

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12675405		
Frame	: 213/5T	Cooling method	: IC411 - TEFC		
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	: 54.4 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0395 kgm ²		
Design	: B				
Output [HP]	7.5	7.5	7.5		
Poles	4	4	4		
Frequency [Hz]	60	50	50		
Rated voltage [V]	230/460	190/380	220/415		
Rated current [A]	18.1/9.07	22.0/11.0	20.0/10.6		
L. R. Amperes [A]	132/66.2	136/68.2	136/72.1		
LRC [A]	7.3x(Code H)	6.2x(Code G)	6.8x(Code H)		
No load current [A]	8.81/4.41	8.65/4.33	8.93/4.73		
Rated speed [RPM]	1770	1455	1460		
Slip [%]	1.67	3.00	2.67		
Rated torque [kgfm]	3.08	3.74	3.73		
Locked rotor torque [%]	260	190	220		
Breakdown torque [%]	300	250	280		
Service factor	1.15	1.00	1.00		
Temperature rise	80 K	105 K	80 K		
Locked rotor time	39s (cold) 22s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)		
Noise level ²	60.0 dB(A)	57.0 dB(A)	57.0 dB(A)		
Efficiency (%)	25%	89.4	91.3	90.4	
	50%	90.2	90.2	89.8	
	75%	91.0	90.0	90.1	
	100%	91.7	88.6	89.2	
Power Factor	25%	0.39	0.45	0.41	
	50%	0.64	0.71	0.67	
	75%	0.76	0.82	0.79	
	100%	0.82	0.86	0.84	
Bearing type	: <u>Drive end</u> 6208 ZZ	<u>Non drive end</u> 6206 ZZ	Foundation loads		
Sealing	: V'Ring	Without Bearing Seal	Max. traction	: 166 kgf	
Lubrication interval	: -	-	Max. compression	: 220 kgf	
Lubricant amount	: -	-			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 20.1A SF 1.00 SFA 20.1A					
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				Page	Revision
Date	13/05/2022			1 / 4	

LOAD PERFORMANCE CURVE

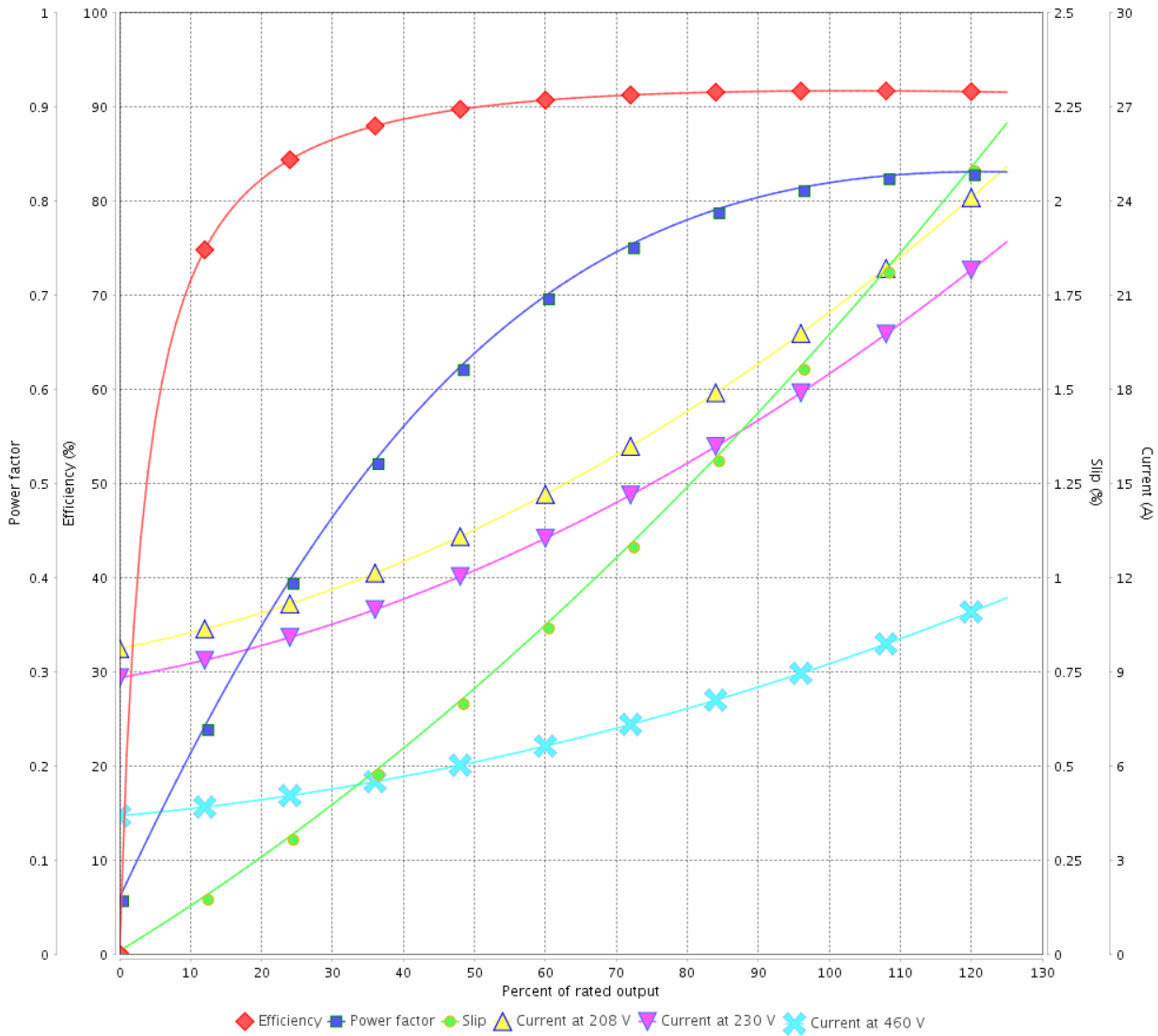
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675405

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Performance : 230/460 V 60 Hz 4P

Rated current : 18.1/9.07 A
 LRC : 7.3
 Rated torque : 3.08 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 300 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.0395 kgm²
 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
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Date				

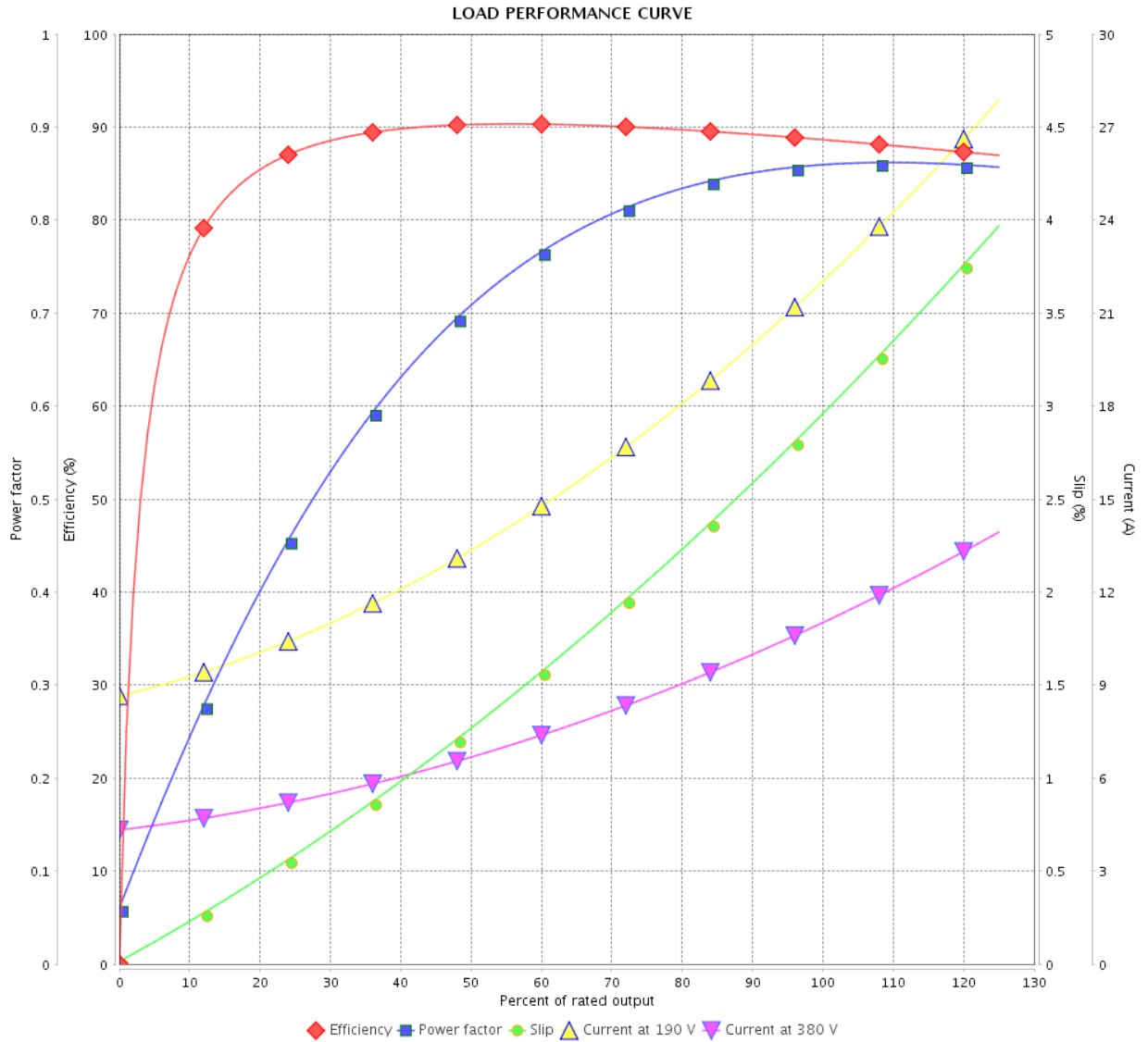
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Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675405



Performance : 190/380 V 50 Hz 4P

Rated current : 22.0/11.0 A
 LRC : 6.2
 Rated torque : 3.74 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 250 %
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.0395 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Checked by				
Date				

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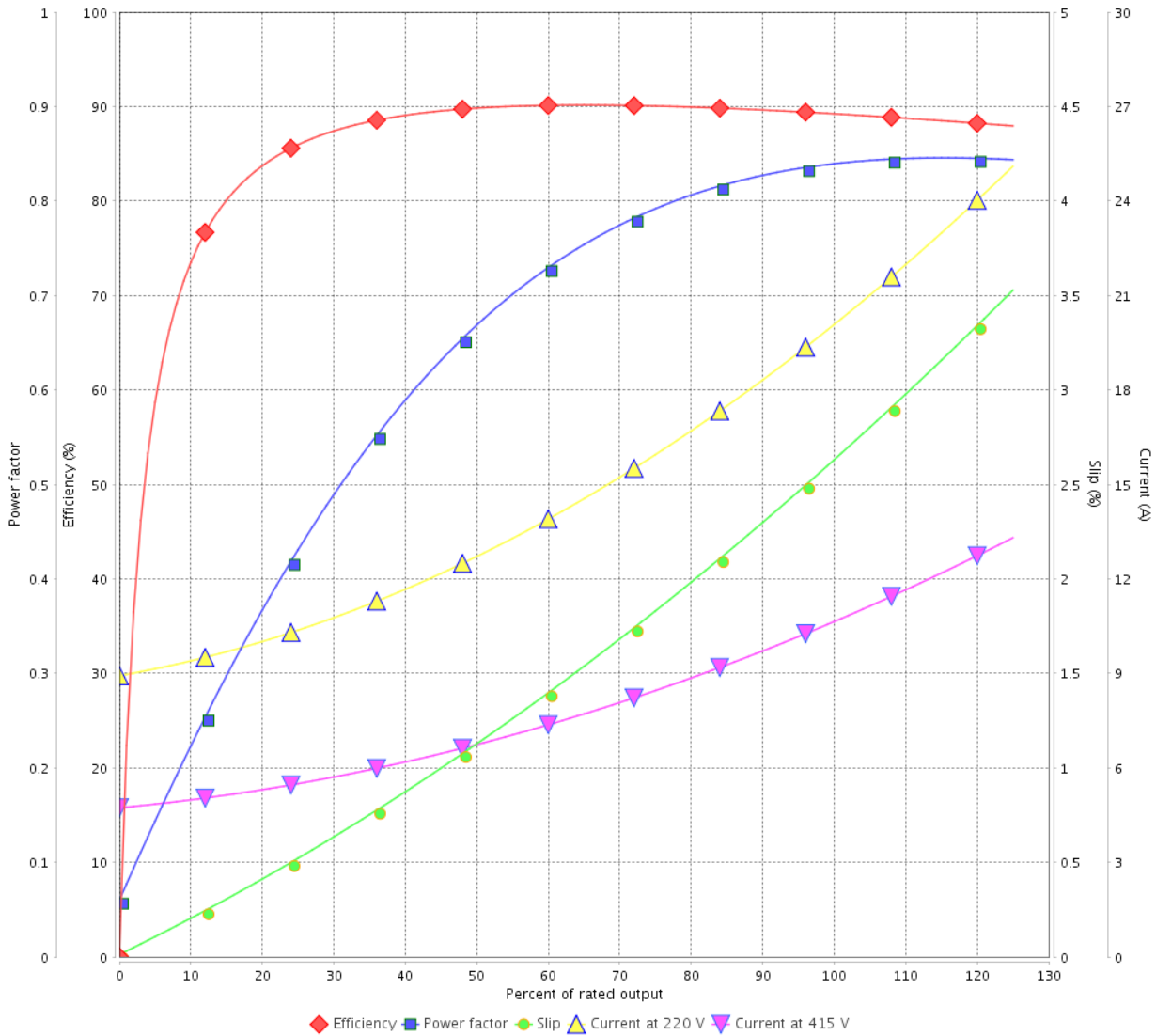
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675405

LOAD PERFORMANCE CURVE



Performance : 220/415 V 50 Hz 4P

Rated current : 20.0/10.6 A
 LRC : 6.8
 Rated torque : 3.73 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0395 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date	13/05/2022			

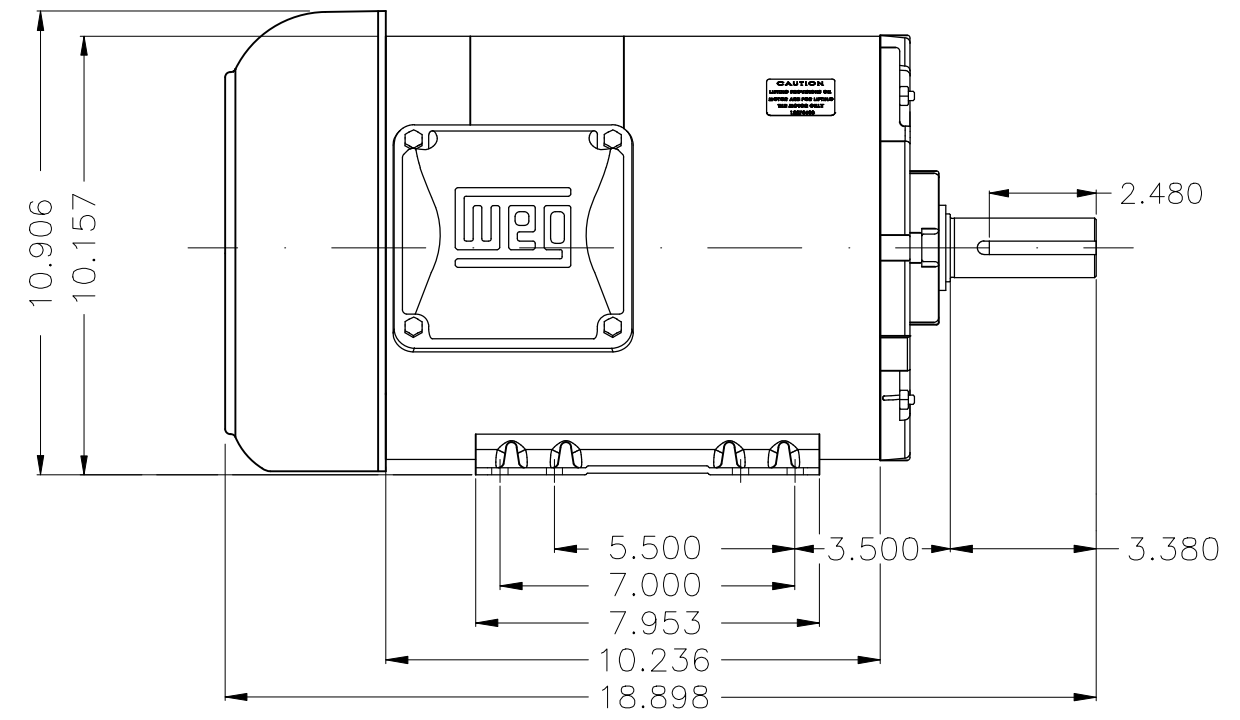
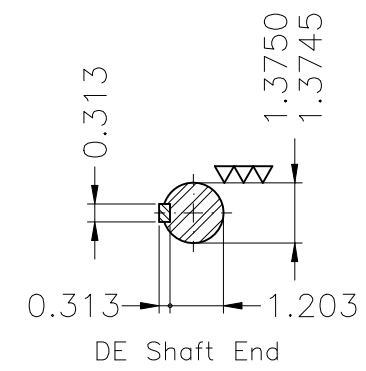
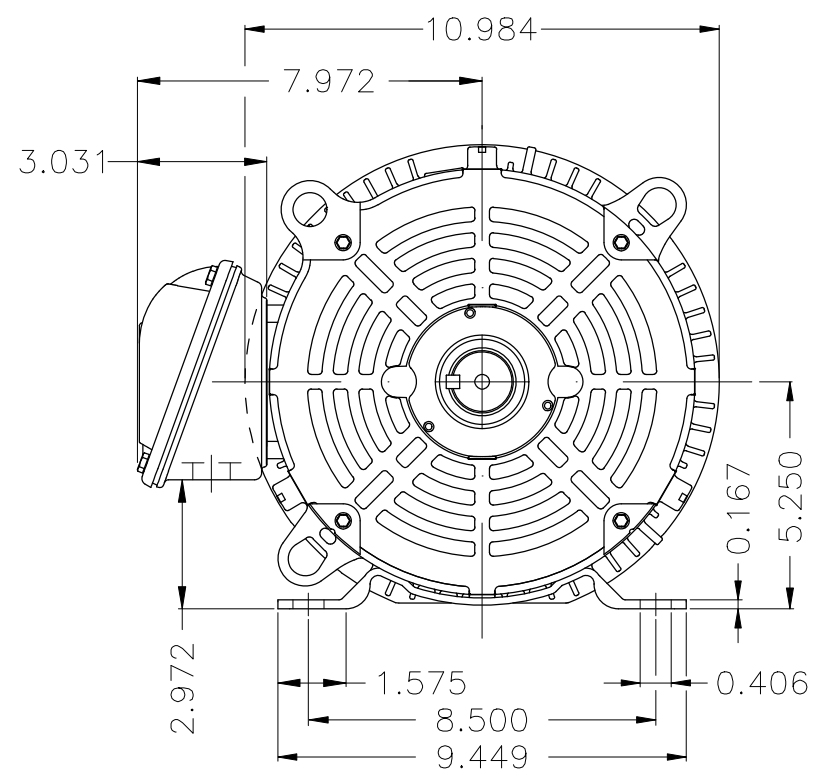
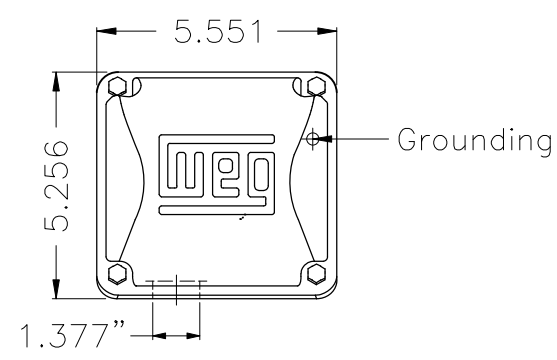
A

B

C

D

E



Color Munsell N 1 matte black
 Painting plan 207N
 Mounting F-1/B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR ROLLED STEEL NEMA PREM. EFF.					
CHECKED		FRAME 213/5T IP55 TEFC					
RELEASED							
REL. DATE	WMO	Jaragua do Sul	Product Engineering				

HYBRISUSER 00

PREVIEW

WDD 00

SHEET 1 / 1

7.5 HP 04 Poles 60 Hz

A