

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
			50 Hz					60 Hz						
FREQUENCY		Hz												
VOLTAGE	Connections	Star series	V	380	400	415	440	380	416	440	460	480		
		Star parallel	V	190	200	208	220	190	208	220	230	240		
RATING POWER		kVA	kVA	185	185	185	185	195	205	215	220	230		
		kW	kW	148	148	148	148	156	164	172	176	184		
EFFICIENCY [%] @ 0,8 p.f.		4/4		92,6	93,0	92,9	92,9	92,0	92,4	92,6	92,8	93,6		
		3/4		93,1	93,2	93,1	93,1	93,0	93,4	93,4	93,6	93,9		
		2/4		93,3	93,2	93,1	93,0	93,5	93,7	93,7	93,6	93,9		
EFFICIENCY [%] @ 1 p.f.		4/4		94,1	94,4	94,4	94,4	93,6	94,0	94,1	94,3	94,9		
		3/4		94,5	94,6	94,6	94,5	94,4	94,8	94,8	94,9	95,2		
		2/4		94,7	94,6	94,5	94,5	94,8	95,0	95,0	95,0	95,1		
SHORT CIRCUIT RATIO		SCR	0,41	0,45	0,48	0,54	0,32	0,37	0,39	0,42	0,43			
REACTANCES [%]														
Direct axis synchronous		X _d	372	336	312	278	348	413	387	363	348			
Quadrature axis synchronous		X _q	207	187	174	155	262	230	216	202	194			
Direct axis transient		X' _d	31,8	28,7	26,7	23,7	40,2	35,3	33,1	31,0	29,7			
Direct axis subtransient		X'' _d	12,7	11,5	10,7	9,5	16,1	14,1	13,3	12,4	11,9			
Quadrature axis subtransient		X'' _q	15,1	13,6	12,6	11,2	19,1	16,7	15,7	14,7	14,1			
Negative sequence		X ₂	14,0	12,6	11,7	10,4	17,7	15,5	14,5	13,6	13,1			
Zero sequence		X ₀	3,0	2,7	2,5	2,2	3,8	3,3	3,1	2,9	2,8			
TIME CONSTANTS [s]														
Open circuit		T' _{do}					0,95							
Transient		T' _d					0,09							
Subtransient		T'' _d					0,011							
Armature		T _a					0,013							

MECHANICAL CHARACTERISTICS

D-end bearing/Lubrication	6218 2RS C3 / Prelubricated
N-end bearing/Lubrication	6313 2Z C3 / Prelubricated
Overspeed [r.p.m.]	2250
Inertia (J) [kgm ²]	Refer to B34 construction 1,66
Weight [kg]	Refer to B34 construction 590
Method of cooling	IC01
Cooling air required [m ³ /s] @ 50/60 Hz	0,42 / 0,52
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	0,027
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

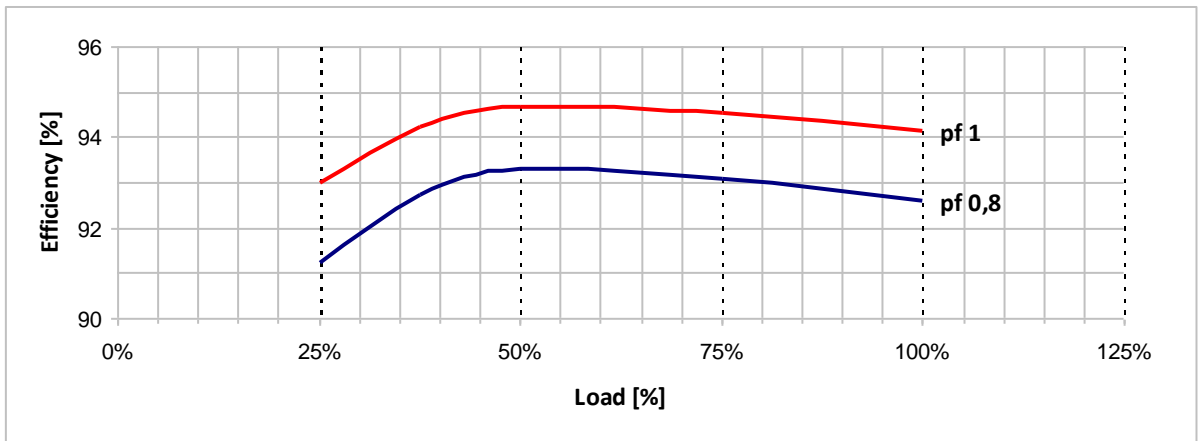
STANDARDS

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

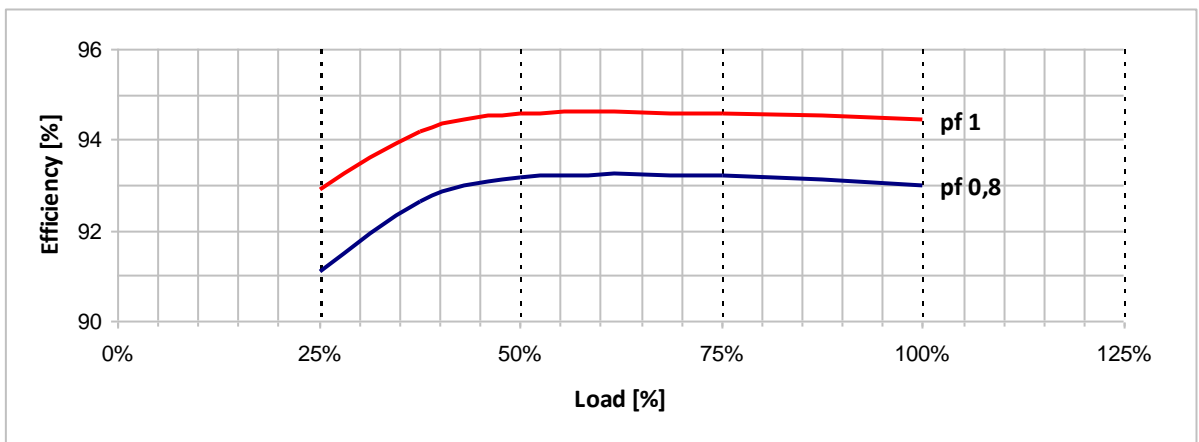
Typical efficiency curves

50 Hz - 1500 rpm

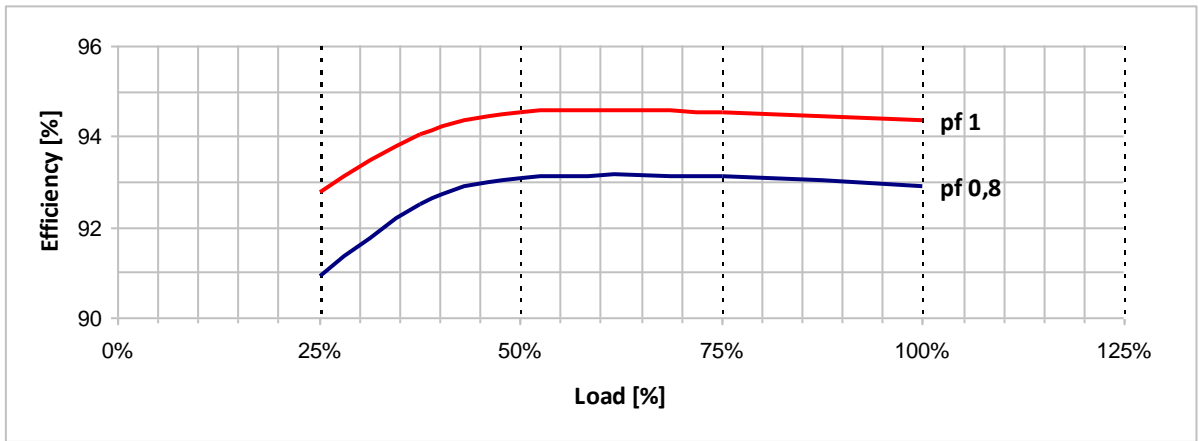
380 V



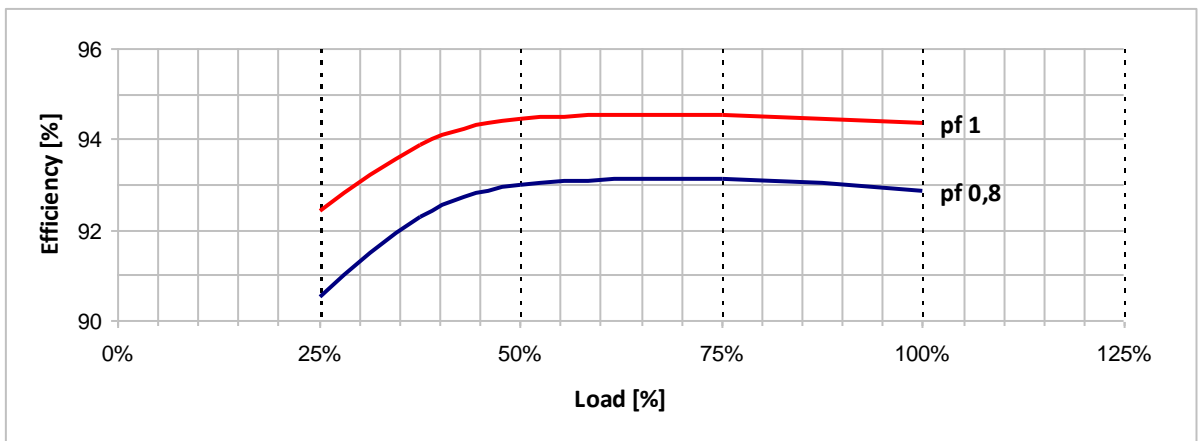
400 V



415 V



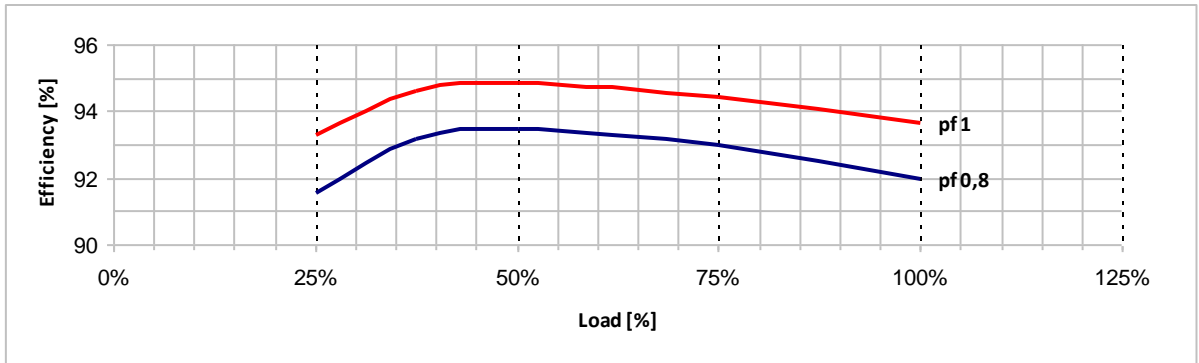
440 V



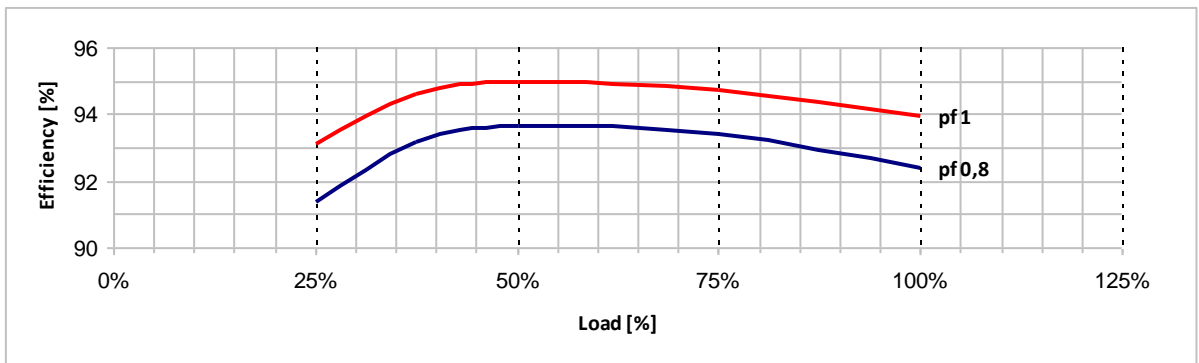
Typical efficiency curves

60 Hz - 1800 rpm

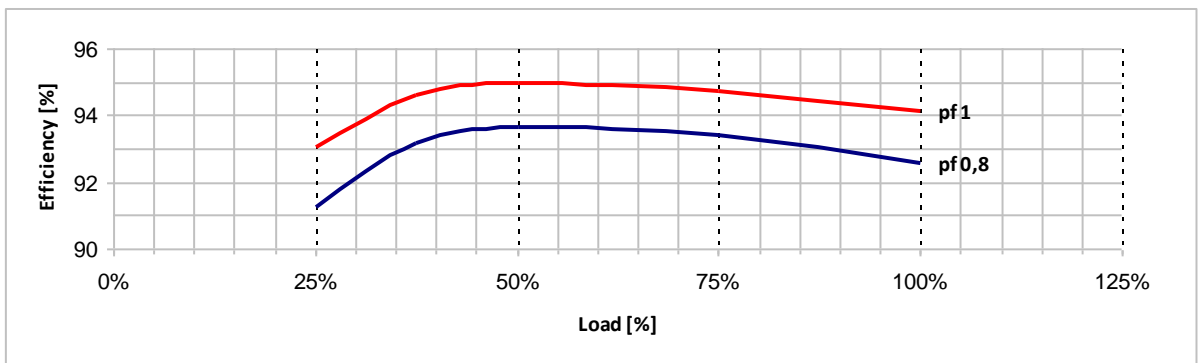
380 V



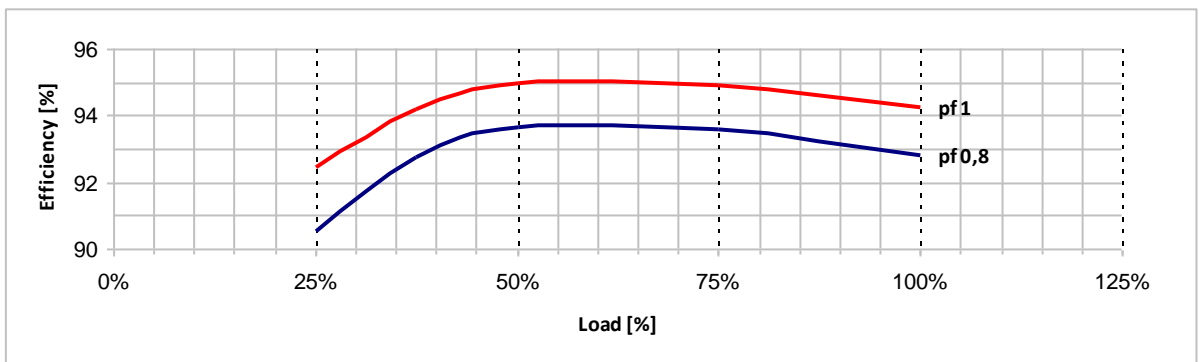
416 V



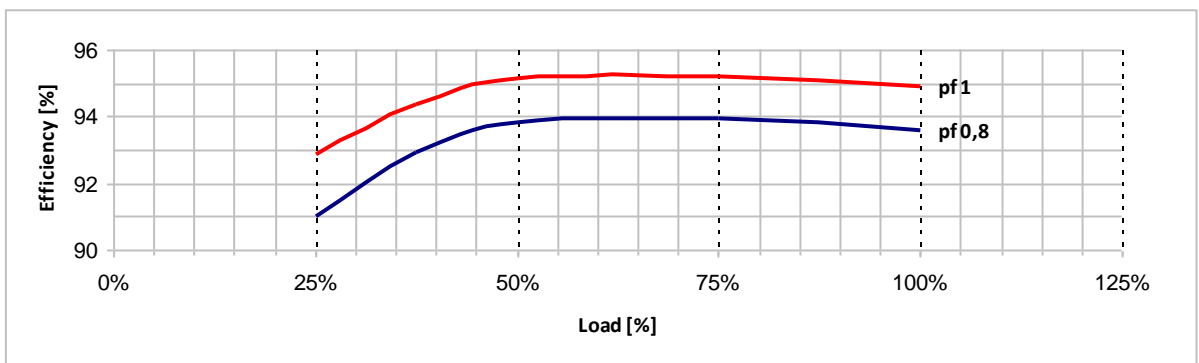
440 V



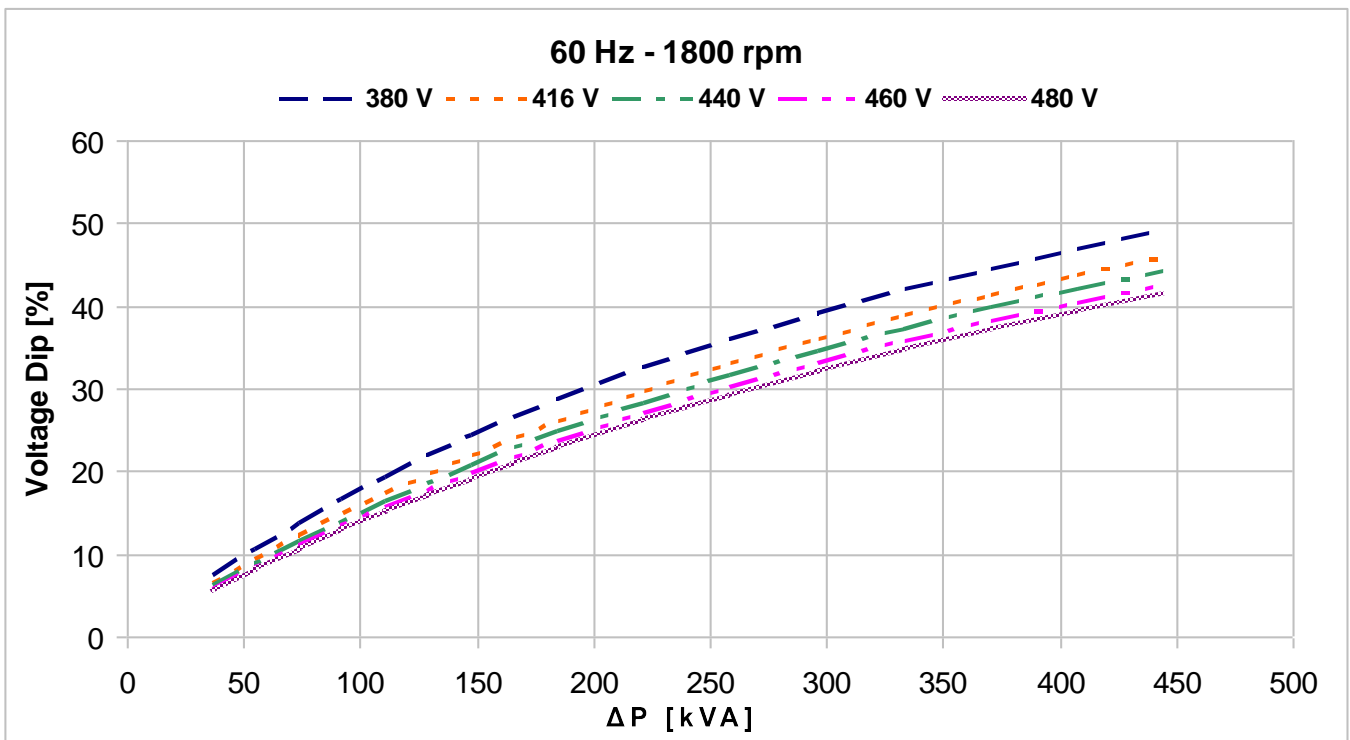
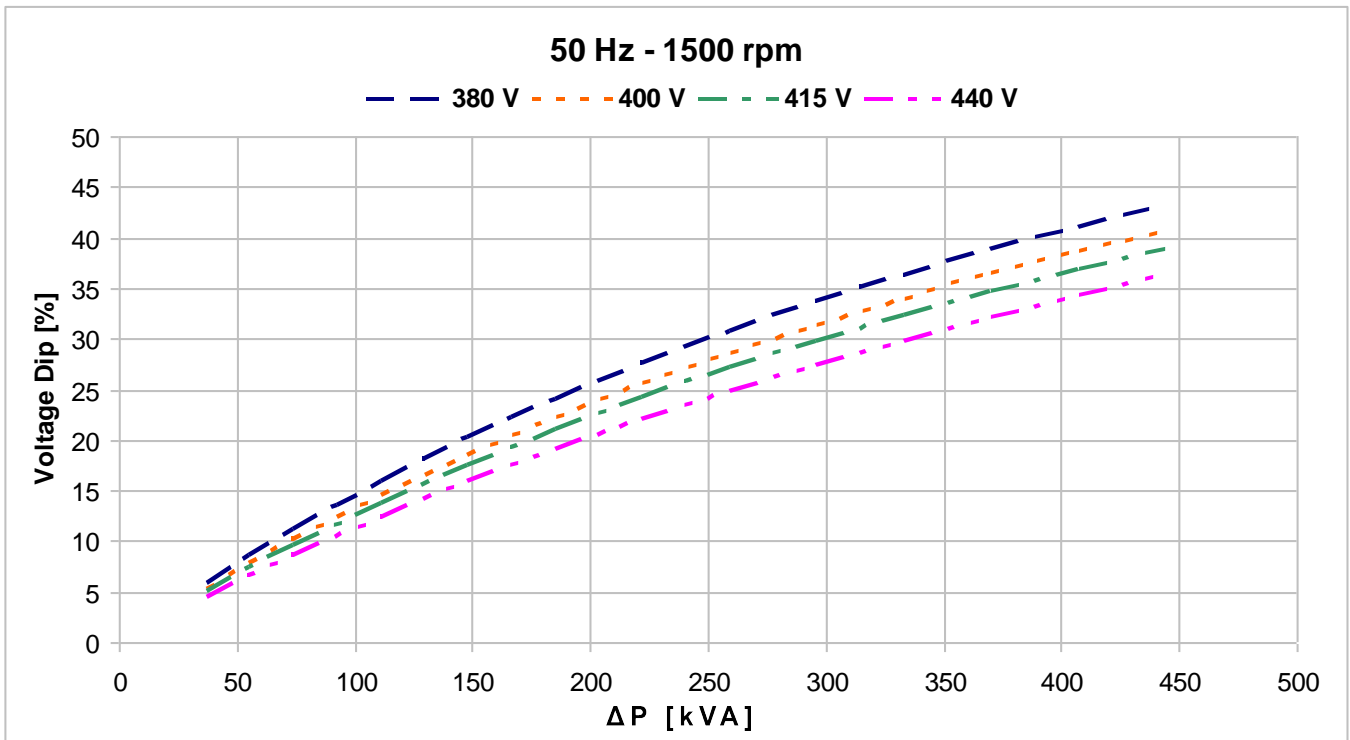
460 V



480 V



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.