

POWER CONVERTERS

ABSTRACT

5 The present invention is a power converter for interfacing a motor that requires a
variable voltage at variable frequency to a supply network (bus) providing a
nominally fixed voltage and nominally fixed frequency. It includes a first and second
active rectifier/inverters both of which include a plurality of semiconductor power
switching devices, a first controller using a dc link voltage demand signal indicative
10 of a desired dc link voltage to control the semiconductor powered devices of the first
active rectifier/inverter, and a second controller using a power demand signal
indicative of the level of power to be transferred and a voltage demand signal
indicative of the voltage to be achieved to control the semiconductor powered devices
of the second active rectifier/inverter to achieve the desired levels of power and
15 voltage that correspond to the power and voltage demand signals. The power
converter can be employed in a marine propulsion system.

Figure 1