

## PRODUCT SUMMARY

# ALTERNATOR

## F TYPE UP TO 110A (RUGGEDISED)

The F type alternator has a specially wound stator to achieve high power output in a small, low weight package. High current diodes are used in the rectifier and internal fans provide forced air cooling. The output is controlled by a regulator inside the alternator. The units are assembled with stiff brush springs and extra flexible wire to connect the stator to the rectifier. The stator is pegged to the body and all screws are locked. High quality bearings are used to enable the alternators to run at high speeds (up to 18,000 rpm). The standard mounting method is intended for a belt drive, but the alternator may also be driven directly, if required.

Please request our installation datasheet for further details.



### ELECTRICAL

- Output voltage 13.5V DC
- Nominal output current
  - 110A (cut in speed 3000rpm)
  - 90A (cut in speed 2400rpm)
  - 60A (cut in speed 1700rpm)

A detailed performance chart is shown on the next page

### MECHANICAL

- Aluminium alloy body
- Maximum speed 18000rpm
- Clockwise rotation
- Weight <2.9kg
- Potted elastomer boot for strain relief of cable (where fitted)

For high vibration installations, the rectifier is strapped to provide improved mechanical support

Design and manufacture are in-house, so if our existing designs do not suit your application, we can provide cost effective customised parts to suit even the most demanding application.

For example:

- Through bored mounting holes
- High accuracy machining of mounting flanges
- Alternative cable entry locations
- Alternative connectors
- The regulator/rectifier unit may be rotated through 90°, 180° or 270°

Please contact our technical consultancy service who will be pleased to help.

### CONNECTION DEFINITION

- 22AWG un-screened cable (where fitted). Cable length is shown on the order details, but any length is available on request
- Various automotive and military standard connectors are available
- Positive power output M8 stud (B+ terminal)
- Ground connection for power and regulator is through the case. Ensure that the case has a high current, low resistance connection to vehicle ground.
- Cable connection:
 

Pin 1	Green	Ignition
Pin 2	Red	Sense
Pin3	White	Lamp
- Connections for the integral connector (where fitted) are shown on the drawings
- Single connection details: Ignition and Sense connections for the single connection alternators are through the power output stud (B+ terminal)

### ENVIRONMENTAL

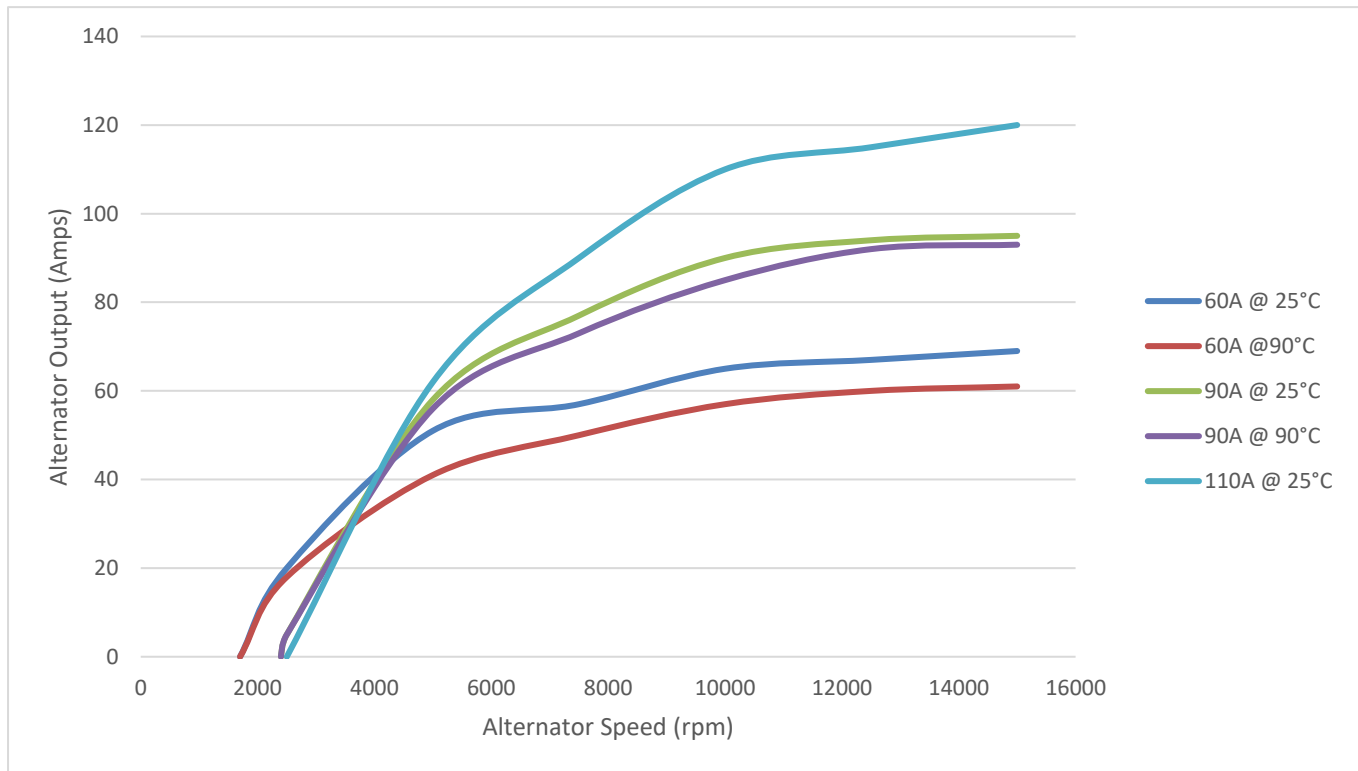
- Splash resistant to standard motorsport fluids
- Viton jacketed cable
- Continuous ambient operating temperature -30 to +90°C
- Maximum ambient temperature 110°C short term, providing the following temperatures are not exceeded:
 

Stator	200°C
Diodes	180°C
Regulator	115°C
Bearings	150°C

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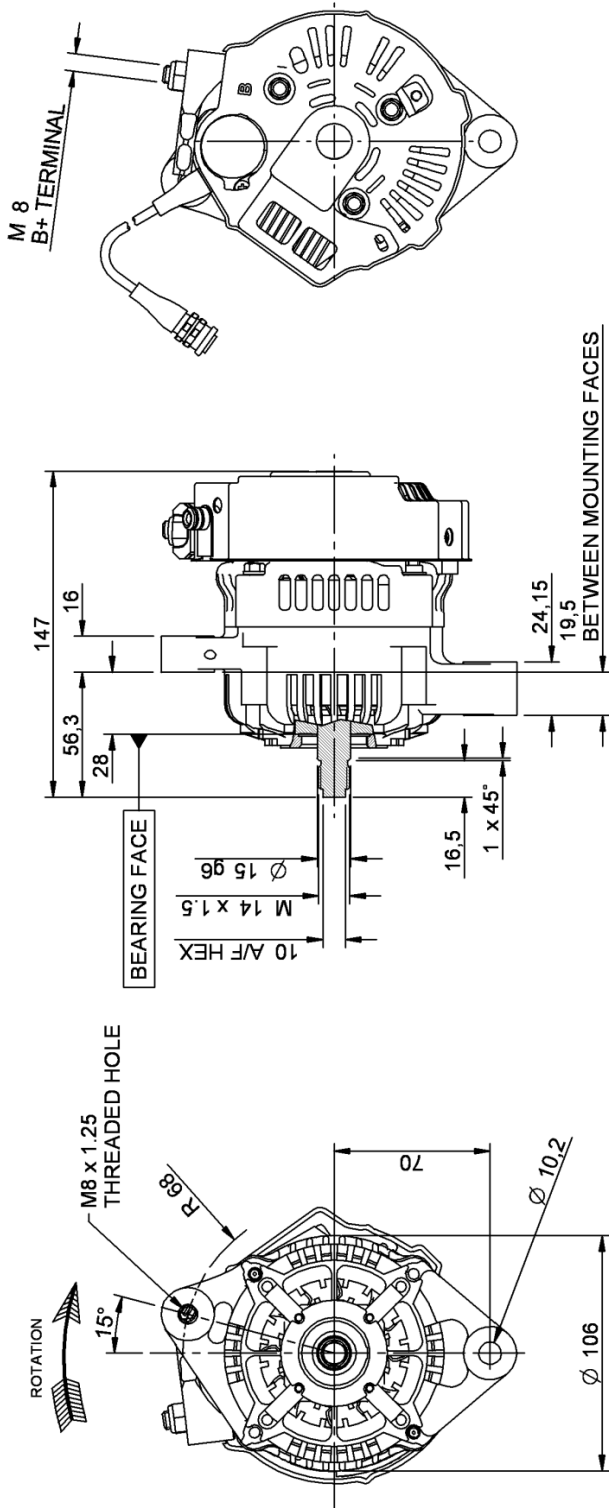
Output in Amps (@13.5V)								
Nominal Current Rating		40A		60A		90A		110A
Cut in Speed		1200rpm		1700rpm		2400rpm		3000rpm
Ambient Temperature		25°C	90°C	25°C	90°C	25°C	90°C	25°C
Speed (rpm)	2500	24	18	20	18	5	5	0
	5000	37	30	51	41	58	56	62
	7500	42	35	57	50	77	73	90
	10000	45	38	65	57	90	85	110
	12500	47	39	67	60	94	92	115
	15000	48	40	69	61	95	93	120

McLaren Applied can service and repair alternators.  
Please contact our technical consultancy service for more information.

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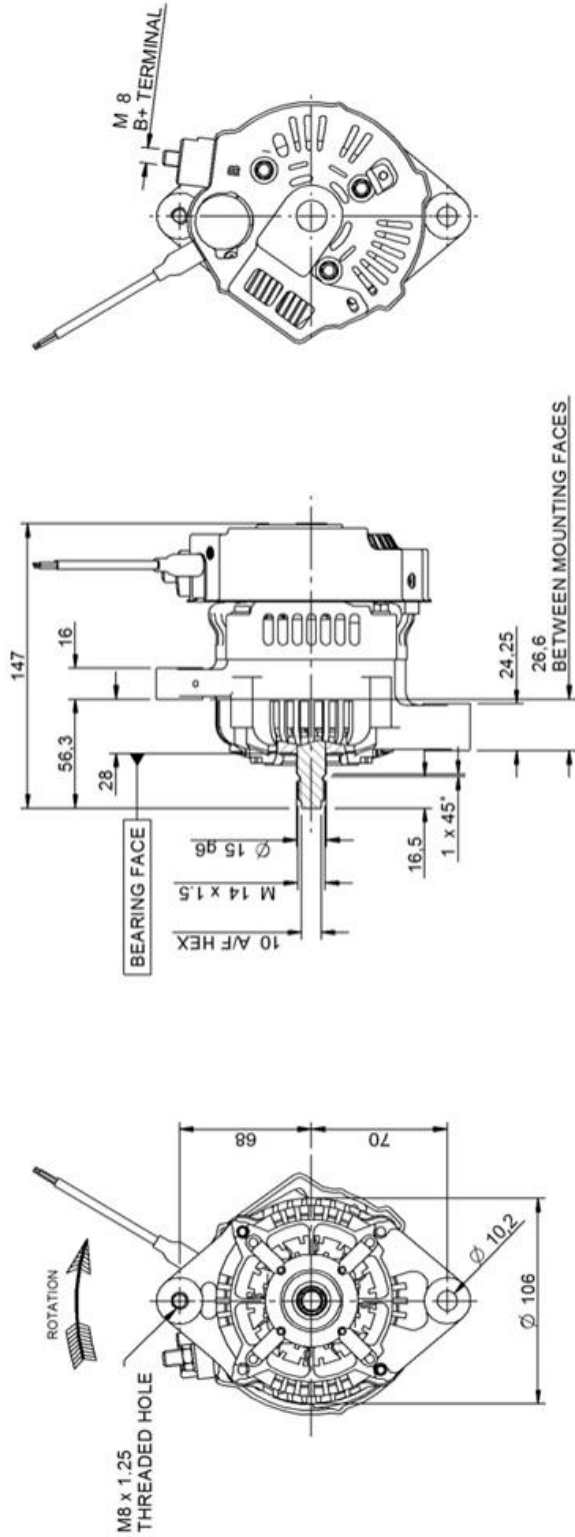


Output	90A	Connector	None	Order code	0 030 650 003 038
Cable Length	500mm				

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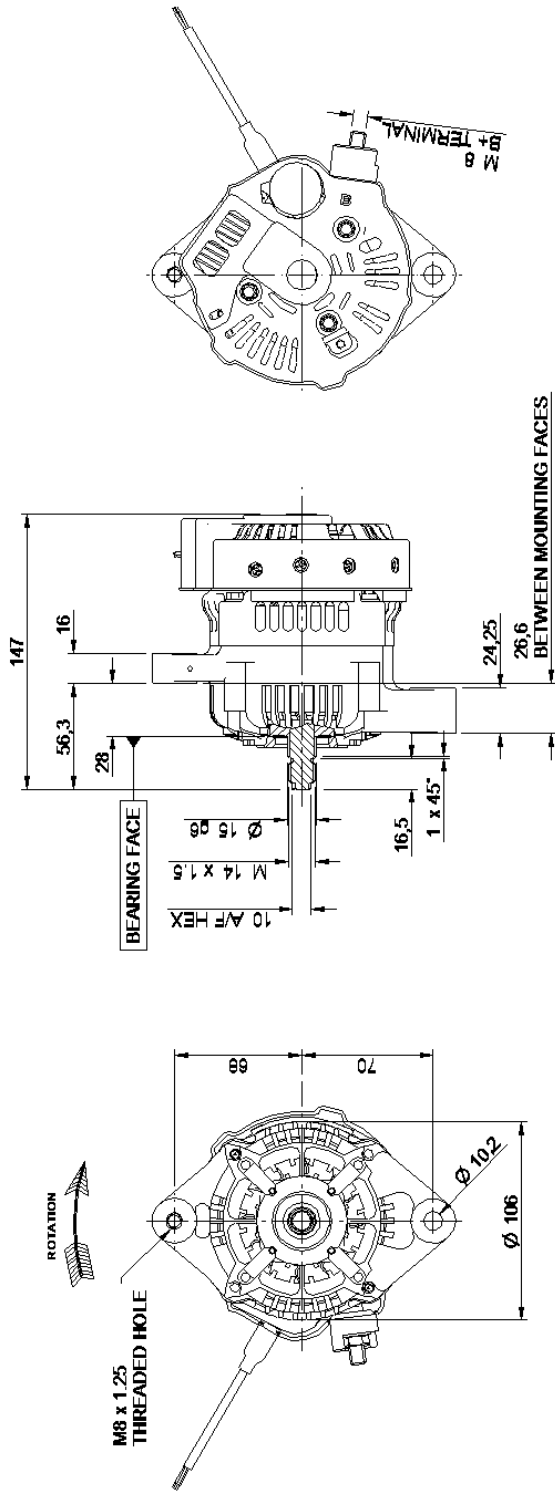


Output	Cable length	Connector	Order code
110A	600mm	None	O 030 650 003 056

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Output	110A	Cable length	600mm	Connector	None	Order code	O 030 650 003 064
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For more information contact:

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