

# Technical Data, Measures, Testing and Adjusting Values

Job No.
15-0

Change: x

× **Starter**

Starter Bosch	Short-Circuit Test		Load Test		
	Current Amp.	Voltage Volts	Current Amp.	Voltage Volts	Speed r.p.m.
EJD 1.8/12 R 29, R 56, R 70, R 82, R 88 and R 104	600-650	6	320	9	1150-1350
EJD 1.8/24 R	450-500	16.5	200	21	1150-1450
	Idling Test			Minimum Draw-in Voltage Magnetic Switch Volts	
	Current Amp.	Voltage Volts	Speed r.p.m.		
EJD 1.8/12 R 29, R 56, R 70, R 82, R 88 and R 104	60-80	11	4500-7000	9.5	
EJD 1.8/24 R	30-50	23	5500-7500	17	
Commutator min. dia.	Permiss. out-of-true of commutator		Permiss. out-of-true of package		Pressure of carbon brushes
39.5	0.03		0.08		800-900 grams
Adjusting measurement "a" on magnetic switch with yoke retracted Figure 15-0/1					
Starter type	Magnetic switch type		Adjusting measure "a"		
EJD 1.8/12 R 29	SSM 102 E 10 Z		34.0-0.2		
EJD 1.8/12 R 56	SSM 102 E 12 Z				
EJD 1.8/12 R 70	SSM 102 E 11 Z		49.0-0.2		
EJD 1.8/12 R 82	SSM 102 E 10 Z		34.0-0.2		
EJD 1.8/12 R 88	SSM 102 E 12 Z				
EJD 1.8/12 R 104	SSM 102 E 28 Z				
EJD 1.8/24 R	SSM 102 L 7 Z				

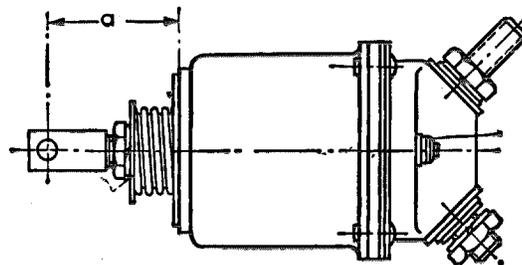


Figure 15-0/1

15-0/1

## Generator

Generator LJ/GEH 90/12-2300 R 15				Regulator switch <sup>1)</sup> RS/TBA 75-90/12/1 RS/UA 90/12/4 RS/UA 90/12/26	
Regulated voltage volts	Switching-in speed r. p. m.	Load	Speed	Regulated voltage at rated output and 1½-fold rated speed volts	Return current amp.
		at rated output  Watts	output  r. p. m.		
13.8-14.9	1900	90	2350	12.6-13.9	2.0-7.5
<sup>1)</sup> RS/TBA 75-90/12/1: mounted 2-element regulator RS/UA 90/12/4: independently mounted 3-element current/voltage regulator with 4-hole mounting RS/UA 90/12/26: independently mounted 3-element current/voltage regulator with 3-hole mounting					

Generator LJ/RJH 150/12-2100 BR 1				Regulator switch <sup>2)</sup> RS/TAA 130-150/12/1 x	
Regulated voltage volts	Switching-in speed r. p. m.	Load	Speed	Regulated voltage at rated output and 1½-fold rated speed volts	Return current amp.
		at rated output  Watts	output  r. p. m.		
14.0-15.2	1240	150	2150	12.9-14.2	2.0-7.5
x <sup>2)</sup> mounted 2-element regulator.					

Generator LJ/GEG 160/12-2500 R 8, R 9 and R 10				Regulator switch <sup>3)</sup> RS/UA 160/12/15 x	
Regulated voltage volts	Switching-in speed r. p. m.	Load	Speed	Current regulator cuts in at rated output (battery and parallel load) amp.	Return current amp.
		at rated output  Watts	output  r. p. m.		
when idling without battery 13.8-14.8	2050	160	2560	19.5-22.5 cold 17.5-20.5 warm	2.5-7.5
x <sup>3)</sup> independently mounted 3-element current/voltage regulator with 3-hole mounting					

Commutator min. dia.	Permiss. out-of-true of commutator	Permiss. out-of-true of package	Pressure of carbon brushes
31.5 39.5 <sup>4)</sup>	0.03	0.05	450-600 grams
<sup>4)</sup> with generator LJ/RJH 150/12-2100 BR 1			

## Battery

Battery	Voltage, volts	12
	Capacity, Ah	66-135 x
x Electrolyte level above top edge separator, or level mark, resp. mm <sup>1)</sup>		10-15
Specific gravity or specific density of electrolyte at 20 ° C	fully charged	1.28 (for tropics 1.23)
	half charged	1.21 (for tropics 1.16)
	empty	1.14 (for tropics 1.09)
Charging current in amp.	for first charging	5 %
	for normal re-charging	10 % of battery capacity
	for quick charging	up to 75 %
Electrolyte temperature before charging		16-32 ° C
Max. temperature		40 ° C
Max. temperature (tropics)		50 ° C
Freezing point	fully charged	-68 ° C (for tropics -40 ° C)
	half charged	-40 ° C (for tropics -13 ° C)
	empty	-12 ° C (for tropics - 6 ° C)

x **Note:** The separators are approx. 10 mm above the plates.

x <sup>1)</sup> The electrolyte level should not exceed top edge separator, or level mark 5 mm, even **with fully charged battery** (Specific density of electrolyte 1.28, or 1.23 for tropics).