



MarelliMotori
Inspired solutions

TECHNICAL DATASHEET

THREE-PHASE SYNCHRONOUS GENERATOR

Our Reference -

Date 15/07/2019

Customer Interact

Rev. -

GENERATORE TIPO - GENERATOR TYPE		MJB 400 LB4				
CLASSE DI SOVRATEMPERATURA - TEMPERATURE RISE CLASS		B				
CLASSE DI ISOLAMENTO - INSULATION CLASS		H				
FORMA COSTRUTTIVA - MOUNTING		B20				
TEMPERATURA AMBIENTE - AMBIENT TEMPERATURE	°C	40				
ALTITUDINE - ALTITUDE	m	1000				
PROTEZIONE - PROTECTION DEGREE	IP	IP23				
SISTEMA DI RAFFREDDAMENTO - COOLING SYSTEM	IC	IC01				
FATTORE DI POTENZA - POWER FACTOR		0.80				
NUMERO DI POLI - NUMBER OF POLES		4				
VELOCITA' NOMINALE - RATED SPEED	rpm	1500				
SOVRAVELOCITA' - OVERSPEED	rpm	2250				
NUMERO DI TERMINALI - NUMBER OF TERMINALS		6				
PASSO DI AVVOLGIMENTO - WINDING PITCH		2/3 - Random Wound				
RESISTENZA STATORICA @20°C - STATOR RESISTANCE @20°C	mΩ	1.24				
PESO - WEIGHT	kg	Approx. 2800				
MOMENTO D'INERZIA - INERTIA (J)	kgm ²	Approx. 22.5				
TEMPERATURA ACQUA RAFFREDDAMENTO - COOLING WATER TEMPERATURE	°C	not applicable				
PORTATA DACQUA - WATER FLOW RATE	m ³ /h	not applicable				
CADUTA DI PRESSIONE - PRESSURE DROP	kPa	not applicable				
AUMENTO TEMPERATURA ACQUA - WATER TEMPERATURE INCREASE	°C	not applicable				
TA DI CENTRO STELLA - NEUTRAL POINT CURRENT TRANSFORMER		-				
CUSCINETTI - BEARINGS		ANTI-FRICTION				
FREQUENZA - FREQUENCY	Hz	50				
TENSIONE - VOLTAGE	V	415				
CORRENTE NOMINALE - RATED CURRENT	A	1446.9				
POTENZA - RATING	kVA	1040				
PERCENTUALE DI CARICO - PARTIAL LOAD DATA		%	100	75	50	25
RENDIMENTO - EFFICIENCY	P.F. = 1	%	96.7	97.0	96.6	94.9
	P.F. = 0.80	%	95.9	96.1	95.7	94.0
Rapporto di corto circuito - short circuit ratio	SCR	0.63				
			UNS	SAT		
REATTANZA - REACTANCE (%)	sincrona diretta - synchronous direct axis	Xd	186	160		
	sincrona in quadratura - synchr. quadrature axis	Xq	103	89		
	transitoria diretta - transient direct axis	X'd	19.4	16.7		
	transitoria in quadratura - transient quadrature axis	X'q	103	89		
	subtransitoria diretta - subtransient direct axis	X''d	8.1	7.0		
	subtransitoria in quad. - subtransient quadr. axis	X''q	8.5	7.3		
	d _i sequenza negativa - negative sequence	X ₂	8.2	7.1		
	d _i sequenza zero - zero sequence	X ₀	1.8	1.6		
COSTANTI DI TEMPO - TIME CONSTANTS (s)	a vuoto - open circuit	T'do	2.490			
	transitoria - transient	T'd	0.220			
	subtransitoria - subtransient	T''d	0.010			
	unidirezionale - armature	T _a = T _{dc}	0.022			
COPPIA DI CORTO CIRCUITO DI BIFASE - PHASE TO PHASE SHORT CIRCUIT TORQUE	kNm	142.7				
COPPIA DI CORTO CIRCUITO DI TRIFASE - THREE PHASE SHORT CIRCUIT TORQUE	kNm	95.1				

PRELIMINARY



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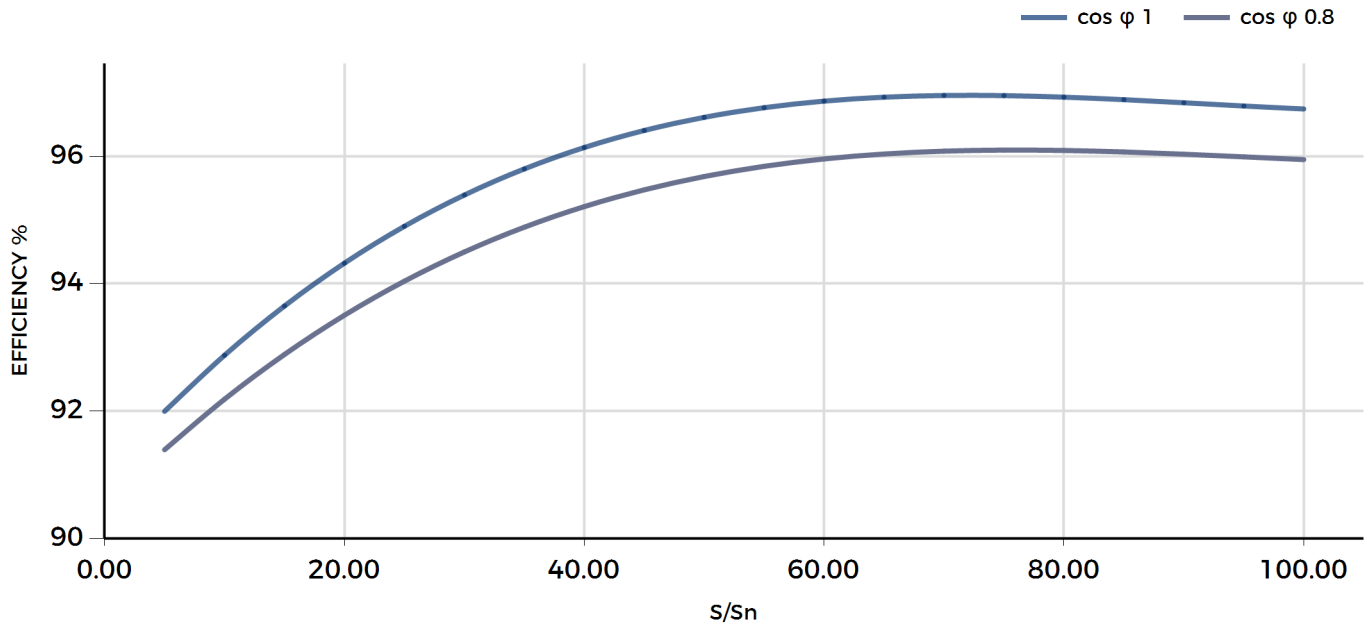
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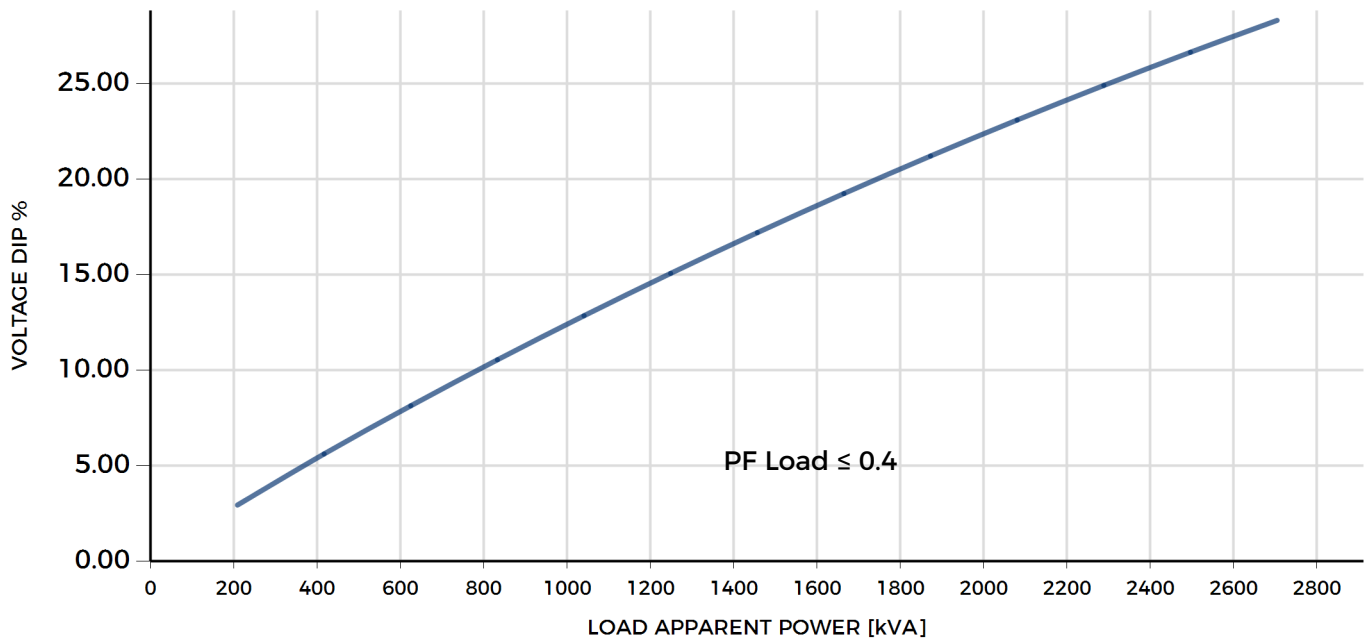
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CURVA DI RENDIMENTO - EFFICIENCY CURVE



CADUTA DI TENSIONE - VOLTAGE DIP





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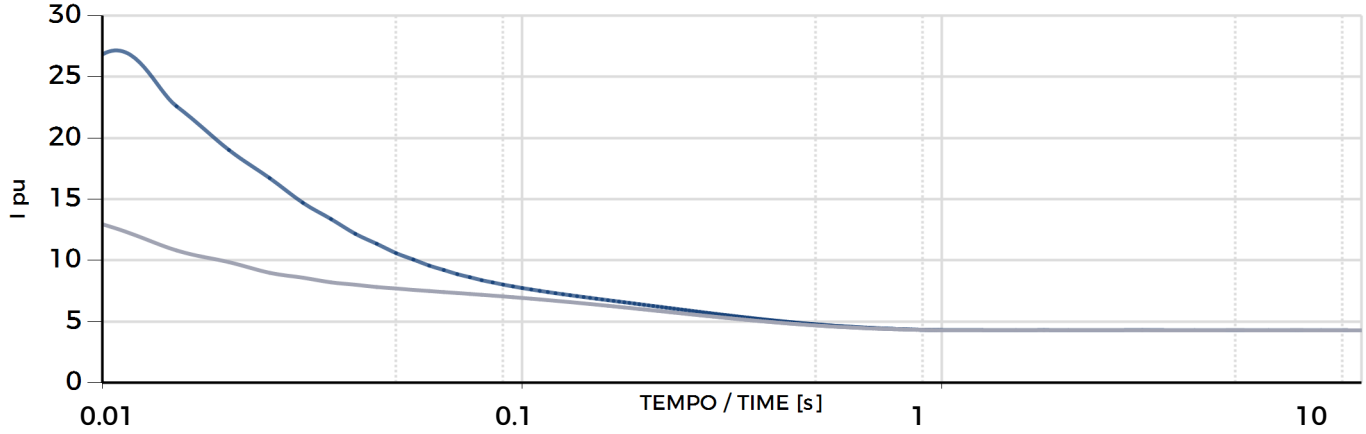
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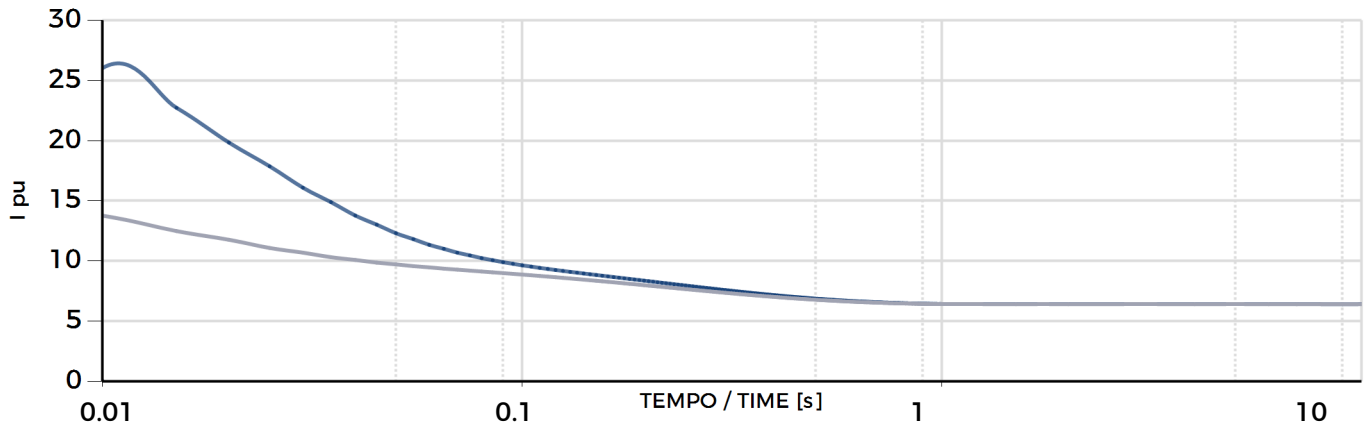
3 - PHASE SHORT CIRCUIT DECREMENT CURVE

— Peak AC+DC — Peak AC



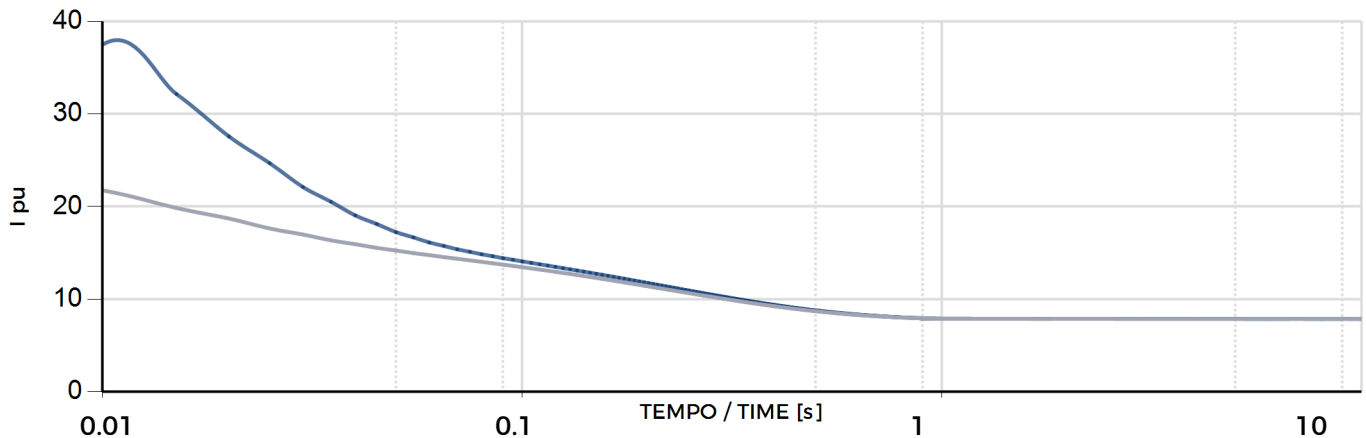
2 - PHASE SHORT CIRCUIT DECREMENT CURVE

— Peak AC+DC — Peak AC



1 - PHASE SHORT CIRCUIT DECREMENT CURVE

— Peak AC+DC — Peak AC





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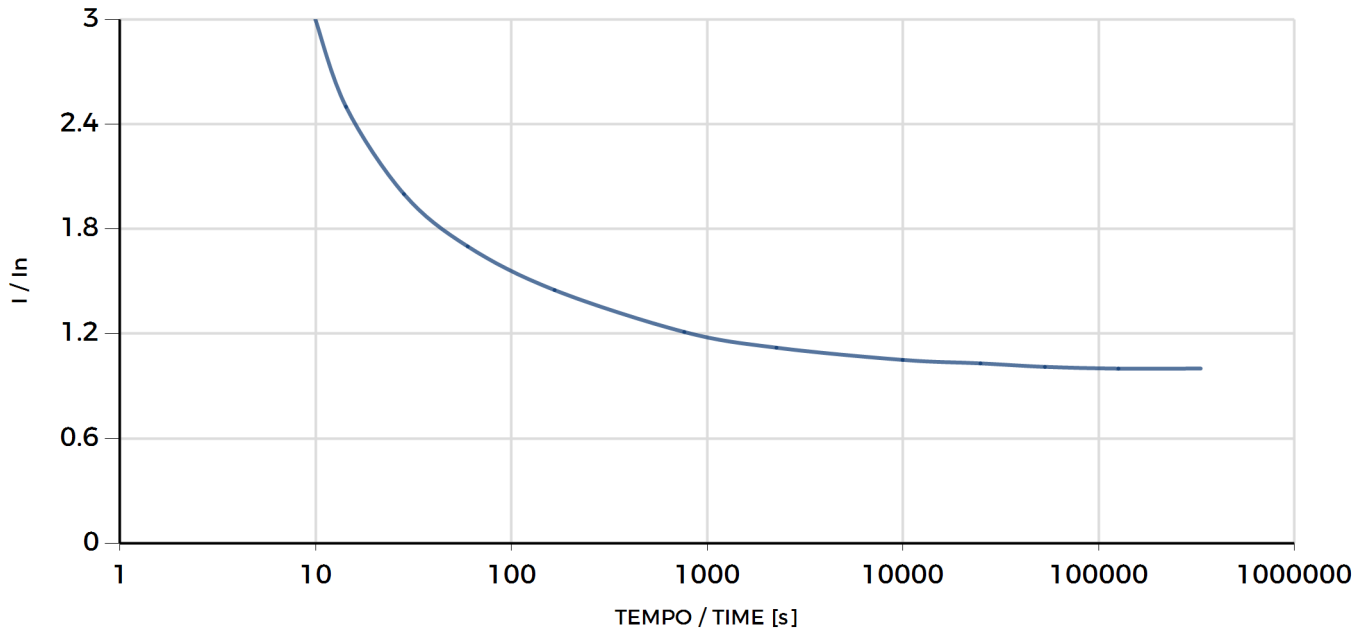
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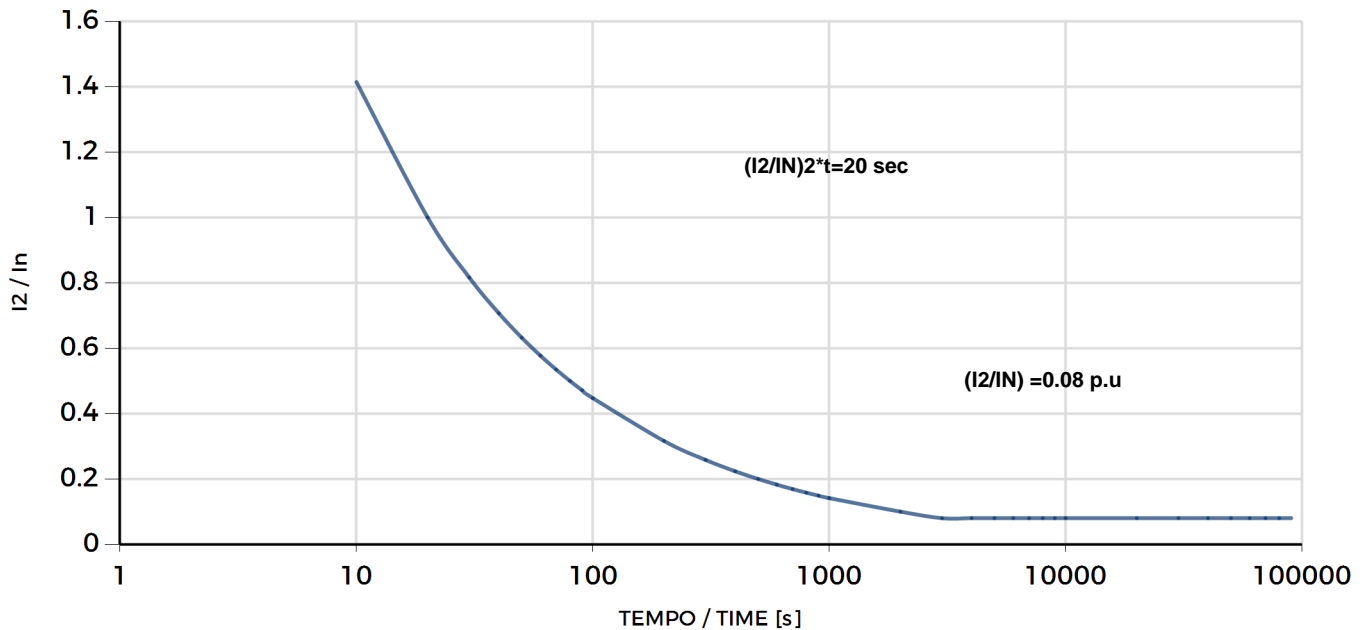
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CURVA DI LIMITE TERMICO - THERMAL DAMAGE CURVE



CORRENTE SEQUENZA INVERSA - NEGATIVE SEQUENCE CURRENT





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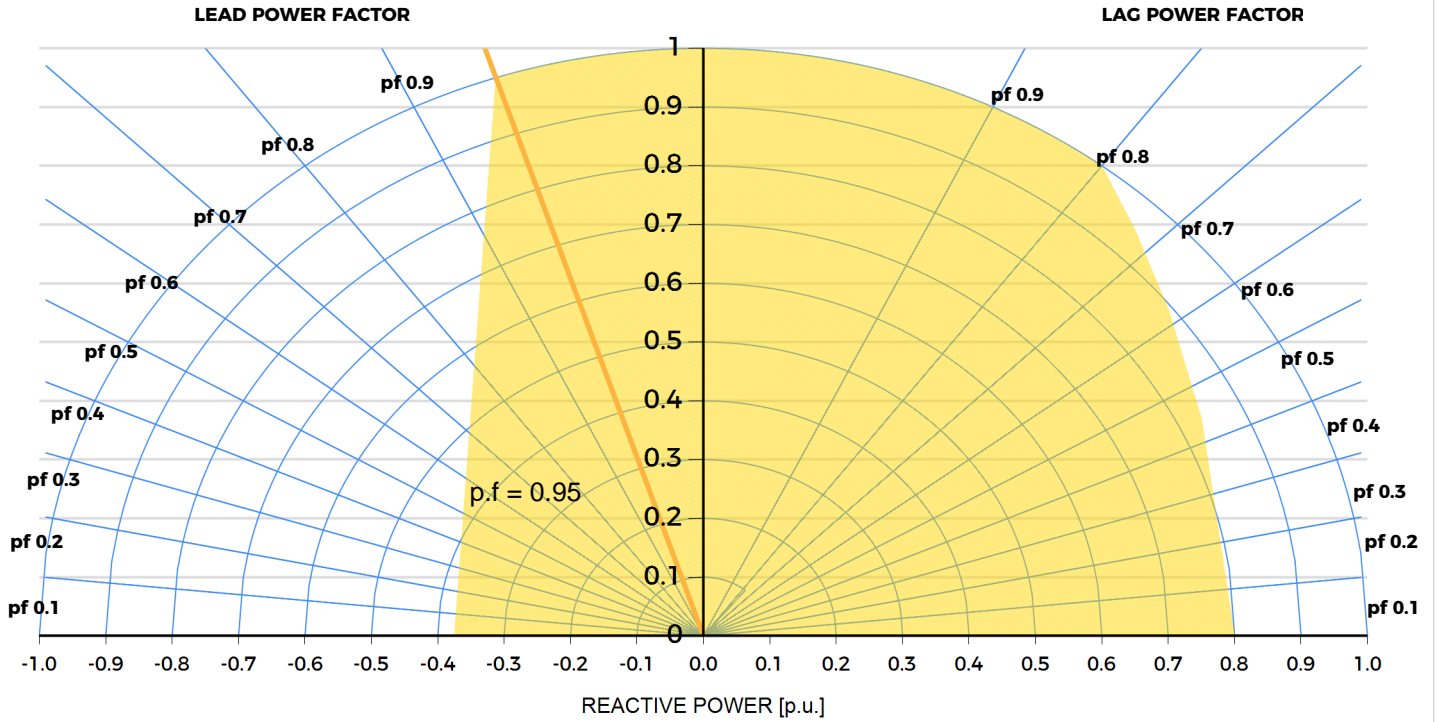
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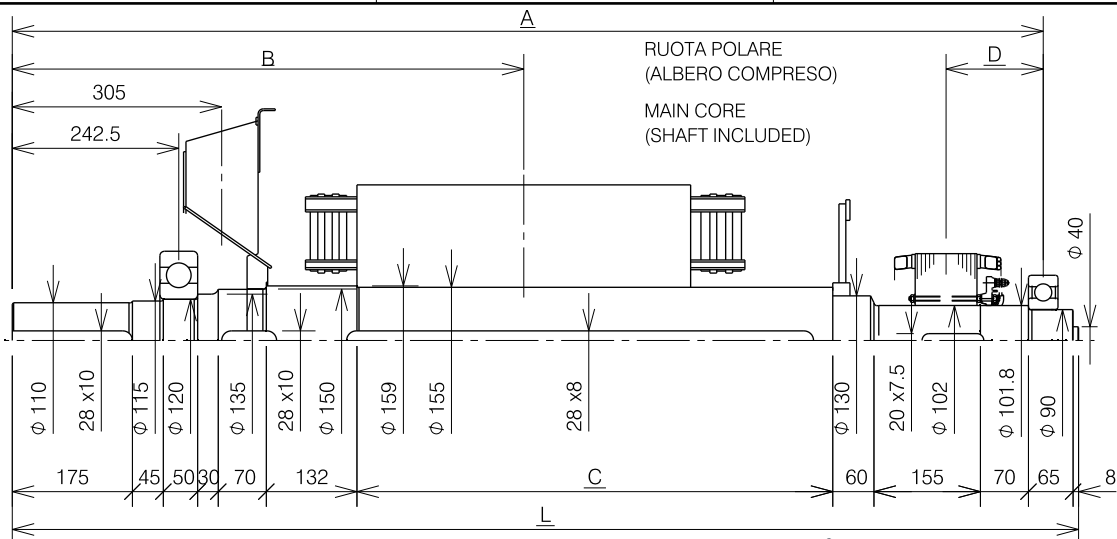
CURVA DI CAPABILITY - CAPABILITY CURVE



ELEMENTI PER VERIFICHE TORSIONALI

TORSIONAL ANALYSIS DATE

$$4J = PD^2 = WD^2 = GD^2$$



TIPO TYPE	DIMENSIONI IN mm DIMENSIONS IN mm					VENTOLA FAN		RUOTA POLARE MAIN CORE		ROTORE ECC. EXCIT. ROTOR		TOTALE TOTAL	
	A	B	C	L	D	kg	kgm ²	kg	kgm ²	kg	kgm ²	kg	kgm ²
400	SA4	1301.5	665	493	1353	14	0.599	545	9,30	28	0,26	587	10,16
	SB4		695					605	11,20			647	12,06
	MA4	1501.5	745	693	1553			715	13,70			757	14,56
	MB4		790					845	16,10			887	16,96
	LA4	1701.5	842	893	1753			945	18,40			987	19,26
	LB4		895					1025	21,60			1067	22,46
400	SA6	1301.5	645	493	1353	29	1,26	515	10,20	36	0,34	580	11,80
	SB6		665					635	12,50			700	14,10
	SC6		695					775	15,20			840	16,80
	MA6	1501.5	735	693	1553			855	16,30			920	17,90
	MB6		785					915	17,80			980	19,40
	LA6	1701.5	825	893	1753			995	19,30			1060	20,90
LB6	875		1205			22,60	1270	24,20					
400	SA8	1301.5	625	493	1353	29	1,26	455	11,90	36	0,34	520	13,50
	SB8		655					575	14,60			640	16,20
	SC8		695					695	17,50			760	19,10
	MA8	1501.5	735	693	1553			755	19,00			820	20,60
	MB8		755					1035	20,80			1100	22,40
	LA8	1701.5	845	893	1753			1135	22,50			1200	24,10
LB8	875		1225			23,80	1290	25,40					

A	MODIFIED SHAFT PROFILE - SWITCHED "D" DIMENSION INTO TABULAR	10/12/2013	M.DaiPozzolo
REV	DESCRIZIONE	DATA	FIRMA
D	SOSTITUISCE IL COD.	SCALA	DISEGNATORE
		--	2/9/2004
		A4	CONTR./C.UFF.
		CONTR. ATEX	

GENERATORI BISOPPORTO MJB 400
DOUBLE BEARING GENERATORS MJB 400

M00AV426A

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REV

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