

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :						
Product line		: W22 Super Premium Efficiency Three-Phase		Product code :	11792548	
				Catalog # :	15012EG3G449T-W22	
Frame	: 447/9T	Locked rotor time	: 39s (cold) 22s (hot)			
Output	: 150 HP (110 kW)	Temperature rise	: 80 K			
Poles	: 6	Duty cycle	: Cont.(S1)			
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C			
Rated voltage	: 460 V	Altitude	: 1000 m.a.s.l.			
Rated current	: 179 A	Protection degree	: IP55			
L. R. Amperes	: 1343 A	Cooling method	: IC411 - TEFC			
LRC	: 7.5x(Code J)	Mounting	: F-1			
No load current	: 86.0 A	Rotation ¹	: Both (CW and CCW)			
Rated speed	: 1190 rpm	Noise level ²	: 70.0 dB(A)			
Slip	: 0.83 %	Starting method	: Direct On Line			
Rated torque	: 662 ft.lb	Approx. weight ³	: 2835 lb			
Locked rotor torque	: 260 %					
Breakdown torque	: 320 %					
Insulation class	: F					
Service factor	: 1.25					
Moment of inertia (J)	: 145 sq.ft.lb					
Design	: A					
Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	94.5	94.9	95.0	95.0		
	95.3	95.3	95.4	95.4		
Power Factor	0.37	0.43	0.62	0.68	Max. traction	: 5370 lb
	0.40	0.37	0.65	0.62	Max. compression	: 8205 lb
Losses at normative operating points (speed;torque), in percentage of rated output power						
Losses (%)	P1 (0,9;1,0)	4.2	5.2	4.7	4.7	
	P2 (0,5;1,0)	3.2	3.9	3.5	3.5	
	P3 (0,25;1,0)	2.6	3.2	2.9	2.9	
	P4 (0,9;0,5)	2.7	3.3	3.0	3.0	
	P5 (0,5;0,5)	1.8	2.1	2.0	2.0	
	P6 (0,5;0,25)	1.4	1.7	1.6	1.6	
	P7 (0,25;0,25)	0.9	1.0	1.0	1.0	
Bearings			Drive end			
			6322 C3	Non drive end		
			WSeal	6319 C3		
			11000 h	WSeal		
			60 g	13000 h		
			Mobil Polyrex EM			
Notes:						
This revision replaces and cancel the previous one, which must be eliminated.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.			
(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.						
Rev.	Changes Summary			Performed	Checked	
Performed by					Page	
Checked by						
Date	29/03/2024				Revision	
Customer :						
Product line		: W22 Super Premium Efficiency Three-Phase		Product code :	11792548	
				Catalog # :	15012EG3G449T-W22	
Frame	: 447/9T	Locked rotor time	: 39s (cold) 22s (hot)			
Output	: 150 HP (110 kW)	Temperature rise	: 80 K			
Poles	: 6	Duty cycle	: Cont.(S1)			
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C			
Rated voltage	: 460 V	Altitude	: 1000 m.a.s.l.			
Rated current	: 179 A	Protection degree	: IP55			
L. R. Amperes	: 1343 A	Cooling method	: IC411 - TEFC			
LRC	: 7.5x(Code J)	Mounting	: F-1			
No load current	: 86.0 A	Rotation ¹	: Both (CW and CCW)			
Rated speed	: 1190 rpm	Noise level ²	: 70.0 dB(A)			
Slip	: 0.83 %	Starting method	: Direct On Line			
Rated torque	: 662 ft.lb	Approx. weight ³	: 2835 lb			
Locked rotor torque	: 260 %					
Breakdown torque	: 320 %					
Insulation class	: F					
Service factor	: 1.25					
Moment of inertia (J)	: 145 sq.ft.lb					
Design	: A					
Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	94.5	94.9	95.0	95.0		
	95.3	95.3	95.4	95.4		
Power Factor	0.37	0.43	0.62	0.68	Max. traction	: 5370 lb
	0.40	0.37	0.65	0.62	Max. compression	: 8205 lb
Losses at normative operating points (speed;torque), in percentage of rated output power						
Losses (%)	P1 (0,9;1,0)	4.2	5.2	4.7	4.7	
	P2 (0,5;1,0)	3.2	3.9	3.5	3.5	
	P3 (0,25;1,0)	2.6	3.2	2.9	2.9	
	P4 (0,9;0,5)	2.7	3.3	3.0	3.0	
	P5 (0,5;0,5)	1.8	2.1	2.0	2.0	
	P6 (0,5;0,25)	1.4	1.7	1.6	1.6	
	P7 (0,25;0,25)	0.9	1.0	1.0	1.0	
Bearings			Drive end			
			6322 C3	Non drive end		
			WSeal	6319 C3		
			11000 h	WSeal		
			60 g	13000 h		
			Mobil Polyrex EM			
Notes:						
This revision replaces and cancel the previous one, which must be eliminated.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.			
(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.						
Rev.	Changes Summary			Performed	Checked	
Performed by					Page	
Checked by						
Date	29/03/2024				Revision	