

Single Phase Squirrel Cage

Endura Series



PRODUCT RANGE

Output range	: 0.25 to 3HP (0.18 kW to 2.2kW)
Frame size	: 63 to 112M
Phase	: Single
No. of pole	: 4
Enclosure material	: Cast Iron frame
Type of enclosure	: Totally Enclosed Fan Cooled (TEFC) Drip proof (DP)
Mounting Type	: Foot (B3), Flange (B5), Face (B14) and combinations

SALIENT FEATURES

- Standard designs as per IS, NEMA standards
- Super Enamel coated Copper winding wire
- Single phase motors are fitted with T.O.P.
- Customized motor design capability
- Low maintenance cost

STANDARDS & REFERENCES

V-Guard "ENDURA" Series motors conform to the following Indian & International standards

Title	Indian Standards	International Standards
Single phase induction motors	: IS : 996 – 2009	
Method of determining losses & efficiency	: IS : 7572 – 1974	
Dimensions & Output for electric machines	: IS : 1231 – 1974	IEC 60072 - 1
	(Foot mounted motors)	
	IS : 2223 – 1983	
	(Flange mounted motors)	

NOMENCLATURE

How to read the model code : VIS4A90-HDG

Letter	What it means
V	V-Guard
I	Industrial motor
S	Single Phase
4	1440RPM
A/B/C/D/E	A-Foot Mount (B3); B-Flange Mount (B5); C-Face Mount (B14); D-Foot cum flange (B35); E-Foot cum face (B34)
Frame size	63,71,80,90S,90L,100L,112M
Power output	Q-0.25hp; H-0.5hp;TF-0.75;10-1hp;15-1.5hp;20-2hp; 30-3hp
R, S & D	R-CSR S- CSIR & D -CSCR
G & X	G-Grinder segments code & X-Heavy duty application



SINGLE PHASE AC SQUIRREL CAGE INDUCTION MOTORS

Voltage	: 220 Volts $\pm 10\%$, 1 \emptyset A.C	Frequency	: 50Hz $\pm 5\%$
Combined Variation	: $\pm 10\%$	Ambient temperature	: 45°C
Insulation	: Class 'B'/'F'	Protection class	: IP 44
Duty	: Continuous (S1)	Direction	: Bi-directional

PERFORMANCE CHARACTERISTICS OF SINGLE PHASE AC SQUIRREL CAGE INDUCTION MOTORS

4 Pole 1500 RPM													
Sl. No.	Output		Foot mount Model	Enclosure	Frame	FL Speed (rpm)	FL Current (Amps)	FL Torque (kg-m)	TB / T	IB / I	Efficiency (%)	Cap. Run (mfd)	Cap. Start (mfd)
	HP	kW											
1	0.25	0.18	VIS4A71-QR	TEFC	71	1380	3	0.13	1.5	6.5		10	---
2	0.25	0.18	VIS4A90S-QSG*	DP	90S	1420	2.4	0.12	1.5	6.5	58	---	40/60
3	0.5	0.37	VIS4A80-HD	TEFC	80	1420	3	0.25	1.5	6.5	65	20	60/80
4	0.5	0.37	VIS4A90S-HDG*	DP	90S	1440	2.7	0.25	1.5	6.5	69	15	60/80
5	1	0.75	VIS4A80-10R	TEFC	80	1380	6	0.53	1.5	6.5	62	30	---
6	1	0.75	VIS4A90L-10D	TEFC	90L	1410	5	0.52	1.5	6.5	71	25	90
7	1	0.75	VIS4A100L-10D	TEFC	100L	1440	5	0.51	1.5	6.5	75	20	90
8	1.5	1.1	VIS4A100L-15D	TEFC	100L	1440	7	0.74	1.5	6.5	78	25	90
9	2	1.5	VIS4A100L-20D	TEFC	100L	1440	10	1.01	1.5	6.5	78	36	90
10	2	1.5	VIS4A112M-20D	TEFC	112M	1440	10	1.01	1.5	6.5	73	36	200/250
11	2	1.5	VIS4A112M-20DX	TEFC	112M	1450	12	1.01	1.5	6.5	74	25	200/250
12	3	2.2	VIS4A112M-30D	TEFC	112M	1450	15	1.48	1.5	6.5	75	45	200/250

All performance figures are subjected to IS: 996-2009

* IP not applicable

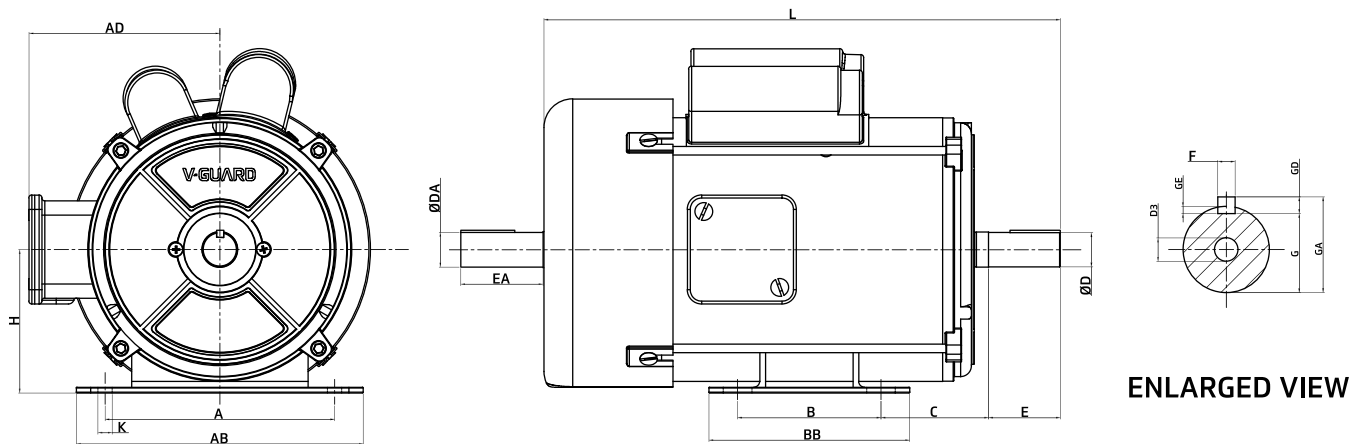
FL Speed : Minimum Speed at Rated Output
 FL Torque : Maximum Torque at Rated Output
 IB / I : Maximum Breakaway Current in terms of Full load Current

FL Current : Maximum Current at Rated Output
 TB / T : Minimum Breakaway Torque in terms of Full load Torque





MOUNTING & OVERALL DIMENSIONS



FRAME SIZE	A	AB	B	BB	C	K	D,DA	E,EA	F	G	GA	GD	GE	H
B48	125	160	75	105	98	20*10	16	40	5	13.5	21	2.5	2.5	80
B56	130	172	75	105	98	20*10	16	48	5	13.5	21	2.5	2.5	90S
100S	160	200	112	140	65	17.5x12	24(j6)	50	8	20	27	4	3	100

Single Phase Commercial Motors

Delite Series



PRODUCT RANGE

Output range	: 0.25 to 3HP (0.18 kW to 2.2kW)
Frame size	: B48, B56 & 100S
Phase	: Single
No. of pole	: 4
Enclosure material	: MS Frame
Type of enclosure	: Totally Enclosed Fan Cooled (TEFC) Drip Proof Fan Cooled (DPFC), Drip Proof (DP)
Mounting Type	: Foot (B3), Flange (B5)



SALIENT FEATURES

- Power packed performance
- Powder coated enclosure

NOMENCLATURE

How to read the model code : VIS4A100SE1-20DW

Letter	What it means
V	V-Guard
I	Industrial motor
S	Single Phase
4	1440RPM
A/B/C/D/E	A-Foot Mount (B3); B-Flange Mount; C-Face Mount (B14); D-Foot cum flange (B35); E-Foot cum face (B34)
Frame size	B48,B56,100S,
E1	E1-Commercial segment code
Power output	Q-0.25hp; H-0.5hp;TF-0.75;10-1hp;15-1.5hp;20-2hp; 30-3hp
R, S & D	R-CSR S- CSIR & D -CSCR
W	W-Wood star series code



SINGLE PHASE COMMERCIAL AC SQUIRREL CAGE INDUCTION MOTORS

Voltage	: 220 Volts $\pm 10\%$, 1 \emptyset A.C	Frequency	: 50Hz $\pm 5\%$
Combined Variation	: $\pm 10\%$	Ambient temperature	: 45°C
Insulation	: Class 'B'/'F'	Direction	: Bi-directional
Duty	: Continuous (S1)		

PERFORMANCE CHARACTERISTICS OF SINGLE PHASE COMMERCIAL AC SQUIRREL CAGE INDUCTION MOTORS

4 Pole 1500 RPM													
Sl. No.	Output		Foot mount Model	Enclosure	Frame	FL Speed (rpm)	FL Current (Amps)	FL Torque (kg-m)	TB / T	IB / I	Efficiency (%)	Cap. Run	Cap. Start
	HP	kW											
1	0.25	0.18	VIS4AB48E1-QS	DP	B48	1380	3	0.13	1.5	6.5	65	---	40/60
2	0.5	0.37	VIS4AB56E1-HS	DP	B56	1400	3.5	0.26	1.5	6.5	70	---	60/80
3	1	0.75	VIS4AB56E1-10S	DPFC	B56	1380	7.3	0.53	1.5	6.5	69	---	80/100
4	1	0.75	VIS4AB56E1-10D	TEFC	B56	1410	6	0.52	1.5	6.5	74	10	80/100
5	1.5	1.1	VIS4A100SE1-15D	TEFC	100S	1440	8	0.74	1.5	6.5	80	10	200/250
6	2	1.5	VIS4A100SE1-20D	TEFC	100S	1440	10	1.01	1.5	6.5	81	20	200/250
7	2	1.5	VIS4A100SE1-20DW	TEFC	100S	1440	10	1.01	1.5	6.5	81	20	200/250
8	3	2.2	VIS4A100SE1-30D	TEFC	100S	1440	16	1.49	1.5	6.5	76	30	280/300
9	3	2.2	VIS4A100SE1-30DW	TEFC	100S	1440	16	1.49	1.5	6.5	76	30	280/300

All performance values are at full load conditions.

FL Speed : Minimum Speed at Rated Output
 FL Torque : Maximum Torque at Rated Output
 IB / I : Maximum Breakaway Current in terms of Full load Current

FL Current : Maximum Current at Rated Output
 TB / T : Minimum Breakaway Torque in terms of Full load Torque

Note: As improvements are made in design from time to time, specifications and performance are subjected to change without prior information. For latest details, you may get in touch with our Branches or Service Centres. All pictures shown are for illustration purpose only. Actual product may vary.