

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

AMBIENT TEMPERATURE		40°C	WINDING DATA								Winding code	M0
TEMPERATURE RISE		H									Number of leads	12
INSULATION CLASS		H									Winding pitch	2/3
POWER FACTOR		0,8										
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	85,0	85,0	85,0	85,0	91,0	102	102	108	108
			kW	68,0	68,0	68,0	68,0	72,8	81,6	81,6	86,4	86,4
EFFICIENCY [%] @ 0,8 p.f.			4/4	90,5	91,0	90,9	90,8	90,2	90,5	91,0	91,2	91,5
			3/4	91,5	91,8	91,8	91,8	91,5	91,7	92,1	92,3	92,5
			2/4	91,9	92,1	92,0	92,1	92,1	92,4	92,8	92,8	92,9
EFFICIENCY [%] @ 1 p.f.			4/4	92,4	92,8	92,8	92,7	92,2	92,4	92,8	93,0	93,2
			3/4	93,2	93,5	93,5	93,5	93,2	93,4	93,7	93,9	94,1
			2/4	93,6	93,8	93,6	93,8	93,7	94,0	94,3	94,3	94,4
SHORT CIRCUIT RATIO			SCR	0,34	0,38	0,41	0,46	0,27	0,29	0,32	0,33	0,36
REACTANCES [%]												
Direct axis synchronous		X _d	316	285	265	236	302	379	339	329	302	
Quadrature axis synchronous		X _q	177	160	149	132	228	213	190	184	169	
Direct axis transient		X' _d	24,9	22,5	20,9	18,6	32,0	30,0	26,8	25,9	23,8	
Direct axis subtransient		X'' _d	12,0	10,8	10,0	8,9	15,4	14,4	12,9	12,5	11,4	
Quadrature axis subtransient		X'' _q	13,3	12,0	11,1	9,9	17,1	16,0	14,3	13,8	12,7	
Negative sequence		X ₂	12,6	11,4	10,6	9,4	16,2	15,2	13,6	13,1	12,1	
Zero sequence		X ₀	2,8	2,5	2,3	2,1	3,6	3,3	3,0	2,9	2,6	
TIME CONSTANTS [s]												
Open circuit		T' _{do}		0,82								
Transient		T' _d		0,071								
Subtransient		T'' _d		0,005								
Armature		T _a		0,005								

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	0,632
Weight [kg]	Refer to B34 construction	345
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	0,11
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

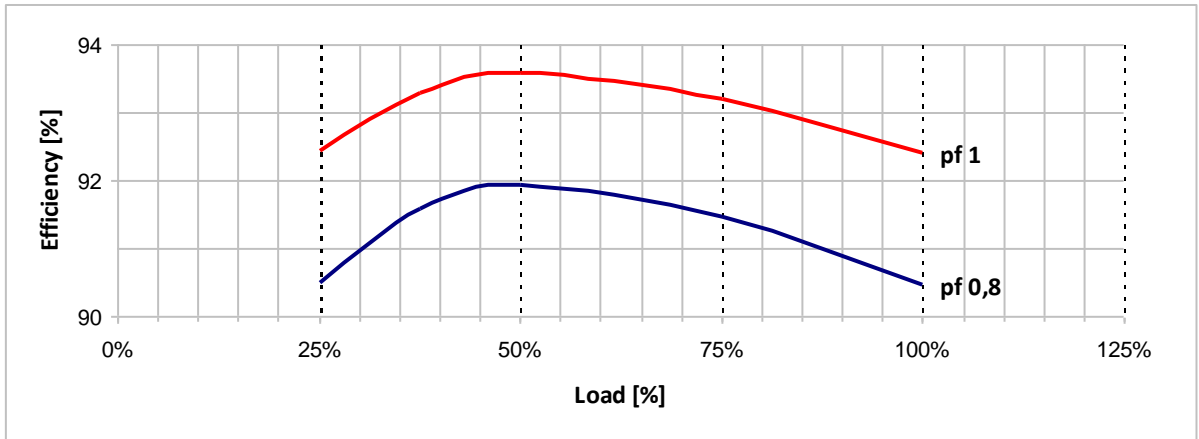
STANDARDS

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

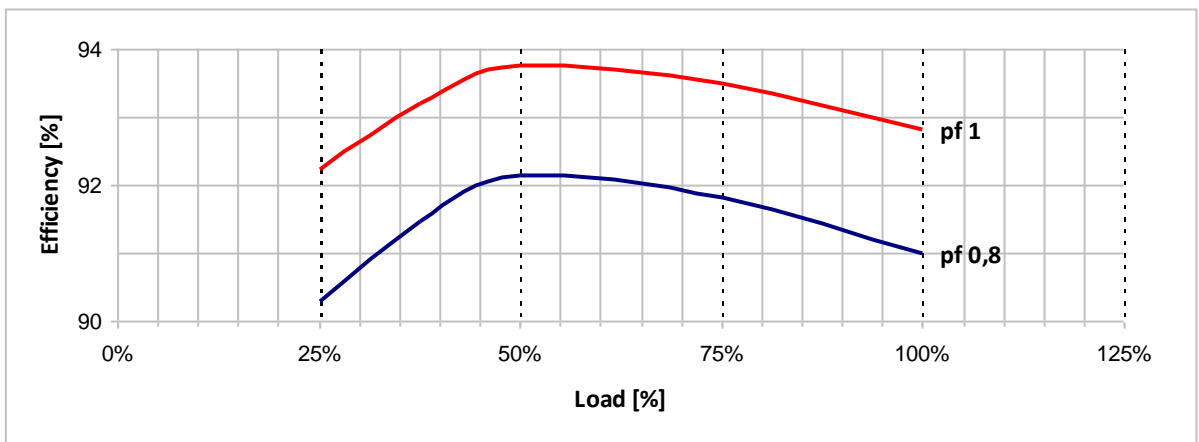
Typical efficiency curves

50 Hz - 1500 rpm

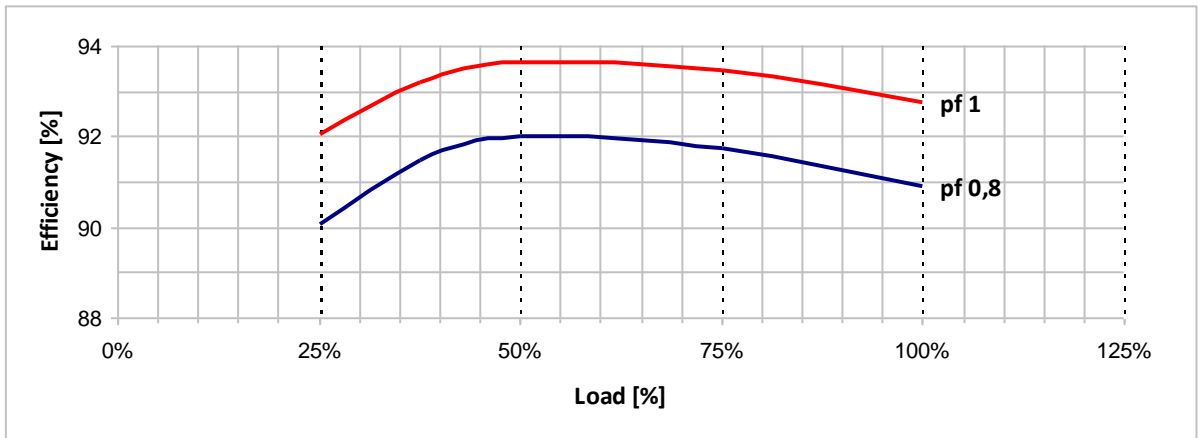
380 V



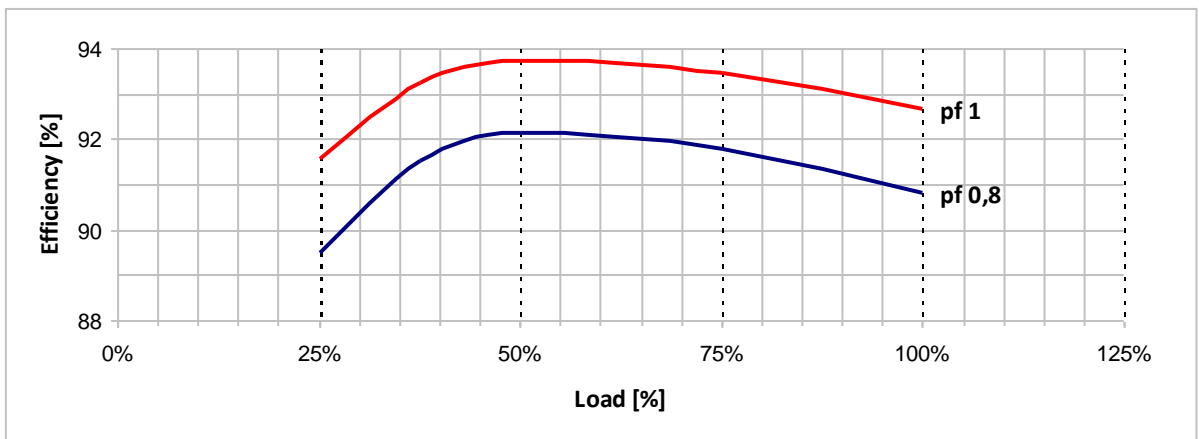
400 V



415 V



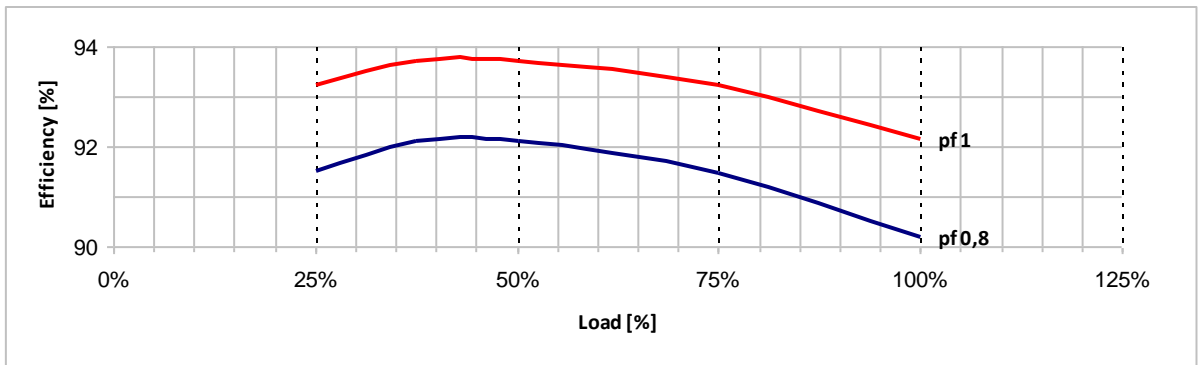
440 V



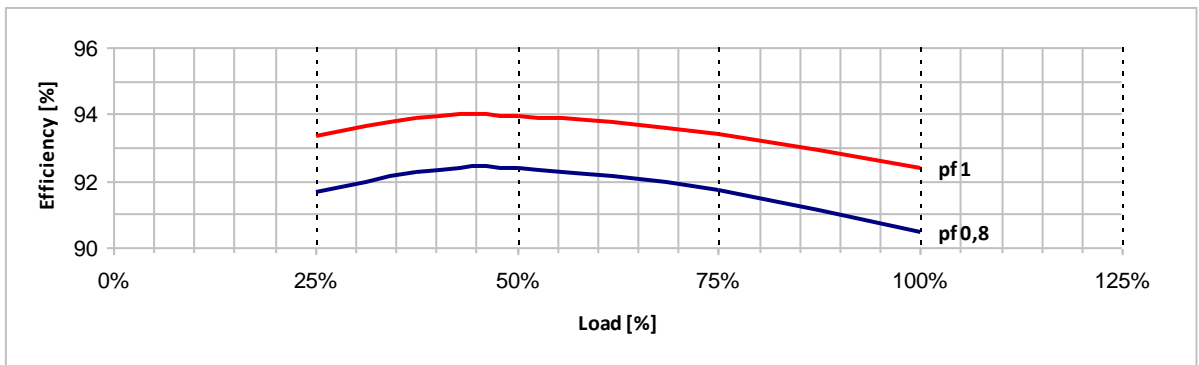
Typical efficiency curves

60 Hz - 1800 rpm

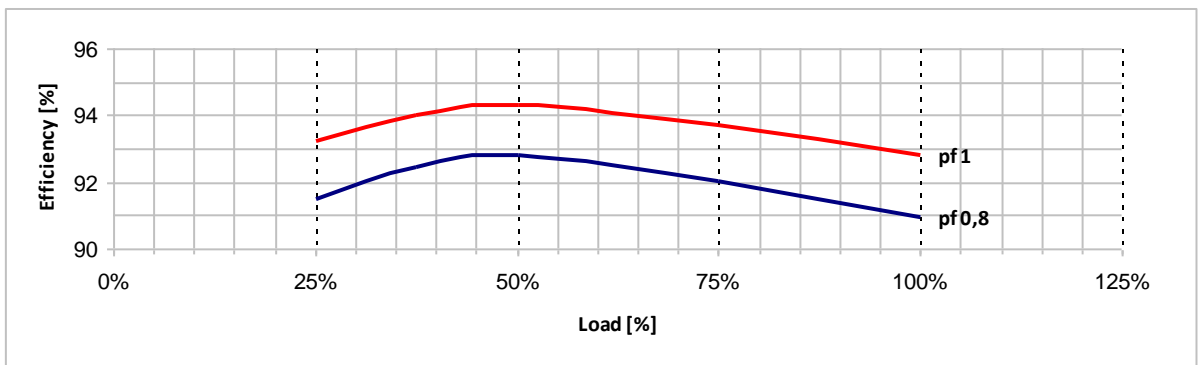
380 V



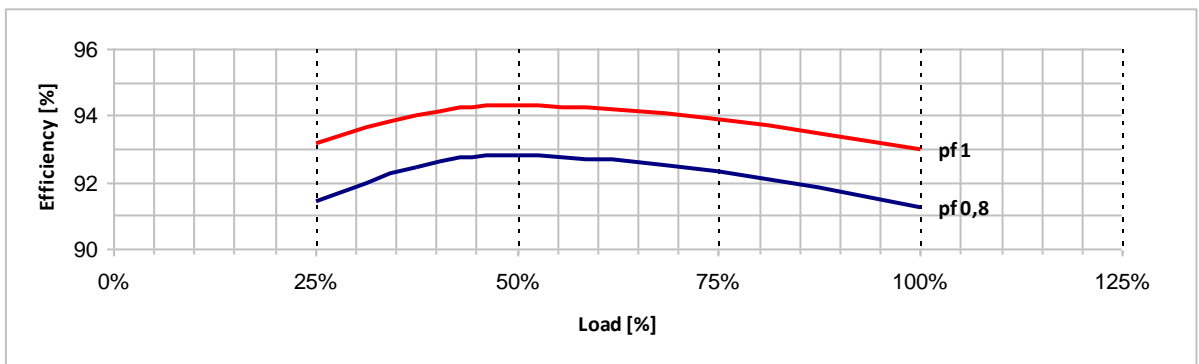
416 V



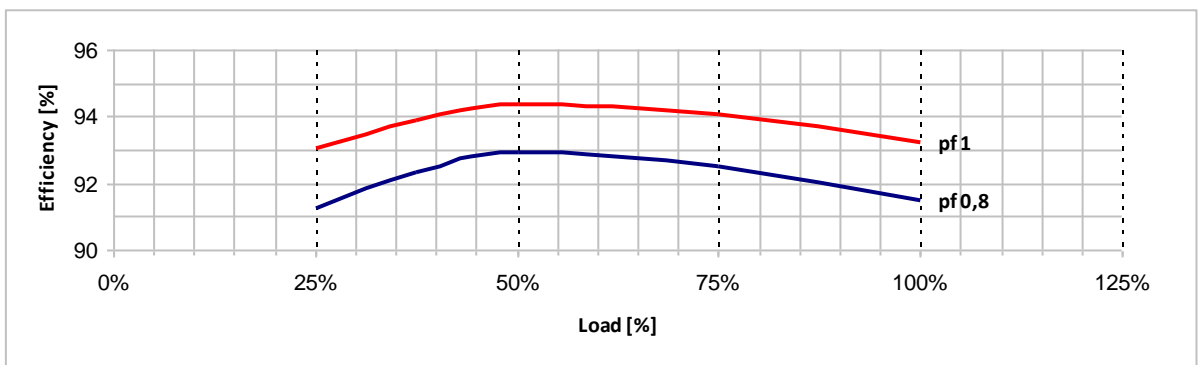
440 V



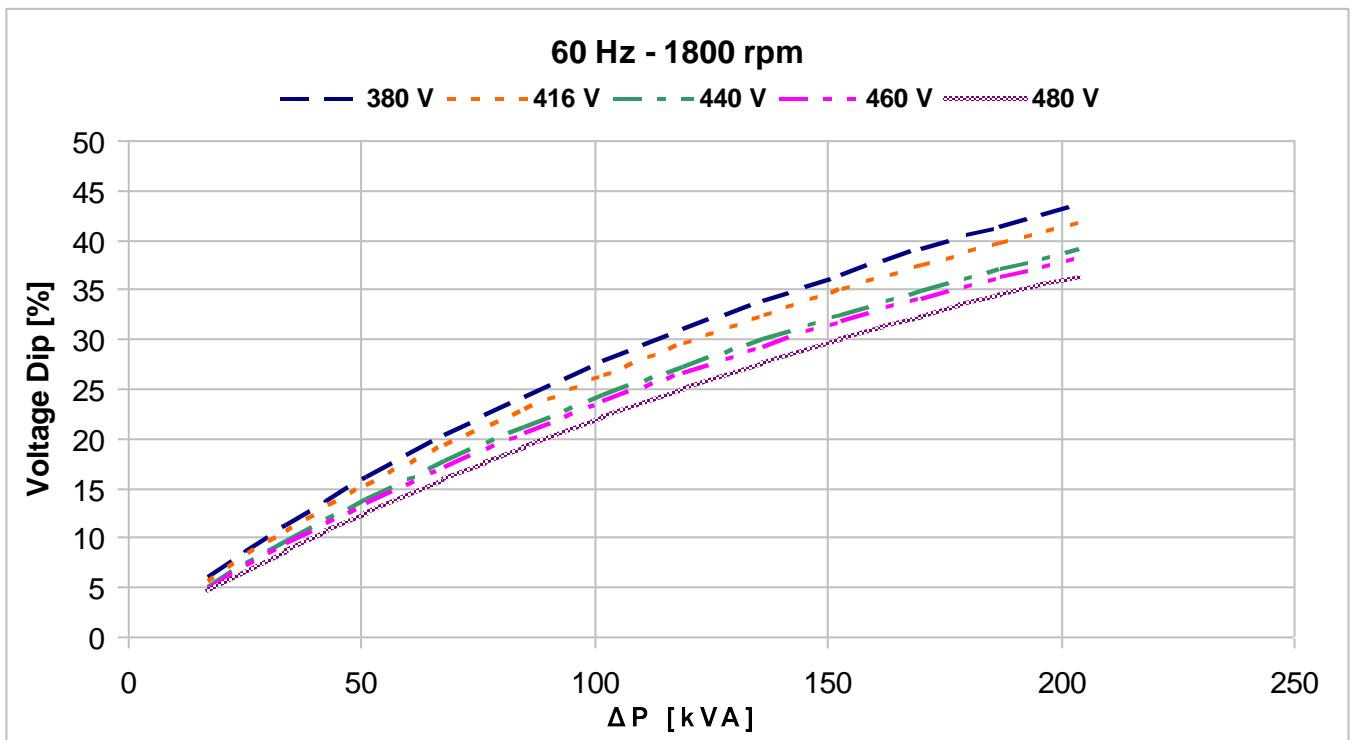
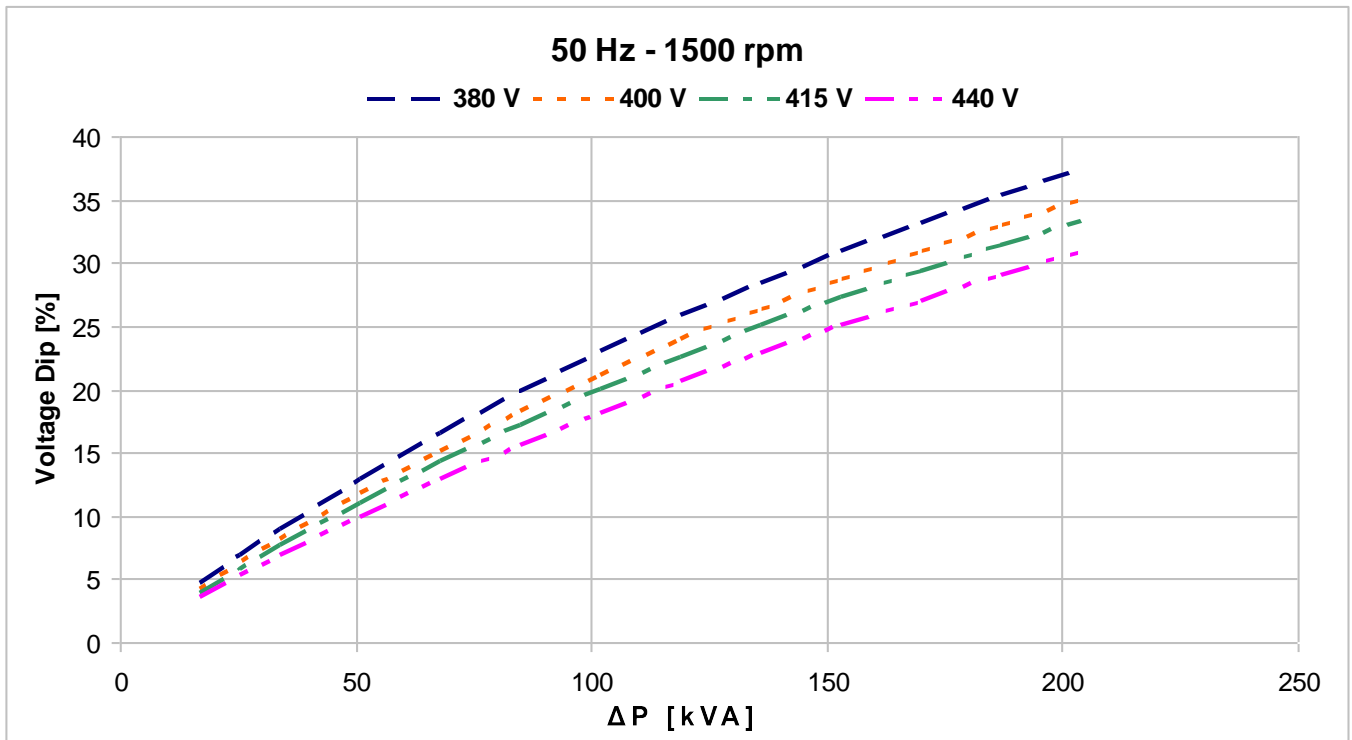
460 V



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.