



Specification

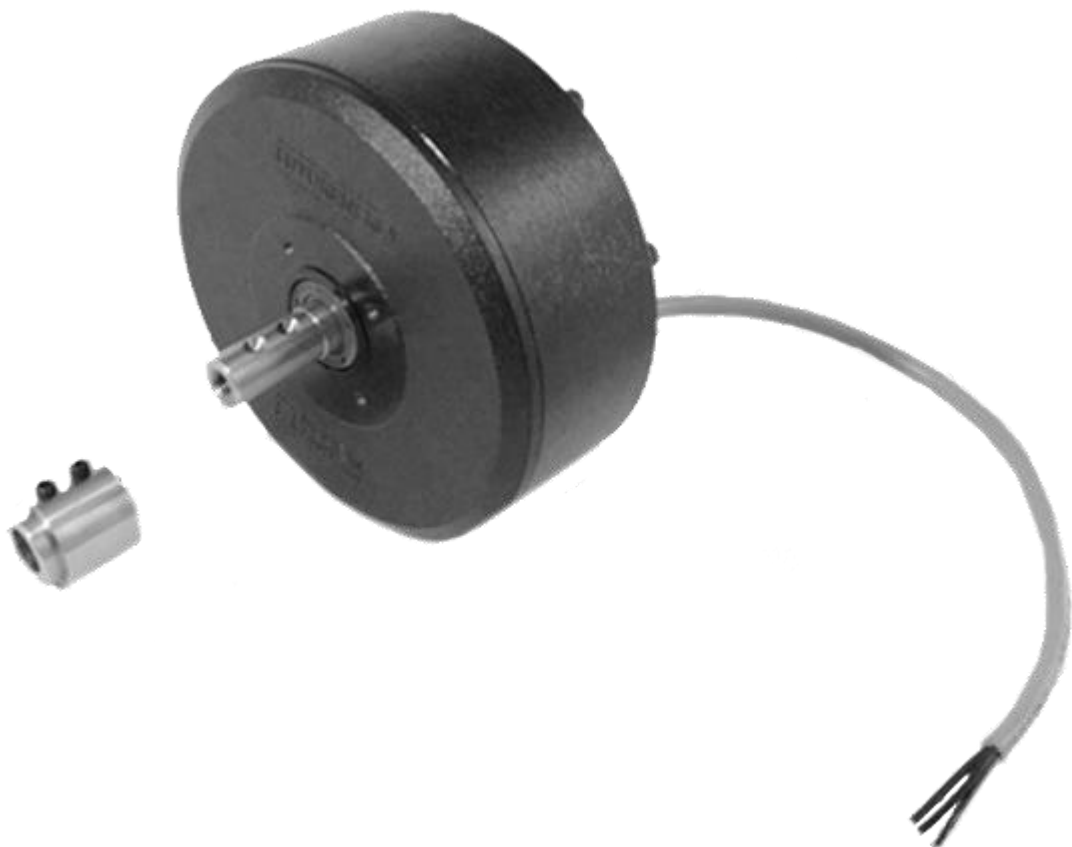
Futureenergy, 24V 1kW Permanent Magnet Generator

Prepared By

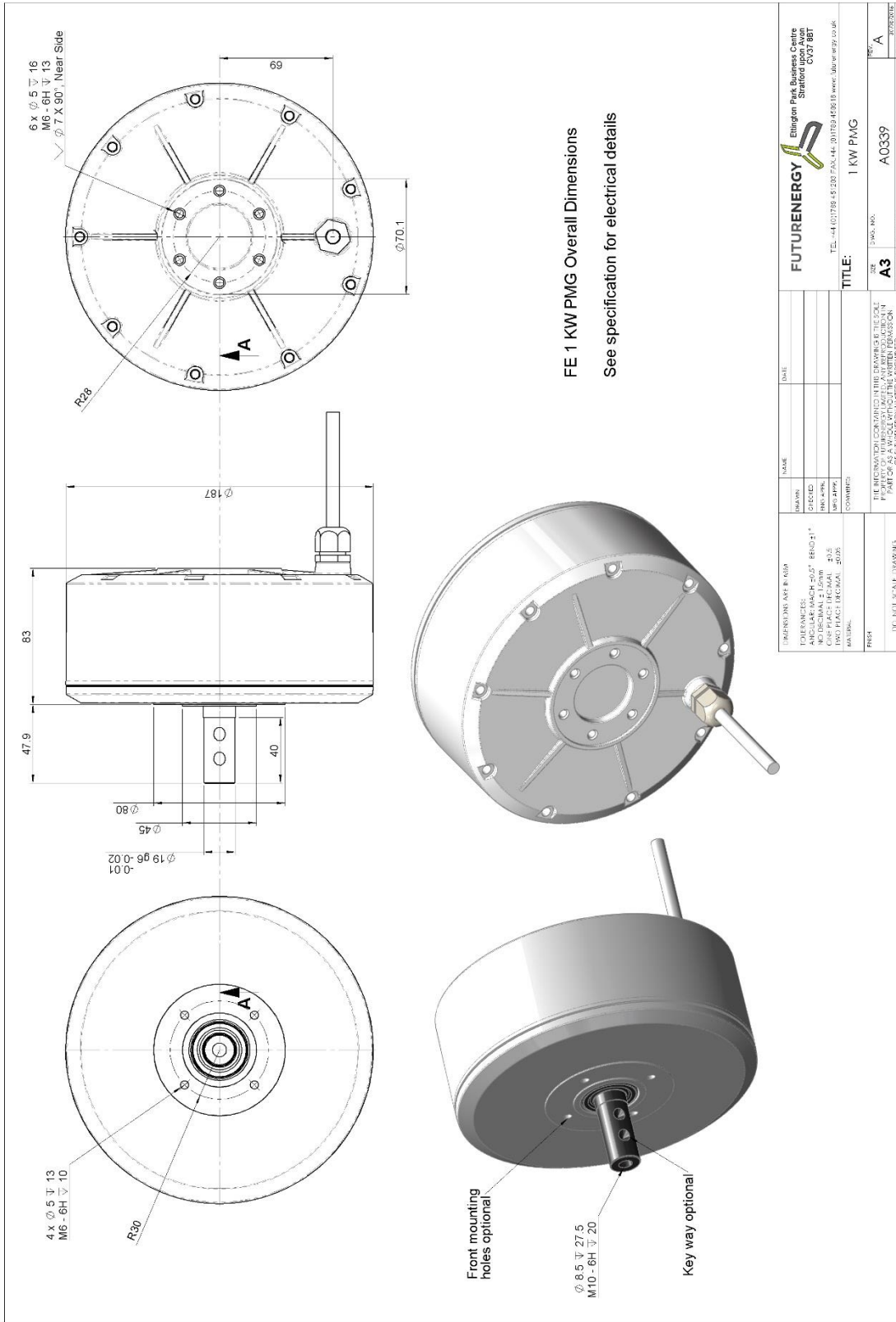
D Nangle, Sept 2016

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Dimensions



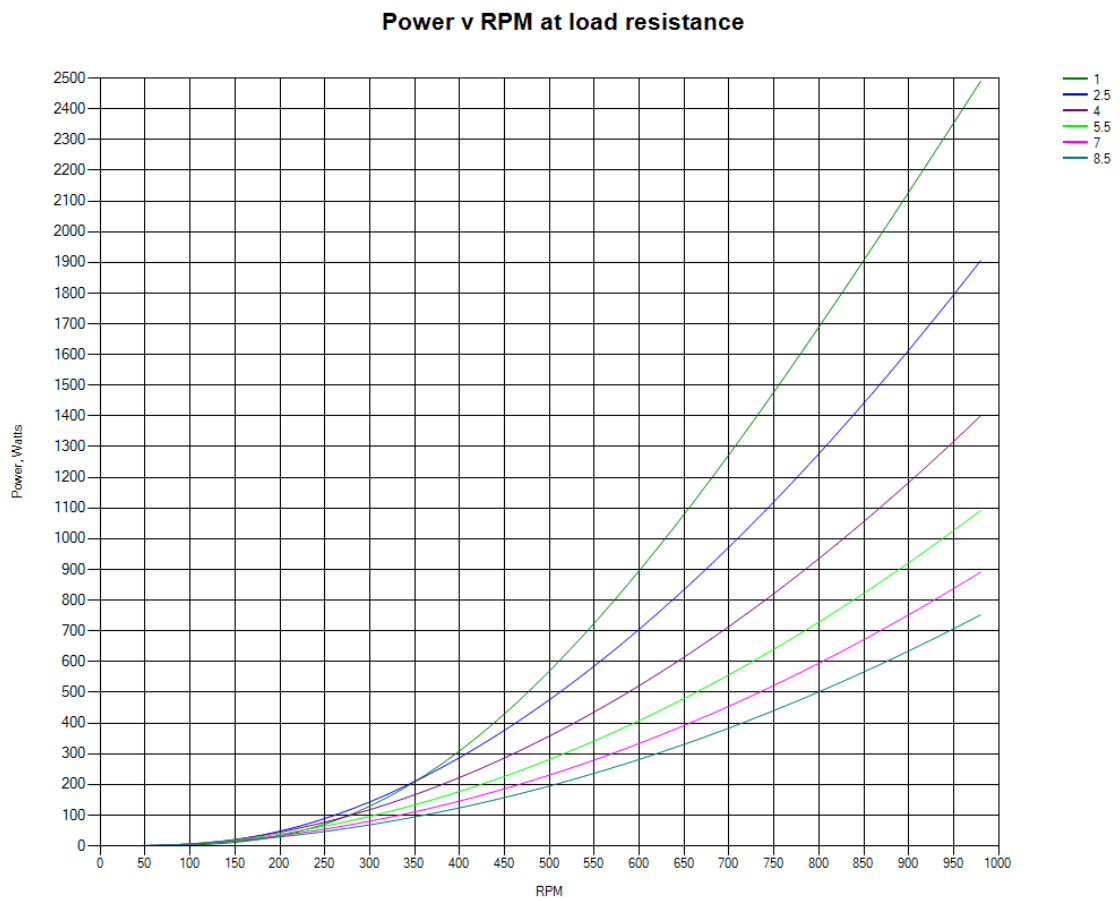
Specification

Nominal Rated Power	1 kW
Nominal RPM	750 RPM
Line / Line RMS Open Voltage	48V (24V DC @ 300 RPM)*
Nominal Line Current	16 Amps**
Configuration	3 Phase, Star wound AC output
Line / Line Winding Resistance	0.4 Ohms
Nominal Self Inductance	0.4168 mH
Maximum Over-Load Power	1.5 kW
Efficiency	92 %
Maximum Cogging Torque (Excluding Shaft Seals)	< 0.5 Nm
Duty @ Nominal Power	100%
Insulation Class	H
Mounting	Any
Shaft Material	Stainless Steel
Magnet Material	NdFeB
Shell Material	LM25 Aluminium
Protection	IP54
Poles	12
Winding code	P123-T14-W1.5

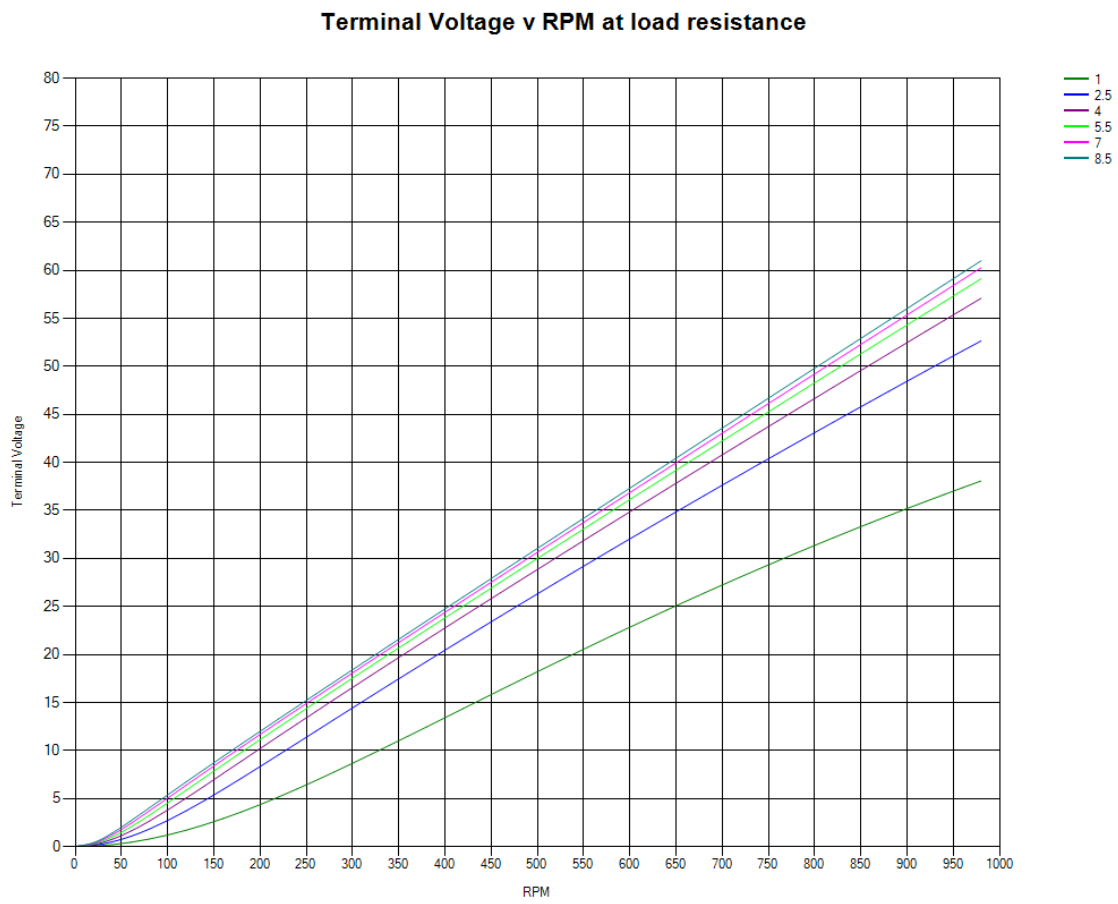
* DC Voltage requires an additional bridge rectifier

** Voltage and current will depend on connected electrical system. For example; a system charging 24V battery bank will reduce generator voltage to the battery charge voltage and increase current. Values quoted assume fixed resistance loads.

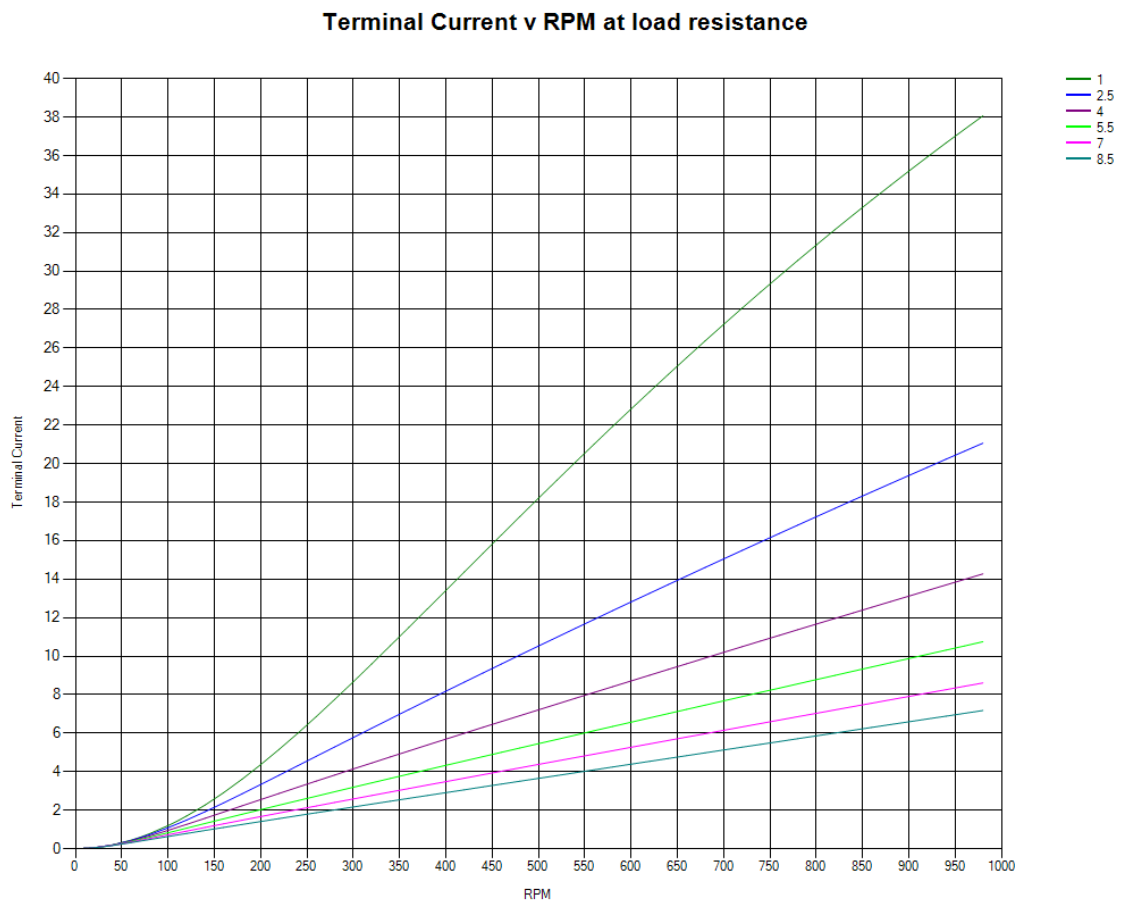
Graph: Power vs RPM @ Load Resistances (Ω)



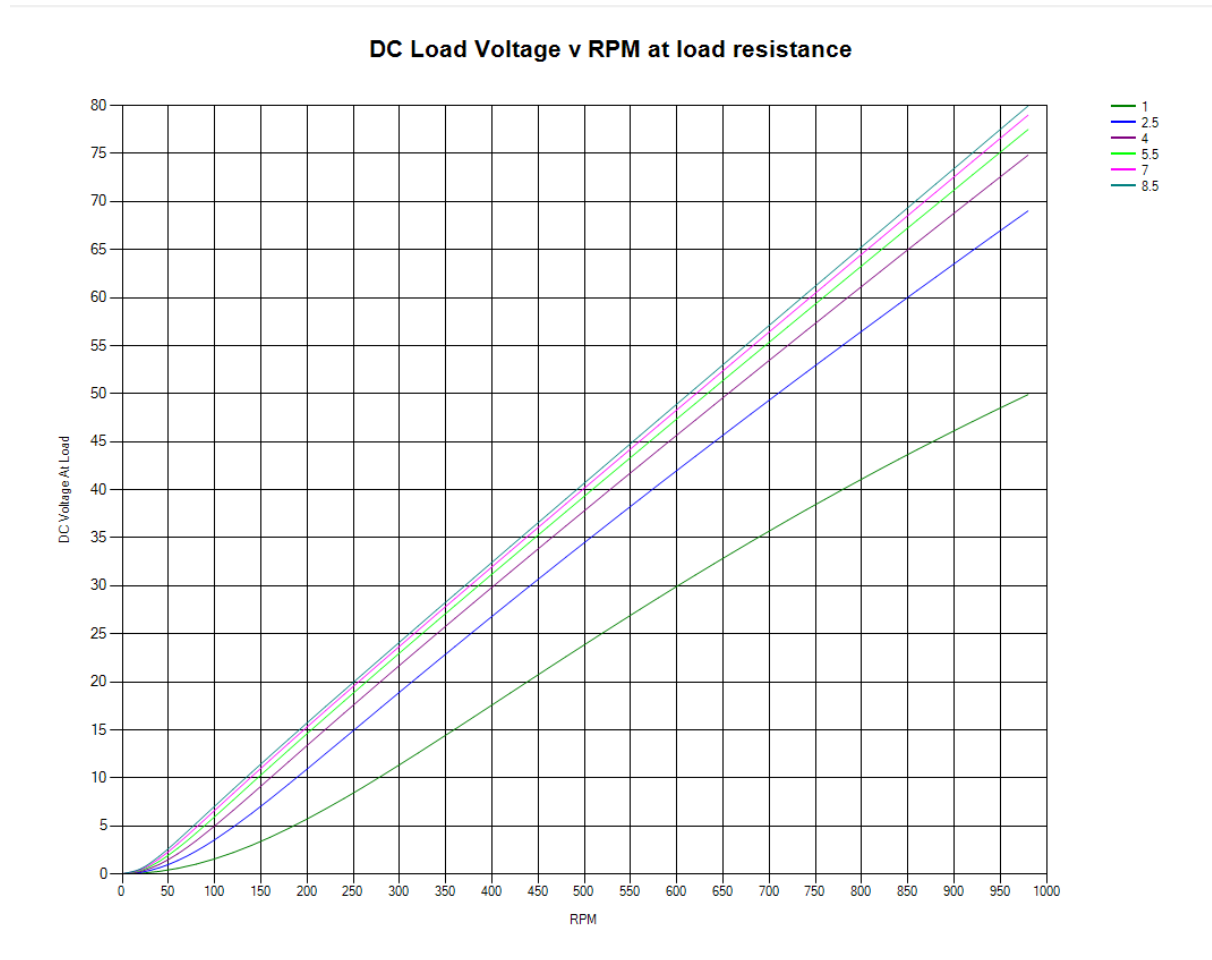
Graph: Terminal Voltage vs RPM @ Load Resistances



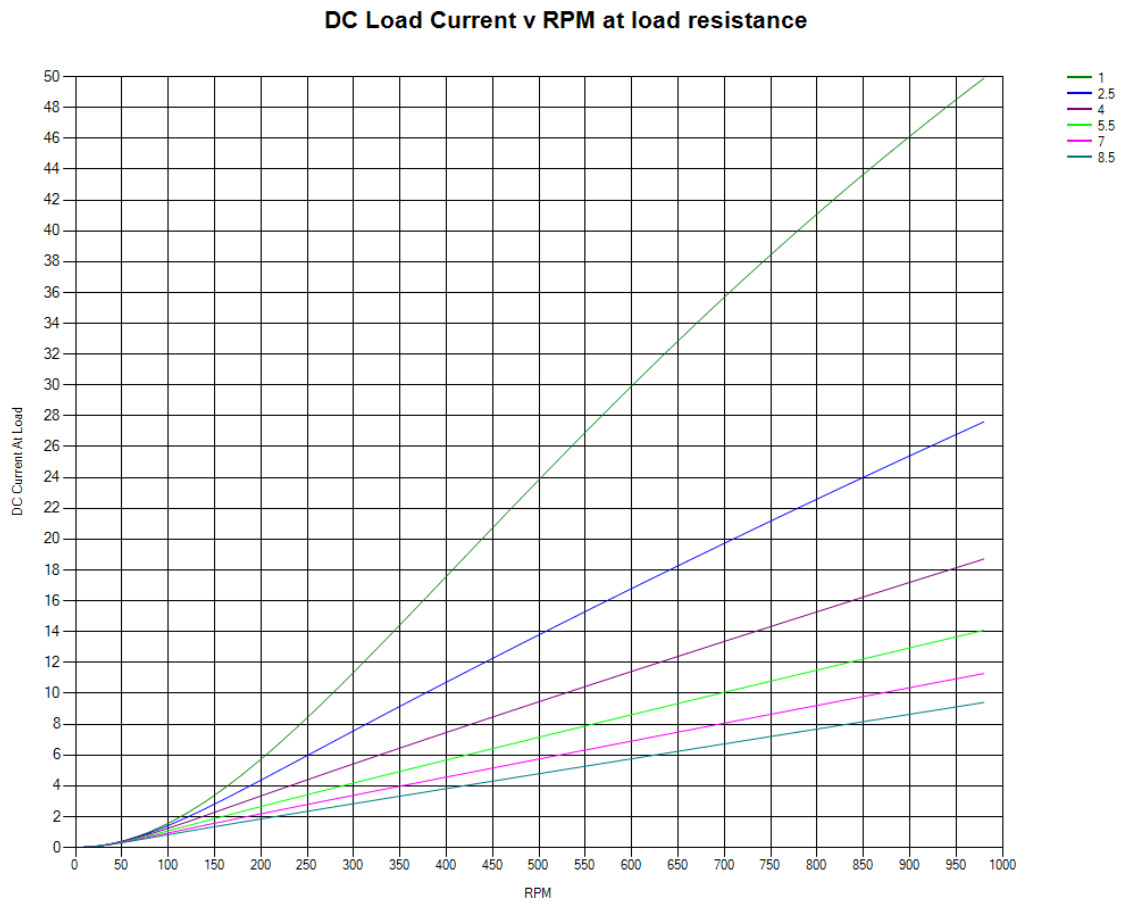
Graph: Terminal Current vs RPM @ Load Resistances



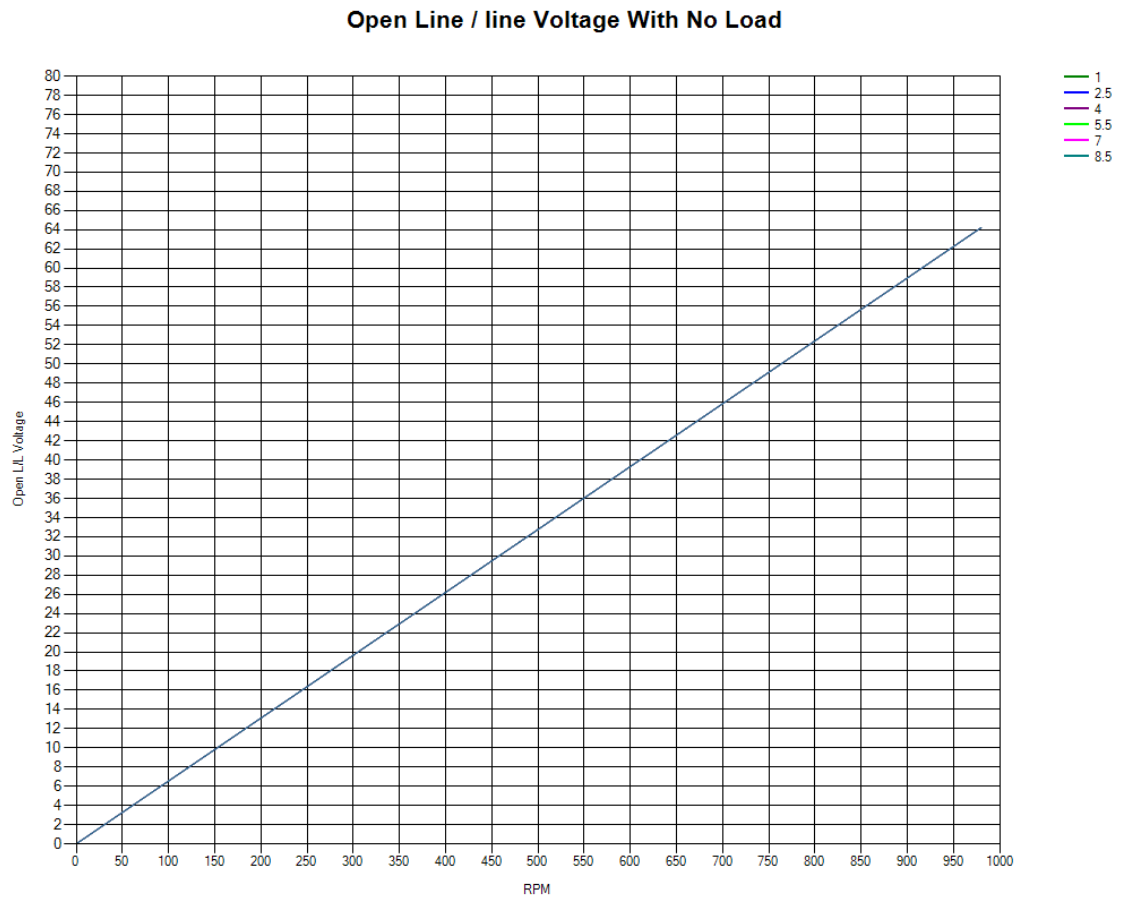
Graph: DC Load Voltage vs RPM @ Load Resistances



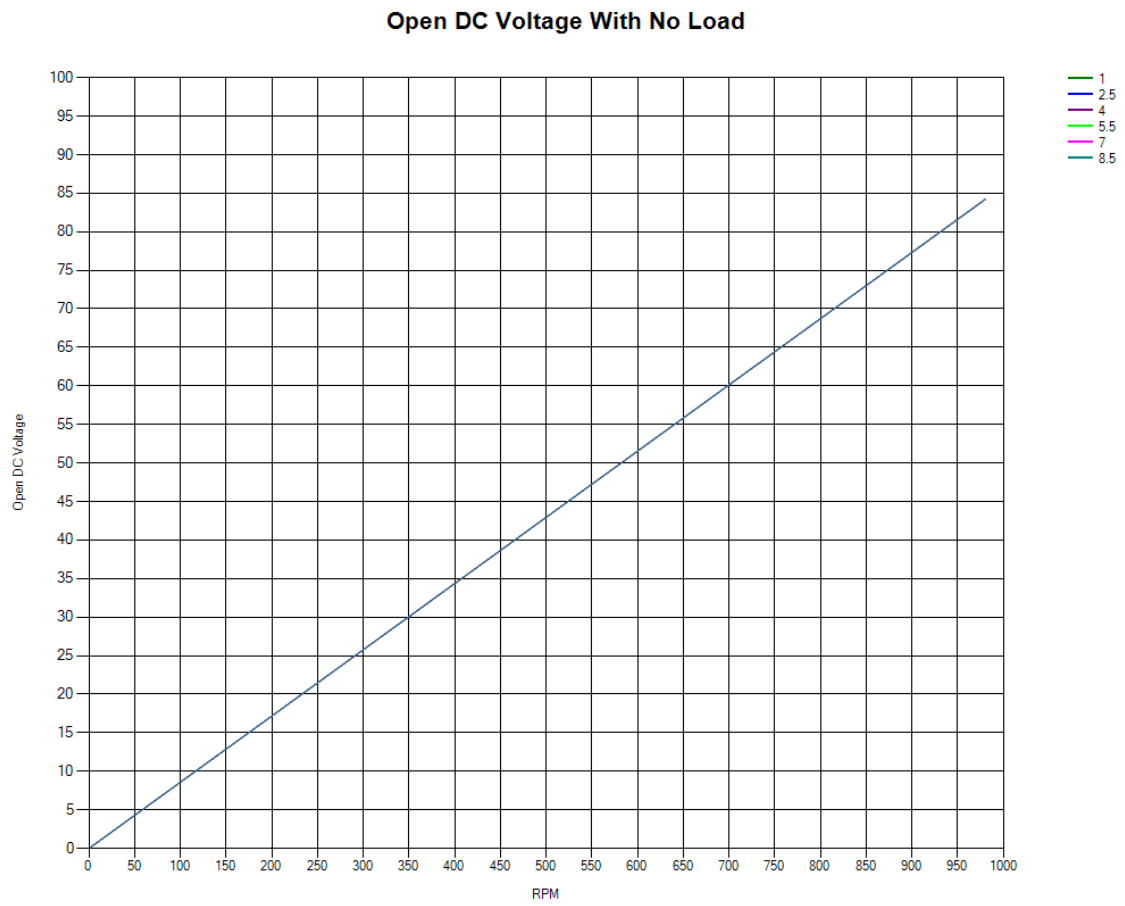
Graph: DC Load Current vs RPM @ Load Resistances



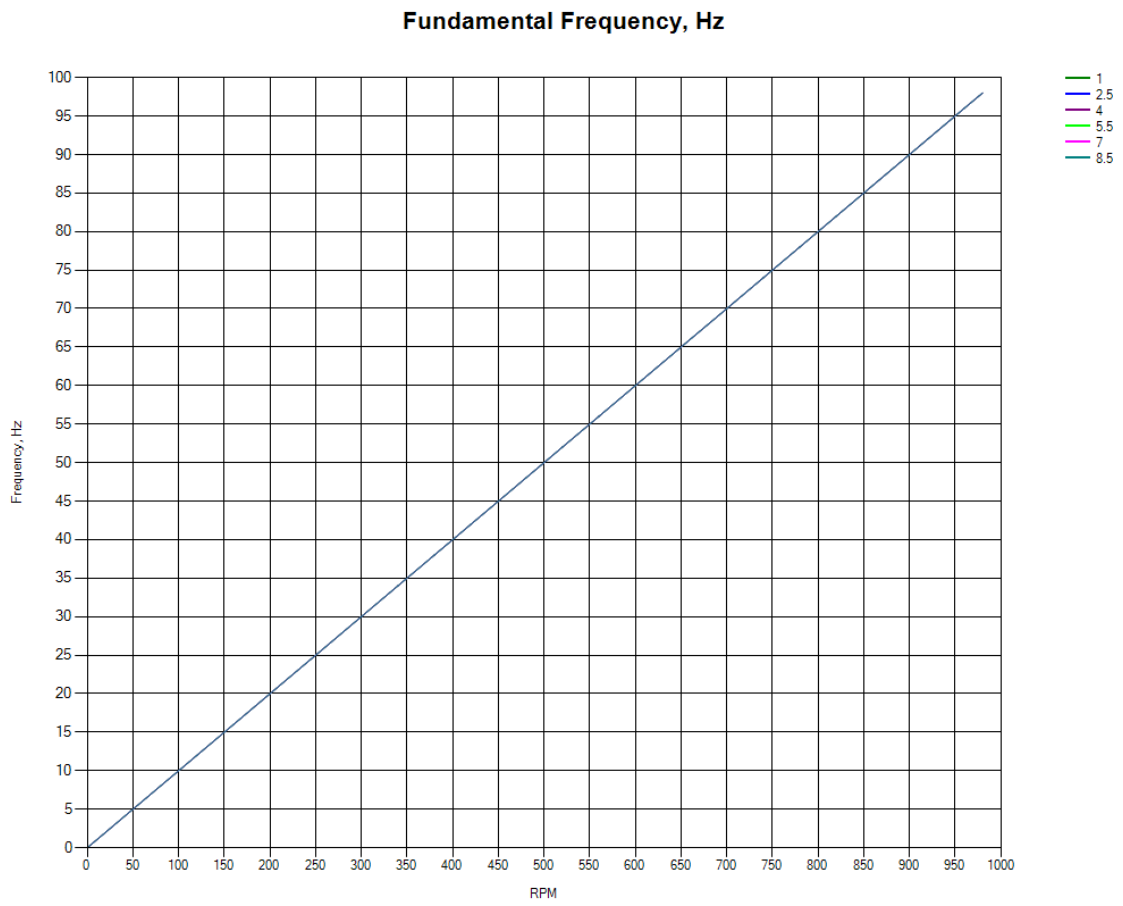
Graph: Open RMS L/L Voltage vs RPM



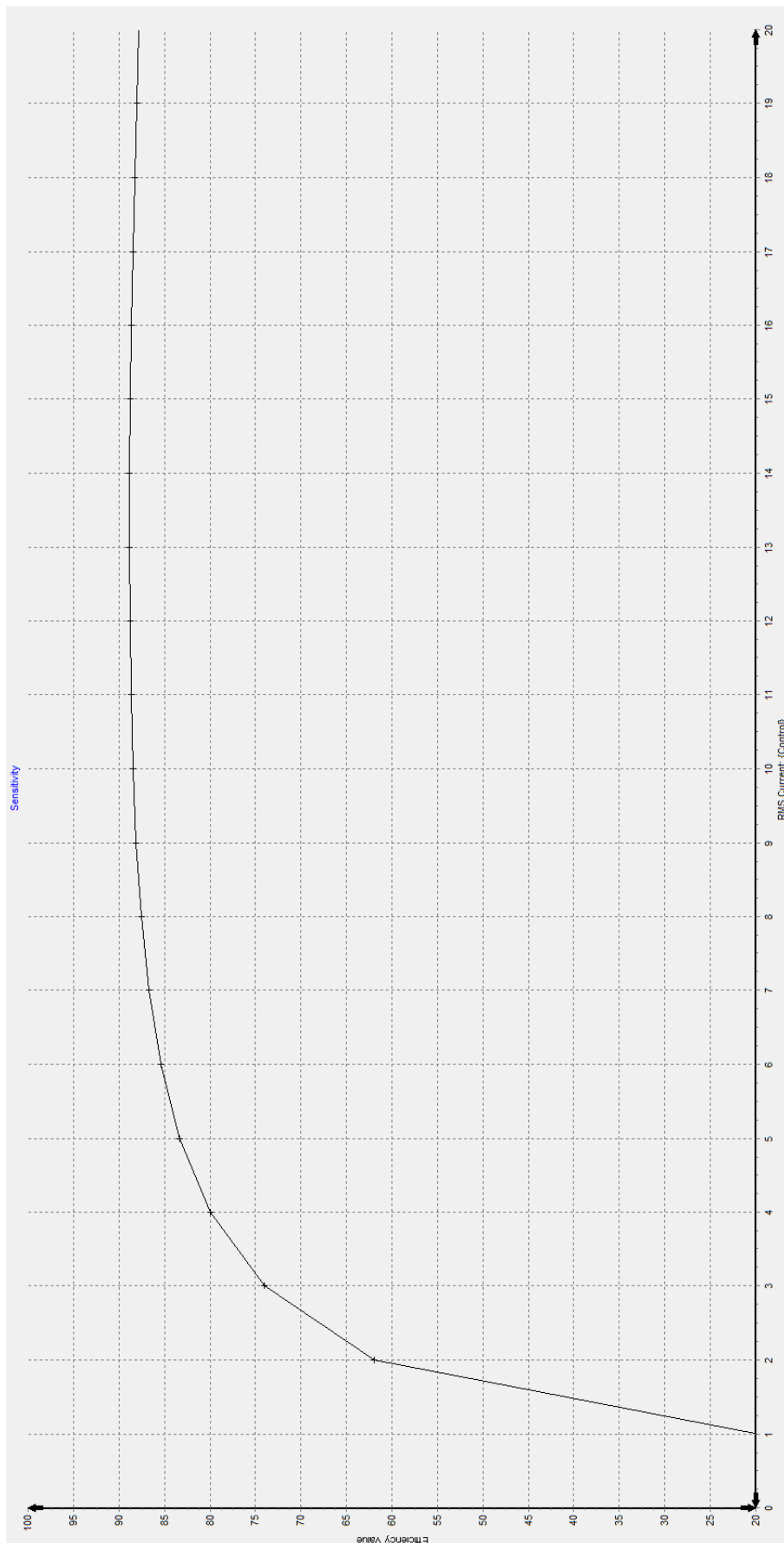
Graph: Open DC Voltage vs RPM



Graph: Fundamental Frequency vs RPM



Graph: Efficiency vs Current @ 750 RPM Constant



Graph: Cogging Torque

