

TECHNICAL DATA SHEET



ESA4-24/120

9 phases low voltage battery charger alternators

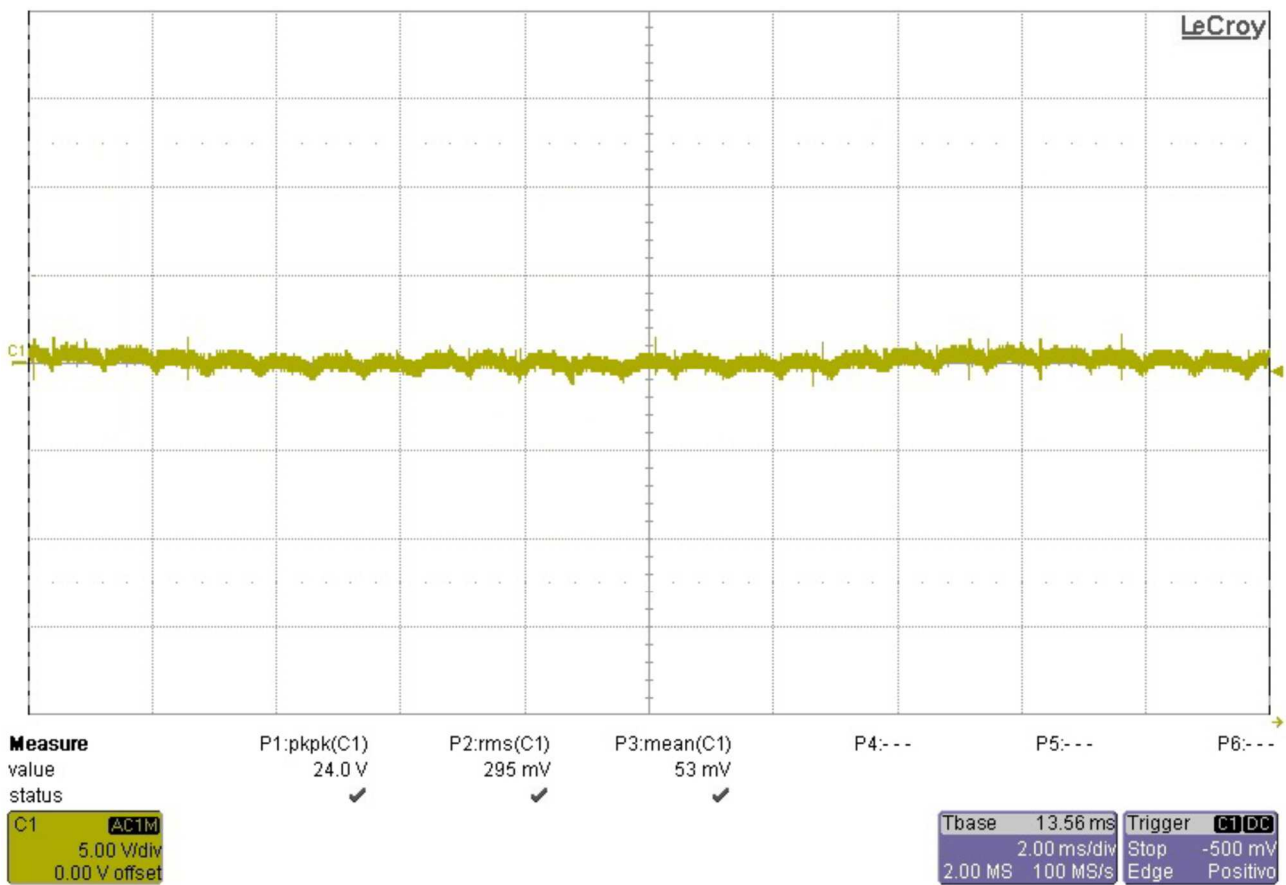
TYPICAL FEATURES

- Very low output ripple: < 1% without battery (see picture 1)
- Output voltage: 24Vdc
- Max. power output: 3,3kW @ 1500RPM (see picture 2)
- Max. rectified current: 125Adc
- From 1300 to 2100 RPM
- AVR output voltage that allows:
 - $\pm 0,5\%$ 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 150A with natural air flow (without fan)
- Protection of stator winding and rectifier with thermal trips
- Special socket to guarantee simple, safe and durable connections.
- IP23
- B9 & SAE Coupling
- Weight: 76kg

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TYPICAL TECHNICAL DATA

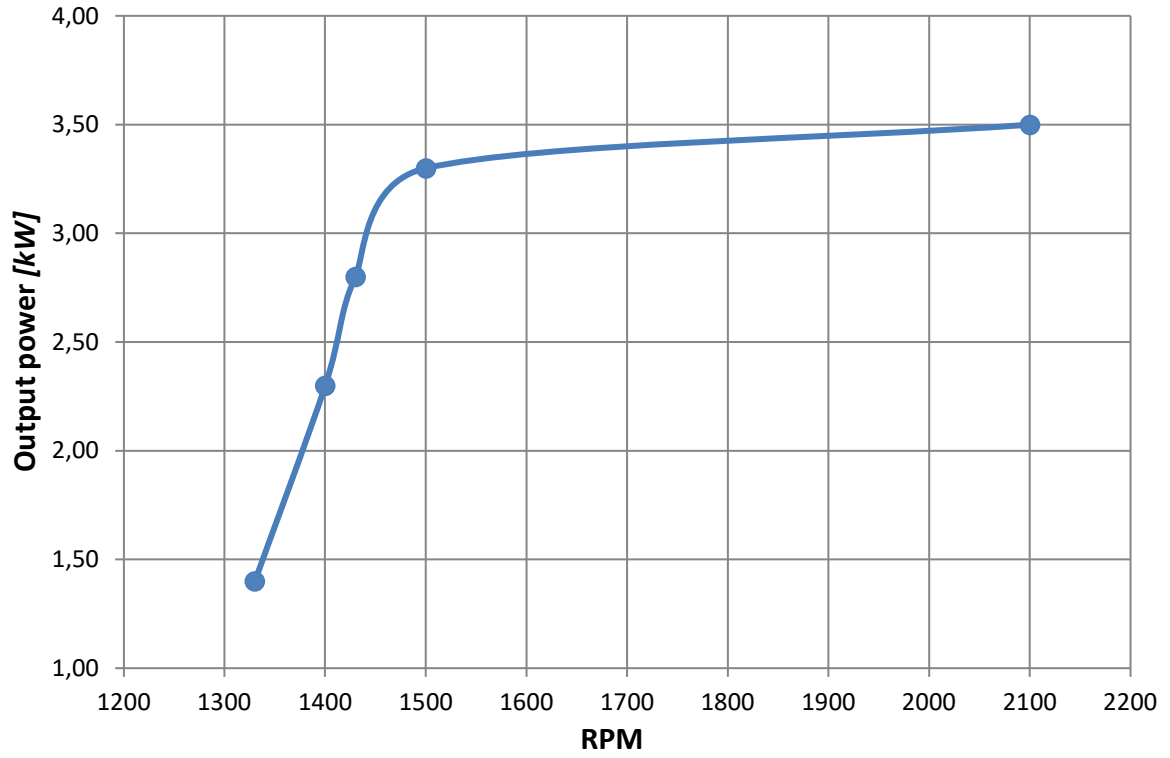
DC Output (Vdc)	24 ÷ 29
Power Outlet @ 3000RPM & 56Vdc	3,3kW
DC Output Current @ 3000RPM	Up to 125A _{dc}
Typical Efficiency	> 78%
RPM	From 1300 to 2100 RPM
Output Ripple	≤ 1% Without Battery (see picture 1)
Output Accuracy	± 0,5%



Picture 1: AC ripple waveform @ 28Vdc and full load. The RMS value of the ripple is 295mV that is 1% of the nominal output voltage.

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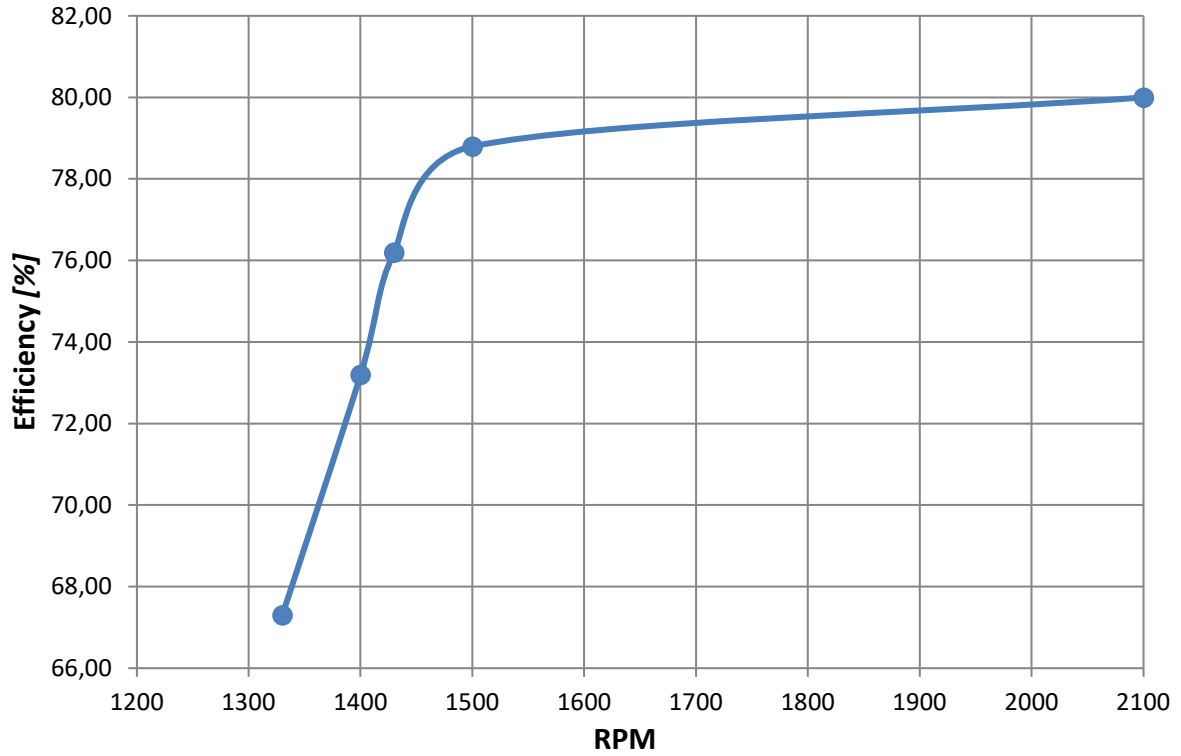
TYPICAL OUTPUT POWER



Picture 2: output power with different RPM.

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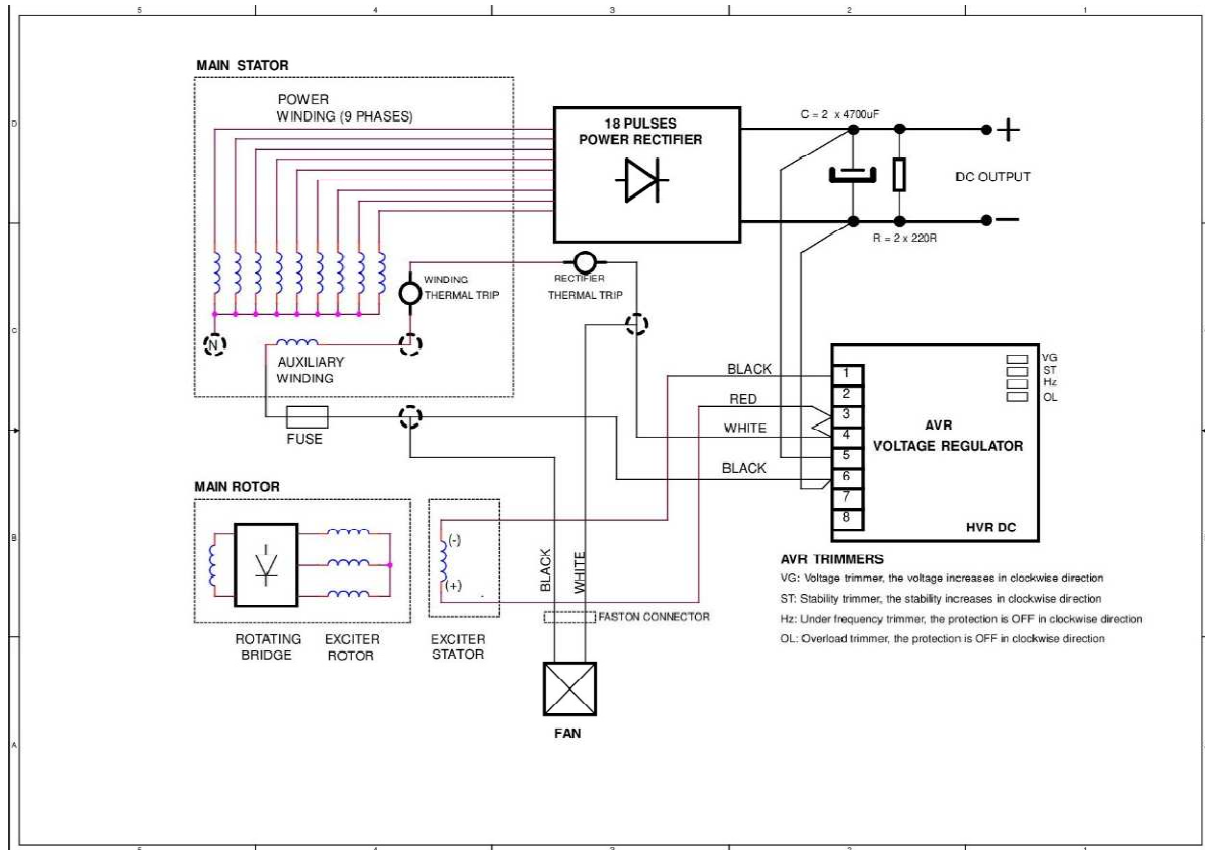
EFFICIENCY vs. RPM @ 28Vdc



Picture 3: Efficiency with different RPM.

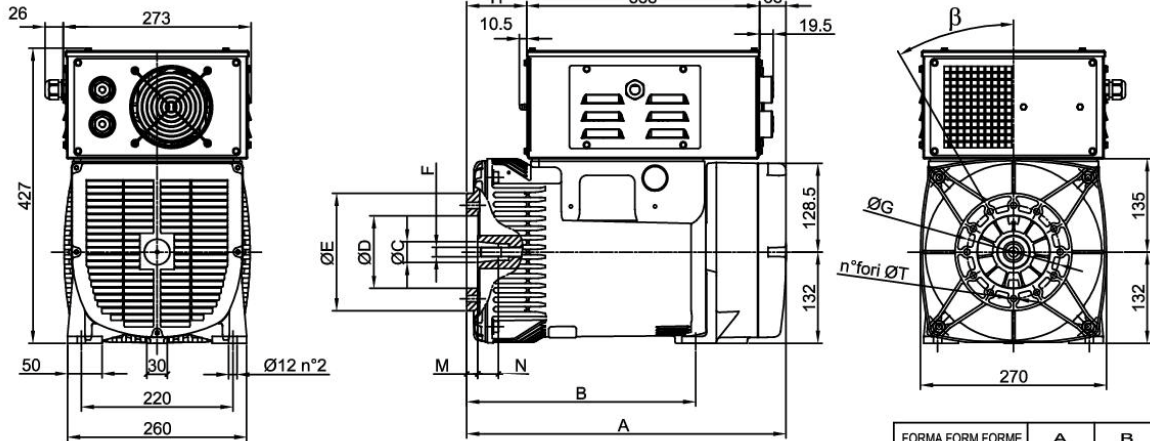
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ELECTRIC DIAGRAM



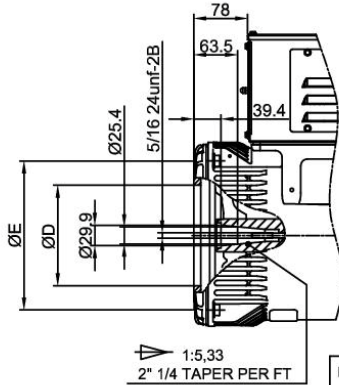
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FORMA FORM FORME B3/B9



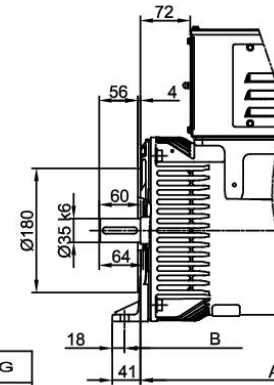
FORMA FORM FORME	ØC	ØD	ØE	F	ØG	H	M	N	n°fori	ØT	β
cono Ø30	Ø30	Ø105	Ø170	M14x1.5	Ø135	87	16	30	12	Ø9	30°
cono Ø38	Ø38	Ø125	Ø185	M18x1.5	Ø150	78	5	30	4	Ø11	β/2 45°

FORMA FORM FORME	A	B
B3B9 cono Ø30	463	332
B3B9 c.Ø38-J609b	454	323
B3/B14	448	340
MD35 - LOMB. STD	496	365



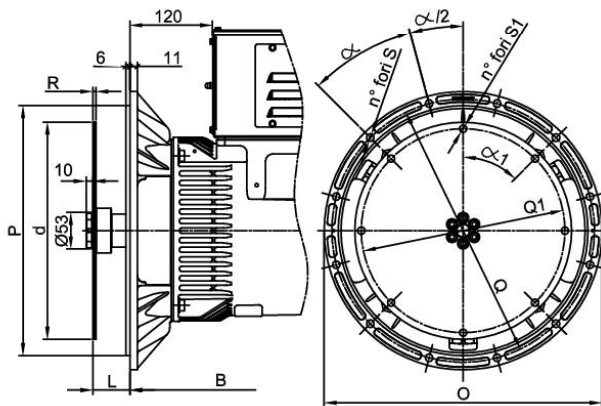
FORMA FORM FORME J609b

FORMA FORM FORME	ØD	ØE	ØG
J609b	Ø146	Ø192	Ø165
	Ø163.6	Ø216	Ø196.85
	Ø177.8		

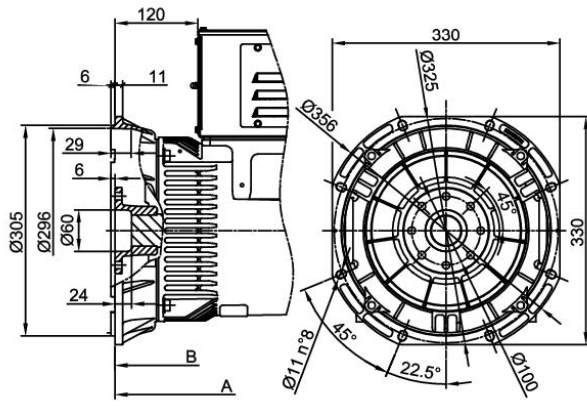


FORMA FORM FORME B3/B14

FORMA FORM FORME MD35



FORMA FORM FORME LOMBARDINI STD



SAE N.	FLANGIE - BRIDE - FLANGE				
	O	P	Q	n. fori	S
5	356	314.3	333.4	8	11
4	403	362	381	12	
3	451	409.6	428.6	12	

SAE N.	GIUNTI A DISCO - DISC COUPLING - ACC. DISQUE					
	L	d	Q1	n. fori	S1	α1
6 1/2	30.2	215.9	200	6	9	60°
7 1/2	30.2	241.3	222.25	8	9	45°
8	62	263.52	244.47	6	10.5	60
10	53.8	314.32	295.27	8	10.5	45°
11 1/2	39.6	352.42	333.37	8	10.5	45°