

EXPLANATION OF ENERGY USED BY THE SUPERMEC AND THE LOW PIT & HEADROOM HYDRAULIC EQUIVALENT

	SUPERMEC		HYDRAULIC EQUIVALENT	
drive	traction	traction	hydraulic	Hydraulic
no of passengers in cabin	3 avg	7 max	3 avg	7 max
speed	0.3 m/s	0.3 m/s	0.3 m/s	0.3 m/s
maximum load capacity	480kg	480kg	480kg	480kg
power for motor (Volt)	48	48	415	415
amps drawn for passengers	6	80	50	55
phases required for speed	1	1	3	3
power calculation formula	P= phases x A x V x Cos A		P= phases x A x V x Cos A	
	= 1 x 6 x 48 x .9	= 1 x 80 x 48 x .9	= √3 x 50 x 415 x .9	= √3 x 55 x 415 x .9
total watts used	259	3,456	32,346	35,581
FOR THE UP DIRECTIONS	259	3,456	32,346	35,581
explanation	system in balance not much amps required	system lifting maximum weight so much more amps required	system lifting nominal weight	system lifting maximum weight but relative increase in amps is not substantial
FOR THE DOWN DIRECTIONS	259	259	nil	nil
	system in balance not much amps required	system lowering maximum weight in up so only braking power required	as only braking required, lets give it the benefit and assume nil	as only braking required, lets give it the benefit and assume nil
SUM TOTAL WATTS IN UP + DOWN DIRECTION	518	3,715	32,346	35,581
Supermec relative to Hydraulic Equivalent	with 3 passengers		518 to 32346	2%
	with 7 passengers		3715 to 35581	10%
Therefore we conclude that it uses 10% of the power or approximately 90% less energy				
In actual testing you may have some friction resistance on the rails and slightly different loads.				
Accordingly, we explain our claim of 87% less energy/				