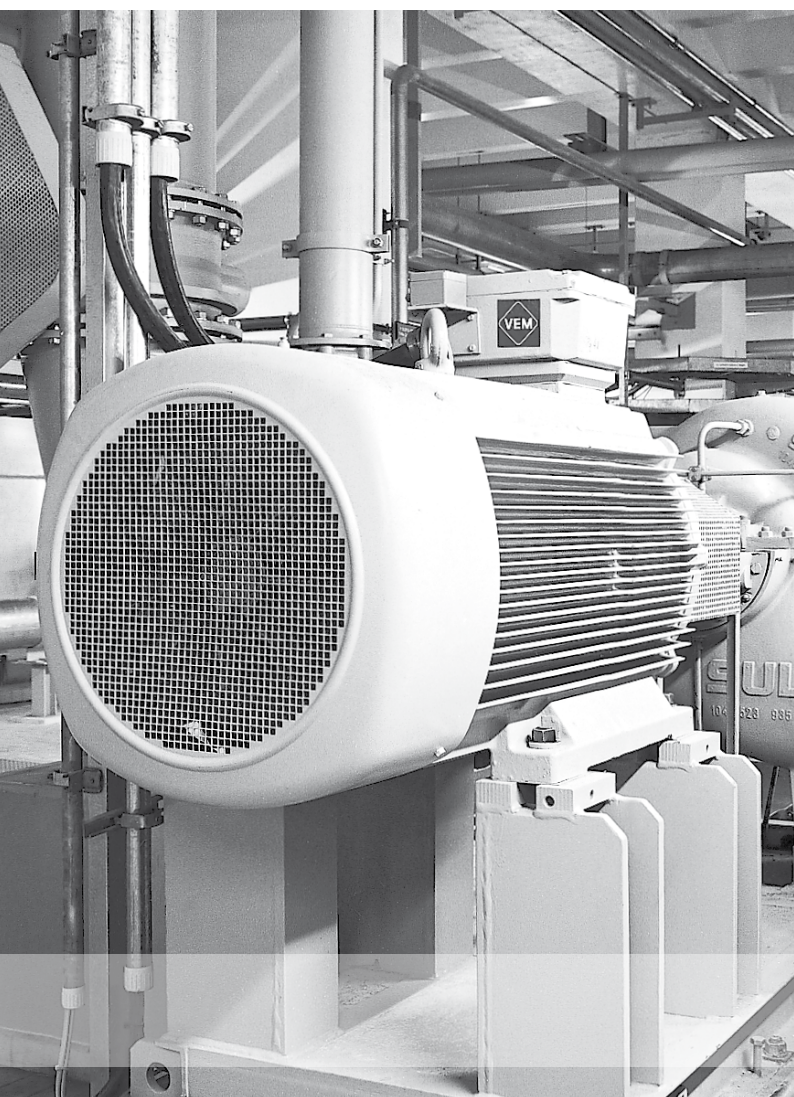




ELECTRIC DRIVES

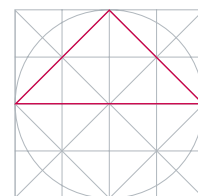
FOR EVERY DEMAND



Energy saving motors

Designed for High Efficiency IE2

www.vem-group.com



Energy saving motors designed for High Efficiency IE2

Energy efficient drives for pumps, fans, compressors

Economy and Ecology

Motors with high efficiency from VEM

- › lower power consumption
- › help reduce energy costs
- › comply with European statutory regulations
- › are suitable for retrofitting of existing plants
- › spare natural resources by increased energy efficiency.

The efficiencies of all motors of the VEM energy efficient series comply with efficiency class IE2 according to IEC/EN 60034-30-1.

IE2 minimum efficiencies from 16.06.2011

In the power range from 0.75 kW to 1000 kW new efficiency classes are valid for three-phase motors with 2-, 4-, 6- and 8-pole design according to IEC/EN 60034-30-1

Standard Efficiency IE1

High Efficiency IE2

Premium Efficiency IE3

These classes in connection with the new standard for testing IEC/EN 60034-2-1 replace the former EFF-designation. In addition minimum efficiencies complying with regulation (EC) no. 640/2009 (dated 22nd July 2009) and regulation (EC) 4/2014 (dated 6th January 2014) have been effective for asynchronous motors since June 2011.

- › From 16.06.2011 to 31.12.2014 only IE2-motors were allowed in the product range for standard motors.

- › Since 01.01.2015 efficiency class IE2 has been replaced by IE3 in the power range from 7.5 kW up to 375 kW
- › **Efficiency class IE2 must then only be used in connection with inverter operation.**
- › After 01.01.2017 the power range is extended so that motors from 0.75 upwards are included. The use of IE2-motors is still permitted in connection with inverter operation.

Energy efficiency with expert knowledge from VEM

Energy efficient motors from VEM are based on most advanced magnet materials, a special winding design and optimised bearings and ventilation. The output correlation and motor dimensions are the same as for the existing standard motors series, so that older motors and motors already placed into production can be replaced without problems by energy saving drives. With the participation at the Voluntary Agreement between CEMEP and European Union and the "Motor Challenge Programme" of EU VEM has documented a clear statement for energy efficiency of all VEM products. This process is continued by implementation of the directive 2009/125/EC setting of ecodesign requirements for energy-related products and is clearly documented by the conversion of the product range to production of electric motors with efficiency classes IE2 and IE3.



Energy-saving motors of the class High Efficiency
IE2 are suitable for use in all branches of industry.

Series	IE2-WE1R, IE2-W21R, IE2-WE2R, W21R
	Mounting dimensions and output correlation according to DIN EN 50347
Sizes	56 to 355
Power range	0.09 – 500 kW
Efficiency class	IE2 acc. to IEC/EN 60034-30-1 in the power range 0.75...500 kW, 2-, 4-, 6- and 8-pole
Type of protection	IP 55 acc. to IEC/EN 60034-5
Type of construction	IM B3, IM B35, IM B5 and derived types of construction acc. to IEC/EN 60034-7
Duty type	Continuous duty, S1
Type of cooling	IC 411 acc. to IEC/EN 60034-6

kW	2-pole			4-pole			6-pole			8-pole		
	Type	η	m	Type	η	m	Type	η	m	Type	η	m
[kW]		[%]	[kg]		[%]	[kg]		[%]	[kg]		[%]	[kg]
0.75	IE2-W21R 80 K2	77.4	15	IE2-W21R 80 G 4	79.6	17	IE2-W21R 90 S 6	75.9	24	IE2-WE1R 100 L 8	66.2	a.A.
1.1	IE2-WE1R 80 G2	79.6	18	IE2-WE1R 90 S 4	81.4	23	IE2-W21R 90 L6	78.1	30	IE2-WE1R 100 LX8	70.8	a.A.
1.5	IE2-WE1R 90 S2	81.3	23.5	IE2-WE1R 90 L 4	82.8	28	IE2-W21R 100 LX6	79.8	36	IE2-WE1R 112 MV8	74.1	a.A.
2.2	IE2-WE1R 90 L2	83.2	23.5	IE2-WE1R 100 L4	84.3	36	IE2-W21R 112 MV6	81.8	48	IE2-W21R 132 S8	81.7	55
3	IE2-WE1R 100 L2	84.6	31	IE2-WE1R 100 LX4	85.5	45	IE2-WE1R 132 SX6T	83.3	52	IE2-W21R 132 M8	82.7	74
4	IE2-WE1R 112 MX2	85.8	38	IE2-WE1R 112MZ4	86.6	50	IE2-WE2R 132 M6	85.1	66	IE2-W21R 160 M8	84.2	86
5.5	IE2-WE1R 132 S2T	87	57	IE2-WE2R 132 S4	88.4	64	IE2-W21R 132 MX6	86.1	85	IE2-WE2R 160 MX8	83.9	103
7.5	IE2-WE1R 132 SX2	88.8	75	IE2-WE1R 132 M4	89.9	88	IE2-WE2R 160 M6	87.5	103	IE2-W21R 180 L8	87.0	175
11	IE2-WE1R 160 M2	90.3	125	IE2-WE2R 160 M4	90.3	105	IE2-WE2R 160 L6	88.5	155	IE2-WE2R 180 L8	87.9	157
15	IE2-WE1R 160 MX2	90.7	140	IE2-WE2R 160 L4	92	161	IE2-WE2R 180 L6	89.7	157	IE2-W21R 200 L8	88.2	200
18.5	IE2-WE1R 160 L2	91	140	IE2-WE2R 180 M4	81.2	176	IE2-W21R 200 L6	90.4	208	IE2-WE2R 225 S8	90.0	305
22	IE2-WE1R 180 M2	91.3	173	IE2-WE1R 180 L4	91.6	215	IE2-WE2R 200 LX6	90.9	238	IE2-WE2R 225 M8	90.3	307
30	IE2-WE1R 200 L2	92	210	IE2-WE1R 200 L4	92.3	277	IE2-WE2R 225 M6	92.0	365	IE2-WE2R 250 M8	91.0	405
37	IE2-WE2R 200 LX2	92.9	238	IE2-WE1R 225 S4	92.7	313	IE2-WE2R 250 M6	92.2	480	IE2-W21R 280 S8	91.6	550
45	IE2-WE1R 225 M2	92.9	295	IE2-WE2R 225 M4	93.1	346	IE2-W21R 280 S6	93.0	560	IE2-W21R 280 M8	92.0	690
55	IE2-WE1R 250 M2	93.5	385	IE2-WE2R 250 M4	93.9	435	IE2-W21R 280 M6	93.6	710	IE2-W21R 315 S8	92.2	800
75	IE2-WE1R 280 S2	94.1	500	IE2-WE1R 280 S4	94.2	550	IE2-W21R 315 S6	93.9	804	IE2-W21R 315 M8	93.0	880
90	IE2-WE1R 280 M2	94.4	550	IE2-WE1R 280 M4	94.3	610	IE2-W21R 315 M6	94.0	865	IE2-W21R 315 MX8	92.1	1050
110	IE2-W21R 315 S2	94.5	730	IE2-W21R 315 S4	94.8	760	IE2-W21R 315 MX6	94.3	1210	IE2-W21R 315 MY8	93.5	1250
132	IE2-W21R 315 M2	95	820	IE2-W21R 315 M4	95	850	IE2-W21R 315 MY6	94.6	1250	IE2-W21R 315 L8	93.8	1430
160	IE2-W21R 315 MX2	94.8	955	IE2-W21R 315 MX4	95	975	IE2-W21R 315 L6	94.8	1430	IE2-W21R 315 LX8	94.1	1430
200	IE2-W21R 315 MY2	95.4	1200	IE2-W21R 315 MY4	95.1	1270	IE2-W21R 315 LX6	95.0	1460	IE2-W22R 355 M8	94.5	1850
250	IE2-W21R 315 L2	95.4	1450	IE2-W21R 315 L4	95.4	1450	IE2-W22R 355 M6	95.0	1850	IE2-W22R 355 MX8	94.5	2200
315	IE2-W21R 315 LX2	95.4	1700	IE2-W21R 315 LX4	95.4	1630	IE2-W22R 355 MX6	95.2	2200			
355	IE2-W22R 355 M2	95.5	2000	IE2-W22R 355 M4	95.5	2150	IE2-W22R 355 LY6	95.0	2400			



Please refer to our catalogues for technical details. The catalogues are available in printed or in digital version on DVD. They are also available in the internet.



Energiesparmotoren High Efficiency IE2 eignen sich für den Einsatz in allen Wirtschaftszweigen.

Reihen	IE2-WE1R, IE2-W21R, IE2-WE2R, W21R
	Anbaumaße und Leistungszuordnungen nach DIN EN 50347
Baugrößen	56 bis 355
Leistungsbereich	0,09 – 500 kW
Wirkungsgradklasse	IE2 nach IEC/EN 60034-30-1 im Leistungsbereich 0,75...500 kW, 2-, 4-, 6- und 8-polig
Schutzarten	IP 55 nach IEC/EN 60034-5
Bauformen	IM B3, IM B35, IM B5 und abgeleitete Bauformen nach IEC/EN 60034-7
Betriebsart	Dauerbetrieb, S1
Kühlart	IC 411 nach IEC/EN 60034-6

kW	2-polig				4-polig				6-polig				8-polig			
	Typ	η	m		Typ	η	m		Typ	η	m		Typ	η	m	
[kW]		[%]	[kg]			[%]	[kg]			[%]	[kg]			[%]	[kg]	
0,75	IE2-W21R 80 K2	77,4	15		IE2-W21R 80 G 4	79,6	17		IE2-W21R 90 S 6	75,9	24		IE2-WE1R 100 L 8	66,2	a.A.	
1,1	IE2-WE1R 80 G2	79,6	18		IE2-WE1R 90 S 4	81,4	23		IE2-W21R 90 L6	78,1	30		IE2-WE1R 100 LX8	70,8	a.A.	
1,5	IE2-WE1R 90 S2	81,3	23,5		IE2-WE1R 90 L 4	82,8	28		IE2-W21R 100 LX6	79,8	36		IE2-WE1R 112 MV8	74,1	a.A.	
2,2	IE2-WE1R 90 L2	83,2	23,5		IE2-WE1R 100 L4	84,3	36		IE2-W21R 112 MV6	81,8	48		IE2-W21R 132 S8	81,7	55	
3	IE2-WE1R 100 L2	84,6	31		IE2-WE1R 100 LX4	85,5	45		IE2-WE1R 132 SX6T	83,3	52		IE2-W21R 132 M8	82,7	74	
4	IE2-WE1R 112 MX2	85,8	38		IE2-WE1R 112MZ4	86,6	50		IE2-WE2R 132 M6	85,1	66		IE2-W21R 160 M8	84,2	86	
5,5	IE2-WE1R 132 S2T	87	57		IE2-WE2R 132 S4	88,4	64		IE2-W21R 132 MX6	86,1	85		IE2-WE2R 160 MX8	83,9	103	
7,5	IE2-WE1R 132 SX2	88,8	75		IE2-WE1R 132 M4	89,9	88		IE2-WE2R 160 M6	87,5	103		IE2-W21R 180 L8	87,0	175	
11	IE2-WE1R 160 M2	90,3	125		IE2-WE2R 160 M4	90,3	105		IE2-WE2R 160 L6	88,5	155		IE2-WE2R 180 L8	87,9	157	
15	IE2-WE1R 160 MX2	90,7	140		IE2-WE2R 160 L4	92	161		IE2-WE2R 180 L6	89,7	157		IE2-W21R 200 L8	88,2	200	
18,5	IE2-WE1R 160 L2	91	140		IE2-WE2R 180 M4	81,2	176		IE2-W21R 200 L6	90,4	208		IE2-WE2R 225 S8	90,0	305	
22	IE2-WE1R 180 M2	91,3	173		IE2-WE1R 180 L4	91,6	215		IE2-WE2R 200 LX6	90,9	238		IE2-WE2R 225 M8	90,3	307	
30	IE2-WE1R 200 L2	92	210		IE2-WE1R 200 L4	92,3	277		IE2-WE2R 225 M6	92,0	365		IE2-WE2R 250 M8	91,0	405	
37	IE2-WE2R 200 LX2	92,9	238		IE2-WE1R 225 S4	92,7	313		IE2-WE2R 250 M6	92,2	480		IE2-W21R 280 S8	91,6	550	
45	IE2-WE1R 225 M2	92,9	295		IE2-WE2R 225 M4	93,1	346		IE2-W21R 280 S6	93,0	560		IE2-W21R 280 M8	92,0	690	
55	IE2-WE1R 250 M2	93,5	385		IE2-WE2R 250 M4	93,9	435		IE2-W21R 280 M6	93,6	710		IE2-W21R 315 S8	92,2	800	
75	IE2-WE1R 280 S2	94,1	500		IE2-WE1R 280 S4	94,2	550		IE2-W21R 315 S6	93,9	804		IE2-W21R 315 M8	93,0	880	
90	IE2-WE1R 280 M2	94,4	550		IE2-WE1R 280 M4	94,3	610		IE2-W21R 315 M6	94,0	865		IE2-W21R 315 MX8	92,1	1050	
110	IE2-W21R 315 S2	94,5	730		IE2-W21R 315 S4	94,8	760		IE2-W21R 315 MX6	94,3	1210		IE2-W21R 315 MY8	93,5	1250	
132	IE2-W21R 315 M2	95	820		IE2-W21R 315 M4	95	850		IE2-W21R 315 MY6	94,6	1250		IE2-W21R 315 L8	93,8	1430	
160	IE2-W21R 315 MX2	94,8	955		IE2-W21R 315 MX4	95	975		IE2-W21R 315 L6	94,8	1430		IE2-W21R 315 LX8	94,1	1430	
200	IE2-W21R 315 MY2	95,4	1200		IE2-W21R 315 MY4	95,1	1270		IE2-W21R 315 LX6	95,0	1460		IE2-W22R 355 M8	94,5	1850	
250	IE2-W21R 315 L2	95,4	1450		IE2-W21R 315 L4	95,4	1450		IE2-W22R 355 M6	95,0	1850		IE2-W22R 355 MX8	94,5	2200	
315	IE2-W21R 315 LX2	95,4	1700		IE2-W21R 315 LX4	95,4	1630		IE2-W22R 355 MX6	95,2	2200					
355	IE2-W22R 355 M2	95,5	2000		IE2-W22R 355 M4	95,5	2150		IE2-W22R 355 LY6	95,0	2400					



Die technischen Daten entnehmen Sie bitte unseren Katalogen, die in gedruckter Form oder digital auf DVD und im Internet verfügbar sind.