

CONTINUOUS DUTY

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

AMBIENT TEMPERATURE		40°C	WINDING DATA										
TEMPERATURE RISE		H						Winding code		M0			
INSULATION CLASS		H						Number of leads		12			
POWER FACTOR		0,8						Winding pitch		2/3			
FREQUENCY		Hz	50 Hz				60 Hz						
VOLTAGE	Connections	Star series Star parallel	V	380	400	415	440	380	416	440	460	480	
				190	200	208	220	190	208	220	230	240	
RATING POWER			kVA	570	570	570	570	600	645	665	685	695	
			kW	456	456	456	456	480	516	532	548	556	
EFFICIENCY [%] @ 0,8 p.f.			4/4	94,2	94,6	94,7	94,8	93,9	94,4	94,7	94,9	95,1	
			3/4	95,1	95,1	95,2	95,2	94,6	94,9	95,1	95,3	95,4	
			2/4	95,4	95,3	95,3	95,3	94,9	95,1	95,4	95,4	95,5	
EFFICIENCY [%] @ 1 p.f.			4/4	95,4	95,7	95,8	95,9	95,2	95,6	95,8	96,0	96,1	
			3/4	96,1	96,1	96,2	96,2	95,7	96,0	96,1	96,3	96,4	
			2/4	96,3	96,3	96,3	96,3	96,0	96,1	96,3	96,4	96,5	
SHORT CIRCUIT RATIO			SCR	0,25	0,28	0,30	0,34	0,20	0,22	0,24	0,26	0,28	
REACTANCES [%]													
Direct axis synchronous			X _d	425	384	357	317	390	482	444	419	390	
Quadrature axis synchronous			X _q	238	215	200	178	301	270	249	234	218	
Direct axis transient			X' _d	39,2	35,4	32,9	29,3	49,5	44,4	41,0	38,6	36,0	
Direct axis subtransient			X'' _d	17,2	15,5	14,4	12,8	21,7	19,5	17,9	16,9	15,7	
Quadrature axis subtransient			X'' _q	21,2	19,1	17,7	15,8	26,7	24,0	22,1	20,8	19,4	
Negative sequence			X ₂	19,3	17,4	16,2	14,4	24,4	21,8	20,1	19,0	17,7	
Zero sequence			X ₀	4,3	3,9	3,6	3,2	5,5	4,9	4,5	4,3	4,0	
TIME CONSTANTS [s]													
Open circuit			T' _{do}									2,46	
Transient			T' _d									0,23	
Subtransient			T'' _d									0,015	
Armature			T _a									0,021	

MECHANICAL CHARACTERISTICS

D-end bearing/Lubrication	6322 C3 / With grease nipple	
N-end bearing/Lubrication	6317 2Z C3 / Prelubricated	
Overspeed [r.p.m.]	2250	
Inertia (J) [kgm ²]	Refer to B34 construction	9,29
Weight [kg]	Refer to B34 construction	1550
Method of cooling	IC01	
Cooling air required [m ³ /s] @ 50/60 Hz	0,93 / 1,12	
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	0,006
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

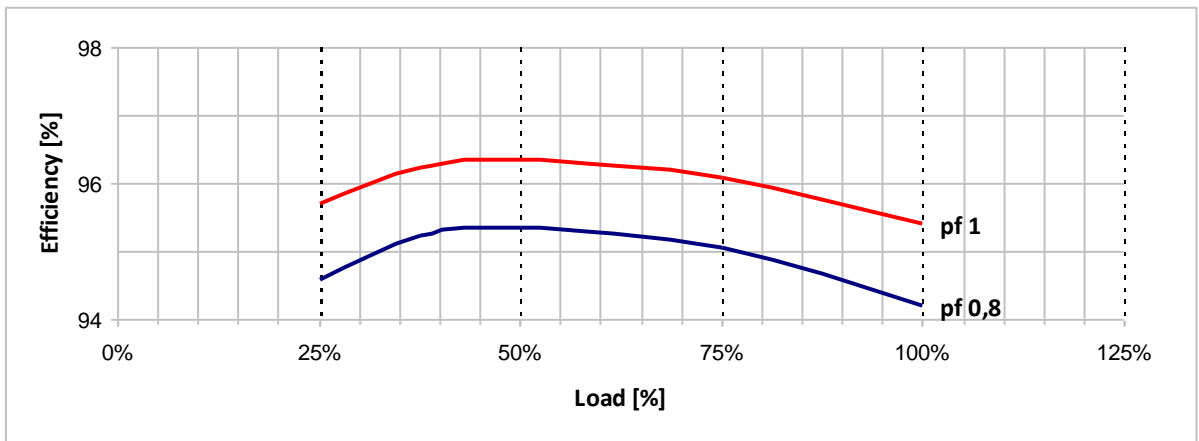
IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.

Typical efficiency curves
50 Hz - 1500 rpm

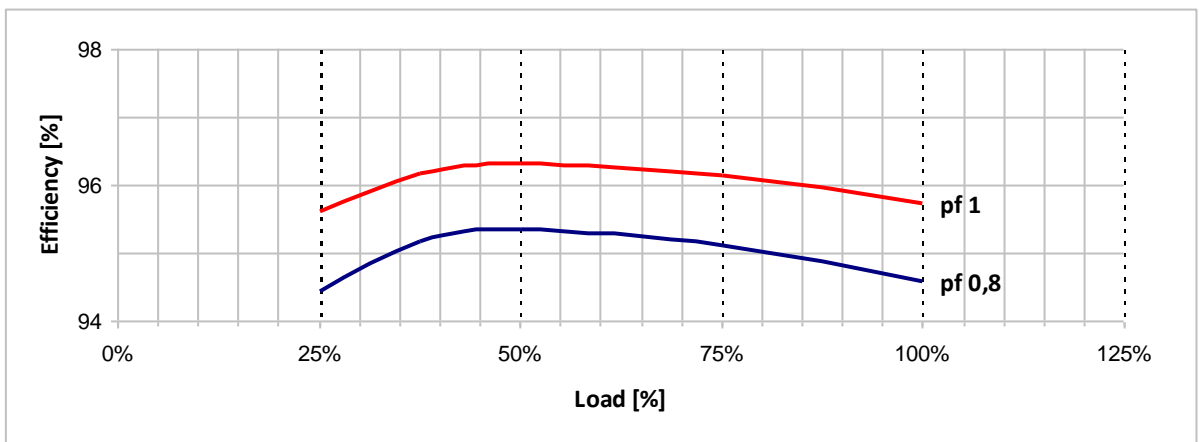
Typical efficiency curves

50 Hz - 1500 rpm

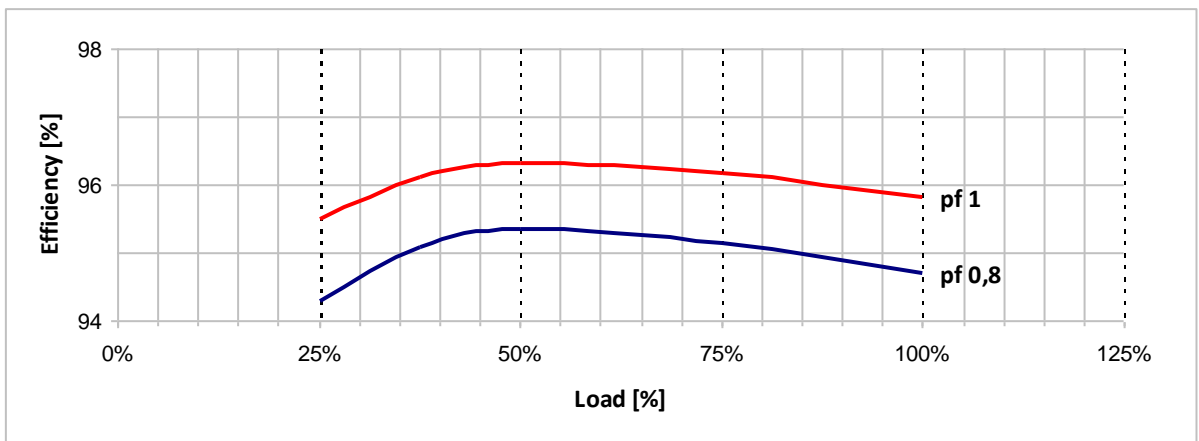
380 V



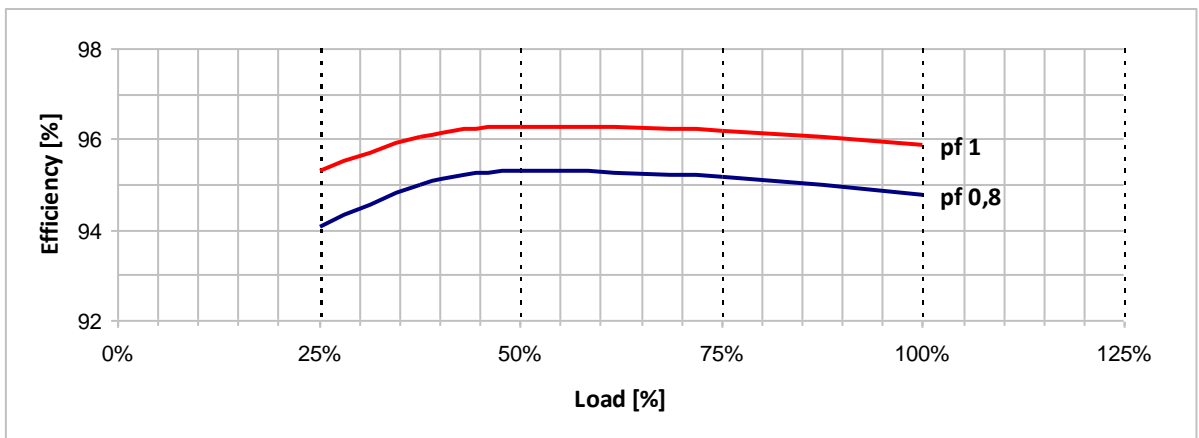
400 V



415 V

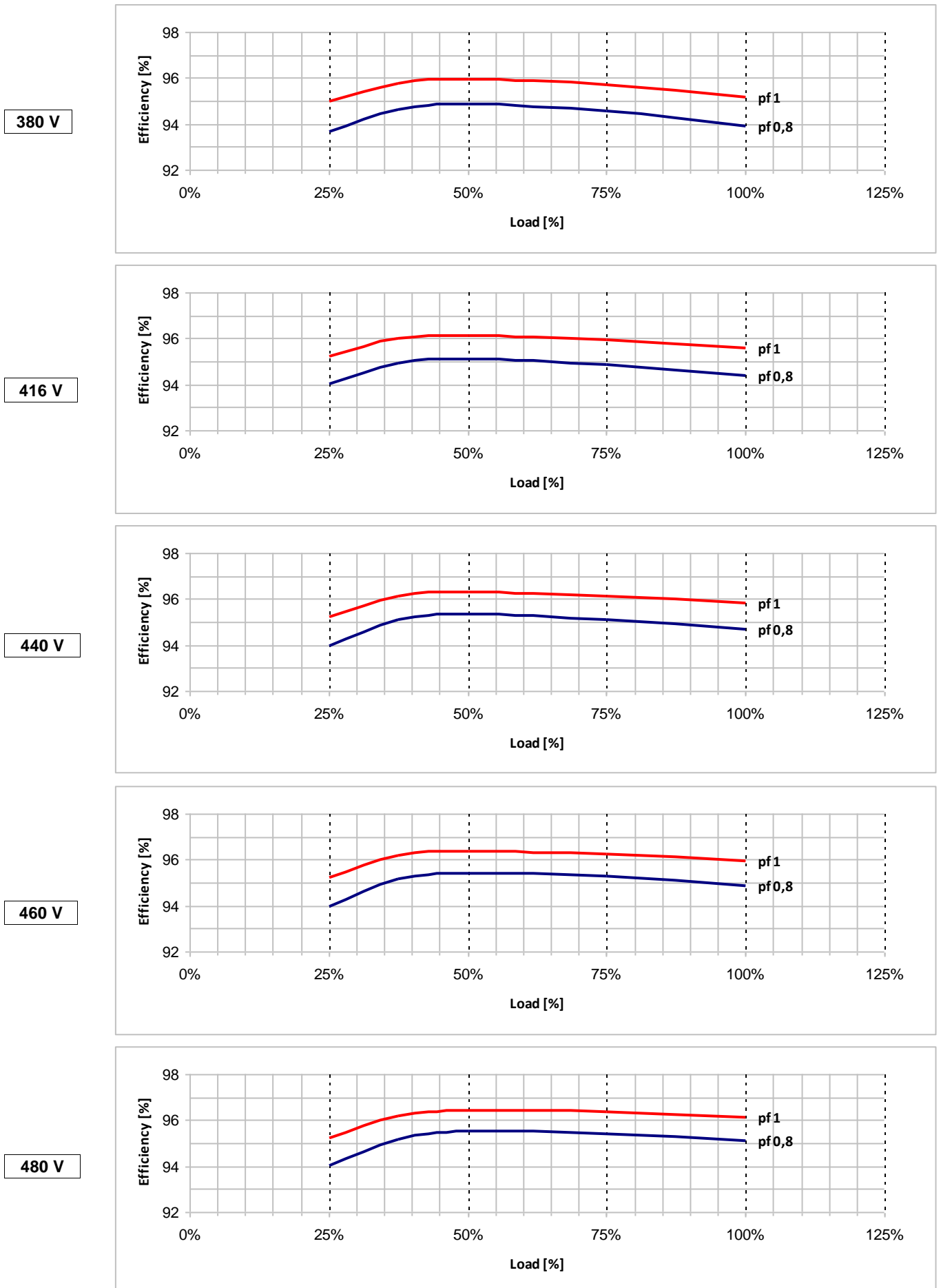


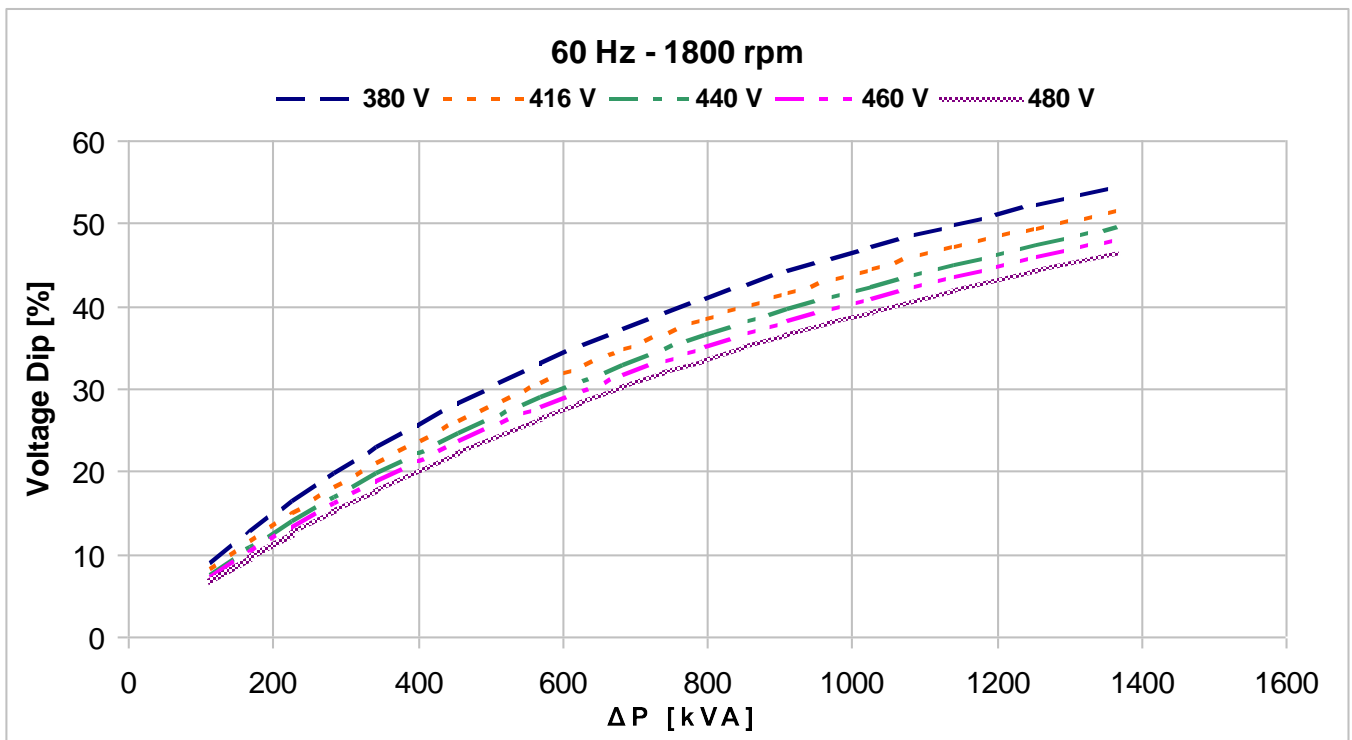
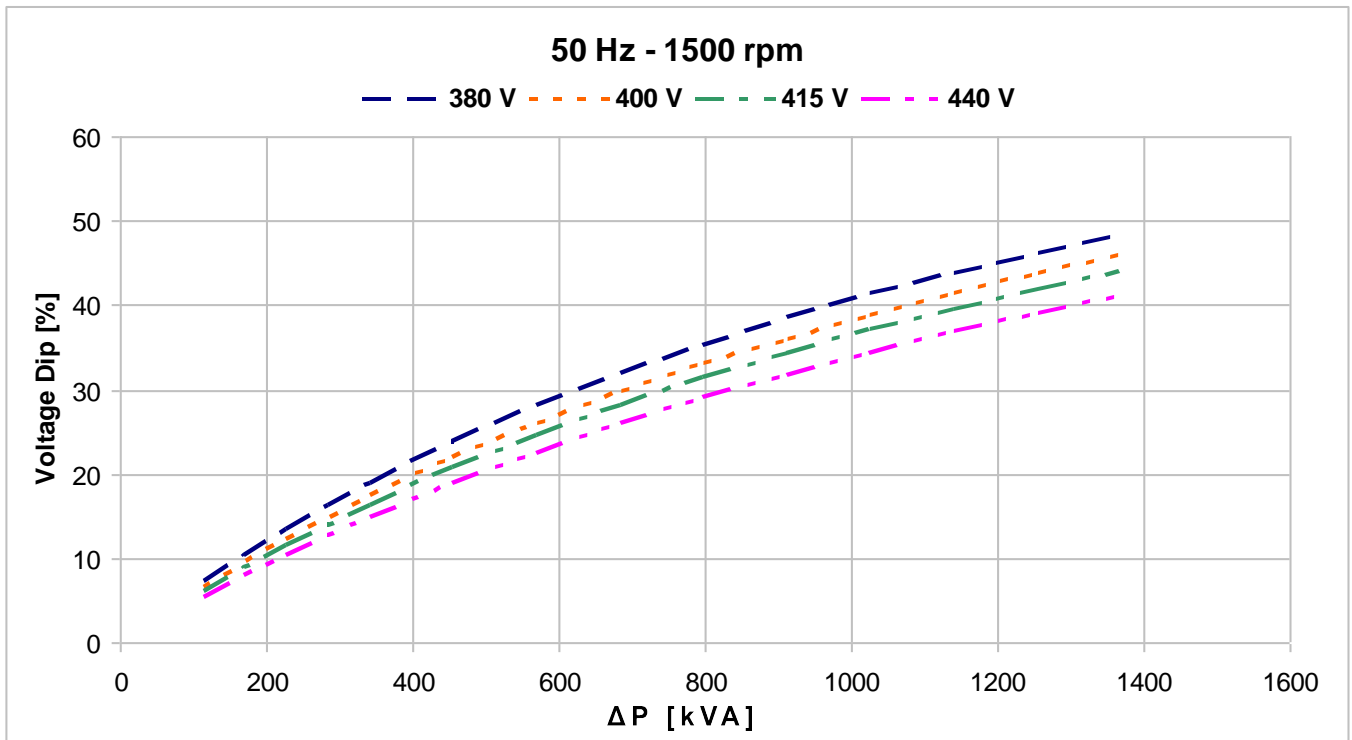
440 V



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.