

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA Premium Efficiency Three-Phase Product code : 11170049

Frame : 254JM	Cooling method : IC01 - ODP
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight ³ : 110 kg
Protection degree : IP23	Moment of inertia (J) : 0.0878 kgm ²
Design : B	

Output [HP]	15	10	10	10	15	15	15
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	37.2/18.6	16.2	16.2	16.2	22.1	21.8	21.8
L. R. Amperes [A]	249/125	110	110	113	119	124	131
LRC [A]	6.7x(Code H)	6.8x(Code J)	6.8x(Code J)	7.0x(Code K)	5.4x(Code F)	5.7x(Code G)	6.0x(Code G)
No load current [A]	18.0/9.00	9.20	10.1	10.9	9.20	10.4	11.6
Rated speed [RPM]	1775	1480	1480	1485	1470	1470	1475
Slip [%]	1.39	1.33	1.33	1.00	2.00	2.00	1.67
Rated torque [kgfm]	6.13	4.90	4.90	4.89	7.41	7.41	7.38
Locked rotor torque [%]	290	270	280	300	180	190	210
Breakdown torque [%]	300	370	390	400	280	310	340
Service factor	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	37s (cold) 21s (hot)	34s (cold) 19s (hot)	30s (cold) 17s (hot)	37s (cold) 21s (hot)	34s (cold) 19s (hot)	30s (cold) 17s (hot)
Noise level ²	59.0 dB(A)						
Efficiency (%)	25%						
	50%	91.7	86.4	86.2	85.9	88.5	88.5
	75%	92.4	89.2	89.3	89.3	89.5	89.5
	100%	93.0	90.4	90.5	90.6	91.0	91.0
Power Factor	25%						
	50%	0.60	0.56	0.52	0.50	0.66	0.61
	75%	0.72	0.70	0.66	0.62	0.77	0.73
	100%	0.80	0.78	0.74	0.71	0.83	0.80

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 Z C3	6209 Z C3	Max. traction : 339 kgf
Sealing :	Without	Without	Max. compression : 450 kgf
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	13 g	9 g	
Lubricant type :	Mobil Polyrex EM		

Notes

USABLE @208V 41.1A SF 1.15 SFA 47.3A

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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Revision

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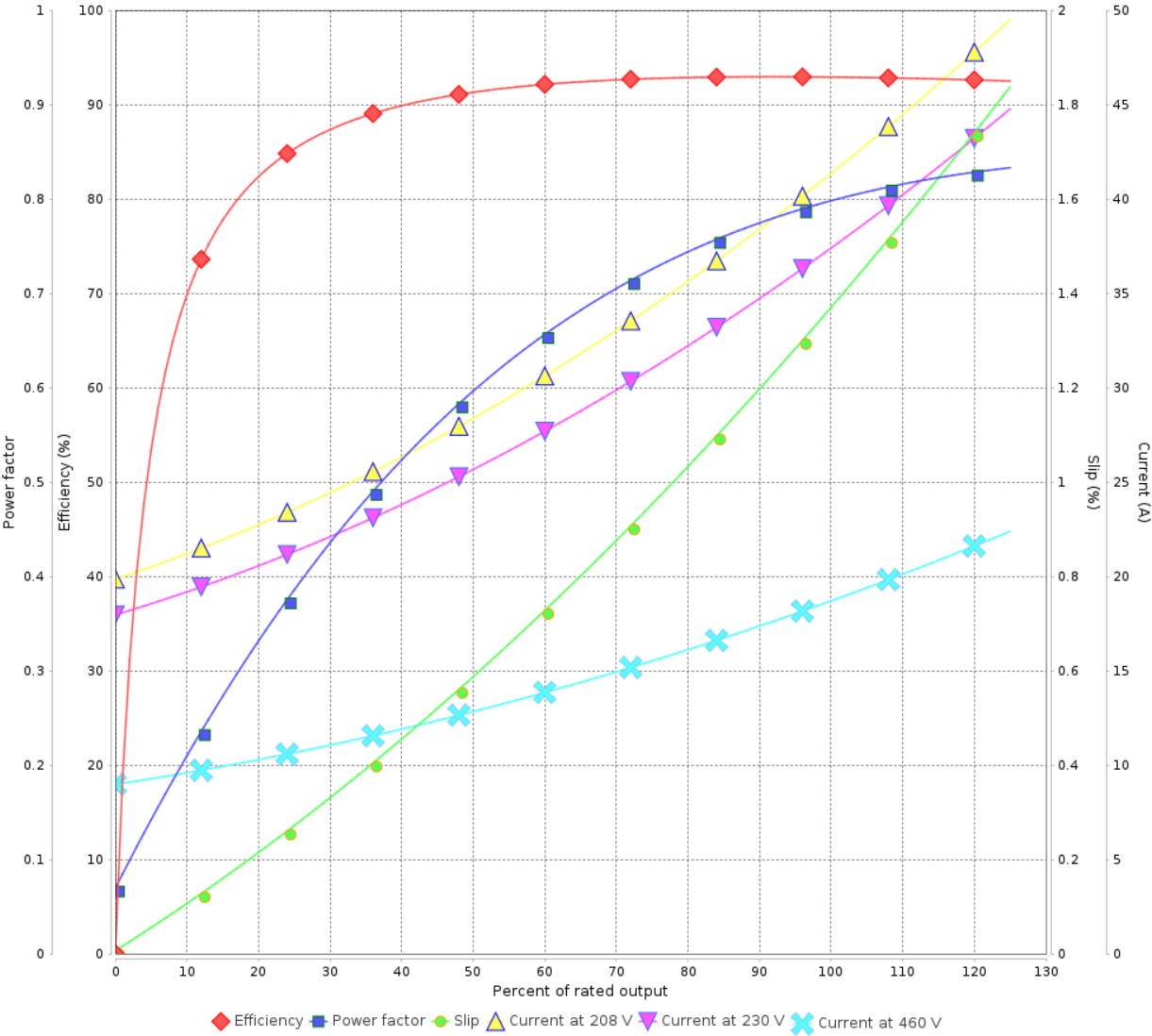
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA Premium Efficiency Three-Phase Product code : 11170049

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Performance : 230/460 V 60 Hz 4P			
Rated current	: 37.2/18.6 A	Moment of inertia (J)	: 0.0878 kgm ²
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 6.13 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1775 rpm	Design	: B

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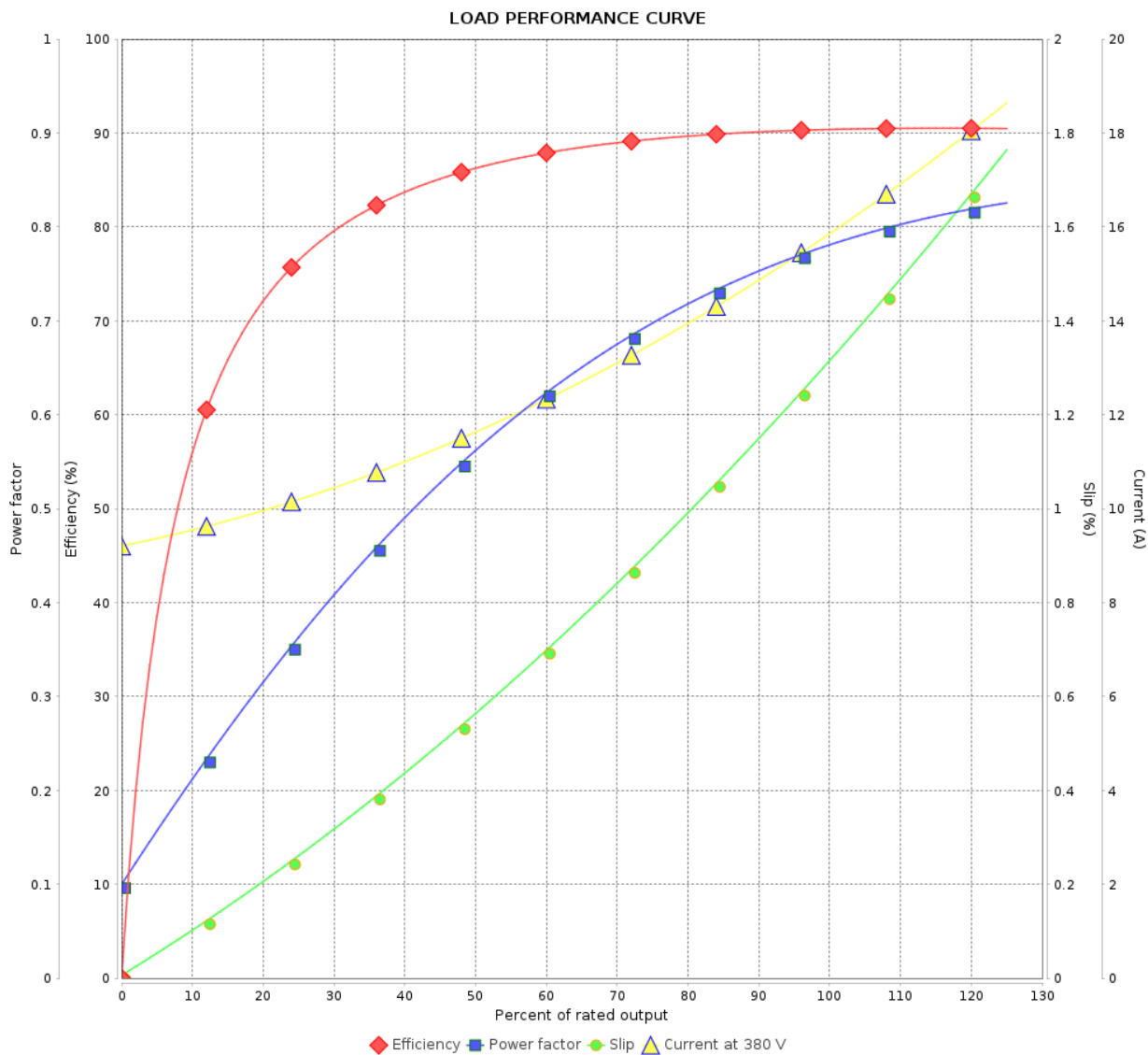
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 11170049



Performance : 380 V 50 Hz 4P IE3

Rated current : 16.2 A
LRC : 6.8
Rated torque : 4.90 kgfm
Locked rotor torque : 270 %
Breakdown torque : 370 %
Rated speed : 1480 rpm

Moment of inertia (J) : 0.0878 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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Three Phase Induction Motor - Squirrel Cage

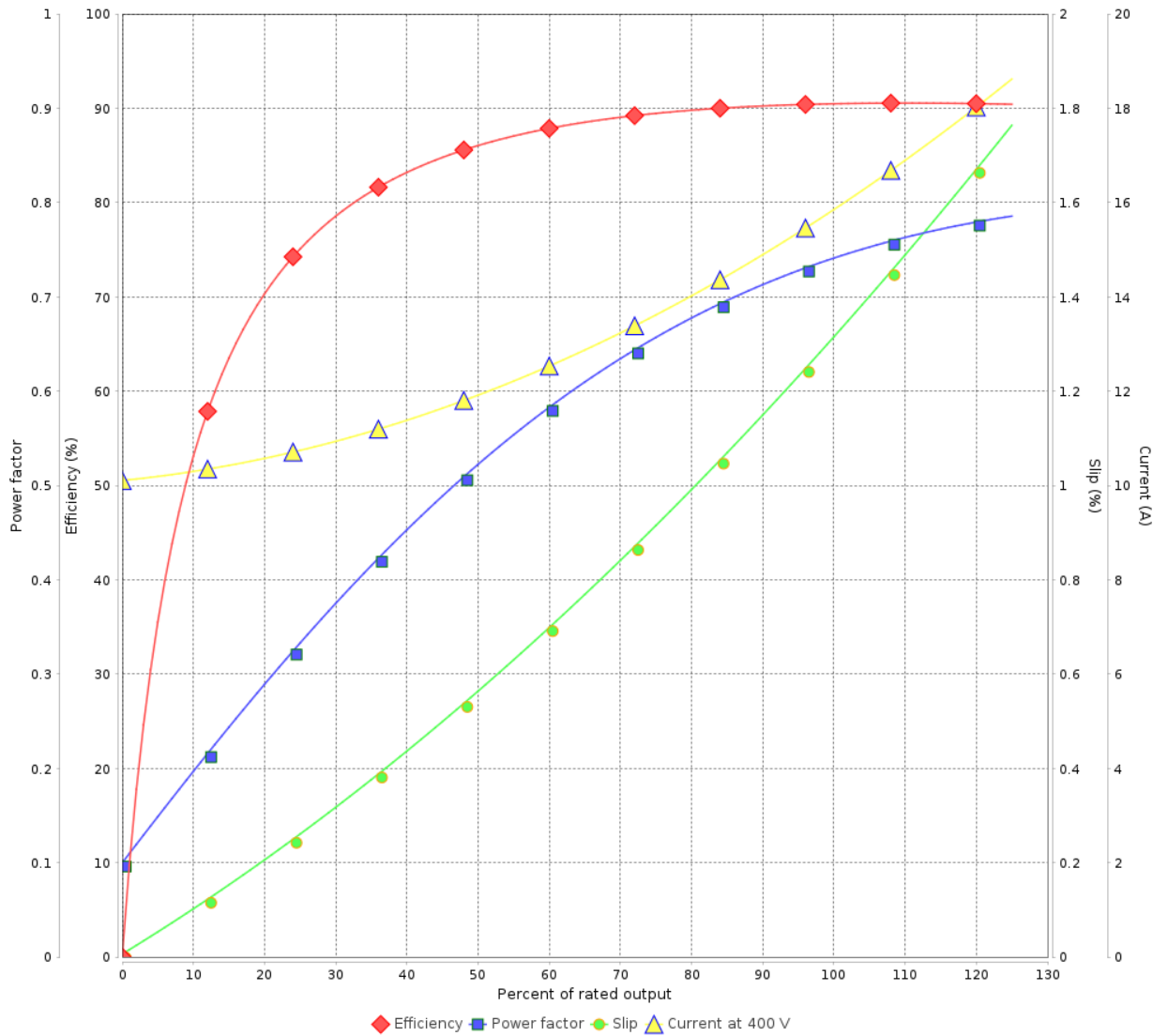


Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 11170049

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Performance		: 400 V 50 Hz 4P IE3	
Rated current	: 16.2 A	Moment of inertia (J)	: 0.0878 kgm ²
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.90 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 390 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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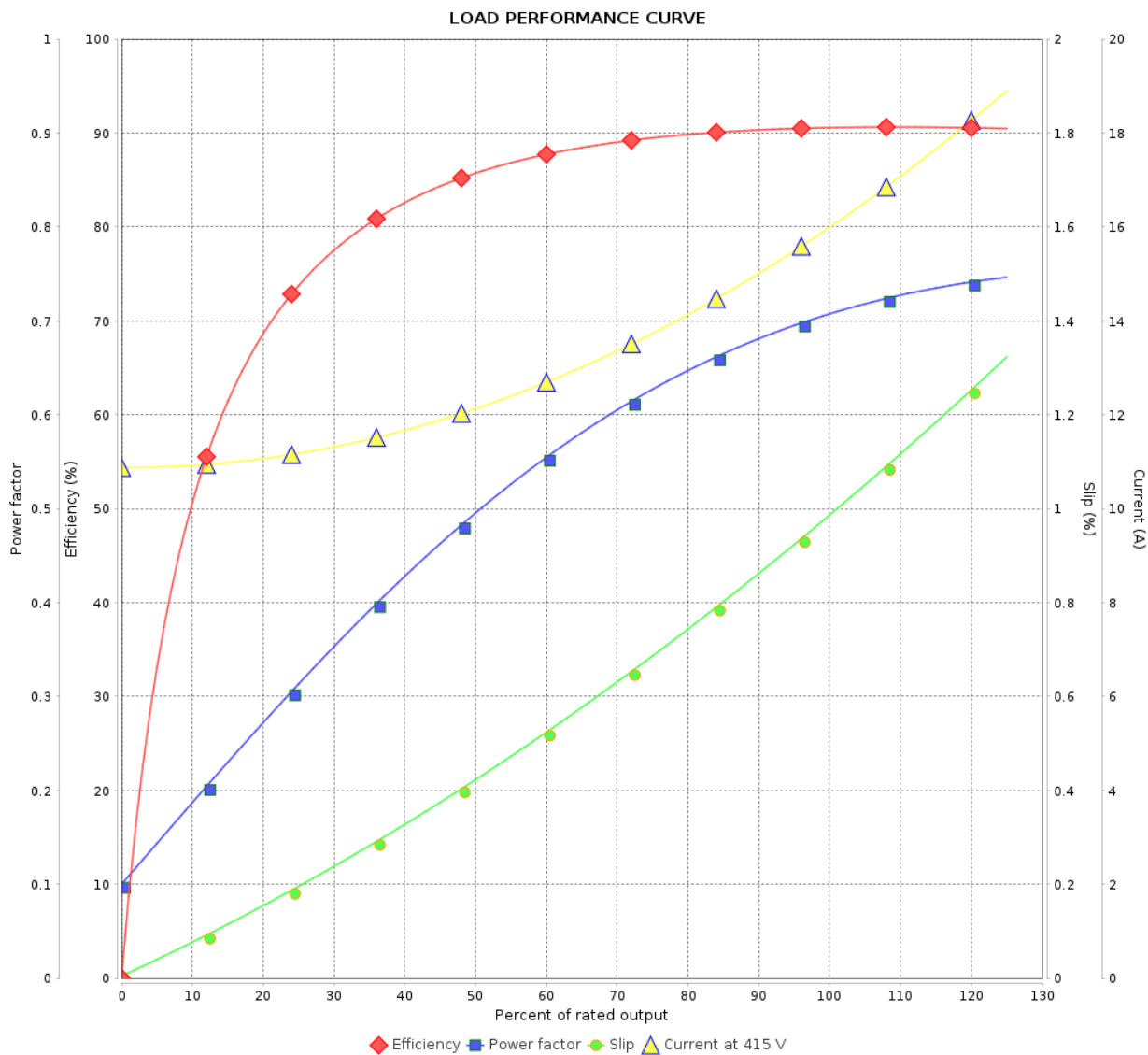
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 11170049



Performance : 415 V 50 Hz 4P IE3

Rated current : 16.2 A
LRC : 7.0
Rated torque : 4.89 kgfm
Locked rotor torque : 300 %
Breakdown torque : 400 %
Rated speed : 1485 rpm

Moment of inertia (J) : 0.0878 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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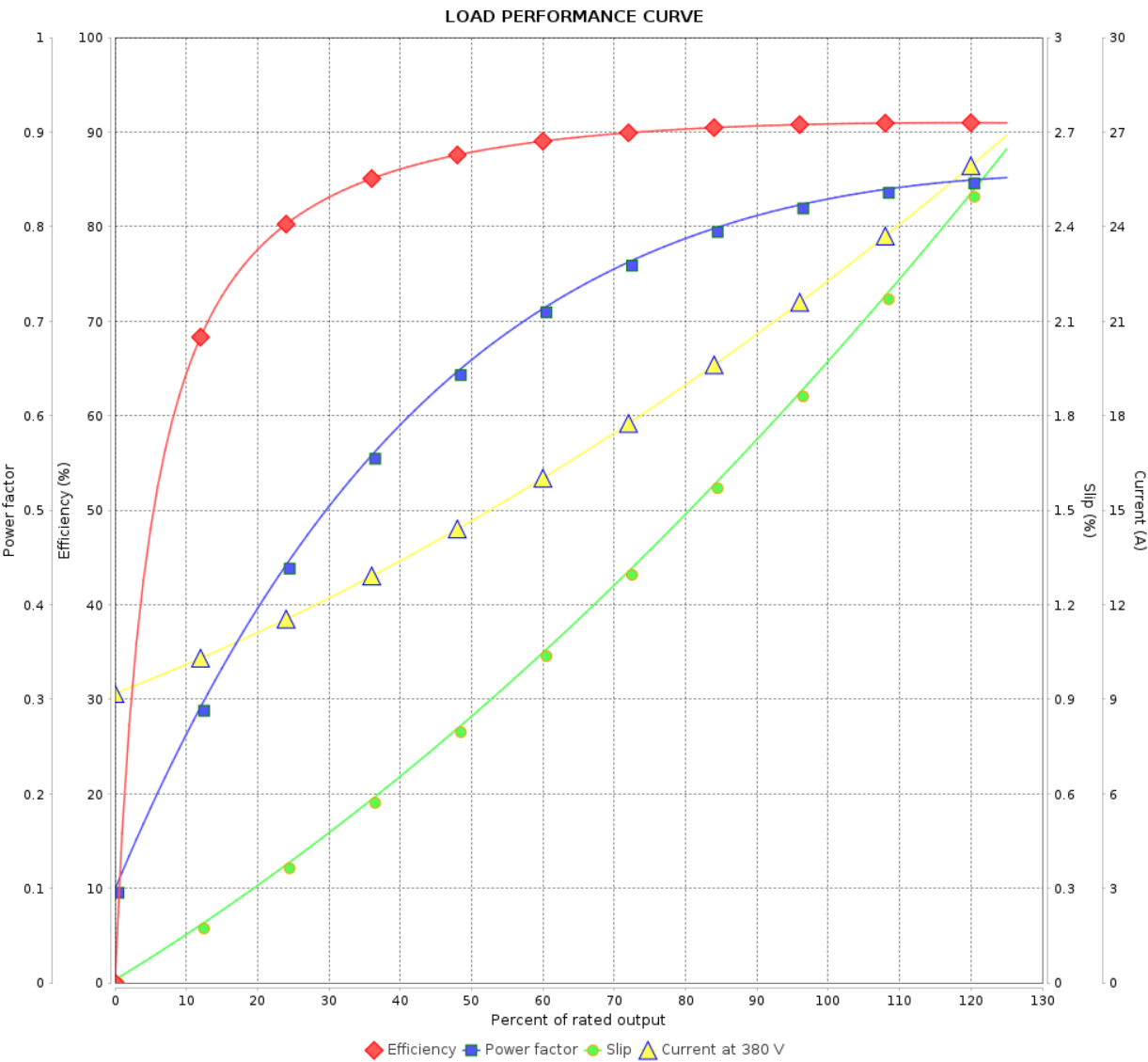
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 11170049



Performance : 380 V 50 Hz 4P IE2

Rated current	: 22.1 A	Moment of inertia (J)	: 0.0878 kgm ²
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 7.41 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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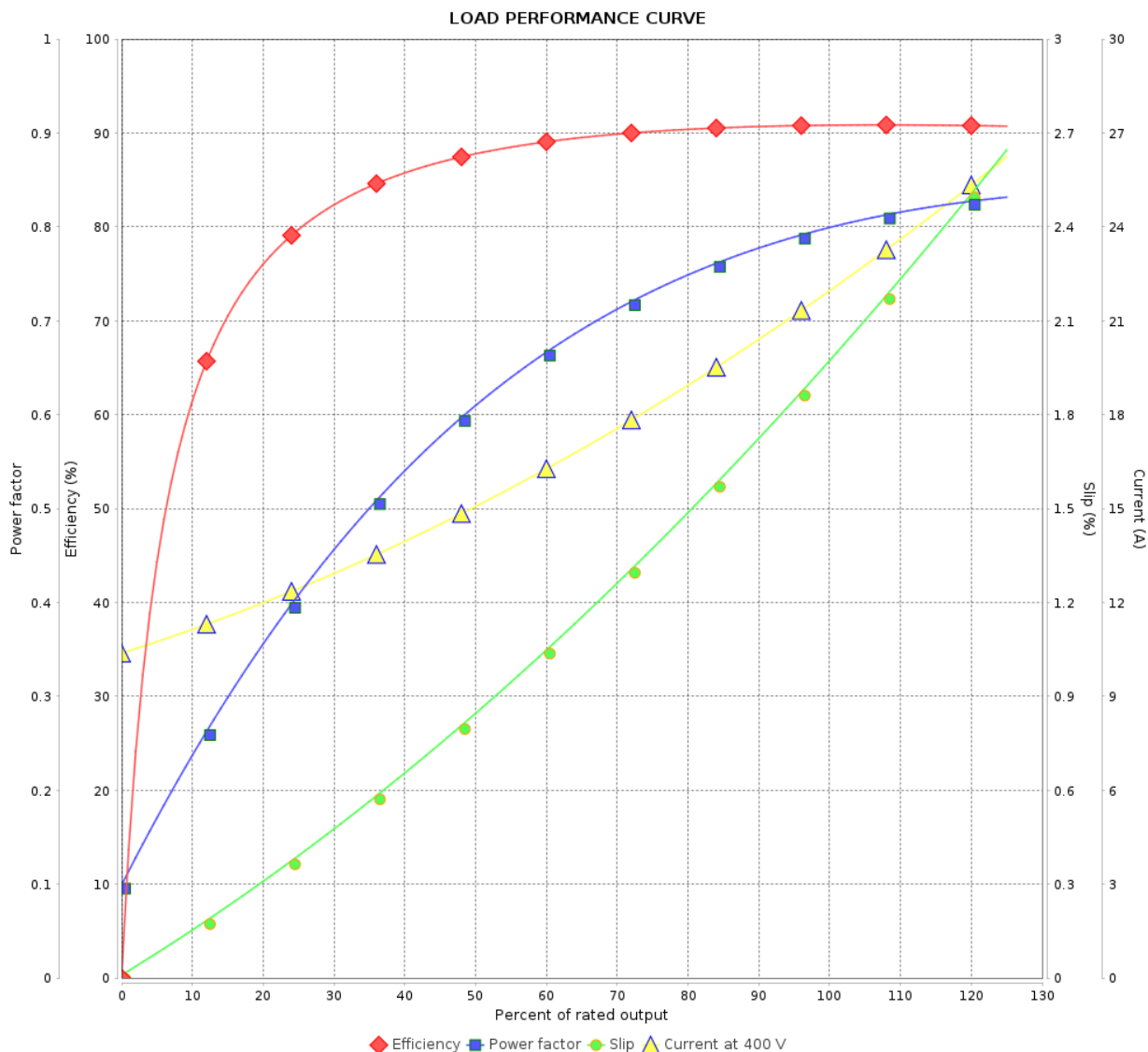
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 11170049



Performance : 400 V 50 Hz 4P IE2

Rated current : 21.8 A
LRC : 5.7
Rated torque : 7.41 kgfm
Locked rotor torque : 190 %
Breakdown torque : 310 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.0878 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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Three Phase Induction Motor - Squirrel Cage

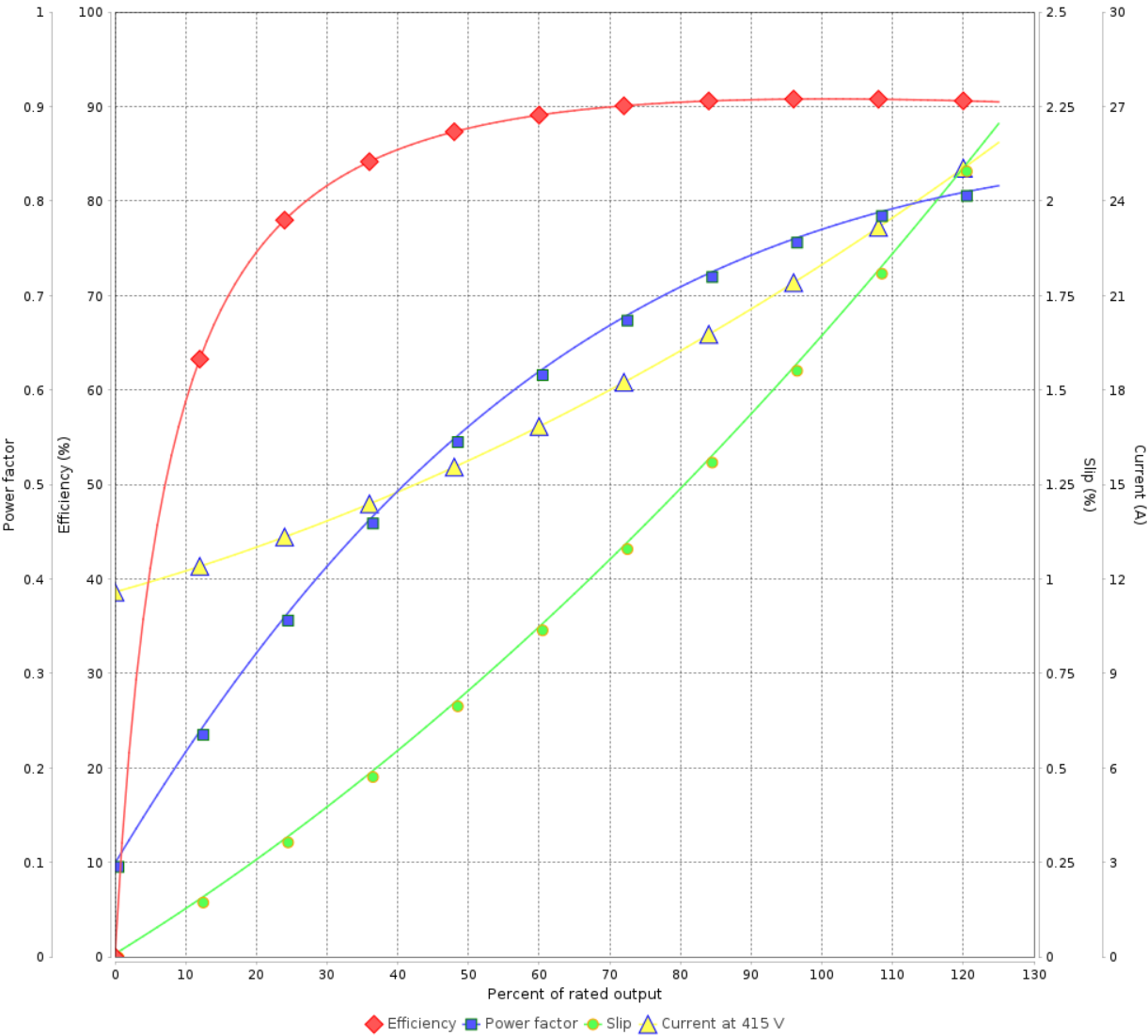


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Product line : Close Coupled Pump NEMA
Premium Efficiency Three-Phase

Product code : 11170049

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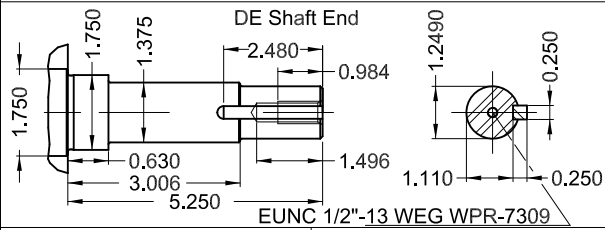
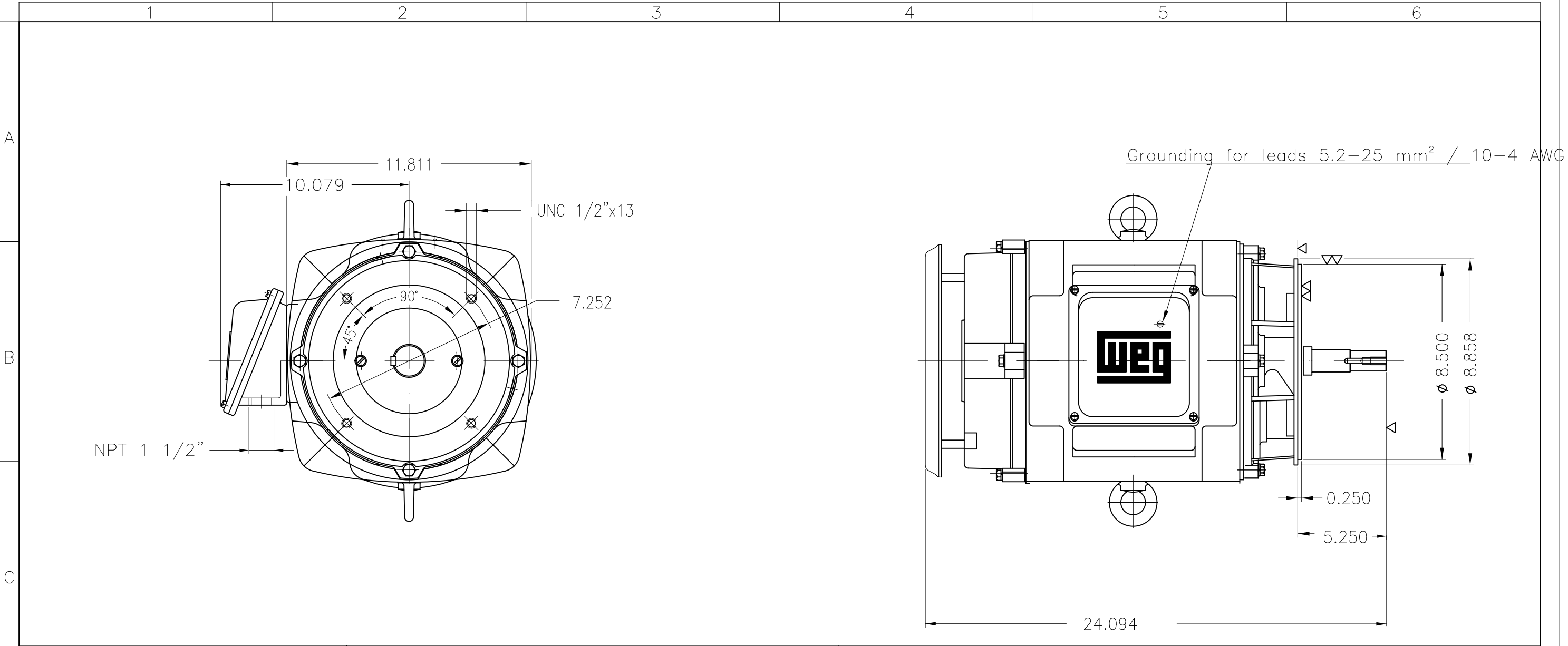


Performance : 415 V 50 Hz 4P IE2

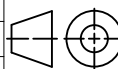
Rated current : 21.8 A
LRC : 6.0
Rated torque : 7.38 kgfm
Locked rotor torque : 210 %
Breakdown torque : 340 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.0878 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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Without switch off thermal protection
Color RAL 5009
Painting plan 203A
Mounting B14R(D)

15 HP 04 Poles 60 Hz										A
					HYBRISUSER					00
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	HYBRISUSER		THREE PH. MOTOR JM/JP/JET PUMP NEMA PREM. EFF. FRAME 254JM IP23 ODP			PREVIEW				
CHECKED						WDD 00				
RELEASED										
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				