

CONTINUOUS DUTY

4 poles
50 Hz - 1500 rpm / 60 Hz - 1800 rpm

AMBIENT TEMPERATURE TEMPERATURE RISE INSULATION CLASS POWER FACTOR			40°C H H 0,8	WINDING DATA										Winding code Number of leads Winding pitch	M0 12 2/3
FREQUENCY			Hz	50 Hz					60 Hz						
VOLTAGE		Connections	Star series Star parallel	V	380	400	415	440	380	416	440	460	480		
RATING POWER			kVA	100	105	105	105	110	121	126	131	131			
			kW	80,0	84,0	84,0	84,0	88,0	96,8	101	105	105			
EFFICIENCY [%] @ 0,8 p.f.			4/4	91,3	91,8	91,7	91,5	91,1	91,4	91,9	92,2	92,6			
			3/4	92,1	92,4	92,3	92,2	92,2	92,5	92,7	92,9	93,1			
			2/4	92,5	92,6	92,5	92,5	92,6	92,8	93,0	93,1	93,2			
EFFICIENCY [%] @ 1 p.f.			4/4	93,1	93,5	93,4	93,2	92,9	93,1	93,6	93,8	94,1			
			3/4	93,7	93,9	93,8	93,8	93,8	94,0	94,2	94,4	94,5			
			2/4	94,0	94,1	94,1	94,0	94,1	94,3	94,5	94,5	94,6			
SHORT CIRCUIT RATIO			SCR	0,38	0,4	0,43	0,48	0,29	0,31	0,34	0,35	0,38			
REACTANCES [%]															
Direct axis synchronous			X _d	290	275	255	227	286	352	327	311	286			
Quadrature axis synchronous			X _q	158	150	139	124	209	192	179	170	156			
Direct axis transient			X' _d	22,2	21,0	19,5	17,4	29,3	26,8	25,0	23,8	21,8			
Direct axis subtransient			X'' _d	10,4	9,9	9,2	8,2	13,8	12,7	11,8	11,2	10,3			
Quadrature axis subtransient			X'' _q	11,5	10,9	10,1	9,0	15,2	13,9	13,0	12,3	11,3			
Negative sequence			X ₂	11,0	10,4	9,7	8,6	14,5	13,3	12,4	11,8	10,8			
Zero sequence			X ₀	2,3	2,2	2,0	1,8	3,1	2,8	2,6	2,5	2,3			
TIME CONSTANTS [s]															
Open circuit			T' _{do}							0,95					
Transient			T' _d							0,078					
Subtransient			T'' _d							0,006					
Armature			T _a							0,006					

MECHANICAL CHARACTERISTICS

D-end bearing/Lubrication	6215 2RS C3 / Prelubricated
N-end bearing/Lubrication	6311 2RS C3 / Prelubricated
Overspeed [r.p.m.]	2250
Inertia (J) [kgm ²]	Refer to B34 construction 0,789
Weight [kg]	Refer to B34 construction 390
Method of cooling	IC01
Cooling air required [m ³ /s] @ 50/60 Hz	0,31 / 0,39
Degree of protection	IP23
Types of construction available	B2 (SAE) - IM B34
Direction of rotation (Standard)	CW

OTHER DATA

Phase resistance [Ω] @ 20 °C - Star series	0,075
Overloads	10% for 1 hour every 12 hours
3-phase short circuit sustained current	≥ 300 % (3 I _n) with auxiliary winding
Voltage regulation accuracy	± 0,5 % I _n steady state condition
Radio interference	EN 55011 - Class B Group 1
Wave form THF	< 2%
Total harmonic content	< 2% - At no load

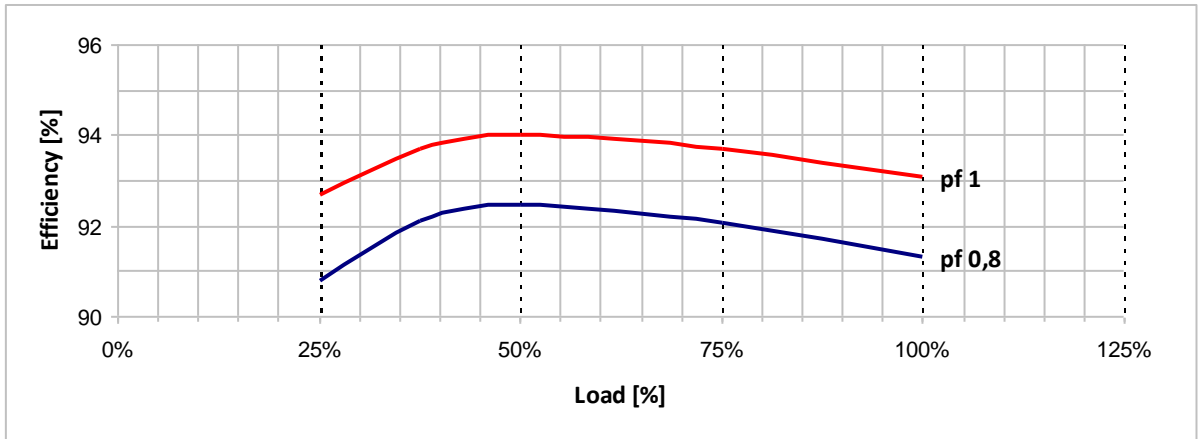
STANDARDS

IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.
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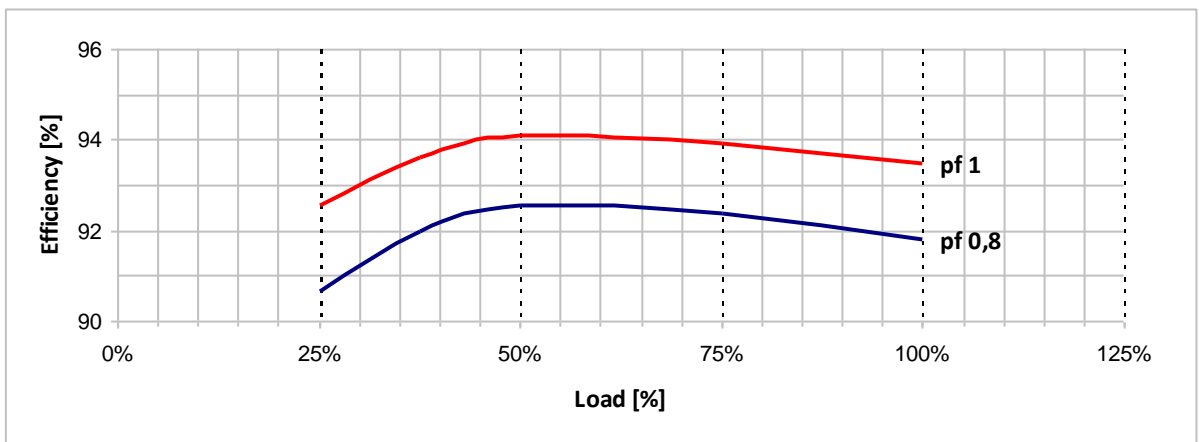
Typical efficiency curves

50 Hz - 1500 rpm

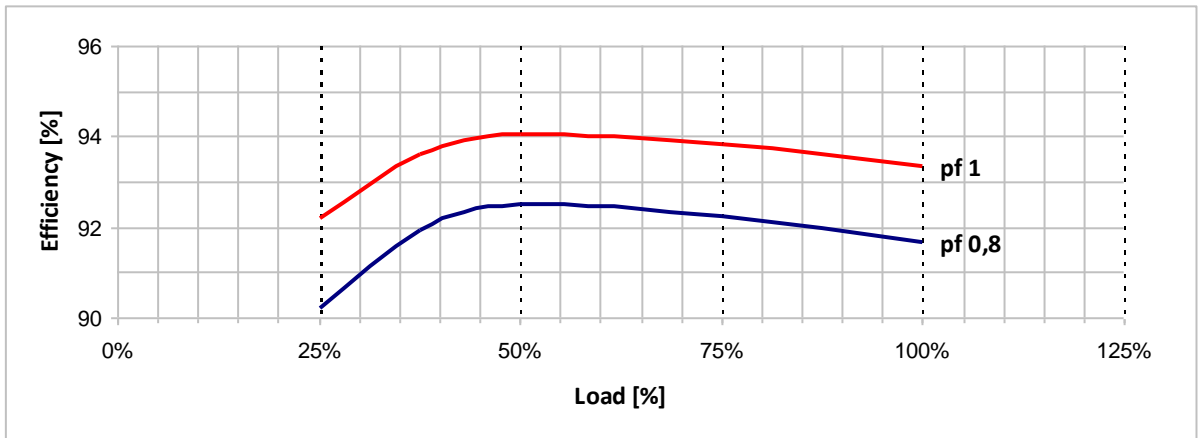
380 V



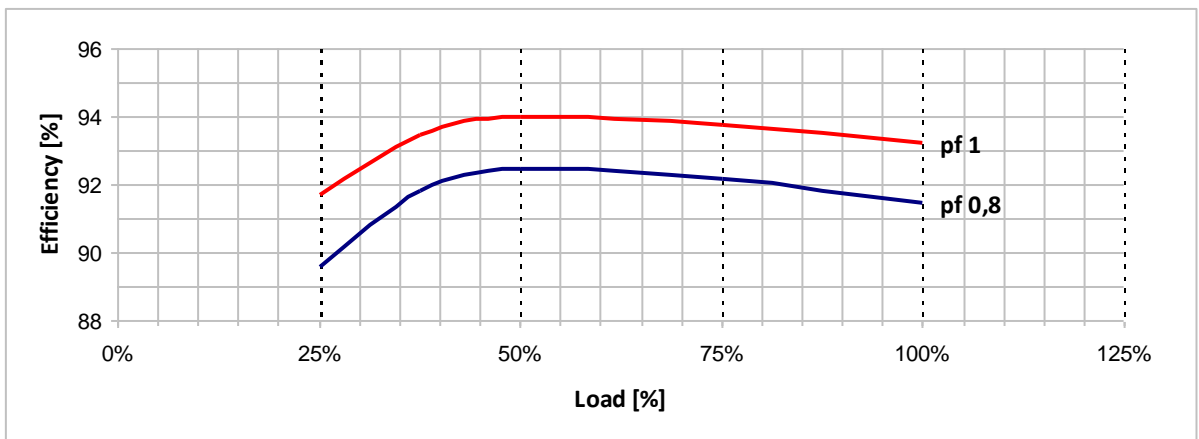
400 V



415 V

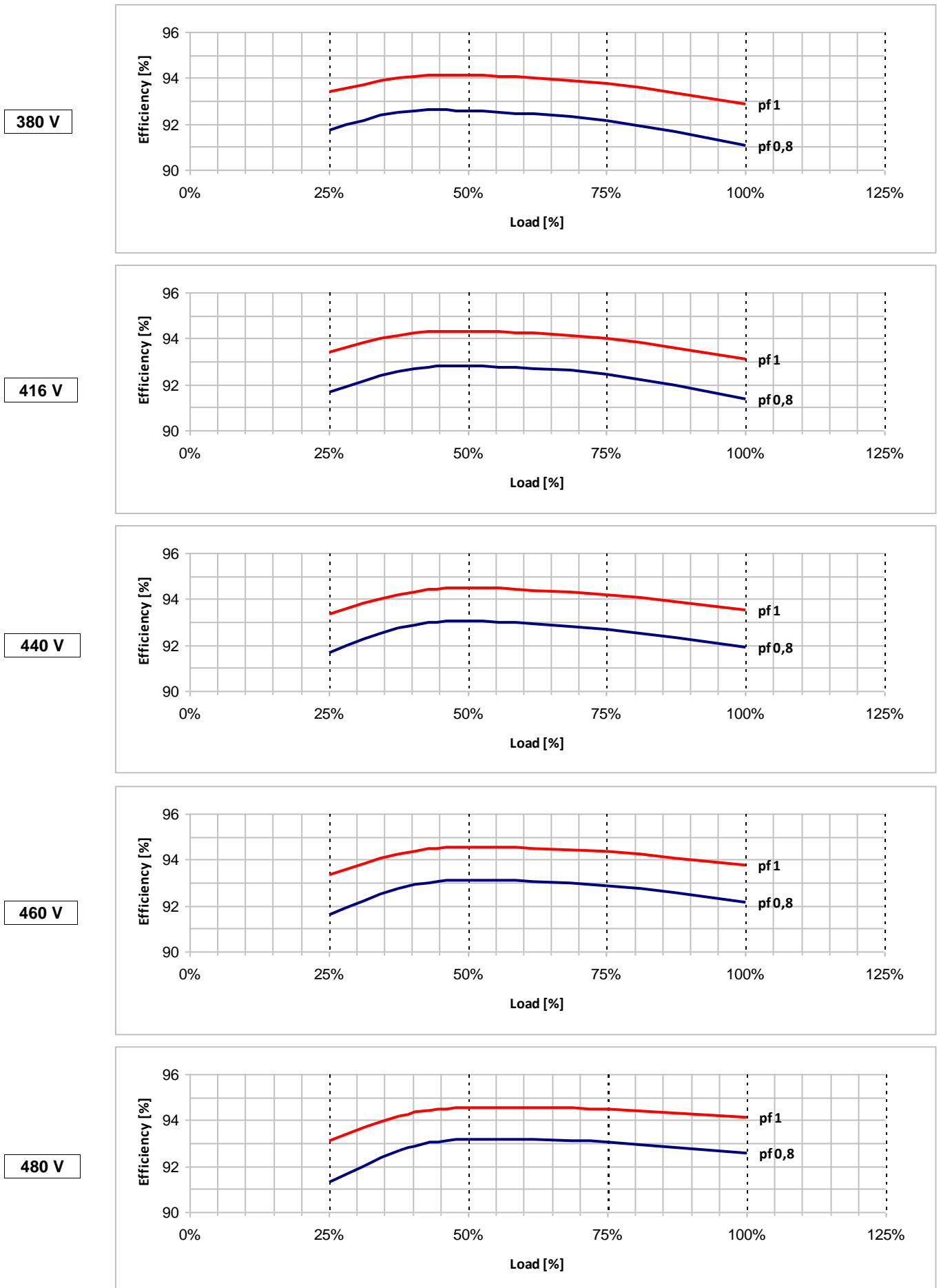


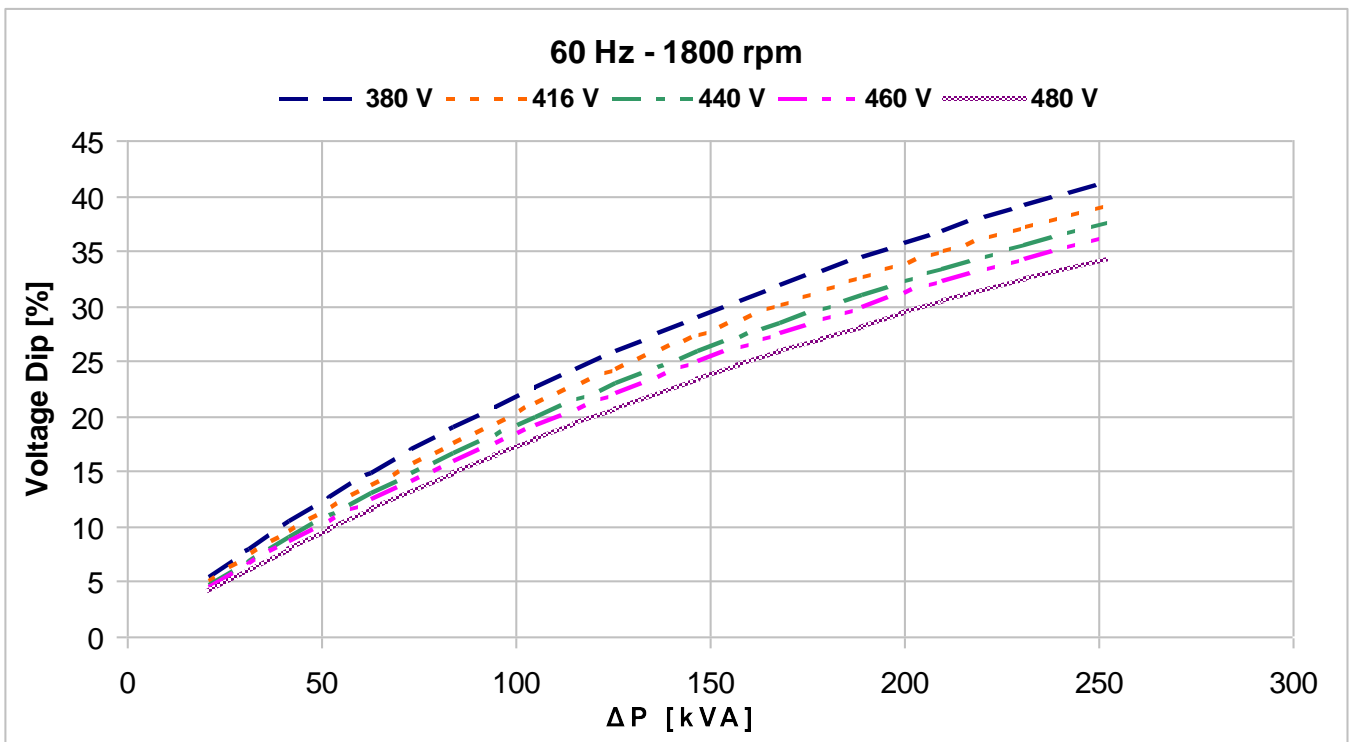
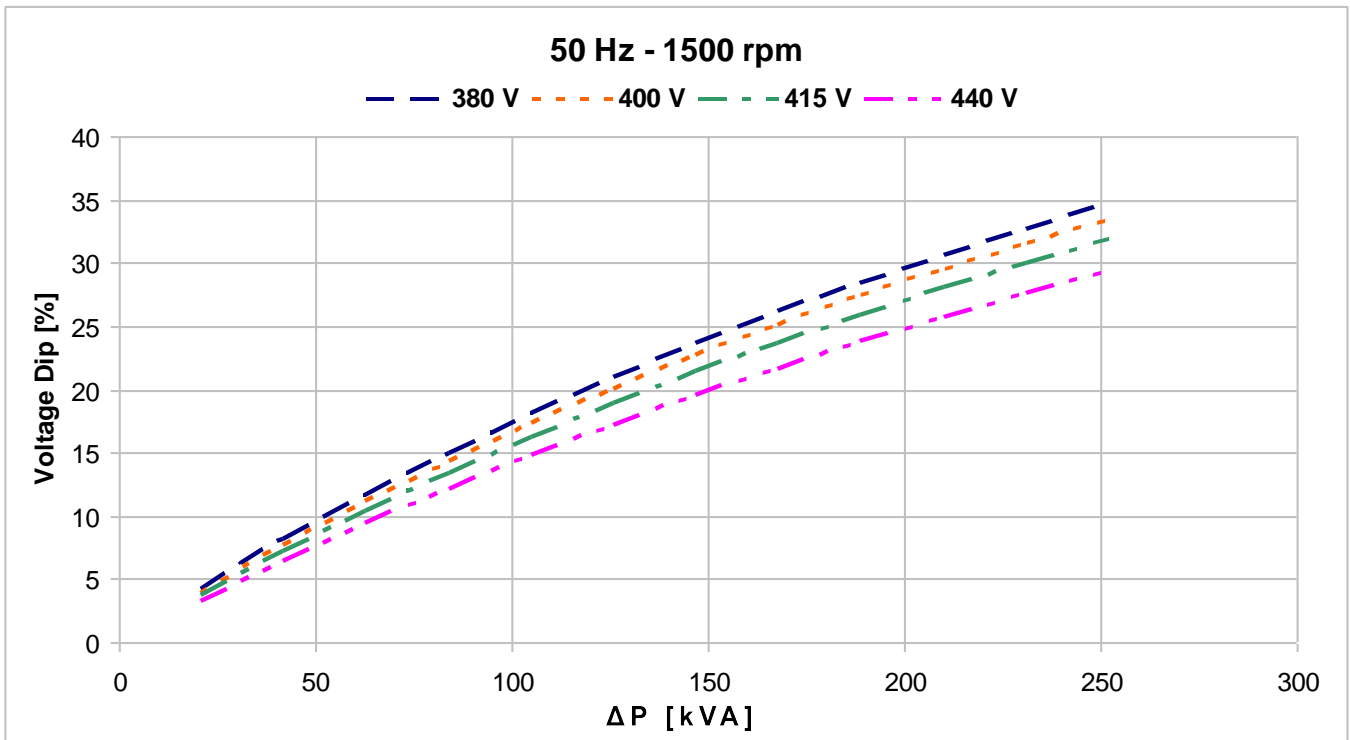
440 V



Typical efficiency curves

60 Hz - 1800 rpm



Locked rotor motor starting curves (*)


$$\Delta P = P_n \times \frac{I_s/I_n}{\cos \varphi_n \times \eta_n}$$

(*): A coefficient of 0,85 must be applied to the voltage dip if the load has a power factor equal or greater than 0,8.