

CONTINUOUS DUTY
**4 poles
50 Hz - 1500 rpm / 60 Hz - 1800 rpm**

AMBIENT TEMPERATURE	40°C	WINDING DATA		Winding code	80			
TEMPERATURE RISE	H			Number of leads	6			
INSULATION CLASS	H			Winding pitch	2/3			
POWER FACTOR	0,8							
FREQUENCY	Hz	50 Hz			60 Hz			
VOLTAGE	Star V	380	400	415	416	440	460	480
RATING	kVA	1970	2000	2000	2220	2280	2330	2400
	kW	1576	1600	1600	1776	1824	1864	1920
EFFICIENCY [%] @ 0,8 p.f.	4/4	96,1	96,1	96,2	96,1	96,3	96,4	96,5
	3/4	96,4	96,4	96,5	96,1	96,3	96,4	96,5
	2/4	96,2	96,2	96,3	95,7	95,9	96,0	96,1
EFFICIENCY [%] @ 1 p.f.	4/4	96,9	96,9	97,0	96,9	97,1	97,2	97,2
	3/4	97,2	97,2	97,2	96,9	97,1	97,2	97,2
	2/4	97,0	97,0	97,1	96,6	96,8	96,9	96,9
SHORT CIRCUIT RATIO	SCR	0,29	0,32	0,34	0,26	0,28	0,30	0,32
REACTANCES [%]								
Direct axis synchronous	X _d	367	336	312	414	380	355	336
Quadrature axis synchronous	X _q	205	188	175	232	213	199	188
Direct axis transient	X' _d	34,1	31,2	29,0	38,4	35,3	33,0	31,2
Direct axis subtransient	X'' _d	14,0	12,8	11,9	15,8	14,5	13,5	12,8
Quadrature axis subtransient	X'' _q	14,4	13,2	12,3	16,3	14,9	14,0	13,2
Negative sequence	X ₂	14,2	13,0	12,1	16,0	14,7	13,7	13,0
Zero sequence	X ₀	3,3	3,0	2,8	3,7	3,4	3,2	3,0
TIME CONSTANTS [s]								
Open circuit	T' _{do}				3,73			
Transient	T' _d				0,34			
Subtransient	T'' _d				0,014			
Armature	T _a				0,029			

MECHANICAL CHARACTERISTICS

D-end bearing/Lubrication	6328 C3 / With grease nipple
N-end bearing/Lubrication	6326 C3 / With grease nipple
Overspeed [r.p.m.]	2250
Inertia (J) [kgm ²]	Refer to B34 construction 46,7
Weight [kg]	Refer to B34 construction 4000
Method of cooling	IC01
Cooling air required [m ³ /s] @ 50/60 Hz	2,60 / 3,10
Degree of protection	IP23
Types of construction available	B2 (SAE) - IM B34 - IM B20
Direction of rotation (Standard)	CW

OTHER DATA

Phase resistance [Ω] @ 20 °C - Star series	0,85
Overloads	10% for 1 hour every 12 hours
3-phase short circuit sustained current	≥ 300 % (3 I _n) with VARICOMP device
Voltage regulation accuracy	± 0,5 % I _n steady state condition
Radio interference	EN 55011 - Class B Group 1
Wave form THF	< 5%
Total harmonic content	< 5% - At no load

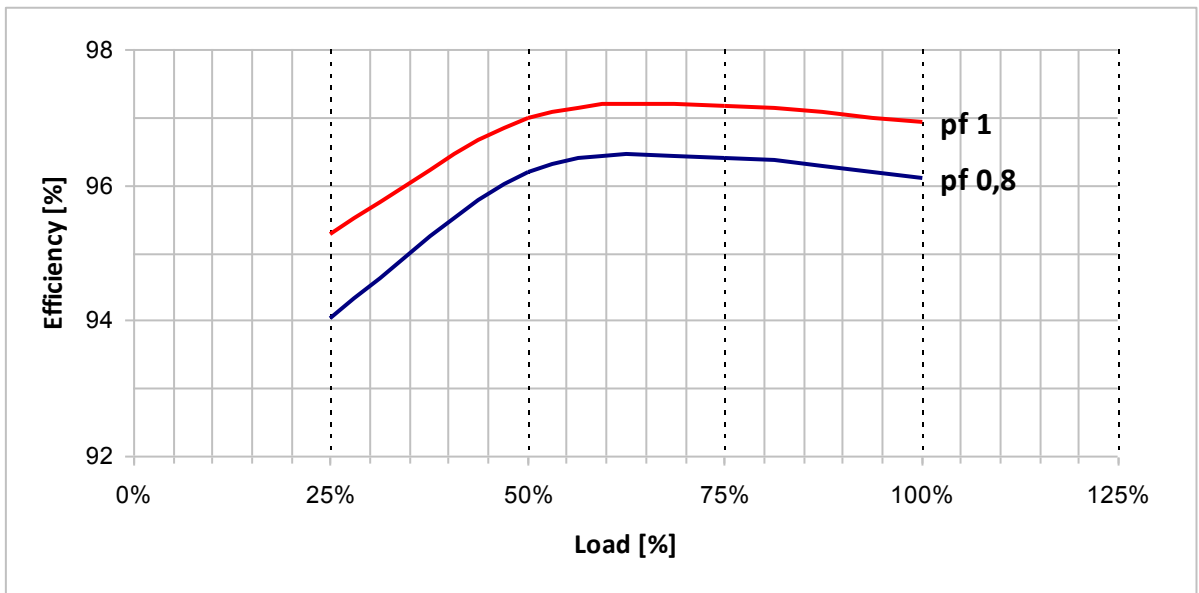
STANDARDS

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

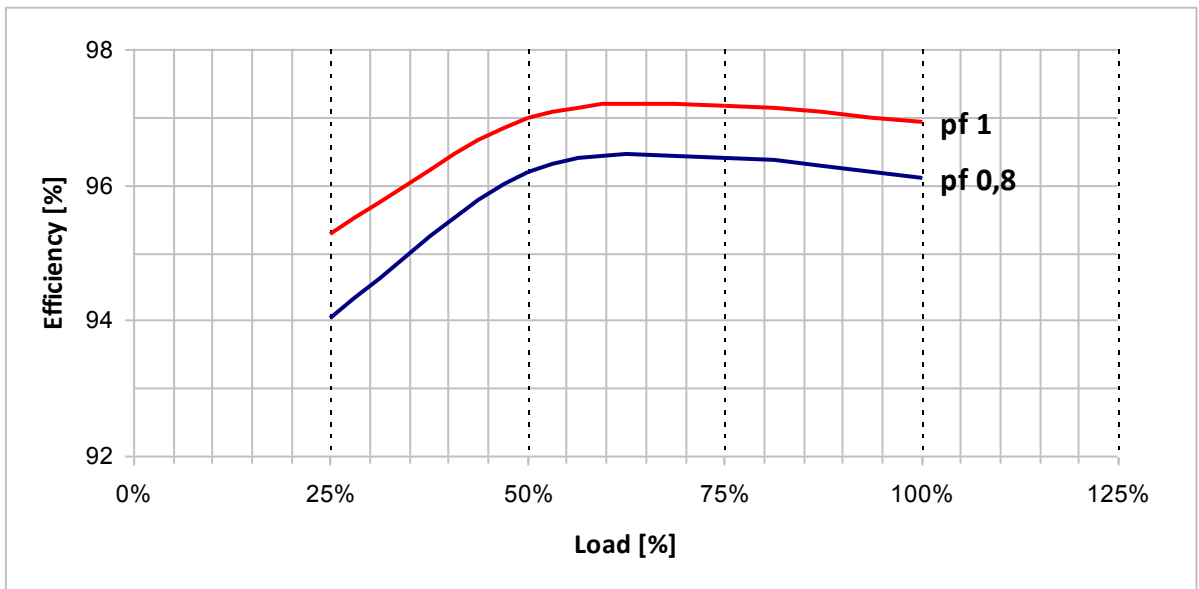
Typical efficiency curves

50 Hz - 1500 rpm

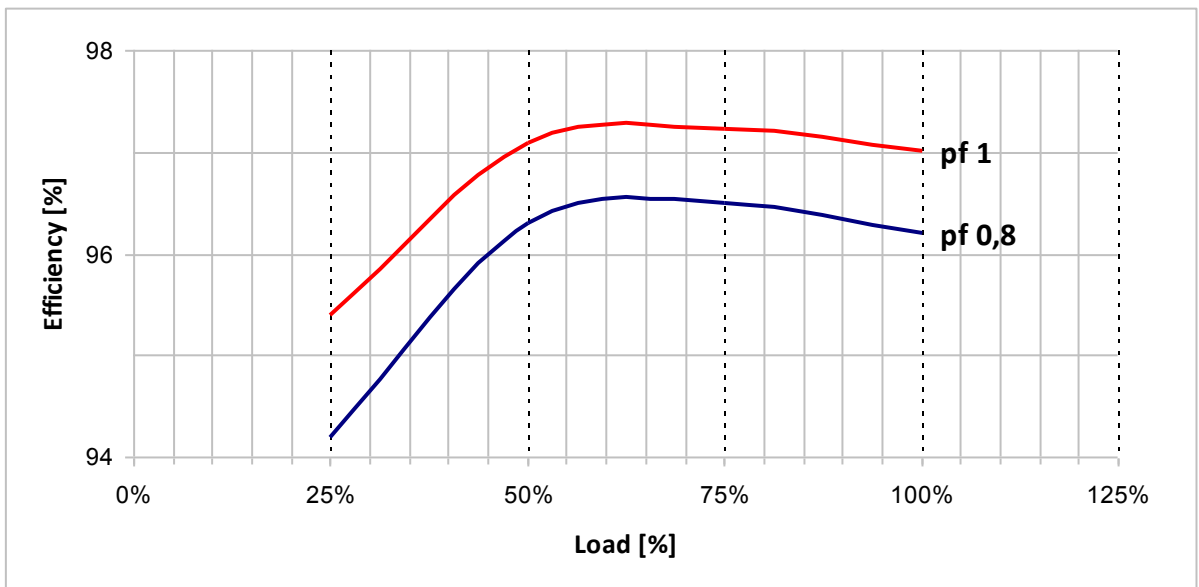
380 V

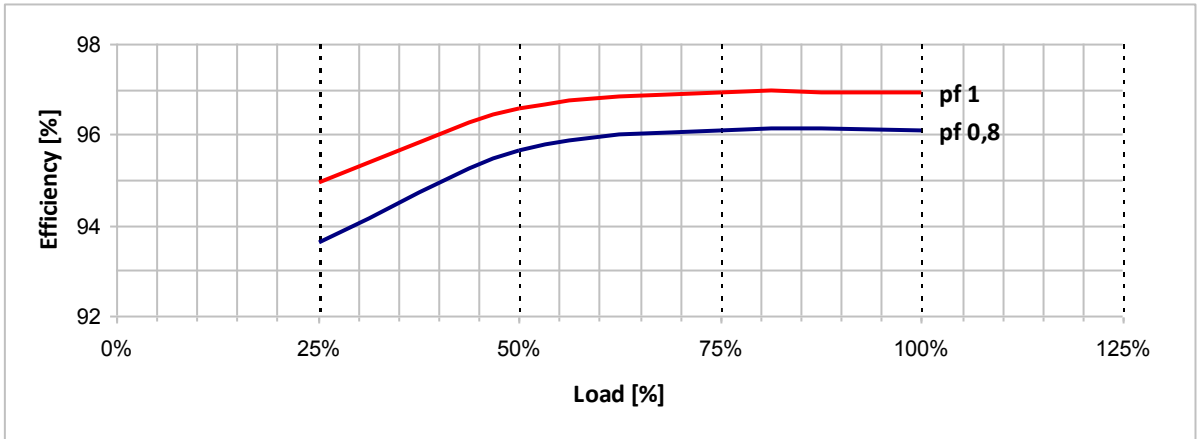
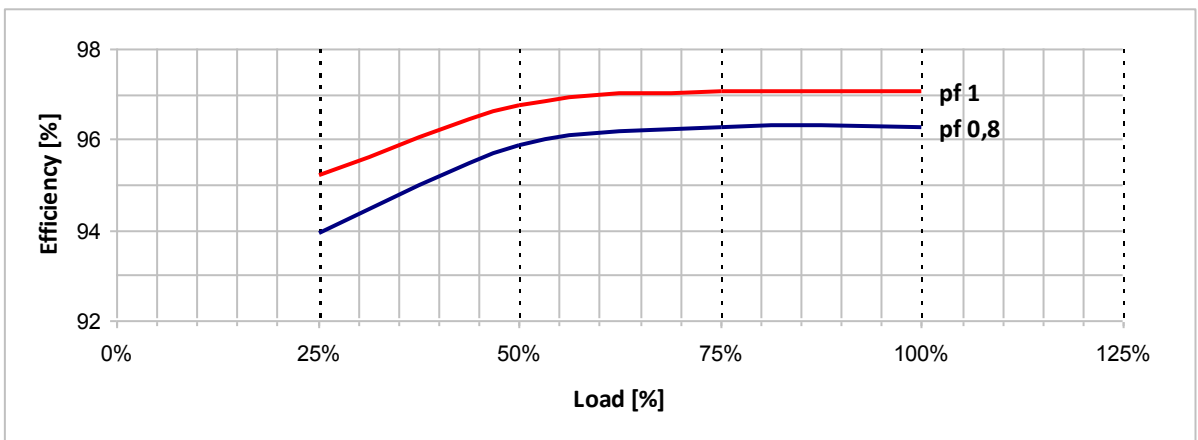
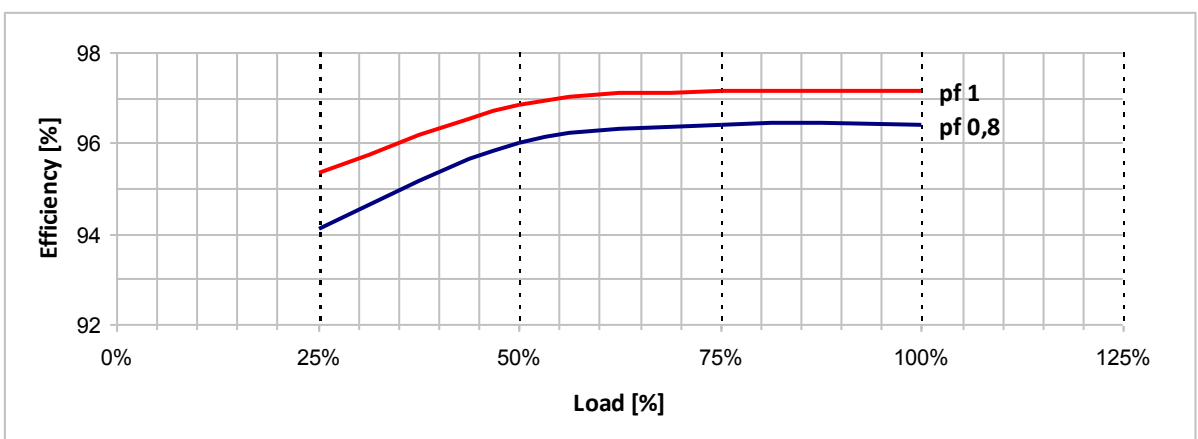
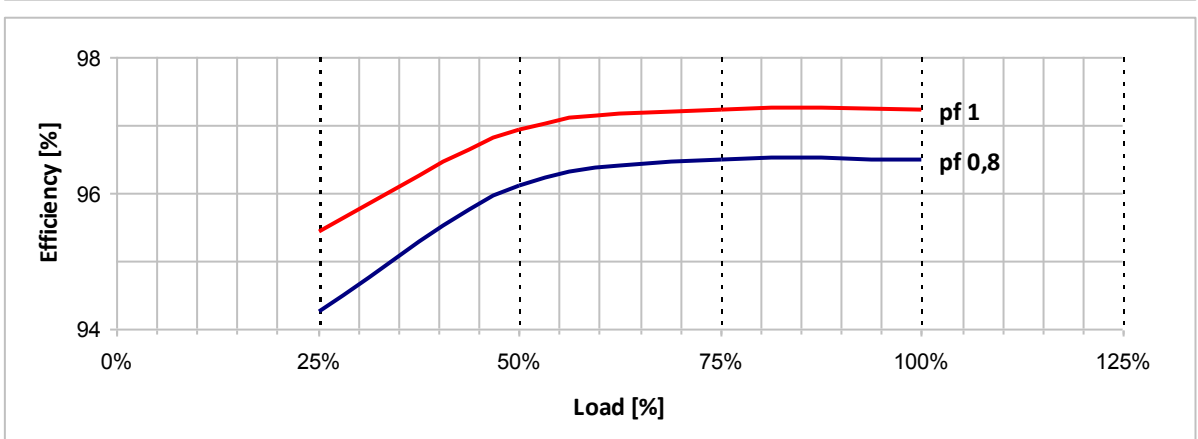


400 V

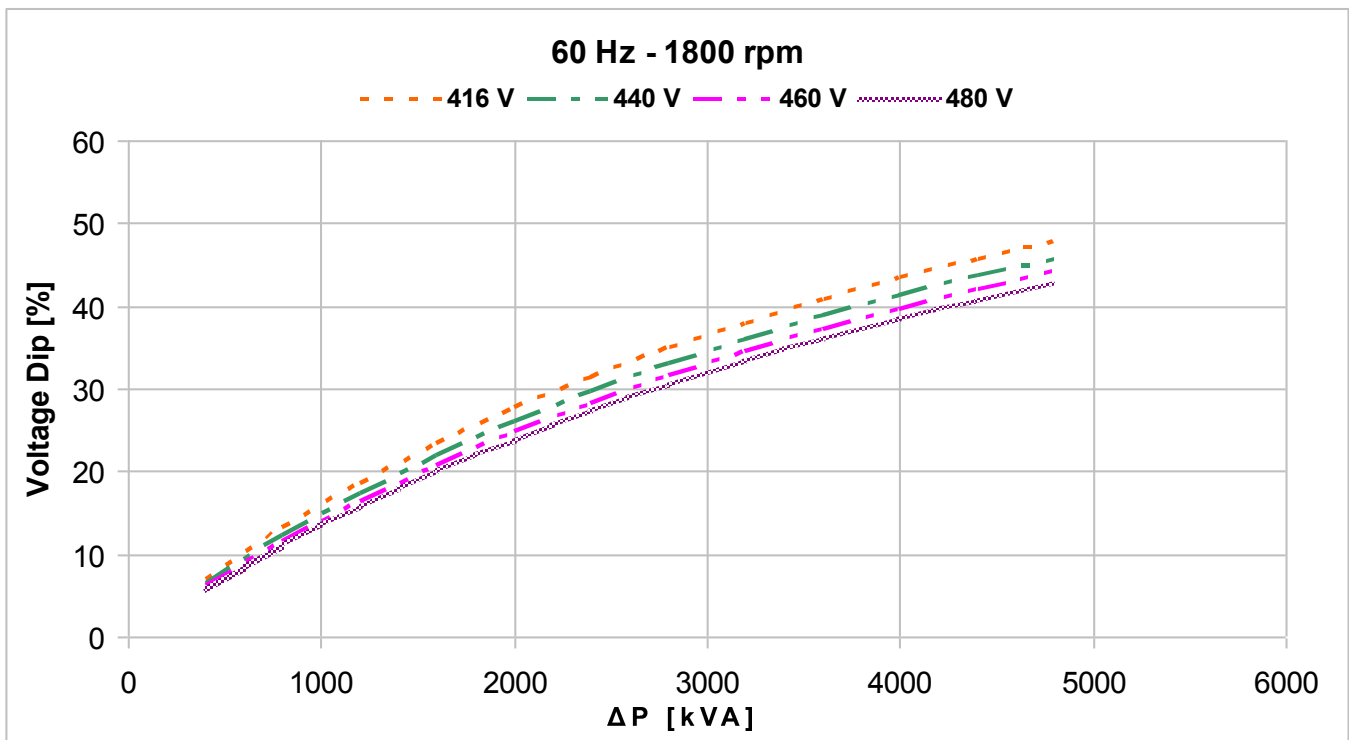
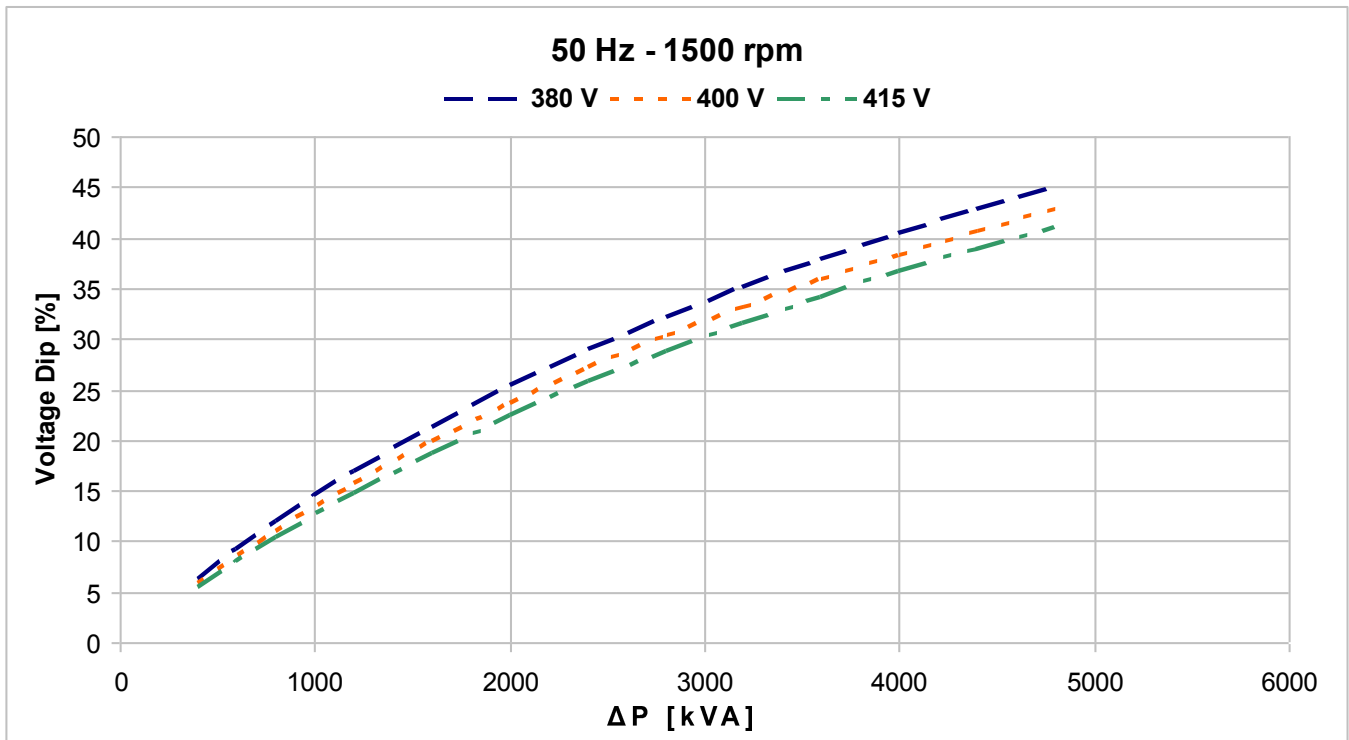


415 V



Typical efficiency curves
60 Hz - 1800 rpm
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.