

Customer :
 Project Name :
 Project No. :
 Revision No. :

SPECIFICATION for INDUCTION MOTOR



0		For Bidding			
No.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY



AC INDUCTION MOTOR DATA SHEET

Catalog No.	HES1.5-18-145TC	Item No.	Rev. No. []
Project Name		Project No.	Quantity sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	145TC	Rated Output	1.1 kW 1.5 HP		
Type	PJP	Number of Poles	4		
Enclosure(Protection)	Totally Enclosed / IP55	Rotor Type	Squirrel Cage		
Method of Cooling	IC411(FC)	Starting Method*	D.O.L		
Rated Frequency	60 Hz	Rated Voltage	575 V	460 V	230 V
Number of Phases	3	Current	Full Load	1.77 A	2.22 A
Insulation Class	F		Locked-rotor**	900 %	900 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C	50% Load		83.5 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		85.5 %	
Altitude	Less than 1,000 meter	100% Load		86.5 %	
Relative Humidity	Less than 80 %	Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)	50% Load		0.570	
Duty Type	Continuous (S1)	75% Load		0.670	
Service Factor	1.15	100% Load		0.720	
Mounting	B35	Speed at Full Load	1750 r.p.m		
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6205ZZC3 / 6204ZZC3	Full Load	4.4 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	260 %	
External Thrust	Not applicable	Breakdown**	290 %		
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Moment of Inertia (J)			
Shaft Extension	Single	Load(Max.)	11.865 lb.ft2		
Terminal Box	Main	Cast Iron	Motor	0.076 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
Location	Refer to Outline Drawing	56 dB(A)			
Application		Vibration			
Area classification	Hazardous	3.8 mm/sec (peak)			
Type of Ex-Protection	Class I&II, Division 2	Permissible number of consecutive starts	Cold	3 times	
Applicable Standard	NEMA MG1, CSA C390		Hot	2 times	
		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

ACCESSORIES

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B35	LM-T2145C4PLV23	65 lb.

SPARE PARTS

REMARK				
1. Premium efficiency according to NEMA MG1 2. Inverter Duty @ 1.0 Service Factor & F Temperature rise -. 10:1 VT (20:1 VT at 50% load) -. 10:1 CT -. CHP up to 1.5 times base speed, NEMA MG1 Part31 3. CSA Certification -. Class I, Division 2, Group A, B, C & D -. Class II, Division 2 Group E, F & G (Group E : up to 320Fr.) 4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power. 5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F & Non-Hazardous.				
Date	DSND	CHKD	CHKD	APPD
2024-09-10	S.H. Lee	I.K. Kim	R.G. Kim	S.W. Kim

[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.
 Inspection and performance test shall be done according to maker standard, if not mentioned.
 * In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.
 ** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

1	2	3	4
REV	DATE	CONTENTS	REVD BY CHKD BY CHKD BY APPD BY

3.94

CROWN TRITON G2 Premium Efficiency
AC 3 Phase Motor

Cat. No. HES1.5-18-145TC

1.5HP	4P	230/460V	Amps	4.43/2.22	Type	HLS	Amb.	40°C	
Frame	145TC	Duty	CONT	Encl.	TEFC	Model	HLS145PL235	NEMA Nom. Eff.	86.5%
RPM	1750	Hertz	60Hz	S.F.	1.15	INS Class	F HD-F1	3/4 Eff.	85.5%
Bearing	Drive	6205ZZC3	S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)				NEMA Design	B	
	Opp.	6204ZZC3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				Code	L	
Usable at	50Hz 1.5HP 380V 2.77A 1440rpm S.F.: 1.15 Eff.: 83.9% Code: J								
	50Hz 1.5HP 400/415V 2.72/2.71A 1445/1450rpm S.F.: 1.15 Eff.: 84/84% Code: K/L								
CSA Certified for	Model	LATER	Type	PJP	Temp. Code	Frame	140-320FR	CE	
	CLASS I, Div. 2, Gr. A, B, C & D CLASS I, Zone 2, Gr. IIA, IIB & IIC		CLASS II, Div. 2, Gr. E, F & G (Gr. E: up to 320FR)		(Sine Wave)	Amb.40°C T3C (160°C) Amb.55°C T3A (180°C)			
No.	-	Date	-	Weight	65 lb				

4M-136021
MARINE DUTY IEEE45

Made in Vietnam H4
Designed By HYUNDAI, Korea

1.57

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 143-215)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136021	Sheet No. of
				DWG NO	NP-HES1.5-18-145TC	Revision No. 0

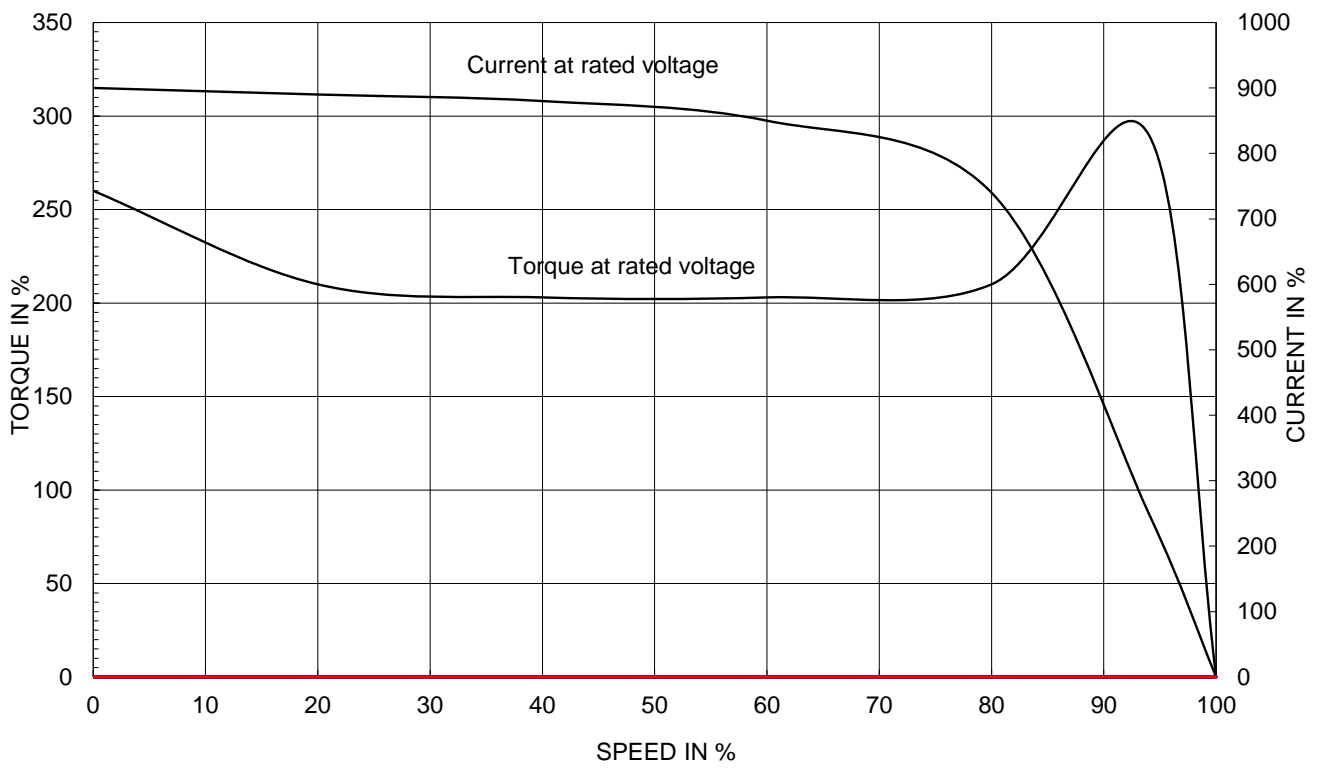


PERFORMANCE CURVE

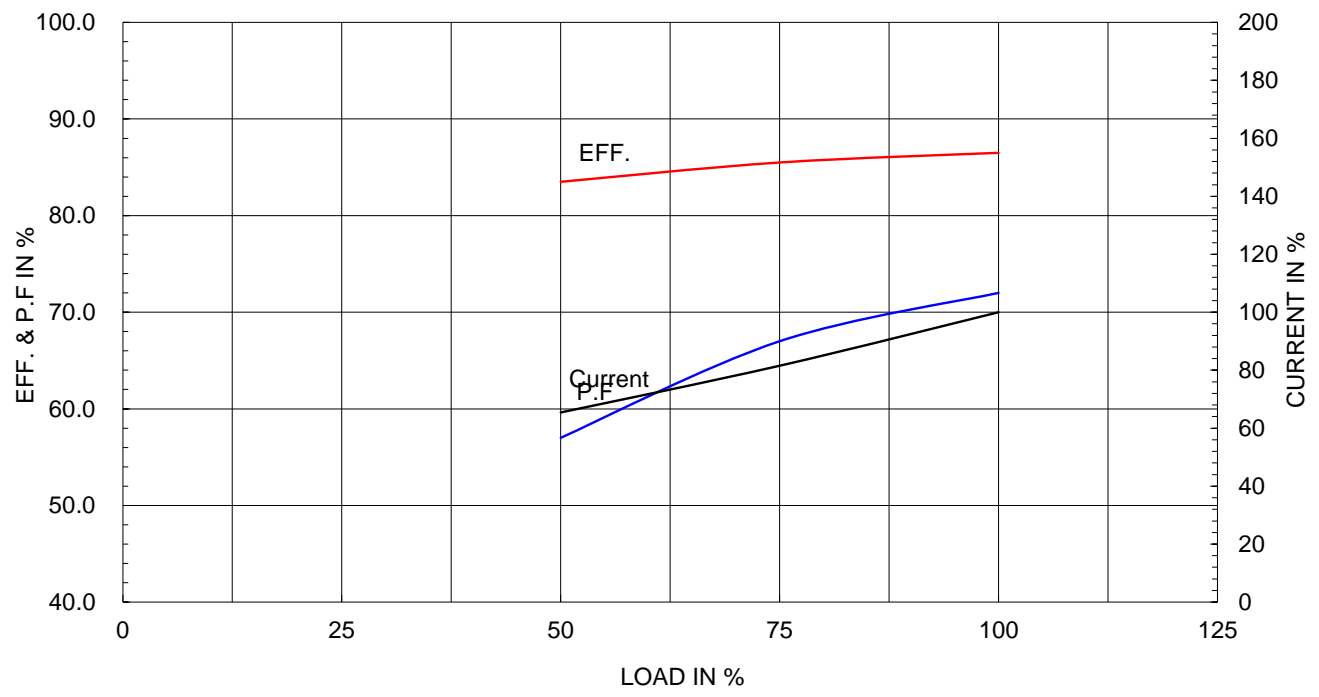
CURVE NO.
PC-HES1.5-18-145TC

Type :	PJP	1.1kW	1.5HP	4 P	60 Hz	
Full Load Torque :	4.4 lb.ft	Speed at Full Load : 1750 RPM				
Load moment of Inertia (J) :	11.865 lb.ft2	Rated Voltage		575V	460V	230V
Motor moment of Inertia (J) :	0.076 lb.ft2	Full Load Current		1.8A	2.2A	4.4A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



**Cls. I&II, Div. 2
IEEE 841**



SEC. "A"-"A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

일반가공공차		일반제관공차	
1-4	±0.1	6-30	±0.5
4-18	±0.2	30-120	±0.8
18-63	±0.3	120-315	±1.2
63-250	±0.5	315-1000	±2.0
250-	±0.8	1000-	±3.0

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. 140-180 (CAST IRON)	DWG SIZE	A3 (1:1.5)
CHKD BY		SCALE	1/1.5	TITLE			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TERMINAL BOX ASS'Y			
DSND BY	배승희	DATE	2023-10-19	REF. NO		Sheet No.	of
				DWG NO	3M-248456	Revision No.	0

