

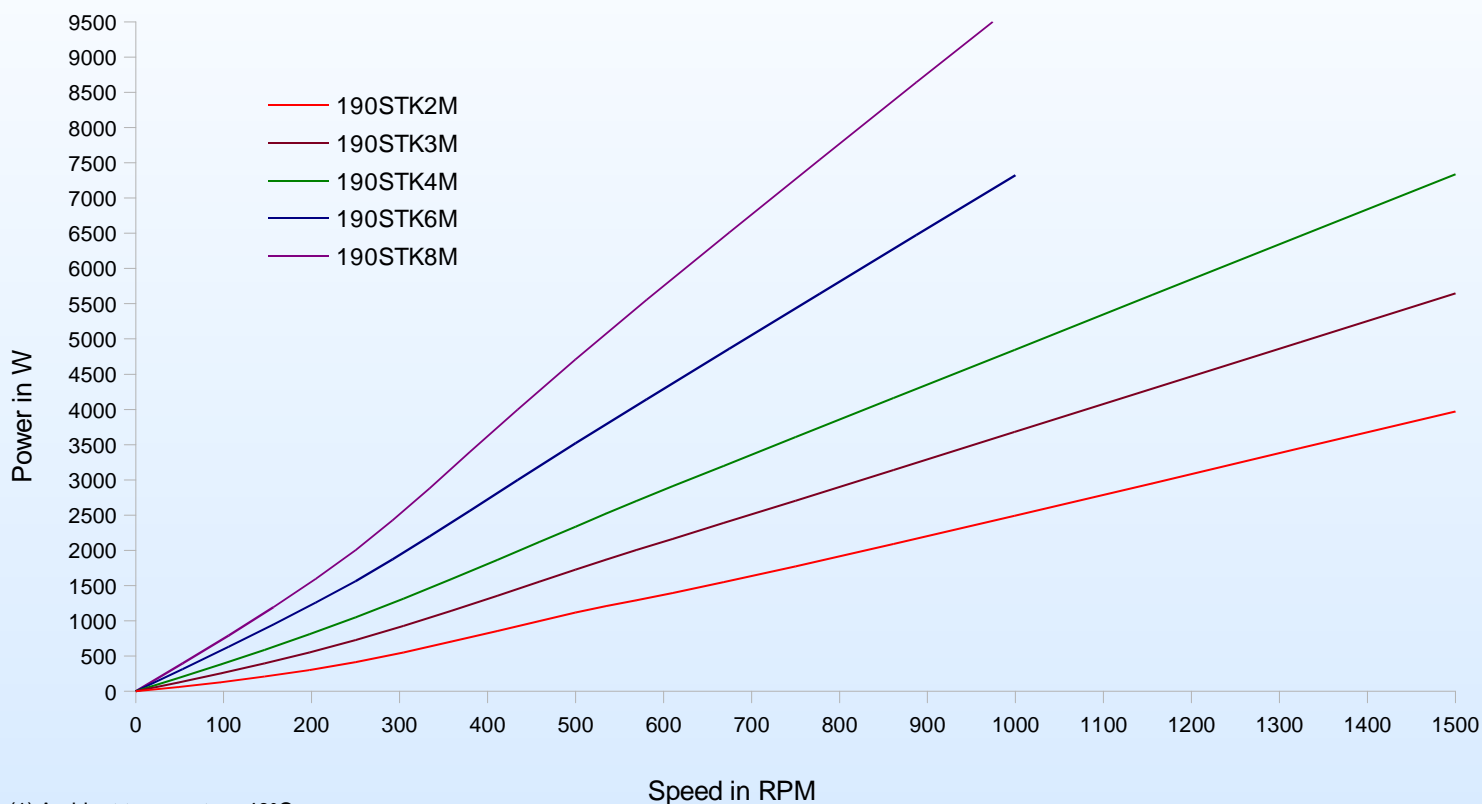
# TECHNICAL CHARACTERISTICS

## 190 STK ALTERNATORS

*See also the curves of Voltage, Torque, Efficiency vs Speed*

			190STK2M		190STK3M		190STK4M		190STK6M		190STK8M	
Rated speed			500	1500	500	1500	500	1500	500	1000	500	1000
Rated Power at Rated speed	Rated power (1)(2)	W	1118	3972	1726	5650	2337	7339	3519	7325	4713	9757
	Input torque at rated speed(1)(2)	N.m	27.2	30.9	41	41	54.3	53.1	80.7	79.9	107.3	106.1
	Efficiency at rated power (1)(2)	%	79	85	81	87	83	88	84	87	84	88
	Current at rated power (1)	Amps	2.8	11.1	3,7	16,3	5.7	19.5	8.6	17.8	11.4	25.6
	Voltage at rated power (1)(2)(3)	V	244	229	284	214	249	234	251	253	252	235
Rated Power at Half speed	Rated Power at half speed (1)(2)	W	416	1773	730	2706	1051	3608	1565	3519	2005	4713
	Input torque at half speed (1)(2)	N.m	21.8	31	41	41	54.4	53.8	81.5	80.7	98.2	107.3
	Efficiency at half speed (1)(2)	%	73	83	68	85	71	86	74	84	78	84
Number of poles (number of pairs of poles)			12 (6)									
Cogging torque		N.m	0.5		0.7		0.9		1.3		1.7	
Phase resistance at 20°C		Ohm	8.82	0.84	5.81	0.36	3.03	0.27	1.82	0.44	1.23	0.24
Phase inductance (5)		mH	83.8	8.3	74	4	40.8	3.5	25	6.3	20.4	4.1
Voltage at no load (back emf) at 20°C (4)		V	357	334	404	289	352	308	357	337	352	313
Rotor inertia		10 <sup>-3</sup> Kg.m <sup>2</sup>	4.12		5.81		7.5		10.88		14.26	
Weight		Kg	13		17.5		22		31		40	
Power cable square section (6)		mm <sup>2</sup>	4x1.5		4x1.5		4x1.5	4x2.5	4x1.5	4x2.5	4x1.5	4x4
Power cable diameter		mm	Ø8.6		Ø8.6		Ø8.6	Ø10.8	Ø8.6	Ø10.8	Ø8.6	Ø12.2

### Alternator 190STK Power - Speed



- (1) Ambient temperature 40°C  
Wind speed 10 m/s cooling the housing  
Winding temperature rise < 100°C  
Stator housing in contact with the ambient air or integral on all its peripheral area with a metallic armature in contact with the ambient air  
Stator housing secured on a metallic frame getting an area equal to twice the cross section of the housing
- (2) Operation in sine wave mode with unity power factor
- (3) Line to line voltage. Voltage level may be adapted according to the application; please contact us
- (4) Line to line voltage, alternator at no load, rated speed and at 20°C
- (5) For current at rated power
- (6) For currents lower than 53 Amps, one cable  
For currents over 53 Amps, four single wires output (highlighted in the table)