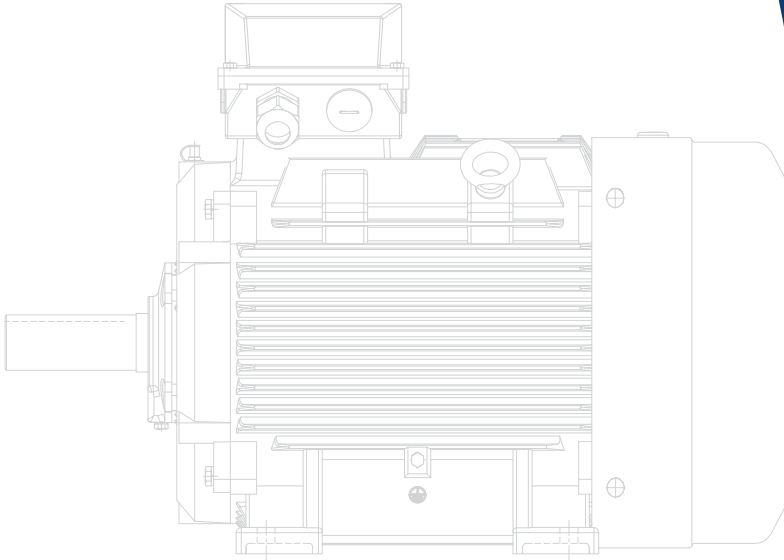


ZENER
Electric Motor

VERSAR®

VETM SERIES

Three Phase Electric Motor



VERSAR®

VERSAR INDUSTRIAL SOLUTIONS PTE. LTD
INDUSTRY PUMPS | ELECTRIC MOTOR | DIESEL ENGINE

GENERAL INTRUCTION MOTORS

Founded in 1998, Versar is specialized in the electric motor industry over 20 years. Versar combined with manufacturing plants in several countries and regions around the world. The electric motors are promoted and used in many of countries. Zener is the best brands of Versar in this field.

Zener offers a wide range of electric motors from 0.18kW to 315kW, IE1 series motors accord with standard of IEC60034-30 : 2008. The main products are standard induction motors with efficiency of IE1, IE2 and IE3, IE4 Energy Efficiency Rate . Versar is also specialized in designing special motors for specific industries such as explosion-proof motor, inverter duty motor, two speed motor, smoke extraction motor and screw air compressor motor. The motors IE1 series can be widely used in various kinds of general use machineries industries are widely used in industries including fans, pumps, compressor, conveyors, and ect.

Customer is our fist concern, quality is our top honor. Zener continues to build distribution network world widely, wich enables us to provide local stock and delivery, customized products and excellent customer services.

WHY CHOOSE US?

1. We are professional electric motor manufacture for over 20 years since 1998.
2. We have best quality materials to make our electric motors best performance.
3. Our products are 100% brand new, 100% copper wire, 100% output.
4. We have advanced test machine to make the 100% qualified products for our customers.
5. We have advanced winding, painting, assembly and packing etc. Production line which make our products nice appearance, good performance and well packaged.
6. We have advanced and automated machines such as high speed punching machines, swing punching machines, machines to form the rotors, stators etc. In one piece, automated packing machines which can produce nice appearance and good performance motors while decrease the labor cost and mechanical loss.
7. We have professional financial department who are good at calculating and controlling the cost and capital operation which could make most favorable prices for our customers.

Design: IEC 60034-7 TEFC, IP55 IEC 60034-5

Standard: IEC 60034-7 TEFC, IP55 IEC 60034-5

Temperature: Up to 180° C

Efficiency: Up to 98 %





OVERVIEW

The IE1/IE2/IE3 series of 3 phase asynchronous motors are Totally Enclosed Fan Cooled (TEFC) with IP55 environmental protection. These motors are designed and manufactured in accordance with IEC standards.

Standard Features

Frame material : Cast Iron & Aluminum

Terminal box material : Cast Iron & Aluminum

Plastic cable entry is standard (Metallic cable entry is optional)

Standard colour : Azure Blue RAL 5009 (Other paint options)

Specific wound stators supporting multiple 3PH mains supply voltages at 50Hz or 60Hz

Aluminum Frame sizes : 63mm ~ 160mm

Cast Iron Frame sizes : 80mm ~ 355mm

Rated power range : 0.18kW ~ 315kW at 50Hz

Standard mounting types and variations (IEC 60034-7)

Bearings : SKF/NSK.

Operating Conditions

Ambient temperature: -15° C + 40° C on request up to 55° C.

Altitude: not exceed 1.000 m.

Rated voltage: 380V or any voltage between 220V-760V..

Rated frequency: 50 Hz, 60 Hz.

Protection class: IP54, IP55.

Insulation class: F.

Temperature rise: Class B

Cooling method: IC 411

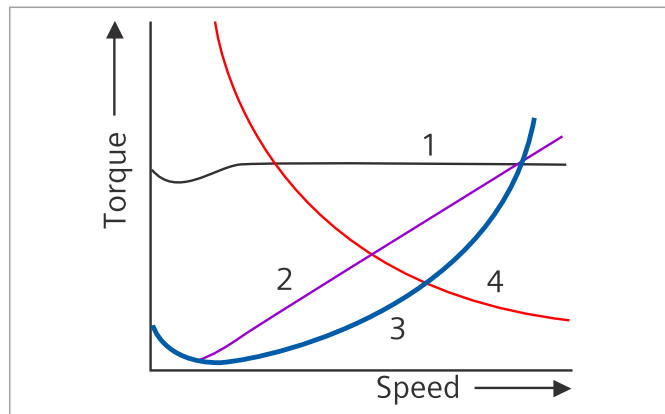
Duty: S1 (continuous).

Connection: Star-connection up to 3kW, delta-connection for 4kW and above.

Remark: Terminal box on top, right or left side are available. Key-way can be closed type or opened type. Motors can also be equipped with PTC, as well as re-greasing system for frame size 160 and above. On request Heaters, Klixon.

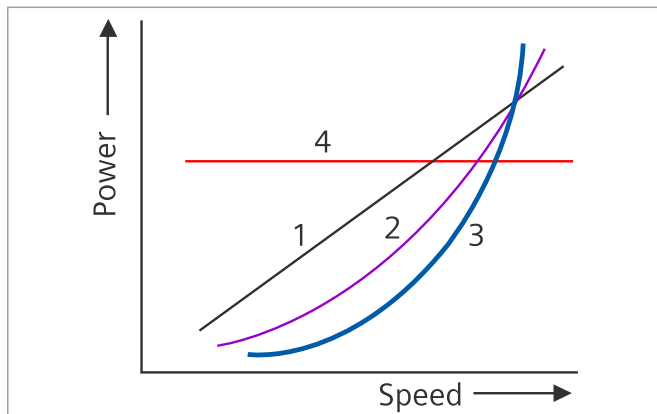
The IE1/IE2/IE3 is a general purpose motor with cast iron frame designed for constant or adjustable speed with continuous duty operation (S1) torque over a speed range.

Load torque characteristics



Torque / speed characteristic

1. Torque almost constant; power proportional to speed.
2. Torque increases proportionally with the speed; power proportional to the square of the speed.
3. Torque increases proportionally with the square of the speed; power proportional to the cube of the speed.
4. Torque decreases in inverse proportion to the speed; power constant.



Power / speed characteristic

Insulation

The components of the insulation system are selected so as to ensure good protection against chemically aggressive gases, vapours, dust, oil and air humidity.

All materials used for insulating the winding and winding ends correspond to insulating classes F or H according to IEC 60085:

- -Enamel-insulated copper wires with temperature index 200(Class H);
- -Insulating sheet on polyester base (Class F);
- -Impregnation with fenolic resins modified with polyester resins (Class H);

Limit temperature for insulating material according IEC60085

Insulation Class	Limit Temperature (°C)
B	130
F	155
H	180

Mechanical Design

Terminal box

Terminal boxes are top mounted as default on the motor. This box can be rotated by 4 X 90° to allow for cable entry from each direction. In addition the terminal box can be installed either on the Left Hand Side or Right Hand Side when viewed from the drive end (DE) side of the motor.

Frame Size	Protection degree	Rotation of Terminal box	Number of Cable grand	Terminal Box material	Terminal bus	Max.cable Size(mm ²)	Cable entry size
63	IP 55	4x90°	1	Aluminum	M4	2	M18X1.5
71	IP 55	4x90°	1	Aluminum	M4	2	M18X1.5
80	IP 55	4x90°	1	Aluminum	M4	2.5	M20X1.5
90	IP 55	4x90°	1	Aluminum	M5	2.5	M20X1.5
100	IP 55	4x90°	1	Aluminum	M5	4	M25X1.5
112	IP 55	4x90°	1 or 2	Aluminum	M5	4	M27X1.5
132	IP 55	4x90°	1 or 2	Aluminum	M5	6	M27X1.5
160	IP 55	4x90°	2	Cast-iron	M6	10	2-M32X1.5
180	IP 55	4x90°	2	Cast-iron	M6	16	2-M32X1.5
200	IP 55	4x90°	2	Cast-iron	M8	25	2-M40X1.5
225	IP 55	4x90°	2	Cast-iron	M8	35	2-M40X1.5
250	IP 55	4x90°	2	Cast-iron	M10	120	2-M50X1.5
280	IP 55	4x90°	2	Cast-iron	M10	120	2-M50X1.5
315	IP 55	4x90°	2	Cast-iron	M16	240	2-M63X1.5
355	IP 55	4x90°	2	Cast-iron	M20	400	2-M72X2

Bearing type

Frame Size	Poles	Drive –end Bearing	Non-Drive-end bearing
63	2.4.6.8	6201 2RZC3	6201 2RZC3
71	2.4.6.8	6202 2RZC3	6202 2RZC3
80	2.4.6.8	6204 2RZC3	6204 2RZC3
90	2.4.6.8	6205 2RZC3	6205 2RZC3
100	2.4.6.8	6206 2RZC3	6206 2RZC3
112	2.4.6.8	6306 2RZC3	6306 2RZC3
132	2.4.6.8	6308 2RZC3	6308 2RZC3
160	2.4.6.8	6309 C3	6309 C3
180	2.4.6.8	6311 C3	6311 C3
200	2.4.6.8	6312 C3	6312 C3
225	2.4.6.8	6313 C3	6313 C3
250	2.4.6.8	6314 C3	6314 C3
280	2	6314 C3	6314 C3
280	4.6.8	6317 C3	6317 C3
315	2	6317 C3	6317 C3
315	4.6.8	6319 C3	6319 C3
355	2	6319 C3	6319 C3
355	4.6.8	6322 C3	6322 C3

Converter fed application

IE1 / IE2 / IE3 motors are suitable for pumps, fans, compressors, textile machine and mechanical machine applications where variable or constant speed is required. When motor operating with a constant load by a speed lower than 50% of rated speed, External separately driven fan.

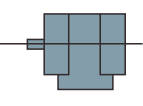
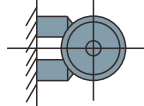
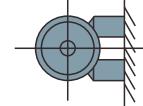
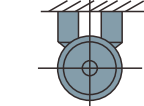
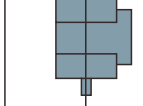
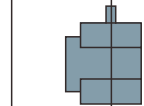
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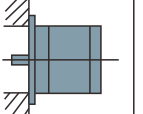
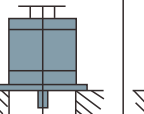
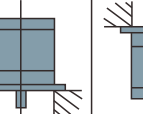
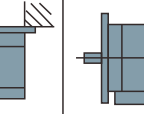
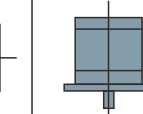
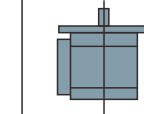
(1) In application where the motor is driven by a converter, the degree of electrical interference depends on the type of converter used (type, number of IGBTs, interference suppression measures, and manufacturer), cabling, distance and application requirements. (2) The installation guidelines of the converter manufacturer with regards to electromagnetic compatibility must be considered at all times during the design and implementation phases.

Technical data for separated fan

Motor frame size	Voltage (V)	Frequency (HZ)	Rated Output (kW)	Current Noise (A)	Speed (r/min)	Fan Power (m³/h)	Fan Pressure (Pa)
80	380V	50	30	0.08	2400	330	60
90	380V	50	52	0.2	2800	390	60
100	380V	50	52	0.2	2800	600	70
112	380V	50	52	0.2	2800	800	80
132	380V	50	40	0.1	2400	1000	70
160	380V	50	80	0.23	1400	1000	50
180	380V	50	80	0.23	1400	1200	55
200	380V	50	230	0.71	1400	1800	65
225	380V	50	230	0.71	1400	1800	65
250	380V	50	230	0.71	1400	3300	85
280	380V	50	230	0.71	1400	4000	110
315	380V	50	370	1.1	1250	6200	180
355	380V	50	550	1.8	1350	7000	180

Construction or mounting type

Construction type	With feet and without flange on the end-shield (DE)					
Mounting type	IM B3 FS 80 ~ 355	IM B6 FS 80 ~ 160	IM B7 FS 80 ~ 160	IM B8 FS 80 ~ 160	IM V5 FS 80 ~ 225	IM V6 FS 80 ~ 225
Diagram						

Construction type	Without feet and with flange on the end-shield (DE)			With feet and with flange on the end-shield (DE)		
Mounting type	IM B5 FS 80 ~ 280	IM V1 ¹⁾ FS 80 ~ 355		IM V3 FS 80 ~ 160	IM B35 FS 80 ~ 355	IM V15 FS 80 ~ 160
Diagram						

1) For IMV1 with canopy and without canopy, motor has different order number. Please find detailed information in "Technical data table".



ZENER
Electric Motor

IE1, IE2, IE3

VETM - SERIES IE1 PERFORMANCE DATA

Type No.	Rated output (kW)	HP	Rated current IFL 380V A	Rated current IFL 400V A	Rated current IFL 420V A	Rated speed (r/min)	Rated current IFL 440V A	Rated current IFL 460V A	Rated current IFL 480V A	Rated speed (r/min)	EFF %	Power factor cos φ	Rated Torque N.m	Start Torque Rated Torque TST/TFL	Start Torque Rated Torque IST/IFL	Max Torque Rated Torque TM/TFL	Noise level LW dB(A)	Weight (Kg)
			380~420V/50Hz				440~480V/60Hz											
Synchronous speed 3000r/min																		
VETM-63M1-2	0.18	0.25	0.53	0.50	0.48	2720	0.46	0.44	0.42	3260	65.0	0.80	0.6	2.2	5.5	2.2	61	7
VETM-63M2-2	0.25	0.37	0.69	0.66	0.62	2720	0.60	0.57	0.55	3260	68.0	0.81	0.9	2.2	5.5	2.2	61	8
VETM-71M1-2	0.37	0.55	0.99	0.94	0.90	2740	0.86	0.82	0.78	3285	70.0	0.81	1.3	2.2	6.1	2.2	64	10
VETM-71M2-2	0.55	0.75	1.4	1.33	1.27	2740	1.21	1.16	1.11	3285	73.0	0.82	1.9	2.2	6.1	2.3	64	11
VETM-80M1-2	0.75	1.0	1.83	1.74	1.66	2825	1.58	1.51	1.45	3390	75.0	0.83	2.5	2.2	6.1	2.3	67	15
VETM-80M2-2	1.1	1.5	2.61	2.48	2.36	2825	2.25	2.16	2.07	3390	77.0	0.84	3.7	2.2	7.0	2.3	67	16
VETM-90S-2	1.5	2.0	3.46	3.29	3.13	2840	2.99	2.86	2.74	3405	79.0	0.84	5.0	2.2	7.0	2.3	72	19
VETM-90L-2	2.2	3.0	4.85	4.61	4.39	2840	4.19	4.01	3.84	3405	81.0	0.85	7.4	2.2	7.0	2.3	72	22
VETM-100L-2	3	4.0	6.34	6.02	5.74	2870	5.48	5.24	5.02	3440	83.0	0.87	10.0	2.2	7.5	2.3	76	32
VETM-112M-2	4	5.5	8.20	7.79	7.42	2880	7.08	6.77	6.49	3455	85.0	0.88	13.3	2.2	7.5	2.3	77	39
VETM-132S1-2	5.5	7.5	11.1	10.5	10.0	2900	9.59	9.17	8.79	3480	86.0	0.88	18.1	2.2	7.5	2.3	80	58
VETM-132S2-2	7.5	10	14.9	14.2	13.5	2900	12.9	12.3	11.8	3480	87.0	0.88	24.7	2.2	7.5	2.3	80	66
VETM-160M1-2	11	15	21.2	20.1	19.2	2930	18.3	17.5	16.8	3515	88.4	0.89	35.9	2.2	7.5	2.3	86	104
VETM-160M2-2	15	20	28.6	27.2	25.9	2930	24.7	23.6	22.6	3515	89.4	0.89	48.9	2.2	7.5	2.3	86	112
VETM-160L-2	18.5	25	34.7	33.0	31.4	2930	30.0	28.7	27.5	3515	90.0	0.90	60.3	2.2	7.5	2.3	86	132
VETM-180M-2	22	30	41.0	39.0	37.1	2940	35.4	33.9	32.5	3525	90.5	0.90	71.5	2.0	7.5	2.3	89	162
VETM-200L1-2	30	40	55.4	52.6	50.1	2950	47.9	45.8	43.9	3540	91.4	0.90	97.1	2.0	7.5	2.3	92	225
VETM-200L2-2	37	50	67.9	64.5	61.4	2950	58.6	56.1	53.8	3540	92.0	0.90	119.8	2.0	7.5	2.3	92	245
VETM-225M-2	45	60	82.1	78.0	74.3	2960	70.9	67.8	65.0	3550	92.5	0.90	145.2	2.0	7.5	2.3	92	290
VETM-250M-2	55	75	99.8	94.8	90.3	2965	86.2	82.4	79.0	3555	93.0	0.90	177.2	2.0	7.5	2.3	93	367
VETM-280S-2	75	100	135.3	128.5	122.4	2970	116.9	111.8	107.1	3560	93.6	0.90	241.2	2.0	7.5	2.3	94	495
VETM-280M-2	90	120	160.0	152.0	144.8	2970	138.2	132.2	126.7	3560	93.9	0.91	289.4	2.0	7.5	2.3	94	540
VETM-315S-2	110	150	195.4	185.6	176.8	2975	168.8	161.4	154.7	3570	94.0	0.91	353.1	1.8	7.1	2.2	96	880
VETM-315M-2	132	180	233.2	221.5	211.0	2975	201.4	192.6	184.6	3570	94.5	0.91	423.7	1.8	7.1	2.2	96	1000
VETM-315L1-2	160	220	279.3	265.3	252.7	2975	241.2	230.7	221.1	3570	94.6	0.92	513.6	1.8	7.1	2.2	99	1080
VETM-315L2-2	185	250	322.3	306.2	291.6	2975	278.4	266.3	255.2	3575	94.8	0.92	593.0	1.8	7.1	2.2	99	1100
VETM-315L2-2	200	270	348.4	331.0	315.2	2975	300.9	287.8	275.8	3570	94.8	0.92	642.0	1.8	7.1	2.2	99	1130
VETM-315L3-2	220	300	383.3	364.1	346.8	2975	348.2	333.0	319.2	3575	94.8	0.92	705.6	1.8	7.1	2.2	103	1130
VETM-355M-2	250	340	433.7	412.0	392.4	2980	374.6	358.3	343.4	3575	95.3	0.92	801.2	1.6	7.1	2.2	103	1560
VETM-355M1-2	280	380	484.7	460.5	438.6	2980	418.6	400.4	383.7	3575	95.6	0.92	897.3	1.6	7.1	2.2	103	1650
VETM-355L-2	315	430	545.3	518.0	493.4	2980	470.9	450.5	431.7	3575	95.6	0.92	1009.5	1.6	7.1	2.2	103	1740

* Defined by Versar.

All values of current indicated have a tolerance level of $\pm 3\%$

Efficiencies according to the indirect method of IEC 60034-2-1:2007 with stray load losses determined from measurement.

IST = Locked Rotor Current

IFL = Full Load Current

TM = Maximum Torque

TFL = Full Load Torque

TST = Locked Rotor Torque

VETM - SERIES IE1 PERFORMANCE DATA

Type No.	Rated output (kW)	HP	Rated current IFL 380V A	Rated current IFL 400V A	Rated current IFL 420V A	Rated speed (r/min)	Rated current IFL 440V A	Rated current IFL 460V A	Rated current IFL 480V A	Rated speed (r/min)	EFF %	Power factor cos φ	Rated Torque N.m	Start Torque Rated Torque TST/TFL	Start Torque Rated Torque IST/IFL	Max Torque Rated Torque TM/TFL	Noise level LW dB(A)	Weight (Kg)
			380~420V/50Hz				440~480V/60Hz											
Synchronous speed 1500r/min																		
VETM-63M1-4	0.12	0.18	0.44	0.42	0.40	1310	0.38	0.36	0.35	1570	57.0	0.72	0.9	2.1	4.4	2.2	52	7.5
VETM-63M2-4	0.18	0.25	0.62	0.59	0.56	1310	0.54	0.51	0.49	1570	60.0	0.73	1.3	2.1	4.4	2.2	52	8.5
VETM-71M1-4	0.25	0.37	0.79	0.75	0.71	1330	0.68	0.65	0.63	1595	65.0	0.74	1.8	2.1	5.2	2.2	55	10.5
VETM-71M2-4	0.37	0.55	1.12	1.06	1.01	1330	0.97	0.93	0.89	1595	67.0	0.75	2.7	2.1	5.2	2.2	55	11.5
VETM-80M1-4	0.55	0.75	1.57	1.49	1.42	1390	1.36	1.30	1.24	1665	71.0	0.75	3.8	2.4	5.2	2.3	58	15
VETM-80M2-4	0.75	1.00	2.05	1.95	1.85	1390	1.77	1.69	1.62	1665	73.0	0.76	5.2	2.3	6.0	2.3	58	16
VETM-90S-4	1.1	1.5	2.85	2.71	2.58	1400	2.46	2.35	2.26	1680	76.2	0.77	7.6	2.3	6.0	2.3	61	20
VETM-90L-4	1.5	2.0	3.68	3.50	3.33	1400	3.18	3.04	2.91	1680	78.5	0.79	10.3	2.3	6.0	2.3	61	23
VETM-100L1-4	2.2	3.0	5.09	4.84	4.61	1420	4.40	4.20	4.03	1700	81.0	0.81	14.9	2.3	7.0	2.3	64	31
VETM-100L2-4	3	4.0	6.73	6.39	6.09	1420	5.81	5.56	5.33	1700	82.6	0.82	20.3	2.3	7.0	2.3	64	35
VETM-112M-4	4	5.5	8.80	8.36	7.96	1440	7.60	7.27	6.97	1725	84.2	0.82	26.5	2.3	7.0	2.3	65	41
VETM-132S-4	5.5	7.5	11.7	11.1	10.6	1440	10.1	9.67	9.26	1725	85.7	0.83	36.5	2.3	7.0	2.3	71	60
VETM-132M-4	7.5	10.0	15.6	14.8	14.1	1440	13.5	12.9	12.4	1725	87.0	0.84	49.7	2.3	7.0	2.3	71	74
VETM-160M-4	11	15	22.5	21.4	20.4	1460	19.4	18.6	17.8	1750	88.4	0.84	72.0	2.2	7.0	2.3	75	108
VETM-160L-4	15	20	30.0	28.5	27.1	1460	25.9	24.8	23.8	1750	89.4	0.85	98.1	2.2	7.5	2.3	75	128
VETM-180M-4	18.5	25	36.3	34.5	32.8	1465	31.4	30.0	28.7	1755	90.5	0.86	120.2	2.2	7.5	2.3	76	158
VETM-180L-4	22	30	42.9	40.8	38.8	1465	37.1	35.4	34.0	1755	91.0	0.86	142.9	2.2	7.5	2.3	76	172
VETM-200L-4	30	40	58.0	55.1	52.5	1470	50.1	47.9	45.9	1760	92.0	0.86	194.9	2.2	7.2	2.3	79	241
VETM-225S-4	37	50	70.2	66.7	63.5	1475	60.6	58.0	55.6	1770	92.5	0.87	239.6	2.2	7.2	2.3	81	280
VETM-225M-4	45	60	85.0	80.8	76.9	1475	73.4	70.2	67.3	1770	92.8	0.87	291.4	2.2	7.2	2.3	81	305
VETM-250M-4	55	75	103.3	98.1	93.5	1475	89.2	85.3	81.8	1770	93.0	0.87	354.9	2.2	7.2	2.3	83	375
VETM-280S-4	75	100	139.3	132.3	126.0	1480	120.3	115.1	110.3	1775	93.8	0.87	484.0	2.2	7.2	2.3	86	507
VETM-280M-4	90	120	167.4	159.0	151.5	1480	144.6	138.3	132.5	1775	94.2	0.87	580.7	2.2	7.2	2.3	86	572
VETM-315S-4	110	150	201.0	191.0	181.9	1480	173.6	166.0	159.1	1775	94.5	0.88	709.8	2.1	6.9	2.2	93	930
VETM-315M-4	132	180	240.4	228.4	217.5	1480	207.6	198.6	190.3	1775	94.8	0.88	851.8	2.1	6.9	2.2	93	1050
VETM-315L1-4	160	220	287.8	273.4	260.4	1480	248.6	237.8	227.8	1775	94.9	0.89	1032.4	2.1	6.9	2.2	97	1110
VETM-315L2-4	200	270	359.8	341.8	325.5	1480	310.7	297.2	284.8	1775	95.0	0.89	1290.5	2.1	6.9	2.2	97	1180
VETM-355M-4	250	340	443.3	421.1	401.1	1490	382.9	366.2	351.0	1785	95.3	0.90	1602.3	2.1	6.9	2.2	101	1580
VETM-355L-4	315	430	558.6	530.7	505.4	1490	482.4	461.5	442.2	1785	95.6	0.90	2019.0	2.1	6.9	2.2	101	1750

* Defi ned by Versar.

All values of current indicated have a tolerance level of ± 3%

Effi ciencies according to the indirect method of IEC 60034-2-1:2007 with stray load losses determined from measurement.

IST = Locked Rotor Current

IFL = Full Load Current

TM = Maximum Torque

TFL = Full Load Torque

TST = Locked Rotor Torque

VETM - SERIES IE1 PERFORMANCE DATA

Type No.	Rated output (kW)	HP	Rated current IFL 380V A	Rated current IFL 400V A	Rated current IFL 420V A	Rated speed (r/min)	Rated current IFL 440V A	Rated current IFL 460V A	Rated current IFL 480V A	Rated speed (r/min)	EFF %	Power factor cos φ	Rated Torque N.m	Start Torque Rated Torque TST/TFL	Start Torque Rated Torque IST/IFL	Max Torque Rated Torque TM/TFL	Noise level LW dB(A)	Weight (Kg)
			380~420V/50Hz				440~480V/60Hz											
Synchronous speed 1000r/min																		
VETM-71M1-6	0.18	0.25	0.74	0.70	0.67	850	0.64	0.61	0.59	1020	56.0	0.66	2.0	1.9	4.0	2.0	52	10
VETM-71M2-6	0.25	0.37	0.95	0.90	0.86	850	0.82	0.78	0.75	1020	59.0	0.68	2.8	1.9	4.0	2.0	52	11
VETM-80M1-6	0.37	0.50	1.30	1.24	1.18	900	1.12	1.07	1.03	1080	62.0	0.70	4.0	1.9	4.7	2.0	54	15
VETM-80M2-6	0.55	0.75	1.79	1.70	1.62	900	1.55	1.48	1.42	1080	65.0	0.72	5.9	1.9	4.7	2.1	54	16
VETM-90S-6	0.75	1.00	2.29	2.18	2.07	910	1.98	1.89	1.81	1090	69.0	0.72	7.9	2.0	5.5	2.1	57	20
VETM-90L-6	1.1	1.5	3.18	3.02	2.88	910	2.75	2.63	2.52	1090	72.0	0.73	11.5	2.0	5.5	2.1	57	23
VETM-100L-6	1.5	2.0	4.00	3.80	3.62	930	3.45	3.30	3.17	1115	76.0	0.75	15.6	2.0	5.5	2.1	61	30
VETM-112M-6	2.2	3.0	5.57	5.29	5.04	940	4.81	4.60	4.41	1125	79.0	0.76	22.5	2.0	6.5	2.1	65	39
VETM-132S-6	3	4.0	7.40	7.03	6.70	960	6.39	6.11	5.86	1150	81.0	0.76	29.8	2.1	6.5	2.1	69	55
VETM-132M1-6	4	5.5	9.75	9.26	8.82	960	8.42	8.05	7.72	1150	82.0	0.76	39.8	2.1	6.5	2.1	69	68
VETM-132M2-6	5.5	7.5	12.9	12.3	11.7	960	11.1	10.7	10.2	1150	84.0	0.77	54.4	2.1	6.5	2.1	69	73
VETM-160M-6	7.5	10.0	17.2	16.3	15.6	970	14.9	14.2	13.6	1160	86.0	0.77	73.8	2.0	6.5	2.1	73	104
VETM-160L-6	11	15	24.5	23.3	22.2	970	21.2	20.2	19.4	1160	87.5	0.78	108.3	2.0	6.5	2.1	73	126
VETM-180L-6	15	20	31.6	30.0	28.6	970	27.3	26.1	25.0	1160	89.0	0.81	147.7	2.0	7.0	2.1	73	168
VETM-100L1-6	18.5	25	38.6	36.7	34.9	975	33.3	31.9	30.6	1170	90.0	0.81	180.3	2.1	7.0	2.1	76	215
VETM-200L2-6	22	30	44.7	42.5	40.4	975	38.6	36.9	35.4	1170	90.0	0.83	214.4	2.1	7.0	2.1	76	238
VETM-225M-6	30	40	59.3	56.3	53.7	980	51.2	49.0	47.0	1175	91.5	0.84	292.3	2.0	7.0	2.1	76	280
VETM-250M-6	37	50	71.1	67.6	64.3	980	61.4	58.7	56.3	1175	92.0	0.86	360.6	2.1	7.0	2.1	78	350
VETM-280S-6	45	60	85.9	81.6	77.7	980	74.2	71.0	68.0	1175	92.5	0.86	438.5	2.1	7.0	2.0	80	463
VETM-280M-6	55	75	104.7	99.5	94.7	980	90.4	86.5	82.9	1175	92.8	0.86	536.0	2.1	7.0	2.0	80	508
VETM-315S-6	75	100	141.7	134.6	128.2	985	122.4	117.1	112.2	1180	93.5	0.86	727.2	2.0	7.0	2.0	85	860
VETM-315M-6	90	120	169.5	161.0	153.4	985	146.4	140.0	134.2	1180	93.8	0.86	872.6	2.0	7.0	2.0	85	980
VETM-315L1-6	110	150	206.7	196.4	187.0	985	178.5	170.8	163.6	1180	94.0	0.86	1066.5	2.0	6.7	2.0	85	1060
VETM-315L2-6	132	180	244.7	232.5	221.4	985	211.3	202.1	193.7	1180	94.2	0.87	1279.8	2.0	6.7	2.0	85	1135
VETM-355M1-6	160	220	292.3	277.7	264.5	990	252.4	241.5	231.4	1185	94.5	0.88	1543.4	1.9	6.7	2.0	92	1480
VETM-355M2-6	200	270	365.4	347.1	330.6	990	315.6	301.9	289.3	1185	94.7	0.88	1929.3	1.9	6.7	2.0	92	1640
VETM-355L-6	250	340	456.8	434.0	413.3	990	394.5	377.4	361.6	1185	94.9	0.88	2411.6	1.9	6.7	2.0	92	1810

* Defi ned by Versar.
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 Effi ciencies according to the indirect method of IEC 60034-2-1:2007 with stray load losses determined from measurement.

IST = Locked Rotor Current
 IFL = Full Load Current
 TM = Maximum Torque
 TFL = Full Load Torque
 TST = Locked Rotor Torque

VETM - SERIES IE1 PERFORMANCE DATA

Type No.	Rated output (kW)	HP	Rated current IFL 380V A	Rated current IFL 400V A	Rated current IFL 420V A	Rated speed (r/min)	Rated current IFL 440V A	Rated current IFL 460V A	Rated current IFL 480V A	Rated speed (r/min)	EFF %	Power factor cos φ	Rated Torque N.m	Start Torque Rated Torque TST/TFL	Start Torque Rated Torque IST/IFL	Max Torque Rated Torque TM/TFL	Noise level LW dB(A)	Weight (Kg)
			380~420V/50Hz				440~480V/60Hz											
Synchronous speed 750r/min																		
VETM-80M1-8	0.18	0.25	0.88	0.84	0.80	650	0.76	0.73	0.70	780	51.0	0.61	2.7	1.8	3.3	1.9	52	15
VETM-80M2-8	0.25	0.37	1.15	1.09	1.04	650	0.99	0.95	0.91	780	54.0	0.61	3.7	1.8	3.3	1.9	52	16
VETM-90S-8	0.37	0.50	1.49	1.42	1.35	660	1.29	1.23	1.18	790	62.0	0.61	5.3	1.8	4.0	1.9	56	20
VETM-90L-8	0.55	0.75	2.17	2.06	1.96	660	1.87	1.79	1.72	790	63.0	0.61	7.8	1.8	4.0	2.0	56	24
VETM-100L1-8	0.75	1.00	2.40	2.28	2.17	690	2.07	1.98	1.90	825	71.0	0.67	10.5	1.8	4.0	2.0	59	28
VETM-100L2-8	1.1	1.5	3.32	3.15	3.00	690	2.87	2.74	2.63	825	73.0	0.69	15.4	1.8	5.0	2.0	59	30
VETM-112M-8	1.5	2.0	4.40	4.18	3.98	700	3.80	3.63	3.48	840	75.0	0.69	20.8	1.8	5.0	2.0	61	38
VETM-132S-8	2.2	3.0	6.04	5.74	5.46	710	5.22	4.99	4.78	850	78.0	0.71	29.8	1.8	6.0	2.0	64	54
VETM-132M-8	3	4.0	7.90	7.51	7.15	710	6.82	6.53	6.25	850	79.0	0.73	40.6	1.8	6.0	2.0	64	63
VETM-160M1-8	4	5.5	10.3	9.79	9.32	720	8.90	8.51	8.15	860	81.0	0.73	53.1	1.9	6.0	2.0	68	91
VETM-160M2-8	5.5	7.5	13.6	12.9	12.3	720	11.8	11.2	10.8	860	83.0	0.74	73.0	2.0	6.0	2.0	68	103
VETM-160L-8	7.5	10.0	17.8	16.9	16.1	720	15.4	14.7	14.1	860	85.5	0.75	99.5	2.0	6.0	2.0	68	128
VETM-180L-8	11	15	25.1	23.9	22.7	730	21.7	20.7	19.9	875	87.5	0.76	143.9	2.0	6.6	2.0	70	165
VETM-200L-8	15	20	34.1	32.4	30.9	730	29.5	28.2	27.0	875	88.0	0.76	196.2	2.0	6.6	2.0	73	224
VETM-225S-8	18.5	25	41.1	39.1	37.2	730	35.5	34.0	32.5	875	90.0	0.76	242.0	1.9	6.6	2.0	73	255
VETM-225M-8	22	30	47.4	45.0	42.9	730	40.9	39.2	37.5	875	90.5	0.78	287.8	1.9	6.6	2.0	73	292
VETM-250M-8	30	40	63.4	60.2	57.4	735	54.8	52.4	50.2	880	91.0	0.79	389.8	1.9	6.6	2.0	75	368
VETM-280S-8	37	50	77.8	73.9	70.4	735	67.2	64.3	61.6	880	91.5	0.79	480.7	1.9	6.6	2.0	76	475
VETM-280M-8	45	60	94.1	89.4	85.1	735	81.3	77.7	74.5	880	92.0	0.79	584.7	1.9	6.6	2.0	76	527
VETM-315S-8	55	75	111.2	105.6	100.6	735	96.0	91.9	88.0	880	92.8	0.81	714.6	1.8	6.6	2.0	82	840
VETM-315M-8	75	100	151.3	143.7	136.9	735	130.7	125.0	119.8	880	93.0	0.81	974.5	1.8	6.6	2.0	82	1020
VETM-315L1-8	90	120	177.8	168.9	160.9	740	153.6	146.9	140.8	885	93.8	0.82	1169.4	1.8	6.6	2.0	82	1100
VETM-315L2-8	110	150	216.8	206.0	196.2	740	187.2	179.1	171.6	885	94.0	0.82	1429.3	1.8	6.4	2.0	82	1180
VETM-355M1-8	132	180	261.0	248.0	236.1	740	225.4	215.6	206.6	885	93.7	0.82	1703.5	1.8	6.4	2.0	90	1610
VETM-355M2-8	160	220	314.7	299.0	284.7	740	271.8	260.0	249.1	885	94.2	0.82	2064.9	1.8	6.4	2.0	90	1700
VETM-355L-8	200	270	387.4	368.0	350.5	740	334.6	320.0	306.7	885	94.5	0.83	2581.1	1.8	6.4	2.0	90	1850
Synchronous speed 600r/min																		
VETM-315S-10	45	60	99.6	94.6	90.1	590	86.0	82.3	78.9	705	91.5	0.75	728.4	1.5	6.2	2.0	82	830
VETM-315M-10	55	75	121.1	115.1	109.6	590	104.6	100.0	95.9	705	92.0	0.75	890.3	1.5	6.2	2.0	82	960
VETM-315L1-10	75	100	162.1	154.0	146.7	590	140.0	133.9	128.3	705	92.5	0.76	1214.0	1.5	6.2	2.0	82	1080
VETM-315L2-10	90	120	191.0	181.5	172.8	590	165.0	157.8	151.2	705	93.0	0.77	1456.8	1.5	6.2	2.0	82	1150
VETM-355M1-10	110	150	229.9	218.4	208.0	590	198.6	189.9	182.0	705	93.2	0.78	1780.5	1.3	6.0	2.0	90	1565
VETM-355M2-10	132	180	275.0	261.3	248.8	590	237.5	227.2	217.7	705	93.5	0.78	2136.6	1.3	6.0	2.0	90	1685
VETM-355L-10	160	220	333.3	316.6	301.6	590	287.9	275.3	263.9	705	93.5	0.78	2589.8	1.3	6.0	2.0	90	1830

* Defi ned by Versar.

All values of current indicated have a tolerance level of ± 3%

Effi ciencies according to the indirect method of IEC 60034-2-1:2007 with stray load losses determined from measurement.

IST = Locked Rotor Current

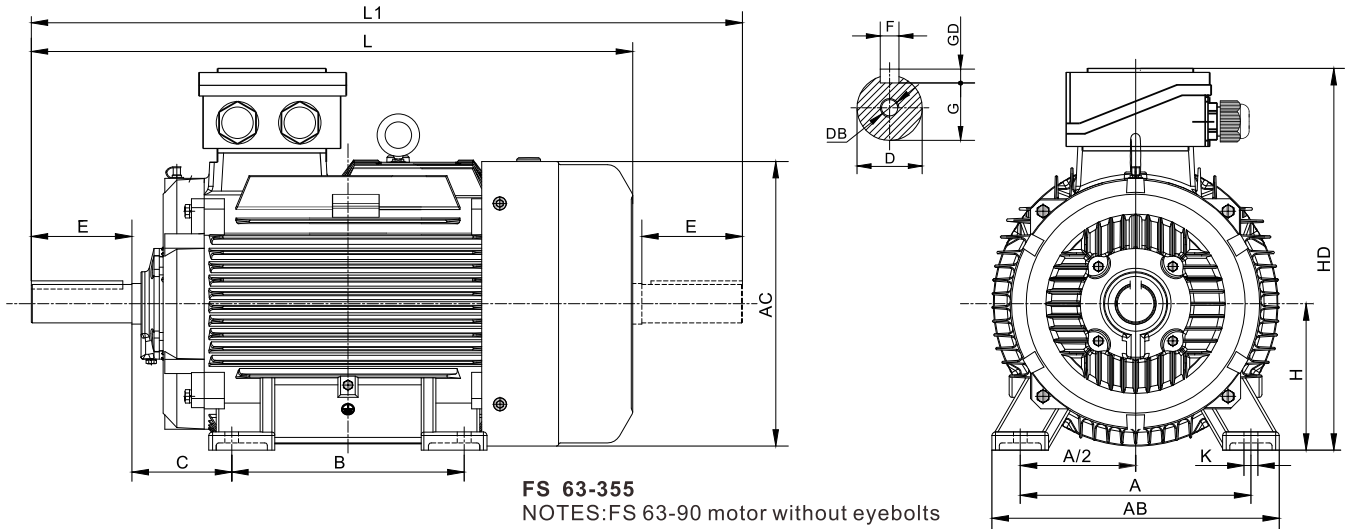
IFL = Full Load Current

TM = Maximum Torque

TFL = Full Load Torque

TST = Locked Rotor Torque

DIMENSIONS MOUNT B3



Frame size	Poles	Fixing Measurement												Figure size					
		A	A/2	B	C	D	E	F	G	H	K	DB	GD	AB	AC	HD	L	L1	
63M	2、4	100	50	80	40	11	23	6	8.5	63	7	M4	4	135	130	180	230	255	
71M	2、4、6	112	56	90	45	14	30		11	71		M5	5	150	145	195	255	290	
80M	2、4、6、8	125	62.5	100	50	19	40	8	15.5	80	10	M6	6	165	175	220	295	340	
90S		140	70	100	56	24	50		20	99		M8	7	180	195	250	320	375	
90L				125							345						400		
100L		160	80	140	63	28	60		24	100	205			215	270	385	450		
112M		190	95	140	70					230	240			300	400	465			
132S		216	108	140	89	38	80		10	33	132	12	M10	8	270	275	345	470	555
132M				178				510										595	
160M		254	127	210	108	42	110	12	37	160	15	M12	320		330	420	615	730	
160L				254													670	785	
180M		279	139.5	241	121	48		14	42.5	180	9		355	380	455	700	815		
180L				279												740	855		
200L		318	159	305	133	55		16	49	200			10	395	420	505	770	885	
225S	4、8	356	178	286	149	60	140	18	53	225	19	M16	11	435	470	560	815	960	
225M	2			311		55	110	16	49				10				820	935	
	4、6、8				60	140	18	53	250	24	11		490	510	615	910	1055		
250M	2	406	203	349	168			58								280	1055	1130	
280S	2	457	228.5	368	190			75	20			67.5	M20	12	550	580	680	985	1130
280M	4、6、8			419				65	18			58						M16	11
	4、6、8					75	20	67.5	M20	12									
315S	2	508	254	406	216	65	170	18	58	315	28	M16	11	635	645	800	1160	1315	
	4、6、8、10					80		22	71			M20	14				1190	1375	
315M	2			457		65		140	18			58	M16				11	1270	1425
	4、6、8、10					80		170	22			71	M20				14	1300	1485
315L	2	508				65	140	18	58			M16	11				1270	1425	
	4、6、8、10						80	170	22			71	M20				14	1300	1485
355M	2	610	305	560	254	75	140	20	67.5	355		M20	12	730	710	880	1500	1650	
	4、6、8、10					95	170	25	86			M24	14				1530	1710	
355L	2			630		75	140	20	67.5			M20	12				1500	1650	
	4、6、8、10					95	170	25	86			M24	14				1530	1710	

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