

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W40 NEMA Premium Efficiency Three-Phase		Product code : 14284894			
Frame : 404/5TC	Insulation class : F	Duty cycle : Cont.(S1)	Ambient temperature : -20°C to +40°C	Altitude : 1000 m.a.s.l.	
Protection degree : IP23	Design : B	Cooling method : IC01 - ODP	Mounting : F-1	Rotation <sup>1</sup> : Both (CW and CCW)	
		Starting method : Direct On Line	Approx. weight <sup>3</sup> : 478 kg	Moment of inertia (J) : 1.08 kgm <sup>2</sup>	
Output [HP]	125	100	100	100	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	276/138	138	133	129	
L. R. Amperes [A]	1904/952	994	1024	1032	
LRC [A]	6.9x(Code G)	7.2x(Code H)	7.7x(Code H)	8.0x(Code J)	
No load current [A]	94.0/47.0	46.3	50.2	53.7	
Rated speed [RPM]	1780	1480	1480	1480	
Slip [%]	1.11	1.33	1.33	1.33	
Rated torque [kgfm]	51.0	49.0	49.0	49.0	
Locked rotor torque [%]	270	240	270	290	
Breakdown torque [%]	260	260	300	320	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	18s (cold) 10s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	14s (cold) 8s (hot)	
Noise level <sup>2</sup>	69.0 dB(A)				
Efficiency (%)	25%	94.9	94.5	94.5	
	50%	95.0	94.6	94.6	
	75%	95.4	95.0	95.0	
	100%	95.4	95.0	95.0	
Power Factor	25%	0.50	0.50	0.46	
	50%	0.75	0.76	0.72	
	75%	0.83	0.84	0.82	
	100%	0.86	0.87	0.86	
Bearing type	: Drive end : 6316 C3	: Non drive end : 6212 Z C3	Foundation loads		
Sealing	: Without	: Without	Max. traction	: 1305 kgf	
	: Bearing Seal	: Bearing Seal	Max. compression	: 1783 kgf	
Lubrication interval	: 20000 h	: 20000 h			
Lubricant amount	: 34 g	: 13 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 305A SF 1.15 SFA 351A					
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	15/01/2024			1 / 5	

# LOAD PERFORMANCE CURVE

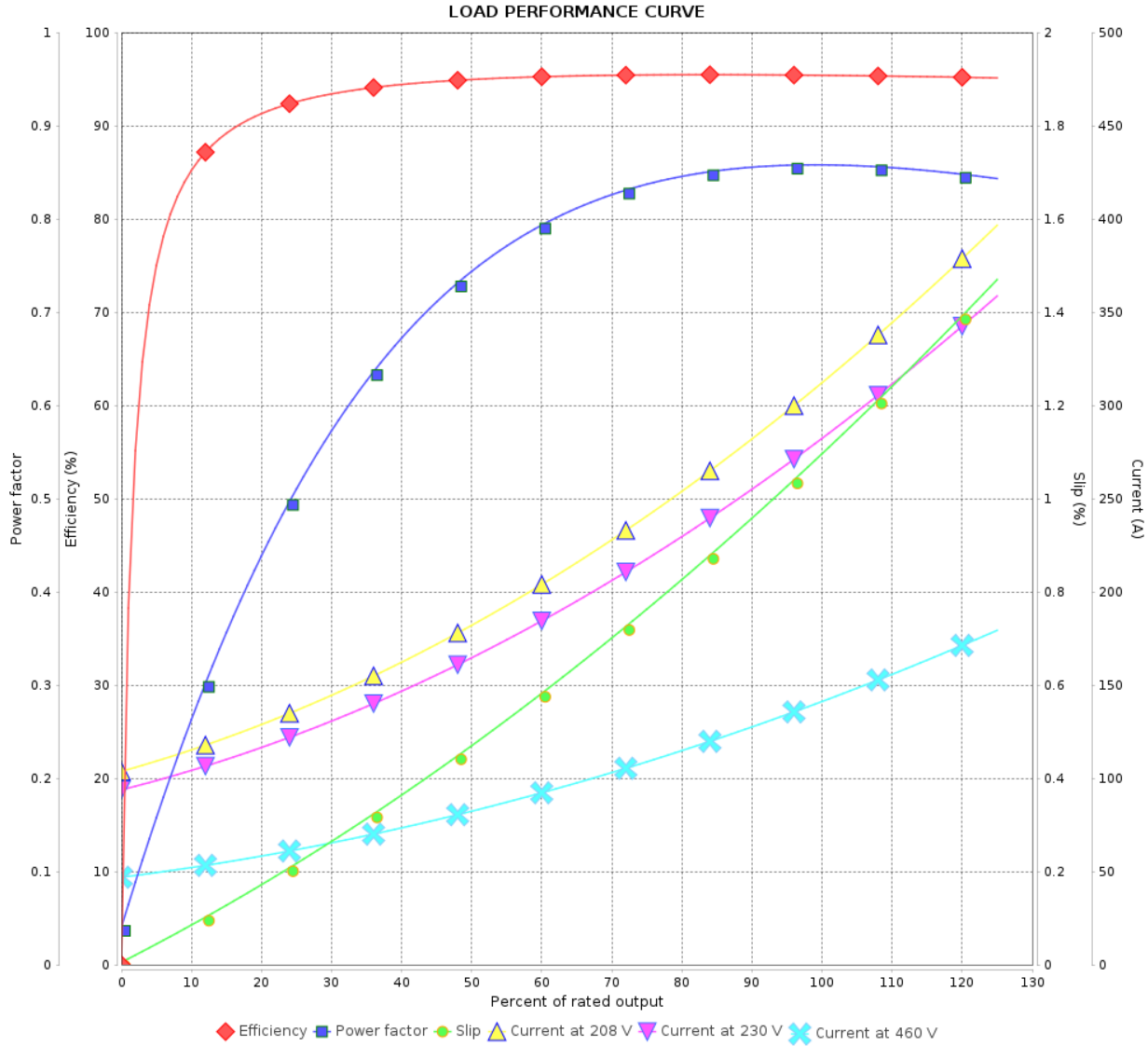
Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14284894



Performance : 230/460 V 60 Hz 4P

Rated current : 276/138 A  
 LRC : 6.9  
 Rated torque : 51.0 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 260 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 1.08 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 5	Revision
Checked by				
Date	15/01/2024			

# LOAD PERFORMANCE CURVE

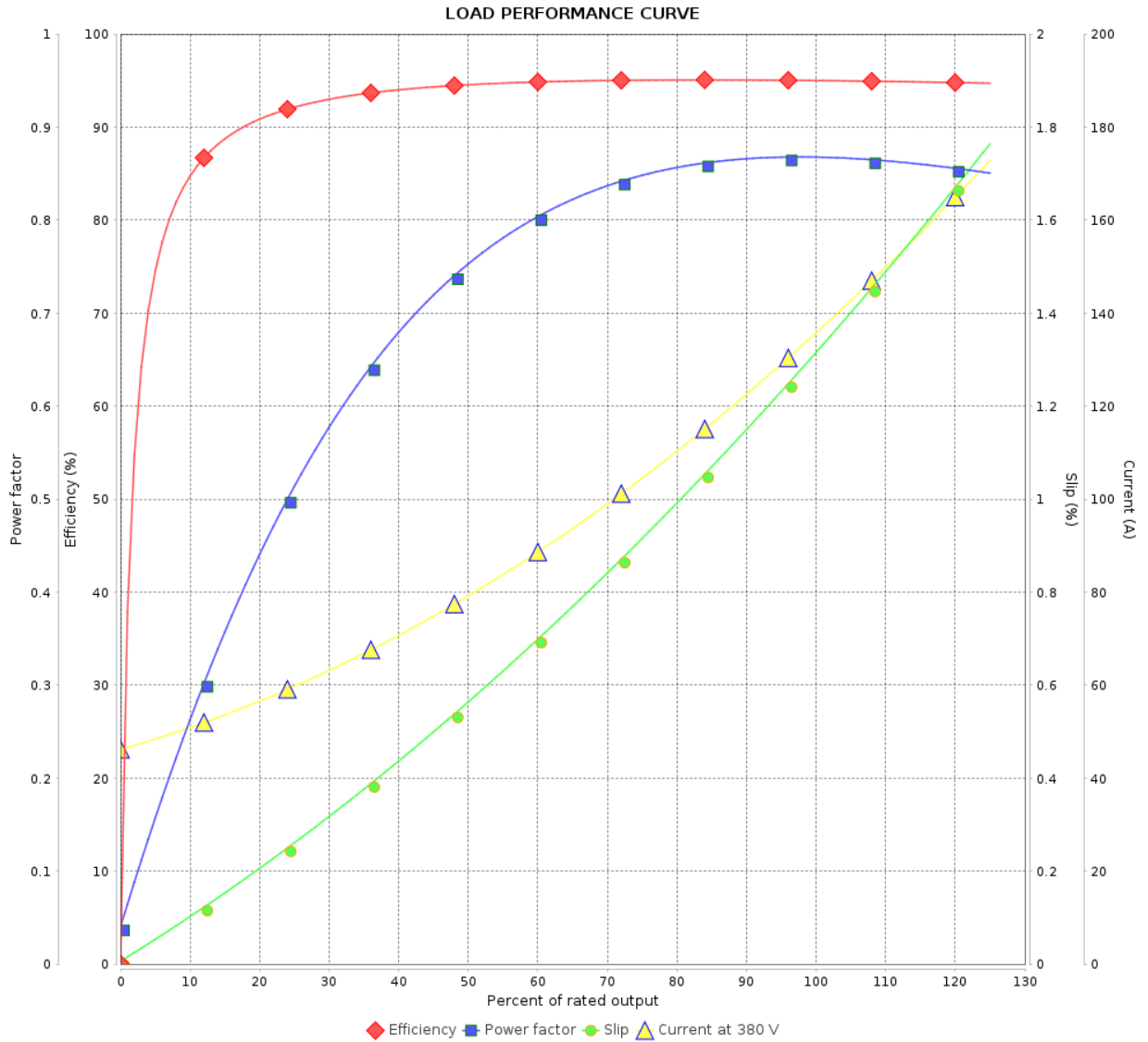
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14284894



Performance : 380 V 50 Hz 4P IE3

Rated current : 138 A  
 LRC : 7.2  
 Rated torque : 49.0 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 1.08 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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

# LOAD PERFORMANCE CURVE

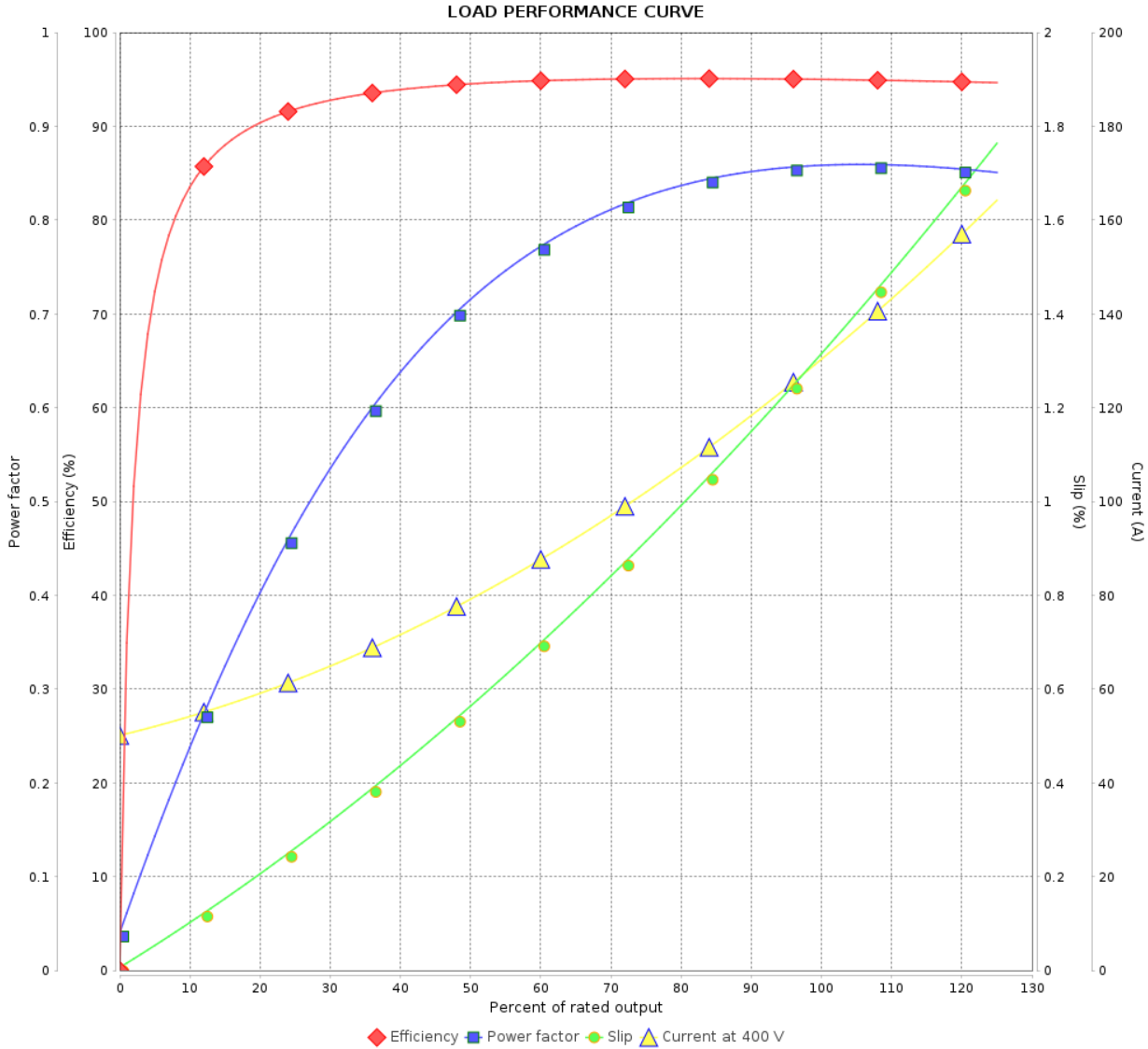
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14284894



Performance : 400 V 50 Hz 4P IE3

Rated current	: 133 A	Moment of inertia (J)	: 1.08 kgm <sup>2</sup>
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 49.0 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 5	Revision
Checked by				
Date	15/01/2024			

# LOAD PERFORMANCE CURVE

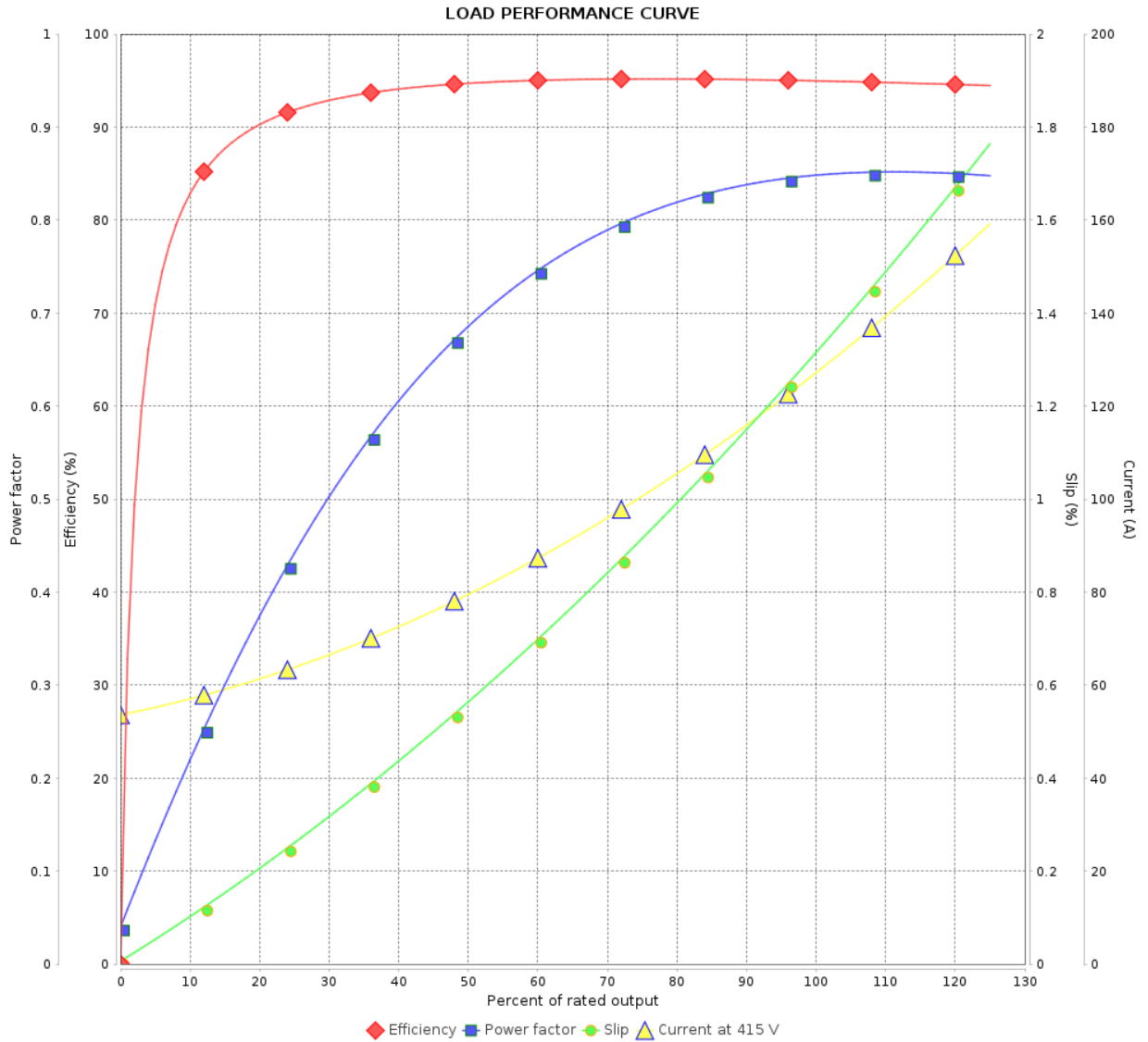
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14284894



Performance : 415 V 50 Hz 4P IE3

Rated current : 129 A  
 LRC : 8.0  
 Rated torque : 49.0 kgfm  
 Locked rotor torque : 290 %  
 Breakdown torque : 320 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 1.08 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		5 / 5		
Date		15/01/2024		