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5. A circuit as claimed in claim ~~2, 3 or 4~~ ^{2 to 12} in which the modulator is a pulse width modulator operable to produce a pulse width modulated output signal.
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5 6. A circuit as claimed in claim ~~3 or 4~~ ^{3 to 7} in which the control means are operable to control the current shaping means to vary the modulation of the output signal to provide a relatively smooth transition in the corner period between the current in the active period and the current in the ramp period.
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7. A circuit as claimed in any of claims ~~1 to 6~~ ^{3 or 4} in which the control means comprise a look-up table storing a current curve profile for the current shaping means in response to inputs, including at least one of the speed of and load on the machine.
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8. A circuit as claimed in any of claims ~~1 to 6~~ ^{3 or 4} in which the control means include processor means operable to compute a current curve profile for the current shaping means in response to inputs, including at least one of the speed of and load on the machine.
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9. A circuit as claimed in claim ~~7 or 8~~ ^{3 to 9} in which the current shaping means include a counter, the control means being arranged to supply a count rate signal to the counter to set the counter count rate, and a signal indicative of the modulated output signal in the active phase, the output of the counter corresponding to the current curve profile in a period determined by the magnitude of the modulated output signal.
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10. A circuit as claimed in claim ~~9~~ ¹⁰ in which the control means are operable to disable the counter during the

active period

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11. A circuit as claimed in claim ¹⁰ ~~9~~ or ¹¹ ~~10~~, including
timing means responsive to trailing edges of the pulse
width modulated output signal to enable the counter.
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12. A circuit as claimed in any of claims ³ ~~1~~ to ⁶ ~~11~~,
including a multiplexer operable to derive the output
signal from the current shaping means and to disable the
output signal from the modulator at the end of the active
period.
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13. A circuit as claimed in any of claims ³ ~~1~~ to ¹³ ~~11~~,
including a comparator, the control means being operable
to generate an end signal, indicative of the pulse width
modulated output signal, corresponding to the end of the
corner period, the comparator being arranged to receive
the output of the counter and the end signal and to
transmit an end curve signal to remove the energising
voltage applied across the winding at the end of the
curve.
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14. A circuit as claimed in any of claims ³ ~~1~~ to ⁷ ~~13~~ in
which the control means are operable to determine the
start of the active period and to enable the current
shaping means to vary the modulation of the output signal
at the beginning of the active period such that the
current in the winding is increased according to a curve
determined by the control means before a peak current is
reached to provide a relatively smooth transition between
the rising current at the start of the active period and
the peak current.