Subject: core geometries and materials
Posted by MQracing on Wed, 21 Dec 2005 13:20:01 GMT
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::::Let's look at what is in your catalog....looks like EI to me::::We stock a wide range of shapes and styles of core materials includingEE, UI, EI, F, L, single c-core and double c-core.Our inventory of core materials includes (but is not limited to) low nickel, high nickel, M6, M4, M3, M2, hi b, cobalt, etc.c-cores aren't magic... they're just another shape with their own range of pluses and minuses. From an economic point of view... they are often less expensive to build with than EI's... for that reason... some of our entry level transformers (where the labor costs of building with EI's is too high) may soon be built on c-cores. For example we have one prototype that has traditionally been built on an EI 100 by 1.25" stack... with the high labor costs of assembling the EI's, bolting them together for waxing, waxing them, cleaning them, taking the hardware out and cleaning it, cleaning the covers, painting the covers, and then installing the covers and putting the hardware back in... we've used up a ton of expensive north american labor. If we switch to a c-core... we put the two half c's together (they are already 'stacked') we place it on a mounting plate, we band it, impregnate it and ship it... much less expenditure of labor.No covers, no processing of covers, no painting of covers, no need for expensive brass hardware, no need to clean and reinstall this hardware, no cleaning of the lams and painting of the lams... it's huge labor savings to use c-cores...So even though the raw "unassembled" cost of the EI's in this 100 by 1 1/4" stack is less costly as a raw material... the assembled, ready to use c-core which may cost as much as 10 times the cost of the unassembled EI's... once you factor in all the labor components the c-core often comes out being the less expensive option to build on.And... one other point of potential interest... if we factor in craftsmanship... it takes a lot more skill to assemble a good quality stack using EI's than it takes to band together two halves of a c-core. But... as illustrated in the example above... when "keeping the cost low" is not the prinicpal driving force in a particular design... then the EI lamination shape still offers superior performance in many applications. msl