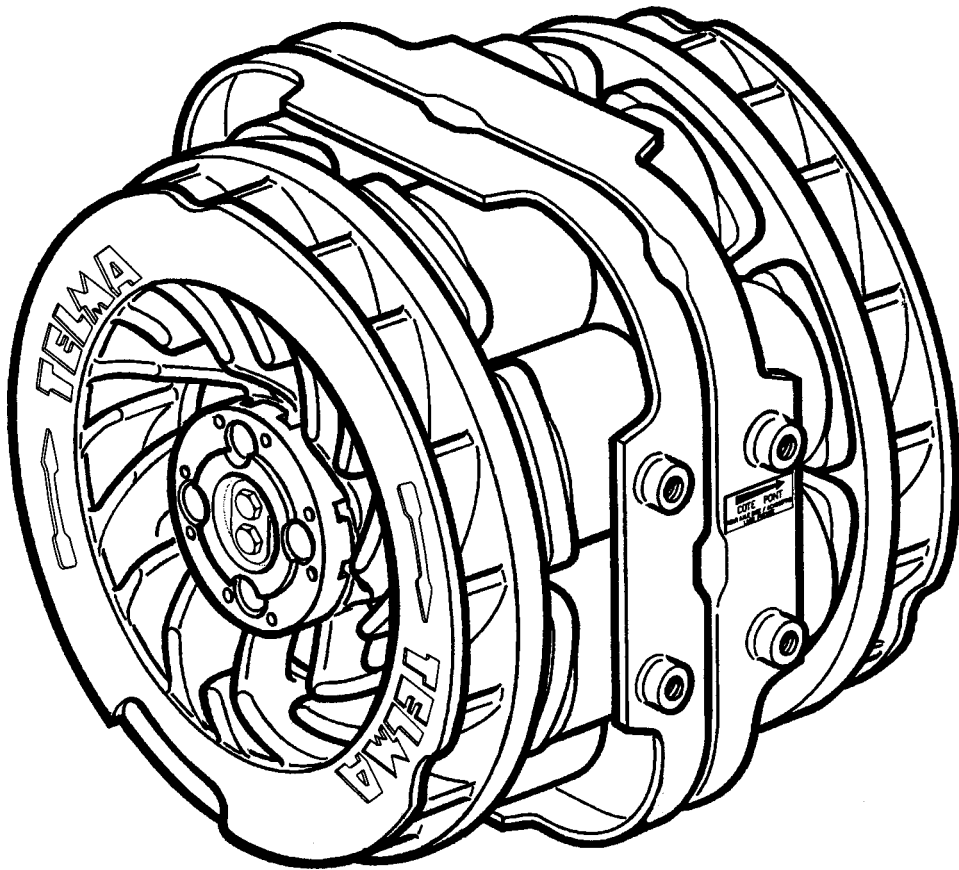


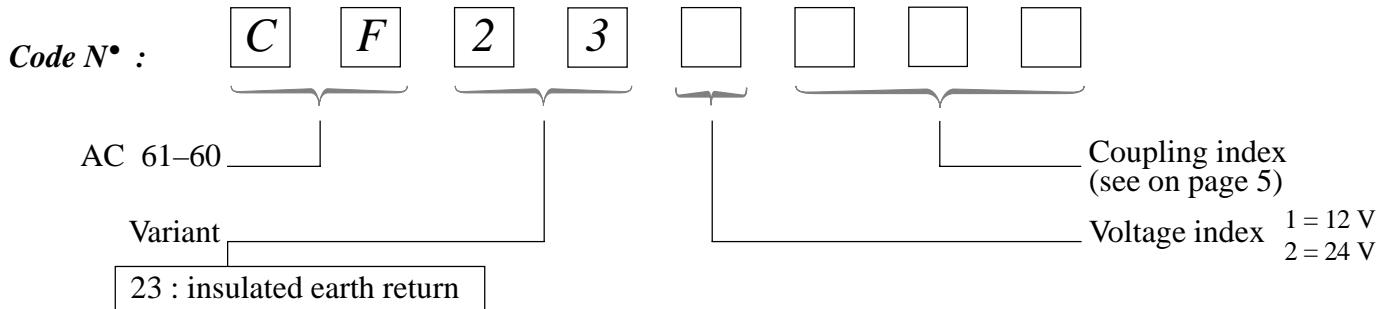
Telma

TECHNICAL SPECIFICATIONS



AC 61 – 60 Retarder

Identification



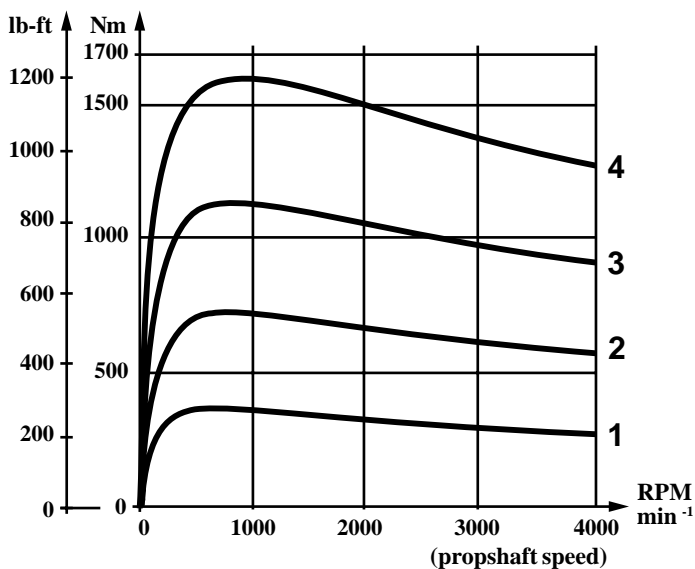
Specifications

MASS	Total : 229 kg 505 lb	Rotors : 67 kg 148 lb	Stator : 162 kg 357 lb
RANGE of application * G.C.W.	15 / 19 metric tons		
Maximum BRAKING TORQUE	1600 Nm / 1179 lb-ft		
Rotors INERTIA	1.82 kgm ² / 43.18 lb-ft ²		
Maximum ROTATIONAL SPEED	4000 min ⁻¹		
Maximum TRANSMISSIBLE TORQUE	12800 Nm / 9430 lb-ft		

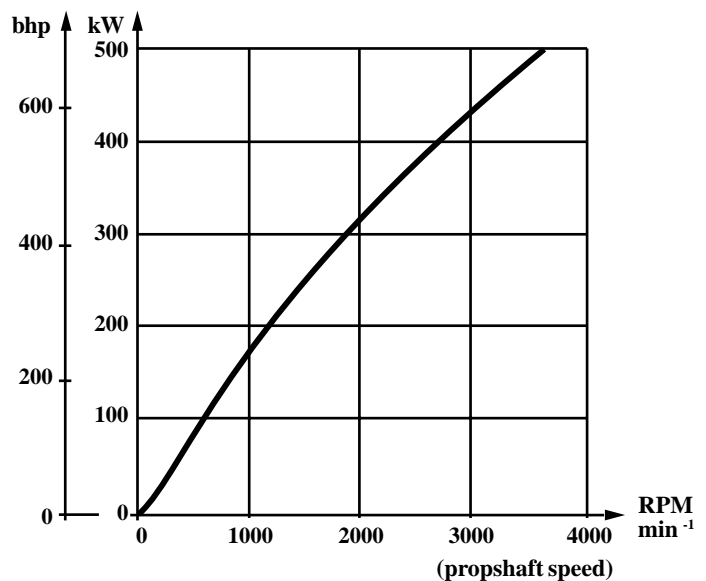
* for specific applications, consult our Technical Department

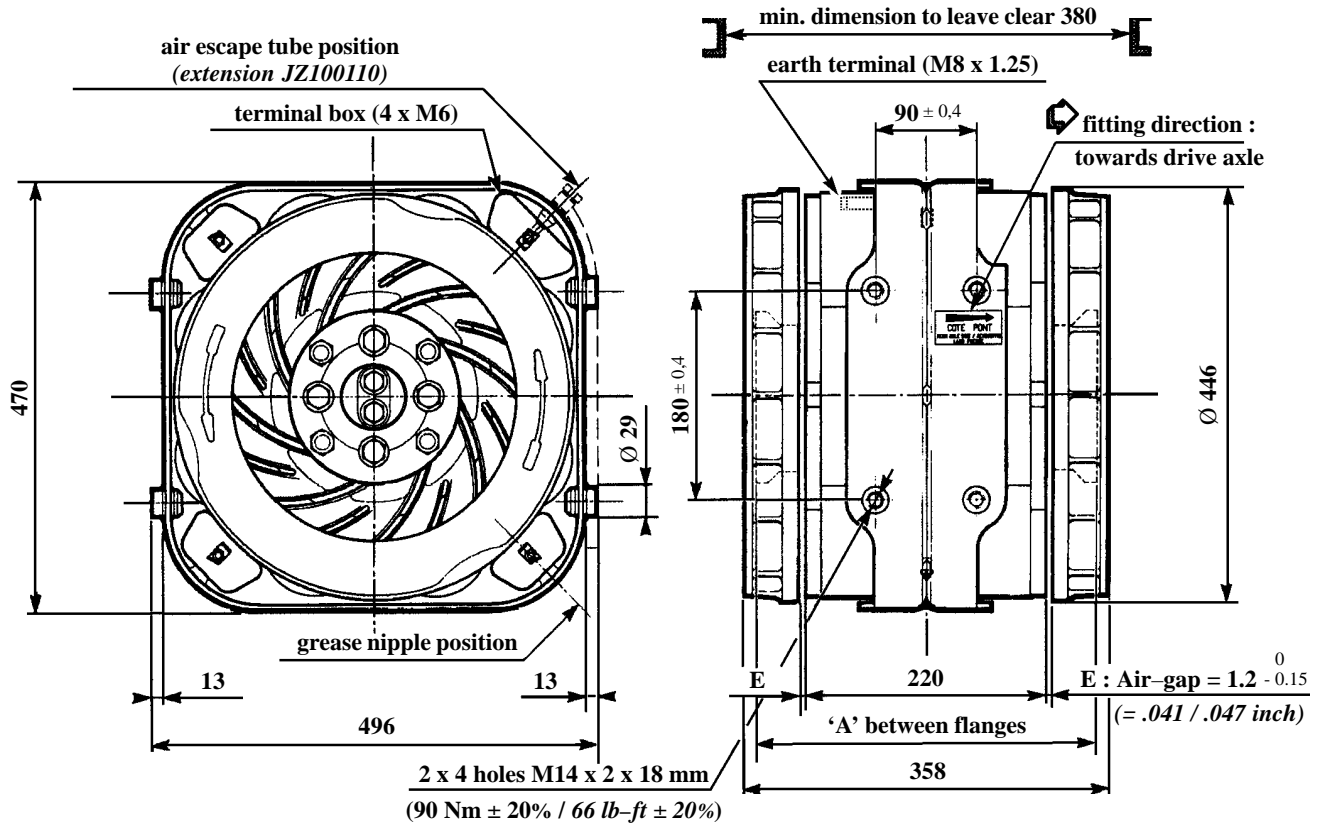
Curves

TORQUE
1-2-3-4 : control stages



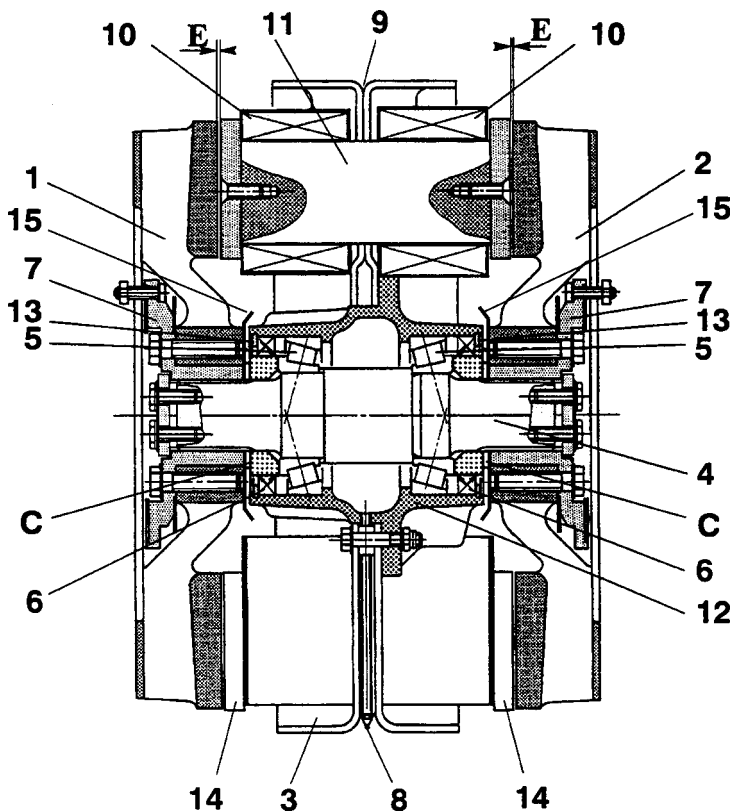
POWER





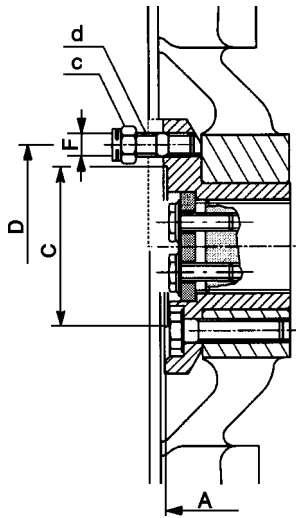
NOTE : all the dimensions are given in millimeters 1 mm = .039 inch

Cross-section view



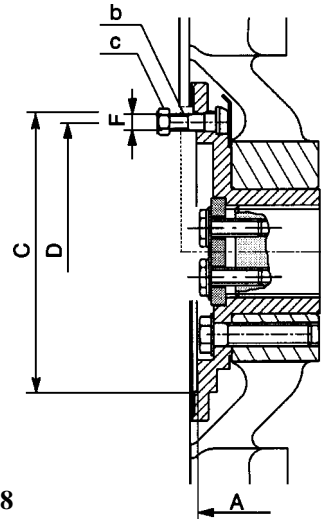
- E – Air-gap
- C – Air-gap adjusting shims
- 1 – Front rotor
- 2 – Rear rotor (axle side)
- 3 – Stator
- 4 – Shaft
- 5 – Bearing
- 6 – Seal with double lip
- 7 – Coupling flange
- 8 – Grease nipple
- 9 – Air escape tube
Air escape tube extension JZ100110
(to be ordered separately)
- 10 – Coil
- 11 – Pole
- 12 – Hub
- 13 – Circlips
- 14 – Pole shoe
- 15 – Deflector

Cross-section views



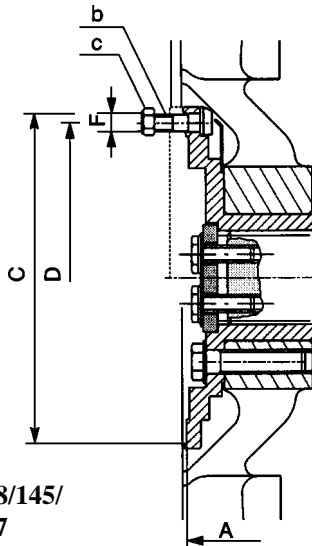
indexes 105/155

Figure 1



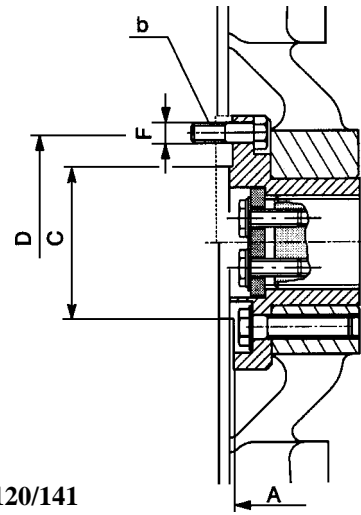
indexes 106/158

Figure 2



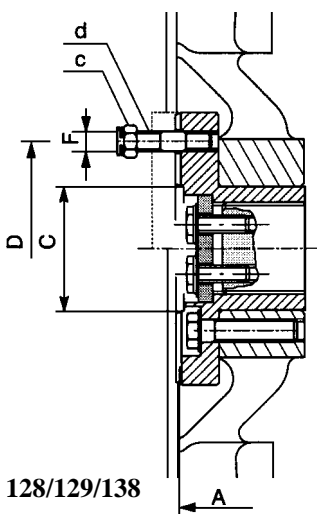
indexes 107/108/145/
152/157

Figure 3



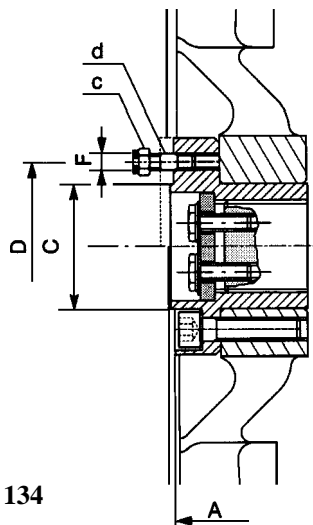
indexes 117/120/141

Figure 4



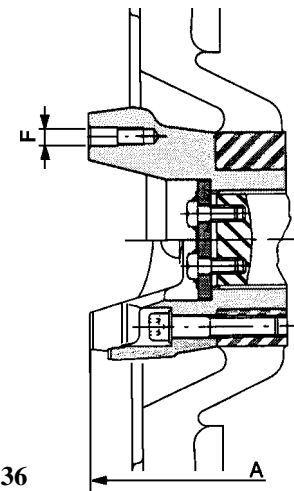
indexes 128/129/138

Figure 5



index 134





Figure 6



index 136

Figure 7

Specifications

A	C	D	E	F	SUPPLIED FASTENERS	Fig.	Rotor securing	
							4 screws	5 screws
<i>index 105 : SAE 1500 – metric thread</i>						<i>Ref. 24 V : CF232105</i>		
332	95.26	120.67	4	M14x1.50	studs (d) nuts (c)	1	x	
<i>index 106 : SAE 1600 – metric thread</i>						<i>Ref. 24 V : CF232106</i>		
329	168.25	155.52	8	M10x1.00	screws (b) nuts (c)	2	x	
<i>index 107 : SAE 1700 – metric thread</i>						<i>Ref. 12 V : CF231107</i>		
332.2	196.85	184.12	8	M10x1.00	studs (d) nuts (c)	3	x	
<i>index 108 : SAE 1800 – metric thread</i>						<i>Ref. 24 V : CF232108</i>		
332.2	196.85	184.12	12	M11x1.50	studs (d) nuts (c)	3	x	
<i>index 117 : DIN Ø 150 mm</i>						<i>Ref. 24 V : CF232117</i>		
332	90	130	8	M12x1.50	screws (b)	4	x	
<i>index 120 : DIN Ø 180 mm</i>						<i>Ref. 24 V : CF232120</i>		
332	110	155.5	8	M14x1.50	screws (b)	4	x	
<i>index 128 : Ø 120 mm cross – serration</i>						<i>Ref. 24 V : CF232128</i>		
336		100	4	M10x1.00	studs (d) nuts (c)	5	x	
<i>index 129 : Ø 150 mm cross – serration</i>						<i>Ref. 24 V : CF232129</i>		
336		130	4	M12x1.50	studs (d) nuts (c)	5	x	
<i>index 134 : DIN Ø 120 mm</i>						<i>Ref. 24 V : CF232134</i>		
339	75	101.5	8	M10x1.25	studs (d) nuts (c)	6	x	
<i>index 136 : P400 SCANIA</i>						<i>Ref. 24 V : CF232136</i>		
483.4		131.9x66	4	M12x1.75			7	x
<i>index 138 : Ø 180 mm cross – serration</i>						<i>Ref. 24 V : CF232138</i>		
336		150	4	M14x1.50	studs (d) nuts (c)	5	x	
<i>index 141 : DIN Ø 165 mm</i>						<i>Ref. 24 V : CF232141</i>		
332	95	140	8	M16x1.50	screws (b)	4	x	
<i>index 145 : SAE 1700 reinforced – metric thread</i>						<i>Ref. 24 V : CF102145</i>		
332.2	196.85	184.12	12	M10x1.00	screws (b) nuts (c)	3	x	
<i>index 152 : SAE 1700 – british/american thread</i>						<i>Ref. 12 V : CF231152</i>		
332.2	196.85	184.12	8	9.52	3/8" 24 UNF screws (b)	3	x	
<i>index 155 : SAE 1480/1550 – british/american thread</i>						<i>Ref. 12 V : CF231155</i>		
332	95.26	120.67	4	12.7	1/2" 20 UNF studs (d) nuts (c)	1	x	
<i>index 157 : SAE 1800 – british/american thread</i>						<i>Ref. 12 V : CF231157</i>		
332.2	196.85	184.12	12	11.1	7/16" 20 UNF screws (b) nuts (c)	3	x	
<i>index 158 : SAE 1550/1610 – british/american thread</i>						<i>Ref. 12 V : CF231158</i>		
332.2	168.25	155.52	8	9.52	3/8" 24 UNF screws (b)	2	x	

A – Distance between both coupling flanges or between both SCANIA universal joints (see on page 3)

C – Centering diameter

D – Pitch circle diameter or distance between the securing holes on SCANIA coupling

E – Number of securing screws

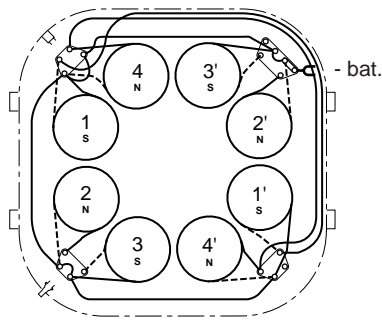
F – Specifications of the securing screws

NOTE : For all other couplings, please consult our Technical Department.
All the dimensions are given in millimeters 1 mm = .039 inch

VOLTAGE (according to vehicle equipment)	12 V	24 V
Voltage INDEX	1	2
RESISTANCE per CIRCUIT ($\pm 5\%$) at 20 °C (68 °F)	0.19 Ω	0.75 Ω
RESISTANCE per COIL ($\pm 5\%$) at 20 °C (68 °F)	0.75 Ω	
INSULATION RESISTANCE	> 1 M Ω	
Nominal average AIR-GAP	1.2 ⁰ _{-0.15} mm (.041 / .047 inch)	

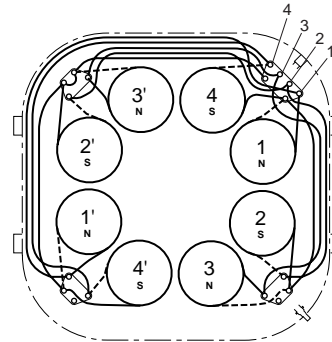
12 V specifications

FRONT SIDE



— red sleeve
 - - - blue sleeve

REAR SIDE

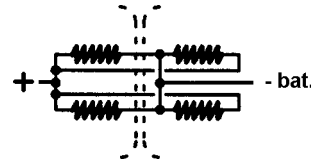


CURRENT CONSUMPTION

(at 20 °C (68 °F) according to control stage)

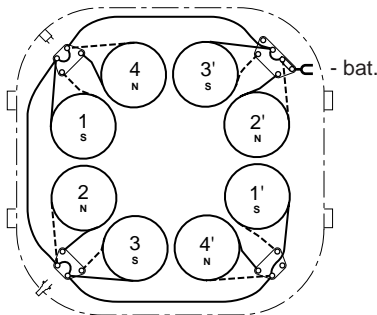
STAGE	1	2	3	4
CURRENT $\pm 5\%$ (A)	63	126	189	252

LAYOUT OF ONE STAGE



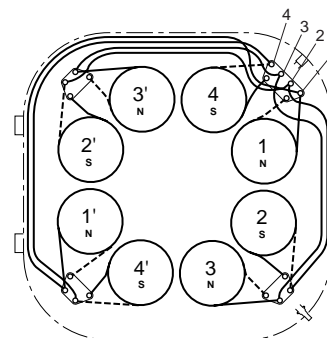
24 V specifications

FRONT SIDE



— red sleeve
 - - - blue sleeve

REAR SIDE

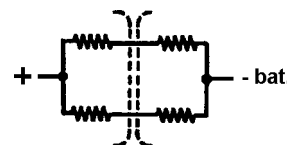


CURRENT CONSUMPTION

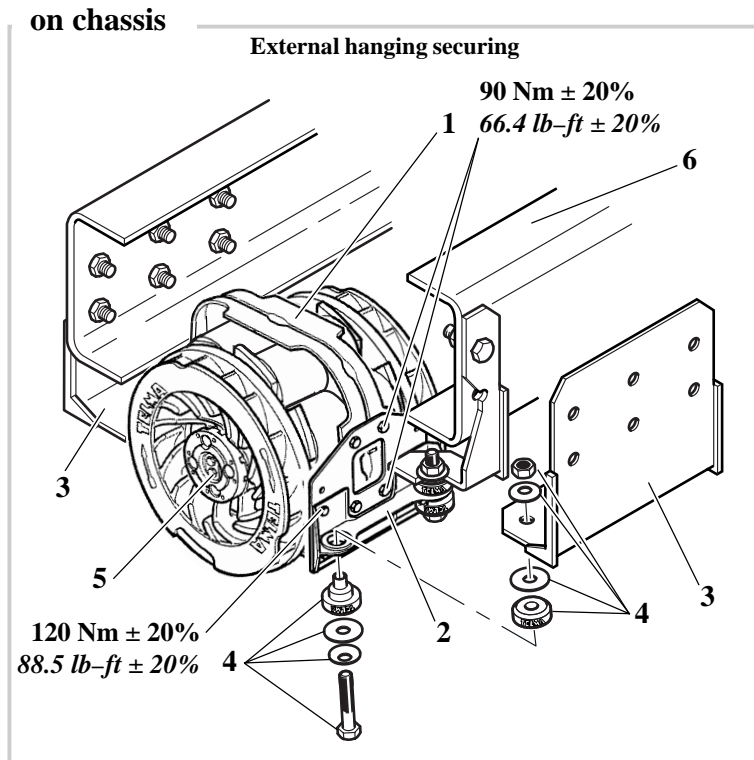
(at 20 °C (68 °F) according to control stage)

STAGE	1	2	3	4
CURRENT $\pm 5\%$ (A)	31.5	63	94.5	126

LAYOUT OF ONE STAGE



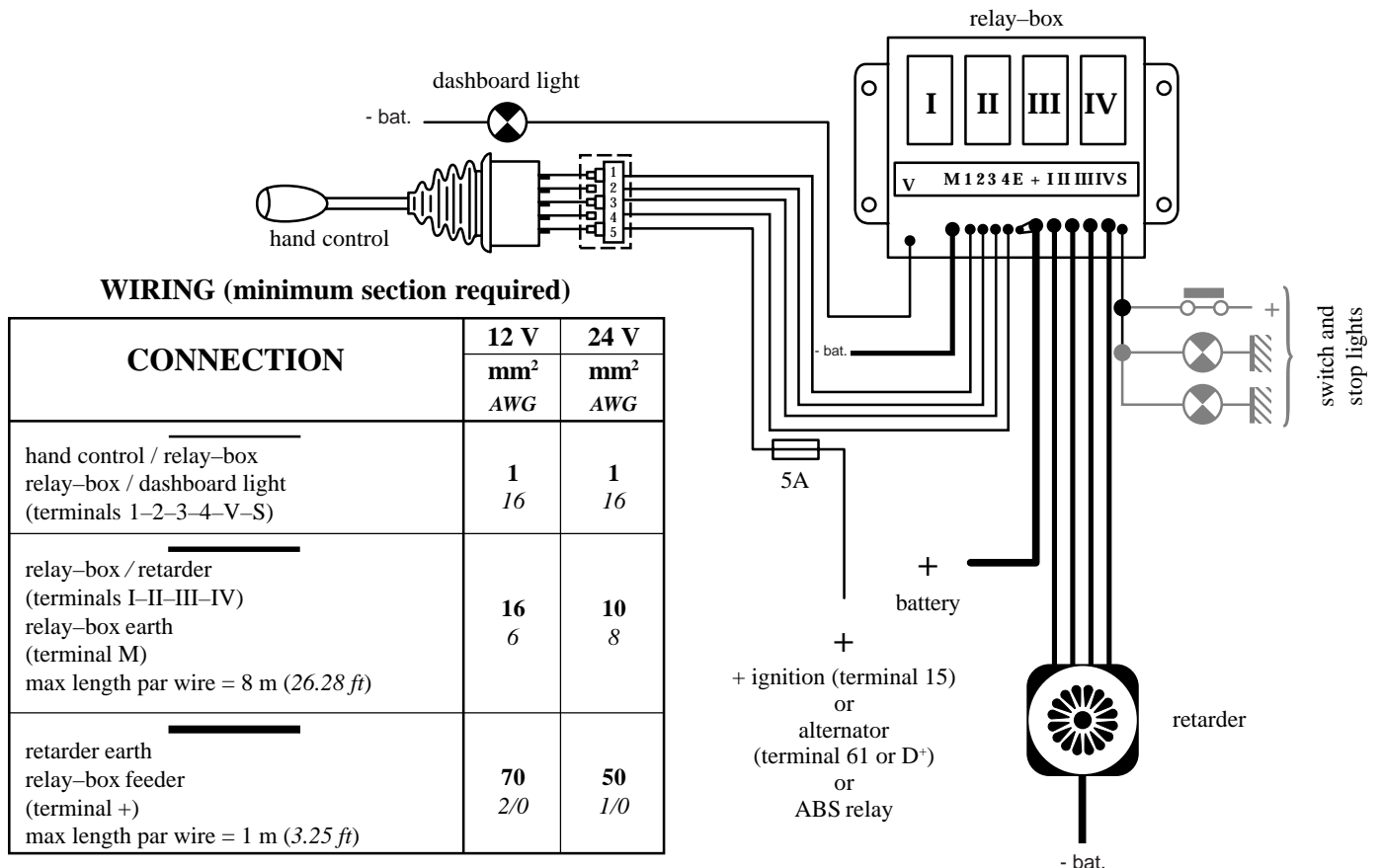
Fitting example



- 1 – Retarder
- 2 – Set of 2 side – plates
- 3 – Set of 2 consoles (JZ100743)
- 4 – Set of 4 rubber mounts with fasteners (230 Nm/169.6 lb-ft)
- 5 – Coupling flange
- 6 – Chassis

Wiring diagram (example with hand control)

Consult our Technical Department for automatic control and governing devices (ex. : ABS ...)



WIRING (minimum section required)

CONNECTION	12 V	24 V
	mm ² AWG	mm ² AWG
hand control / relay-box relay-box / dashboard light (terminals 1-2-3-4-V-S)	1 16	1 16
relay-box / retarder (terminals I-II-III-IV) relay-box earth (terminal M) max length par wire = 8 m (26.28 ft)	16 6	10 8
retarder earth relay-box feeder (terminal +) max length par wire = 1 m (3.25 ft)	70 2/0	50 1/0

NOTE : for longer lengths, please consult our Technical Department.

Telma

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