TECHNICAL DATA SHEET

SMC4-48/250

9 phases low voltage battery charger alternators

SMC4-48/250

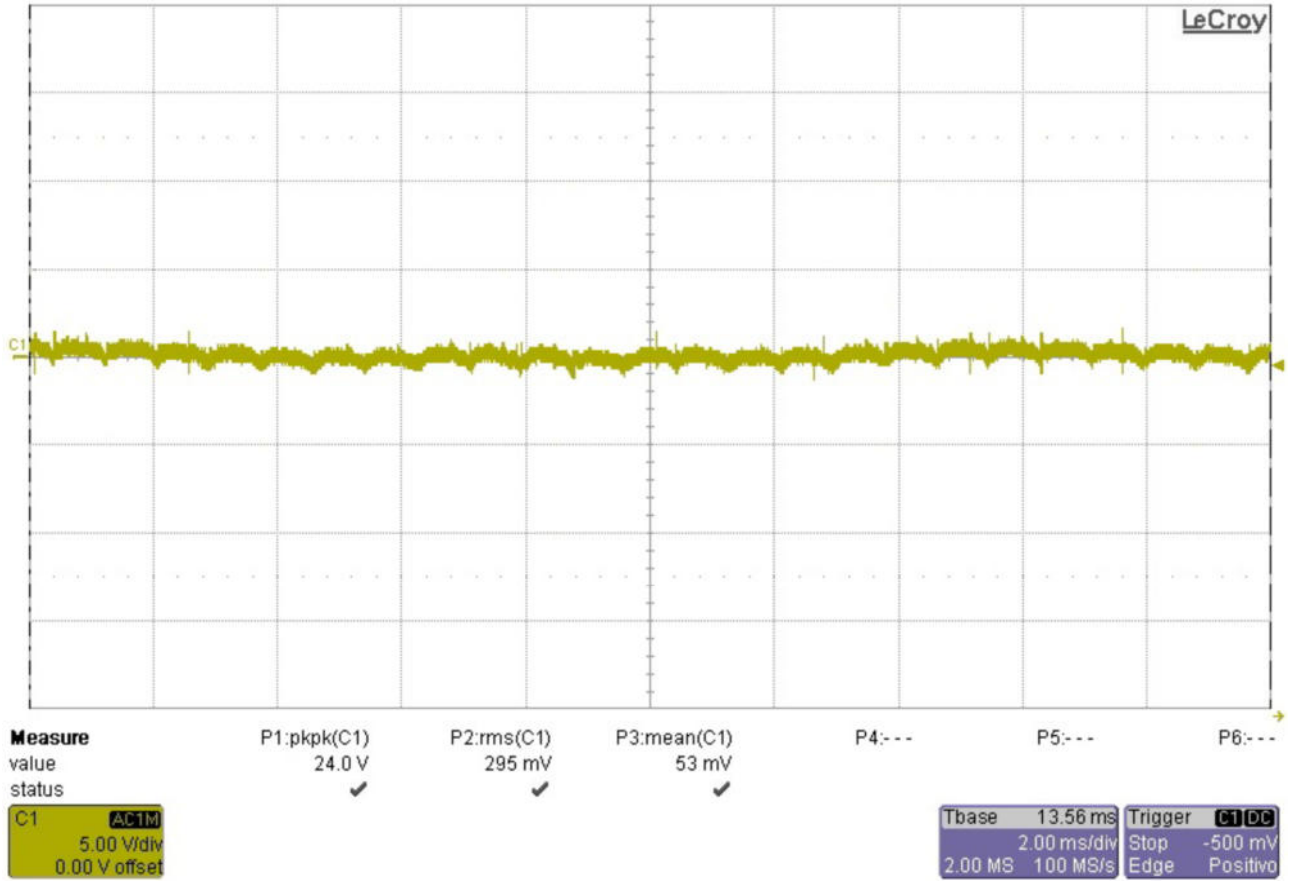
TYPICAL FEATURES

- Very low output ripple: <1% without battery (see picture 1)
- Output voltage: $48V_{DC}$
- Max. power output: 14kW @ 1500RPM (see picture 2)
- Max. rectified current: $250A_{DC}$
- From 1300 to 2100 RPM
- AVR output voltage that allows:
    - ±0,5% of voltage accuracy
    - Over-excitation protection
    - Under-speed protection
- Brushless alternator with auxiliary winding
- Nine Phases AC source
- Oversized and reliable internal DC power rectifier: up to 250A with air flow
- Protection of stator winding and rectifier with thermal trips
- Special socket to guarantee simple, safe and durable connections.
- IP23
- SAE Coupling

SMC4-48/250

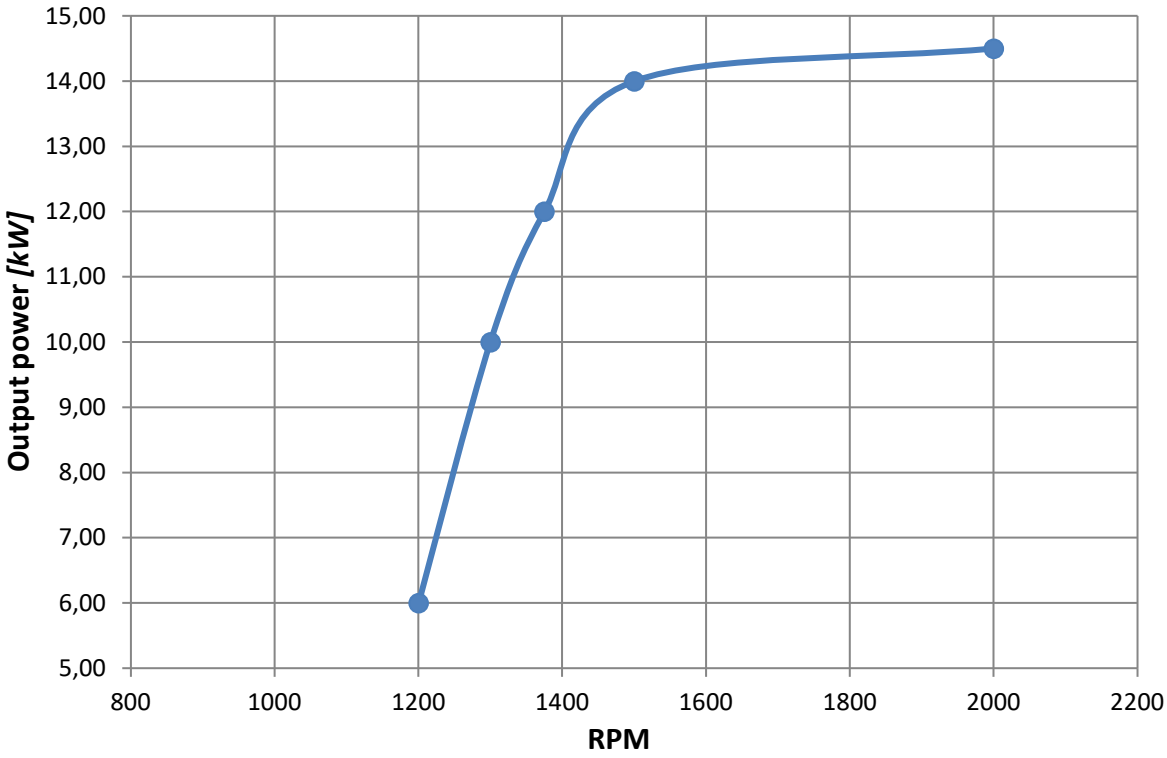
TYPICAL TECHNICAL DATA

DC Output (Vdc)	45 ÷ 60
Power Outlet @ 1500RPM & 56Vdc	14 kW
DC Output Current @ 1500RPM	Up to 250A
Typical Efficiency	> 85%
RPM	From 1300 to 2100 RPM
Output Ripple	< 1% Without Battery (see picture 1)
Output Accuracy	± 0,5%



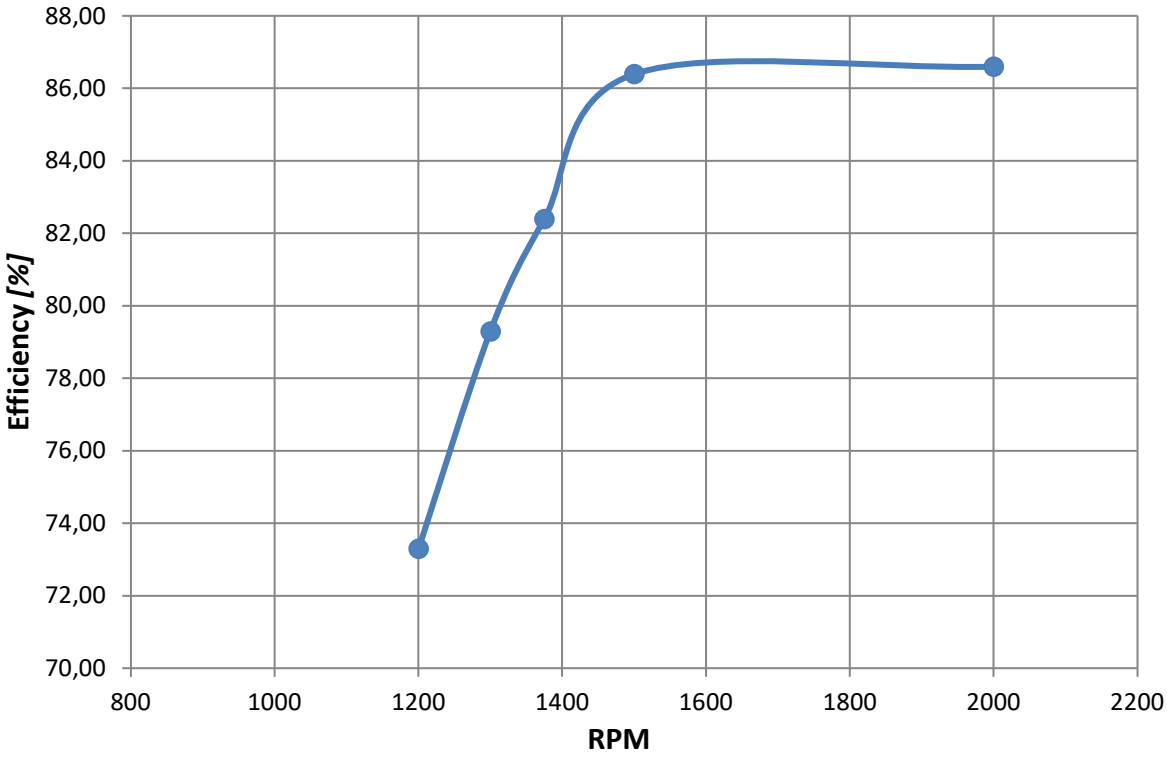
Picture 1: AC ripple waveform @ 55V_{DC} and full load. The RMS value of the ripple is 295mV that is 0.54% of the nominal output voltage.

TYPICAL OUTPUT POWER



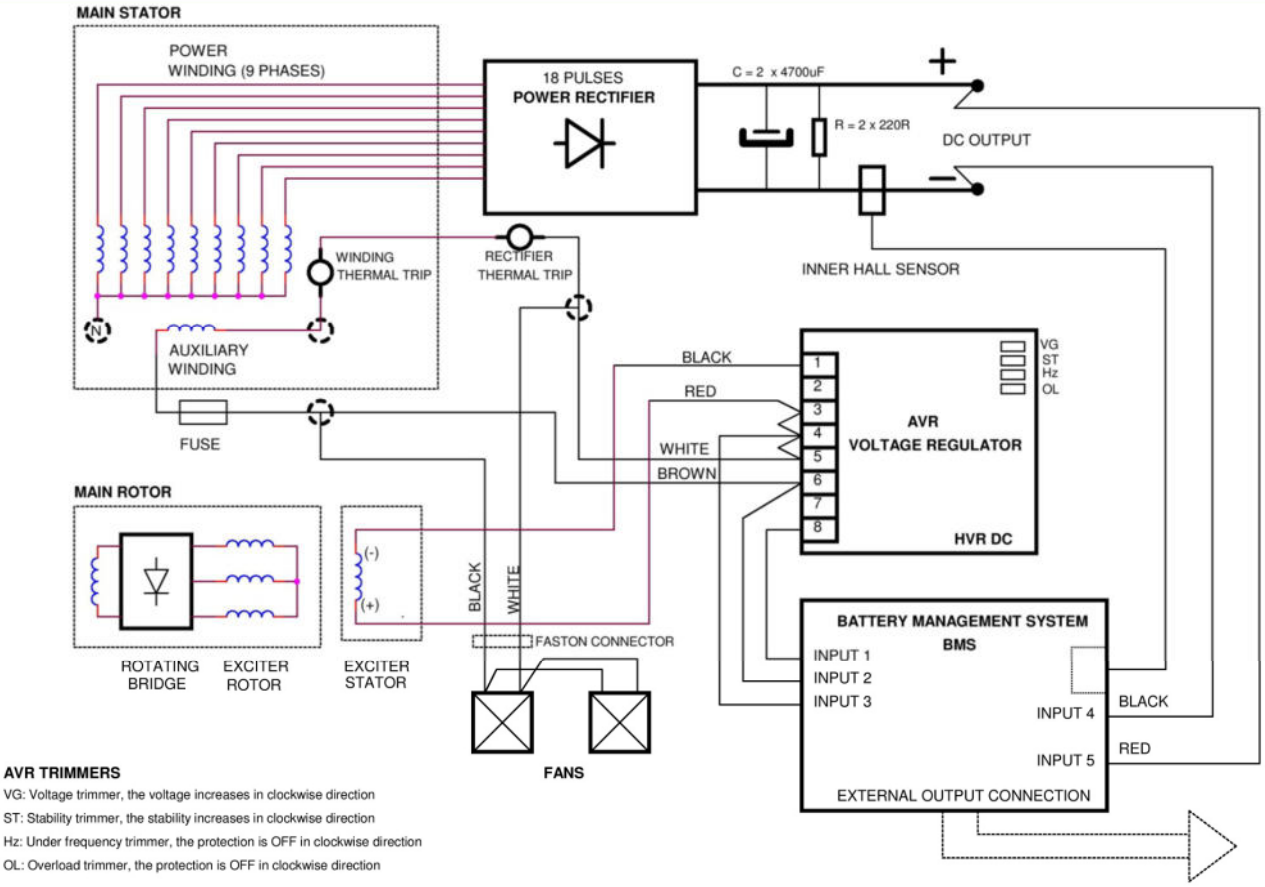
Picture 2: output power with different RPM.

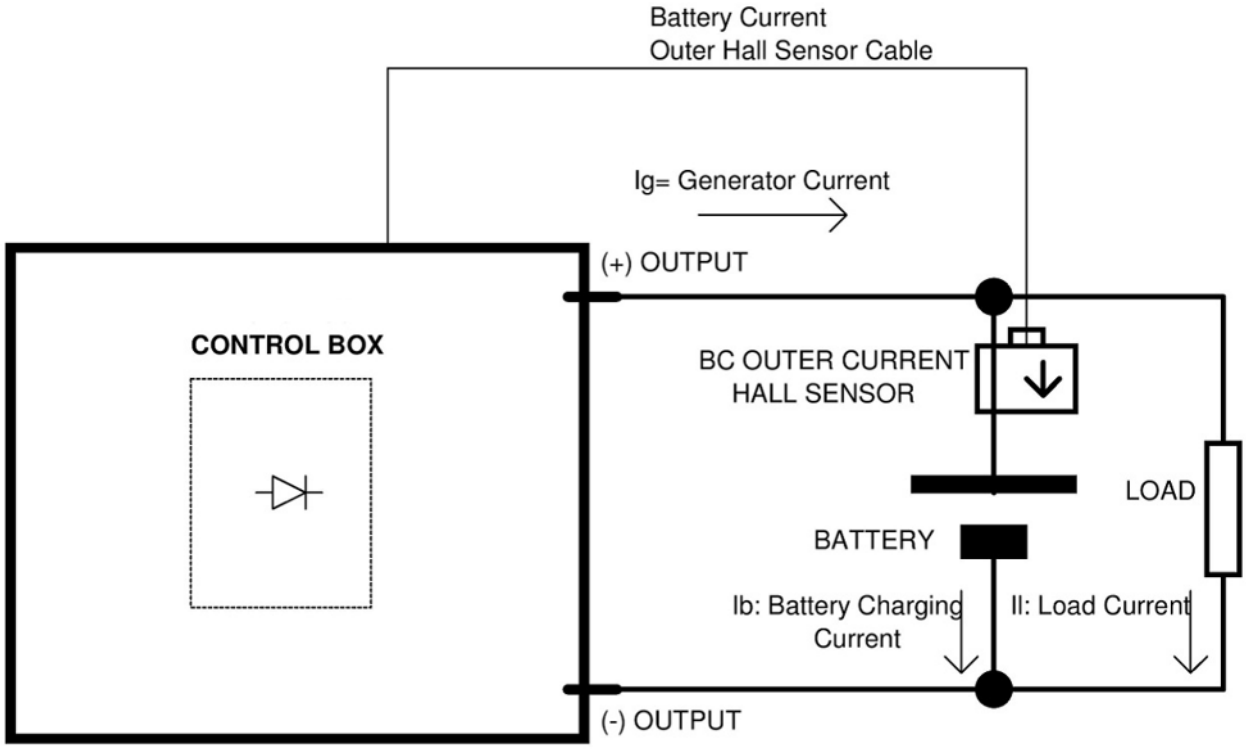
TYPICAL EFFICIENCY @ 12kW 56Vdc



Picture 3: Efficiency with different RPM.

ELECTRIC DIAGRAM





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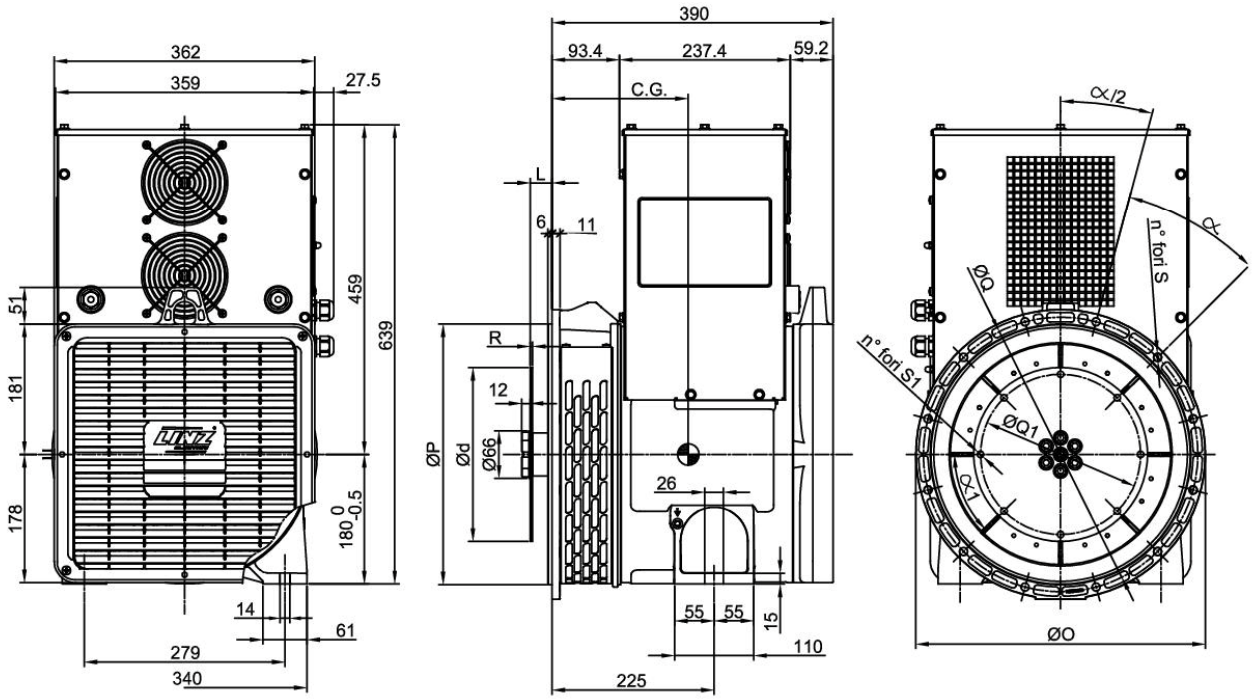
FORMA - FORM SAE



TIPO - TYPE	C.G.
SMC	205

SAE N.	FLANGIE - FLANGES - BRIDAS					
	Ø O	Ø P	Ø Q	n. fori holes No.	S	α
5	356	314.3	333.4	8	11	45°
4	402	362	381	12		30°
3	451	409.6	428.6	12		30°

SAE N.	GIUNTI A DISCO -COUPLING DISCS- JUNTAS A DISCOS						
	L	Ø d	Ø Q1	n. fori holes No.	S1	α1	R
6 1/2	30.2	215.9	200	6	9	60°	3
7 1/2	30.2	241.3	222.25	8	9	45°	
8	62	263.52	244.47	6	10.5	60	4.5
10	53.8	314.32	295.27	8	10.5	45°	
11 1/2	39.6	352.42	333.37	8	10.5	45°	