



Technical Data Sheet



Project Location
United Arab Emirates

Customer
Trielectric International FZE

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Item name
1.00019

Our ref.
Stock

Rev/Changed by
A

Date of issue
9/14/2021

Saving ident

Pages
1(3)

No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	3GBA 281 110-BDCIN		
3	Type/Frame	M2BAX 280SA 2		
4	Mounting	IM3001, B5(flange)		
5	Rated output P _N	75	kW	
6	Service factor	1		
7	Type of duty	S1 100%		
8	Rated voltage U _N	400	VD	± 5 %
9	Rated frequency f _N	50	Hz	± 2 %
10	Rated speed n _N	2977	r/min	
11	Rated current I _N	134	A	
12				
13	Starting current I _s /I _N	7		
14	Nominal torque T _N	241	Nm	
15	Locked rotor torque T _s /T _N	2.3		
16	Maximum torque T _{max} /T _N	3.3		
17				
18				
	Load characteristics	Load %	Current A	Efficiency %
19	PLL determined from residual loss	100	134	93.8 / IE2
20		75	106	93.8
21		50	78.8	92.8
22				
23	Thermal withstand time hot	23	s	
24	Thermal withstand time cold	40	s	
25	Insulation class / Temperature class	F / B		
26	Ambient temperature	50	°C	
27	Altitude	1000	m.a.s.l.	
28	Degree of protection	IP55		
29	Cooling system	IC411		
30	Bearing DE/NDE	6316/C3 - 6316/C3		
31	Sound pressure level (LP dB(A) 1m)	90	dB(A)	at no-load
32	Moment of inertia J = ¼ GD2	0.8	kg-m2	
33	Position of terminal box	Top		
34	Direction of rotation	Bi-directional		
35	Total weight of motor	573	kg	
36	Paint shade	Munsell Blue		
37	Cable size			
38	Vibration	As Per IS 12075		
39				
40				
41				
42				
43				
44				
45				
Ex-motors				
46				
47				
48				

Option Variant Codes / Definition

49	
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51	
52	

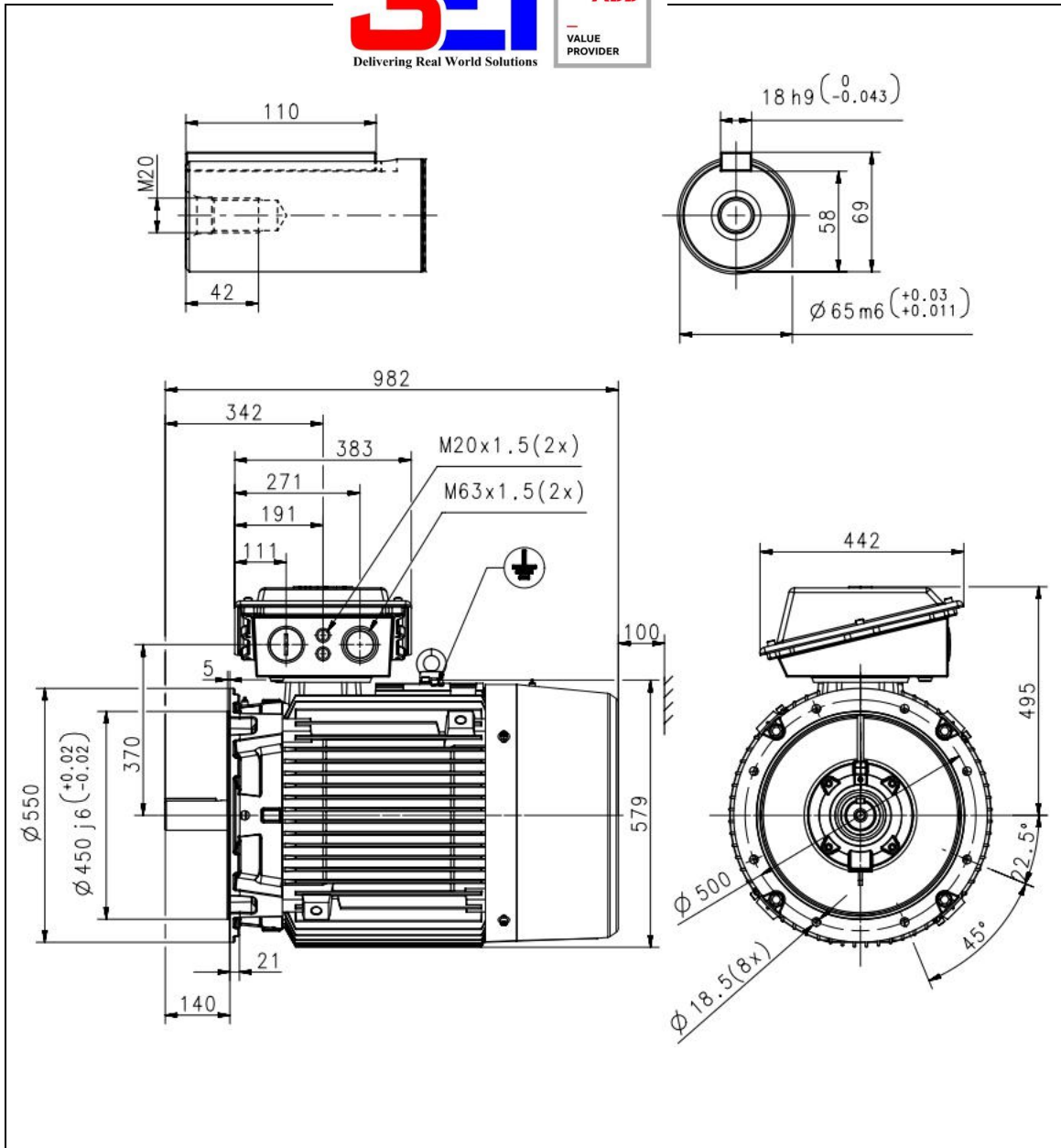
Remarks:

Applicable standards: IS 12615:2018, IEC 60034-30-1:2014

All performance values are subject to IS/IEC tolerances



TriElectric International FZE



Additional information:

Dimension Print	Motor Type: M2BA/BAX 280S_2 B5 V1 V3.	Document No: 3GZC500028-72 C 13 BA 280 A
	Description: STANDARD SQUIRREL CAGE MOTOR	
Unit: ABB Ltd., Motors and Generators	Issued by: Bin Zou	Replaces:
Date: 2015-08-12	Approved by: Anna Feng	Replaced by:
ABB Ltd.	Customer Reference:	ABB

Motors in brief

General performance IE2 high efficiency cast iron motors

Size		280 2-8 Pole	315 2 Pole	315 4-8 Pole	355 2 Pole	355 4-8 Pole
Stator	Material	Cast iron grade 150, IS:210				
	Paint colour shade	Munsell blue 8B 4.5/3.25 / NCS 4822 B05G				
	Surface Treatment	C3 medium according to ISO / EN 12944-5				
Feet		Integrated with stator				
	Material	Cast iron grade 150, IS:210				
Bearing end shields	Material	Cast iron grade 150, IS:210				
	Paint colour shade	Munsell blue 8B 4.5/3.25 / NCS 4822 B05G				
	Surface Treatment	Aliphatic polyurethane paint ≥ 80µm				
Bearings	D-end	6316/C3	6316/C3	6319/C3	6319/C3	6322/C3
	N-end	6315/C3	6316/C3	6316/C3	6319/C3	6319/C3
Axially-locked	Inner Bearing Cover	As standard, locked at D-end				
Bearing seals	D-end	Oil Seal				
	N-end					
Lubrication		Regreasable Bearings, Regreasing nipple M10X1				
Terminal Box	Material	Cast iron grade 150, IS:210				
	Surface	Similar to stator				
	Screws	Steel				
Connections	Cable Entries	2 x 2" BSC		2 x 2-1/2" BSC*		
	Cable Sizes	280 : 2Rx3Cx185Sqmm Cu/Al Cable 315 : 2Rx3Cx240Sqmm Cu/Al Cable 355 : 2Rx3Cx240Sqmm Cu/Al Cable*				
	Terminal Stud Size	M12		M16		
	Terminal Box	6 terminals for connection, cable lugs (not included)				
Fan	Material	Polypropylene, Reinforced with 20% glass fibre			Aluminium	
Fan Cover	Material	Sheet of steel, Cold Rolled				
	Paint colour shade	Munsell blue 8B 4.5/3.25 / NCS 4822 B05G				
	Surface Treatment	Similar to stator				
Stator winding	Material	Copper				
	Insulation	Insulation class F				
Rotor winding	Material	Diecast aluminum				
Balancing method		Half Key Balancing as standarad				
Key ways		Open Key Way				
Enclosure		IP 55				
Cooling method		IC 411				
Drain holes		Drain holes with closable plastic plugs, open on delivery				
Lifting lugs		Bolted to the Stator				

*Cable Size for 355MLC2,355MLD2,355MLB4, 355MLB6H & 355MLB4H will be 2Rx3Cx300 Sqmm Cu/Al , Threaded opening 2x3" BSC