

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA Premium Efficiency Three-Phase Product code : 11083242

Frame : 213/5JM	Cooling method : IC01 - ODP
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight <sup>3</sup> : 58.9 kg
Protection degree : IP21	Moment of inertia (J) : 0.0243 kgm <sup>2</sup>
Design : B	

Output [HP]	15	10	10	10	15	15	15
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	34.8/17.4	14.3	13.7	13.4	21.5	20.6	19.9
L. R. Amperes [A]	251/125	93.0	95.9	93.8	112	122	127
LRC [A]	7.2x(Code H)	6.5x(Code J)	7.0x(Code K)	7.0x(Code K)	5.2x(Code F)	5.9x(Code G)	6.4x(Code G)
No load current [A]	11.6/5.80	5.50	5.60	5.70	5.12	5.90	6.68
Rated speed [RPM]	3515	2930	2935	2935	2885	2900	2910
Slip [%]	2.36	2.33	2.17	2.17	3.83	3.33	3.00
Rated torque [kgfm]	3.10	2.47	2.47	2.46	3.79	3.76	3.74
Locked rotor torque [%]	210	210	229	250	170	190	210
Breakdown torque [%]	270	280	310	330	229	260	290
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	16s (cold) 9s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)
Noise level <sup>2</sup>	69.0 dB(A)						
Efficiency (%)	25%						
	50%	90.2	88.0	88.0	89.0	86.5	86.5
	75%	91.0	90.0	90.0	90.0	86.5	86.5
	100%	91.0	90.5	90.5	90.7	86.5	86.5
Power Factor	25%						
	50%	0.73	0.75	0.74	0.70	0.84	0.76
	75%	0.82	0.85	0.83	0.81	0.89	0.86
	100%	0.87	0.88	0.87	0.86	0.90	0.89

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6209 ZZ	6206 ZZ	Max. traction : 171 kgf
Sealing :	Without	Without	Max. compression : 230 kgf
	Bearing Seal	Bearing Seal	
Lubrication interval :	-	-	
Lubricant amount :	-	-	
Lubricant type :	Mobil Polyrex EM		

### Notes

USABLE @208V 38.5A SF 1.15 SFA 44.3A

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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	23/10/2024			

Page 1 / 8  
Revision

# LOAD PERFORMANCE CURVE

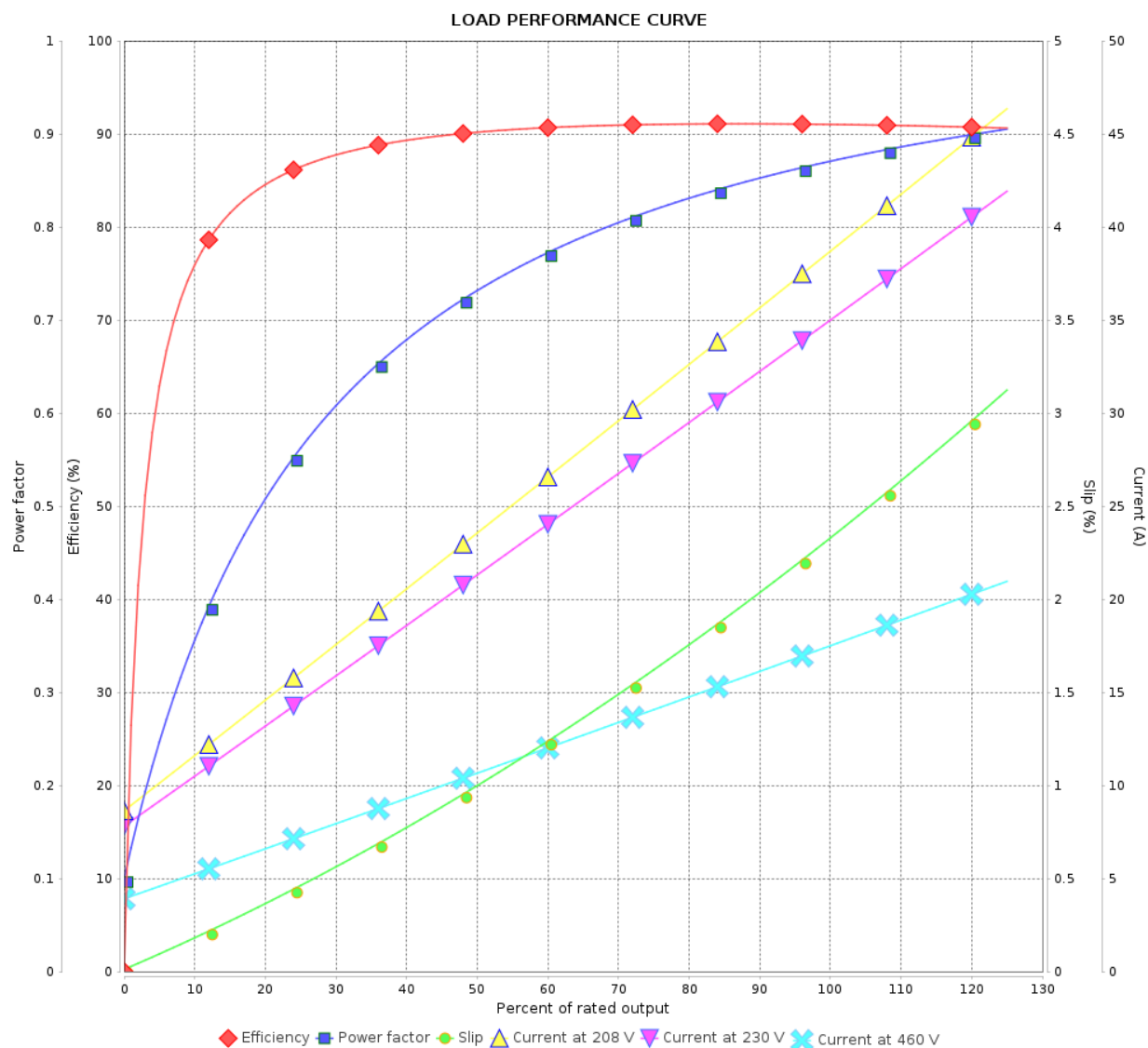
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11083242



Performance : 230/460 V 60 Hz 2P

Rated current : 34.8/17.4 A  
LRC : 7.2  
Rated torque : 3.10 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 270 %  
Rated speed : 3515 rpm

Moment of inertia (J) : 0.0243 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 2 / 8	Revision
Checked by					
Date	23/10/2024				

# LOAD PERFORMANCE CURVE

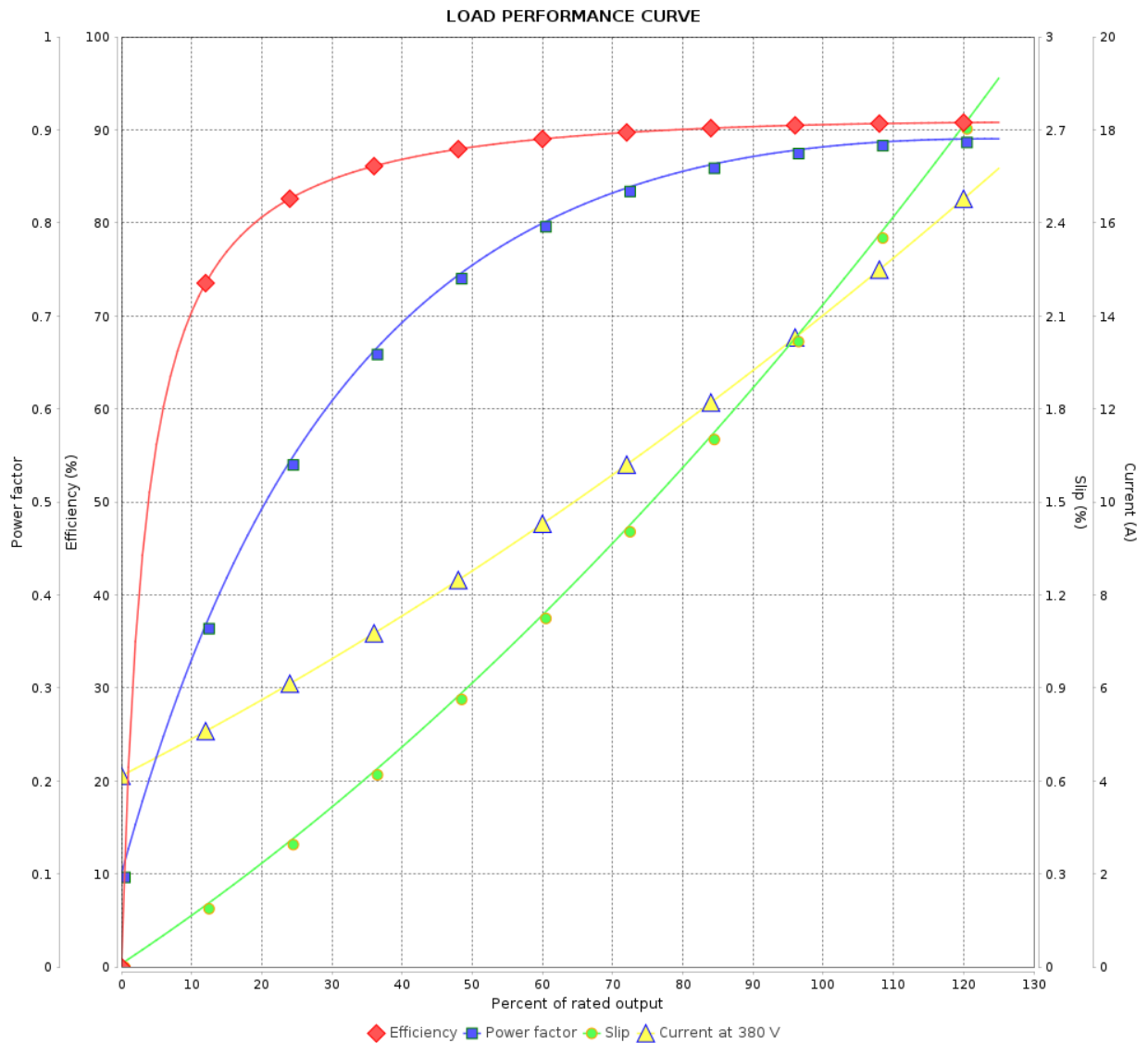
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11083242



Performance : 380 V 50 Hz 2P IE3

Rated current : 14.3 A  
LRC : 6.5  
Rated torque : 2.47 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 280 %  
Rated speed : 2930 rpm

Moment of inertia (J) : 0.0243 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 3 / 8	Revision
Checked by					
Date	23/10/2024				

# LOAD PERFORMANCE CURVE

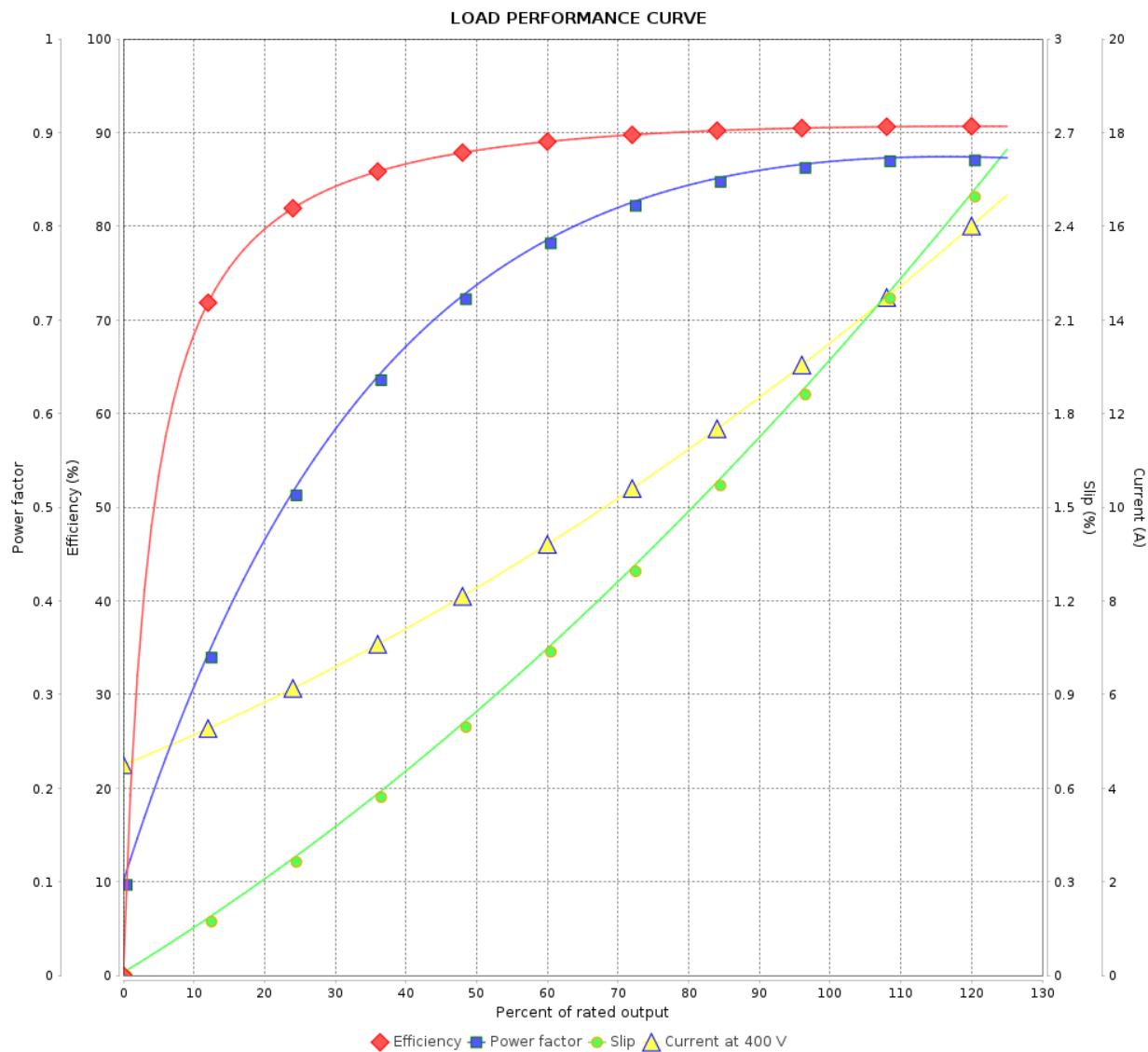
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11083242



Performance : 400 V 50 Hz 2P IE3

Rated current : 13.7 A  
LRC : 7.0  
Rated torque : 2.47 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 310 %  
Rated speed : 2935 rpm

Moment of inertia (J) : 0.0243 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 4 / 8	Revision
Checked by					
Date	23/10/2024				

# LOAD PERFORMANCE CURVE

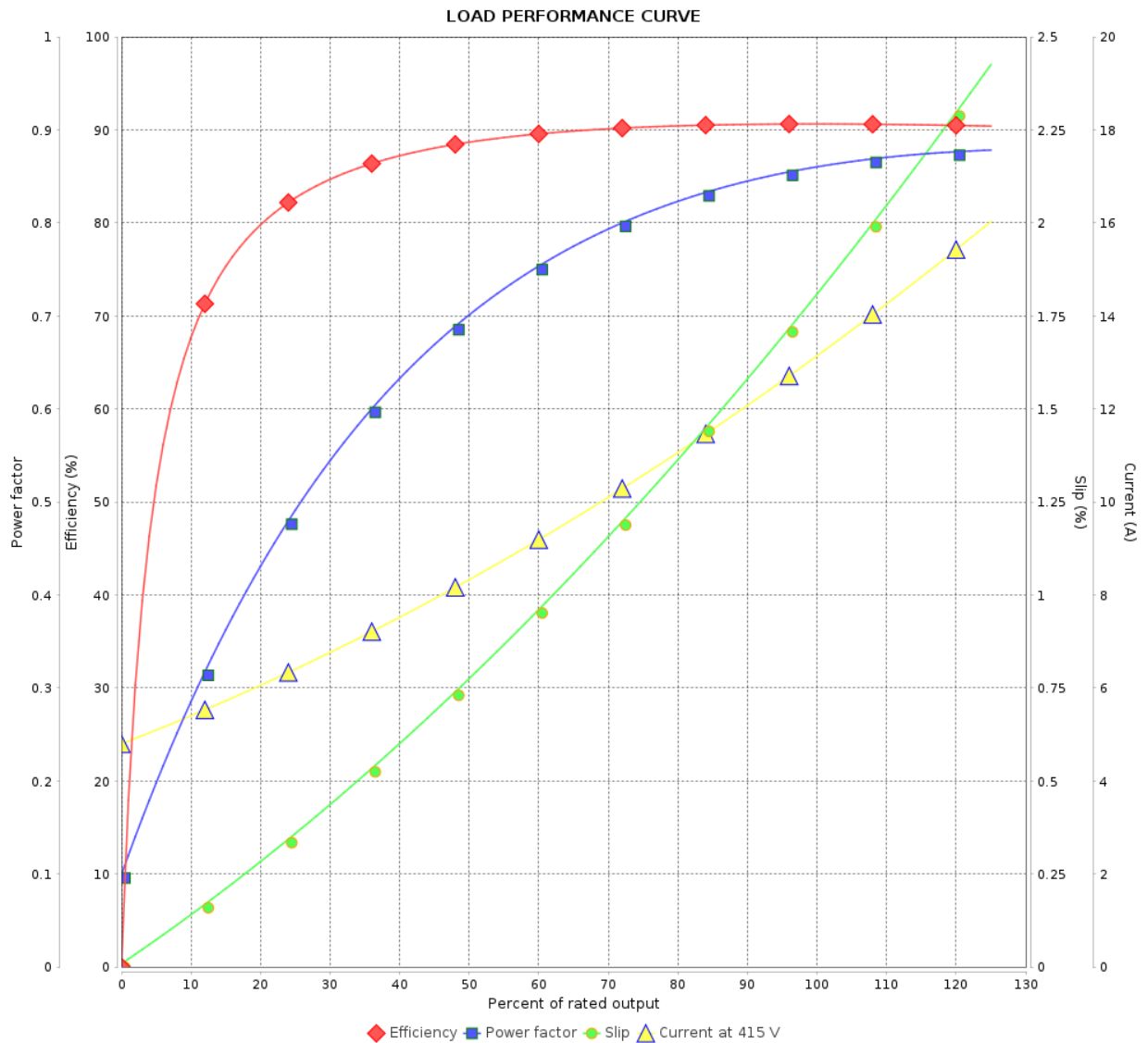
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11083242



Performance : 415 V 50 Hz 2P IE3

Rated current	: 13.4 A	Moment of inertia (J)	: 0.0243 kgm <sup>2</sup>
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 2.46 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 8 Revision		
Checked by				
Date	23/10/2024			

# LOAD PERFORMANCE CURVE

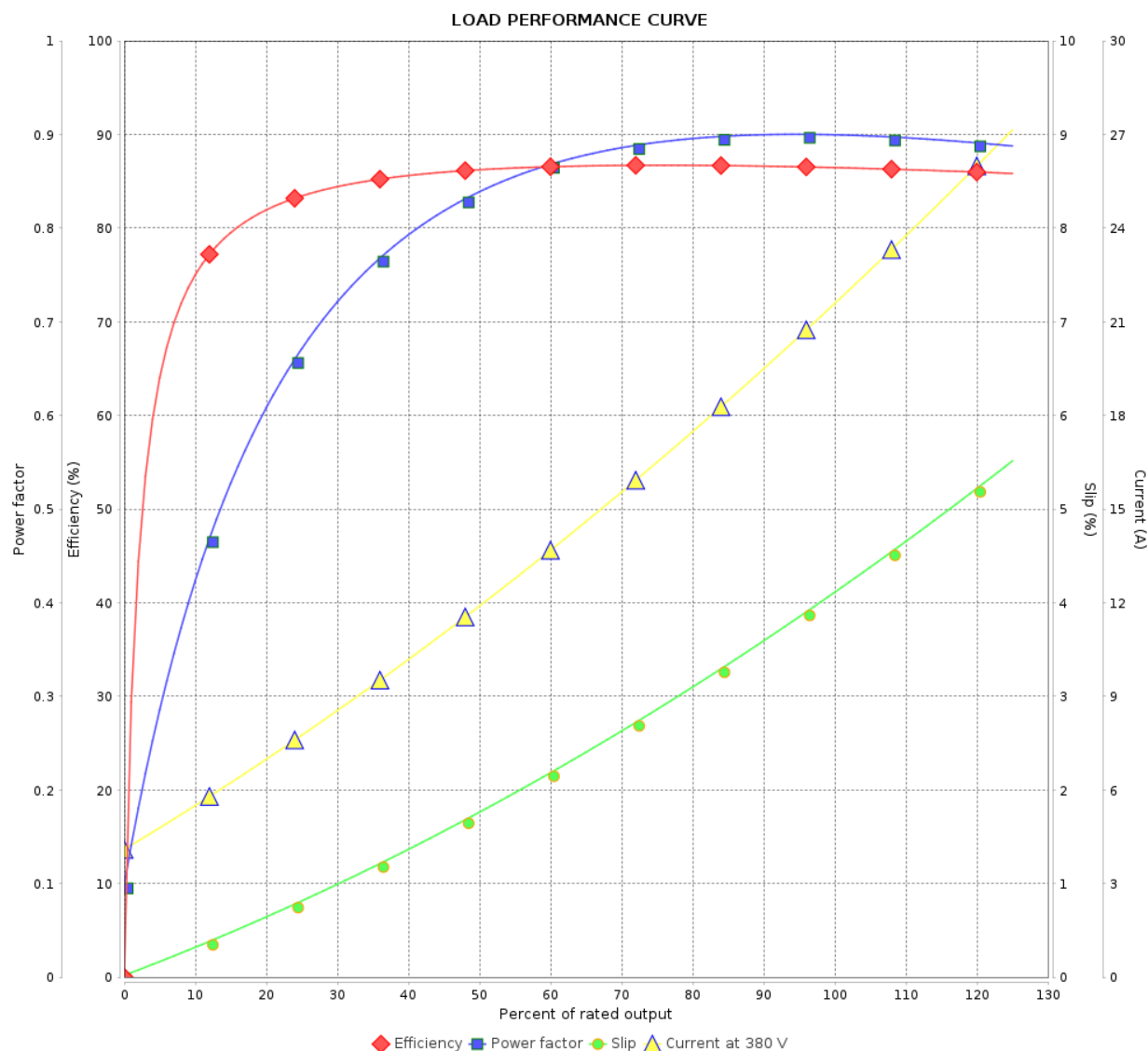
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11083242



Performance : 380 V 50 Hz 2P

Rated current : 21.5 A  
LRC : 5.2  
Rated torque : 3.79 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 229 %  
Rated speed : 2885 rpm

Moment of inertia (J) : 0.0243 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				6 / 8	
Date					

# LOAD PERFORMANCE CURVE

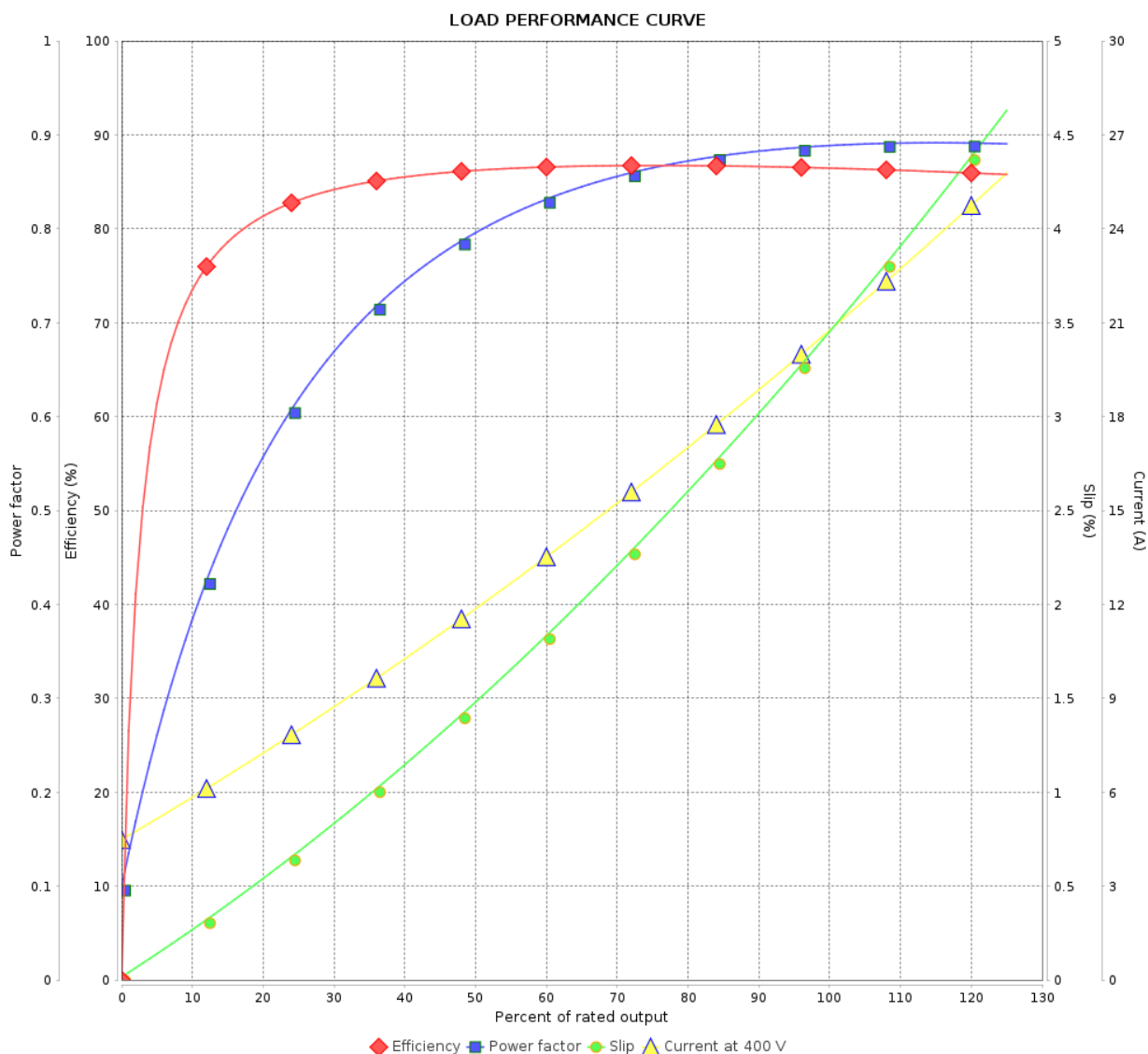
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11083242



Performance : 400 V 50 Hz 2P

Rated current : 20.6 A  
LRC : 5.9  
Rated torque : 3.76 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 260 %  
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0243 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 7 / 8Revision		
Checked by				
Date	23/10/2024			

# LOAD PERFORMANCE CURVE

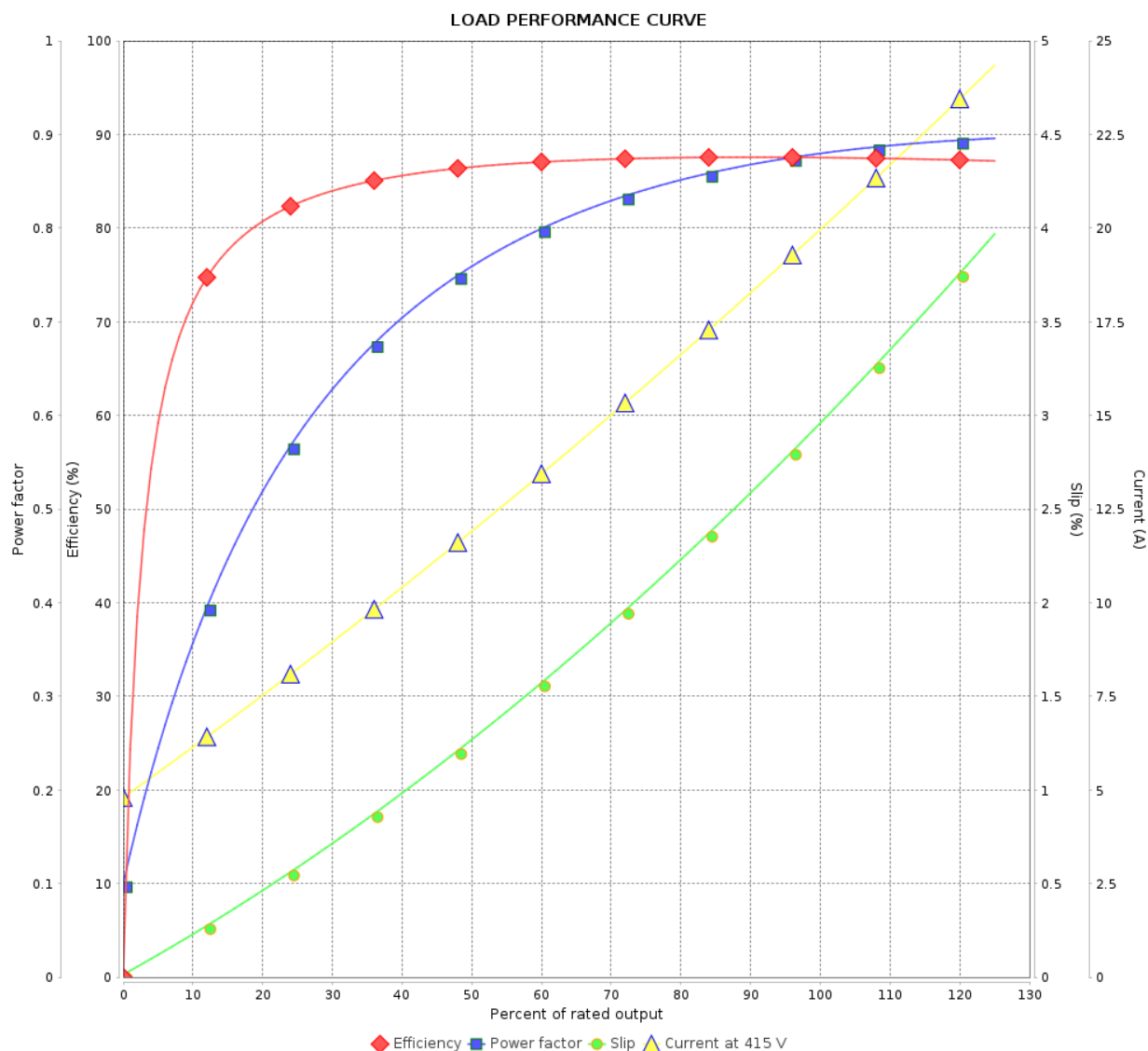
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11083242



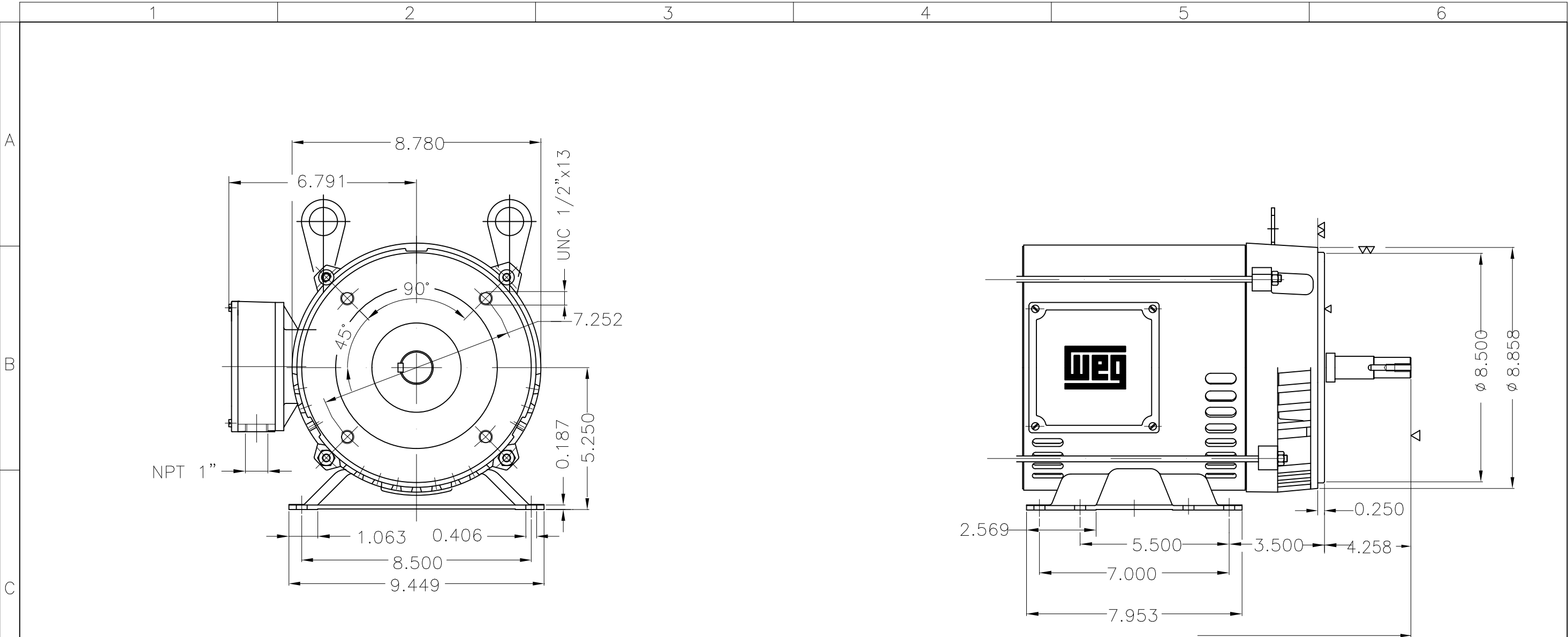
Performance : 415 V 50 Hz 2P

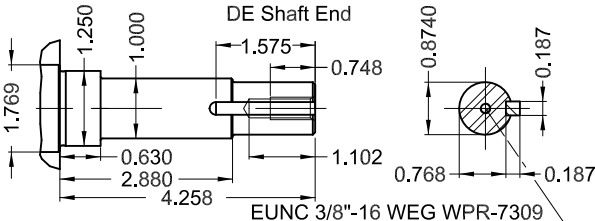
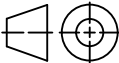

Rated current : 19.9 A  
LRC : 6.4  
Rated torque : 3.74 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 290 %  
Rated speed : 2910 rpm

Moment of inertia (J) : 0.0243 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				8 / 8	
Date					





D			15 HP   02 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.					PREVIEW						
CHECKED				FRAME 213/5JM IP21 ODP											
RELEASED															
REL. DATE															
			WMO	Jaragua do Sul			Product Engineering		SHEET		1 / 1				

Without switch off thermal protection
Color RAL 5009
Painting plan 207A
Mounting B34R(D)