

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W22 Tru-Metric IE3 Three-Phase		Product code : 12830434			
Frame	: 225S/M	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: B3L(E)		
Duty cycle	: 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>2</sup>	: 403 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.8822 kgm <sup>2</sup>		
Design	: N				
Output [HP]	50	50	50		
Poles	4	4	4		
Frequency [Hz]	50	50	60		
Rated voltage [V]	380	415	230/460		
Rated current [A]	69.6	65.1	117/58.5		
L. R. Amperes [A]	543	573	1135/567		
LRC [A]	7.8	8.8	9.7		
No load current [A]	25.2	28.5	52.0/26.0		
Rated speed [RPM]	1480	1485	1785		
Slip [%]	1.33	1.00	0.83		
Rated torque [kgfm]	24.5	24.4	20.3		
Locked rotor torque [%]	240	300	310		
Breakdown torque [%]	270	330	360		
Service factor	1.25	1.25	1.25		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	16s (cold) 9s (hot)	16s (cold) 9s (hot)	19s (cold) 11s (hot)		
Noise level <sup>2</sup>	63.0 dB(A)	63.0 dB(A)	67.0 dB(A)		
Efficiency (%)	25%				
	50%	93.7	93.5	93.0	
	75%	93.9	94.1	94.1	
	100%	93.9	94.1	94.5	
Power Factor	25%				
	50%	0.74	0.69	0.68	
	75%	0.83	0.79	0.79	
	100%	0.86	0.84	0.84	
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	5.7	5.3	5.5	
	P2 (0,5;1,0)	4.1	3.8	4.0	
	P3 (0,25;1,0)	3.5	3.3	3.4	
	P4 (0,9;0,5)	3.4	3.2	3.3	
	P5 (0,5;0,5)	2.0	1.9	1.9	
	P6 (0,5;0,25)	1.5	1.4	1.4	
	P7 (0,25;0,25)	0.9	0.8	0.9	
Bearing type	: Drive end : 6314 C3	Non drive end : 6314 C3	Foundation loads		
Sealing	: WSeal	WSeal	Max. traction : 620 kgf		
Lubrication interval	: 12000 h	12000 h	Max. compression : 1023 kgf		
Lubricant amount	: 27 g	27 g			
Lubricant type	: Mobil Polyrex EM				
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	14/01/2024			1 / 5	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/01/2024		2 / 5	

# LOAD PERFORMANCE CURVE

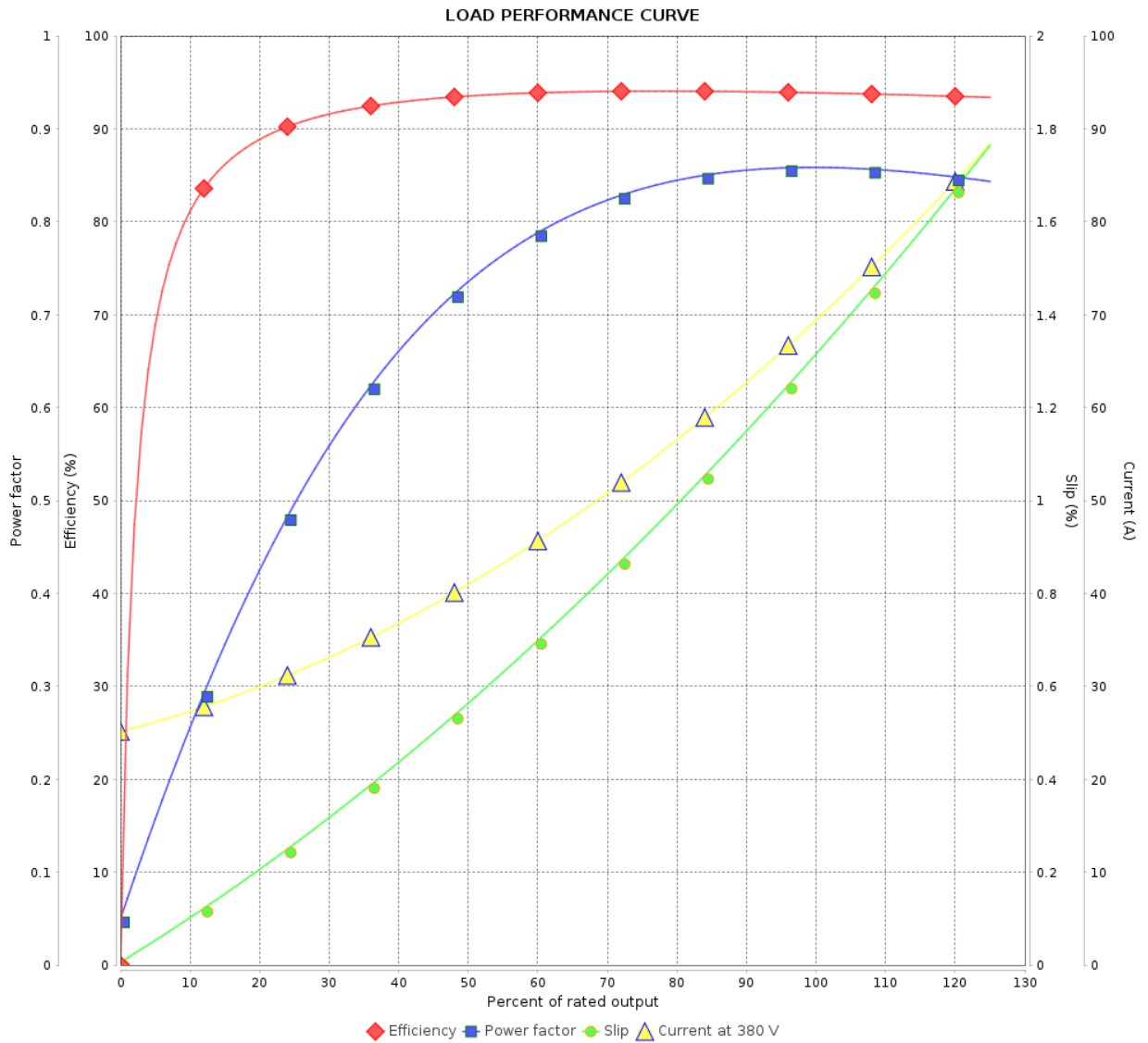
## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 12830434



Performance : 380 V 50 Hz 4P

Rated current : 69.6 A  
 LRC : 7.8  
 Rated torque : 24.5 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 270 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.8822 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				
			3 / 5	

# LOAD PERFORMANCE CURVE

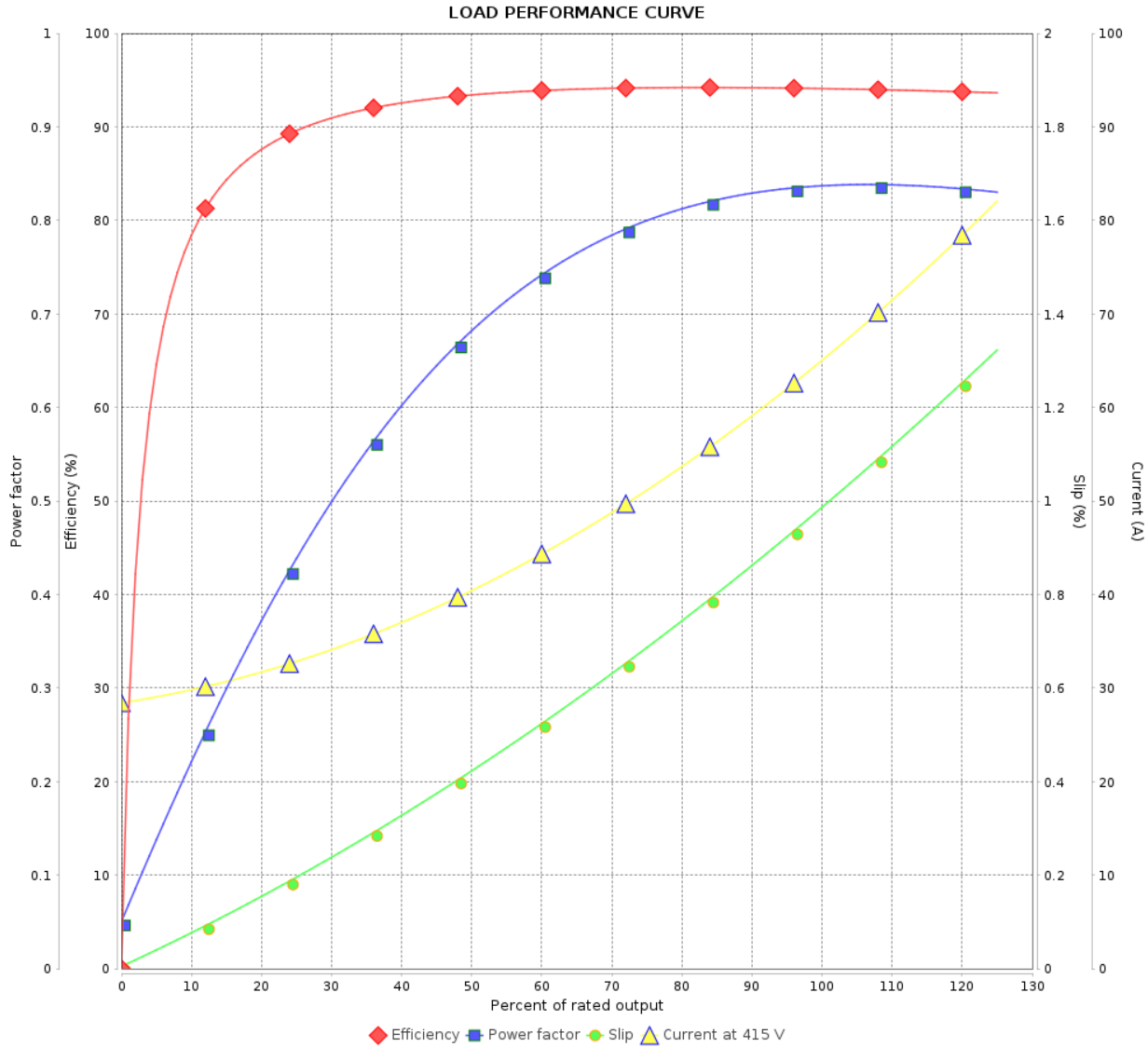
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 12830434



Performance : 415 V 50 Hz 4P

Rated current	: 65.1 A	Moment of inertia (J)	: 0.8822 kgm <sup>2</sup>
LRC	: 8.8	Duty cycle	: S1
Rated torque	: 24.4 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 5	Revision
Checked by				
Date	14/01/2024			

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

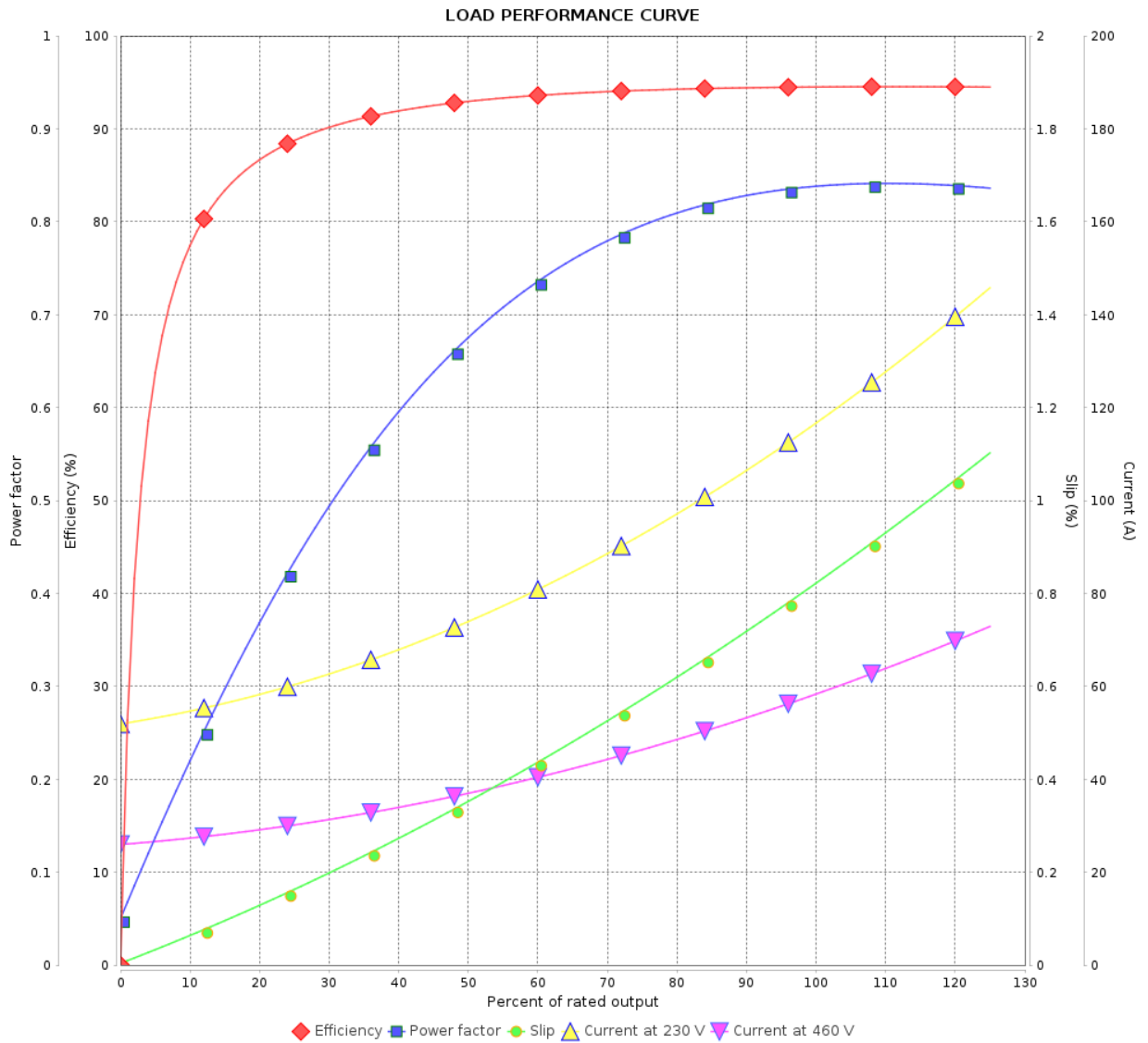


Customer : \_\_\_\_\_

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

12830434



Performance : 230/460 V 60 Hz 4P

Rated current : 117/58.5 A  
 LRC : 9.7  
 Rated torque : 20.3 kgfm  
 Locked rotor torque : 310 %  
 Breakdown torque : 360 %  
 Rated speed : 1785 rpm

Moment of inertia (J) : 0.8822 kgm<sup>2</sup>  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				
			5 / 5	