

YVF2 Series Frequency Variable Speed Regulation Motors



- Frame sizes: 80 to 355 Rated output: 0.18 to 375kW
- Insulation class: F Voltage: 380V
- Efficiency levels: IE1
- Frequency range for 2P: (3) 5-100Hz (frame size 80-250)
(3) 5-70Hz (frame size 280)
(3) 5-60Hz (frame size 315-355)
- Frequency range for 4, 6, 8, 10P: (3) 5-100Hz

Applications: Widely applied in metallurgy, chemistry, textile, pharmacy, printing, packing and food industry on the machine or equipment by which adjustable speed is needed, like fan, pump, numerical control machine, machining center, etc.

Features:

- Stepless speed regulation in a wide range
- Good performance, energy saving
- High-grade insulation material and special technological can withstand high frequency pulse impact
- Separated fan for forced-ventilation
- Separated fan for forced-ventilation

Performance Data

380V

50Hz

Model	Output kW	FLA	RPM	Eff. %	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz
Synchronous speed 3000r/min									
YVF2-80M1-2	0.75	1.83	2845	75.0	0.83	2.52	73	5-50	50-100
YVF2-80M2-2	1.1	2.61	2845	76.2	0.84	3.69	73		
YVF2-90S-2	1.5	3.43	2840	79.0	0.84	5.04	76		
YVF2-90L-2	2.2	4.85	2840	81.0	0.85	7.40	76		
YVF2-100L-2	3	6.31	2860	83.0	0.87	10.0	79		
YVF2-112M-2	4	8.13	2880	85.0	0.88	13.3	80		
YVF2-132S1-2	5.5	11.0	2900	86.0	0.88	18.1	86		
YVF2-132S2-2	7.5	14.9	2900	87.0	0.88	24.7	86		
YVF2-160M1-2	11	21.2	2930	88.4	0.89	35.9	90		
YVF2-160M2-2	15	28.6	2930	89.4	0.89	48.9	90		
YVF2-160L-2	18.5	34.7	2930	90.0	0.90	60.3	90		
YVF2-180M-2	22	41.0	2940	90.5	0.90	71.5	91		
YVF2-200L1-2	30	55.4	2950	91.4	0.90	97.1	92		
YVF2-200L2-2	37	67.9	2950	92.0	0.90	120	92		
YVF2-225M-2	45	82.1	2960	92.5	0.90	145	94		
YVF2-250M-2	55	99.8	2965	93.0	0.90	177	96	5-50	50-70
YVF2-280S-2	75	135	2970	93.6	0.90	241	99		
YVF2-280M-2	90	160	2970	93.9	0.91	289	99		
YVF2-315S-2	110	195	2975	94.0	0.91	353	105	5-50	50-60

Performance Data

380V 50Hz

Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz	
Synchronous speed 3000r/min										
YVF2-315M-2	132	233	2975	94.5	0.91	424	105	5-50	50-60	
YVF2-315L1-2	160	279	2975	94.6	0.92	514	109			
YVF2-315L-2	185	323	2975	94.6	0.92	594	109			
YVF2-315L2-2	200	348	2975	94.8	0.92	642	109			
YVF2-315L3-2	220	383	2975	94.8	0.92	706	109			
YVF2-355M1-2	220	383	2975	94.8	0.92	705	111			
YVF2-355M-2	250	435	2980	95.0	0.92	801	111			
YVF2-355L1-2	280	487	2980	95.0	0.92	897	113			
YVF2-355L-2	315	548	2980	95.0	0.92	1009	113			
YVF2-355L2-2	355	617	2980	95.0	0.92	1138	113			
YVF2-355L3-2	375	652	2980	95.0	0.92	1202	113			
Synchronous speed 1500r/min										
YVF2-80M1-4	0.55	1.57	1390	71.0	0.75	3.78	73	5-50	50-100	
YVF2-80M2-4	0.75	2.05	1390	73.0	0.76	5.15	73			
YVF2-90S-4	1.1	2.85	1390	76.2	0.77	7.56	76			
YVF2-90L-4	1.5	3.68	1390	78.5	0.79	10.3	76			
YVF2-100L1-4	2.2	5.09	1410	81.0	0.81	14.9	79			
YVF2-100L2-4	3	6.73	1410	82.6	0.82	20.3	79			
YVF2-112M-4	4	8.80	1440	84.2	0.82	26.5	80			
YVF2-132S-4	5.5	11.7	1440	85.7	0.83	36.5	86			
YVF2-132M-4	7.5	15.6	1440	87.0	0.84	49.7	86			
YVF2-160M-4	11	22.5	1460	88.4	0.84	72.0	90			
YVF2-160L-4	15	30.0	1460	89.4	0.85	98.1	90			
YVF2-180M-4	18.5	36.1	1470	90.5	0.86	120	91			
YVF2-180L-4	22	42.7	1470	91.0	0.86	143	91			
YVF2-200L-4	30	57.6	1470	92.0	0.86	195	92			
YVF2-225S-4	37	69.9	1475	92.5	0.87	240	94			
YVF2-225M-4	45	84.7	1475	92.8	0.87	291	94			
YVF2-250M-4	55	103	1480	93.0	0.87	355	96			
YVF2-280S-4	75	140	1480	93.8	0.87	484	99			
YVF2-280M-4	90	167	1480	94.2	0.87	581	99			
YVF2-315S-4	110	201	1480	94.5	0.88	710	105			
YVF2-315M-4	132	240	1480	94.8	0.88	852	105			
YVF2-315L1-4	160	288	1480	94.9	0.89	1032	109			
YVF2-315L-4	185	333	1480	94.9	0.89	1194	109			
YVF2-315L2-4	200	360	1480	94.9	0.89	1291	109			
Synchronous speed 1500r/min										
YVF2-80M1-4	0.55	1.57	1390	71.0	0.75	3.78	73		5-50	50-75
YVF2-80M2-4	0.75	2.05	1390	73.0	0.76	5.15	73			
YVF2-90S-4	1.1	2.85	1390	76.2	0.77	7.56	76			
YVF2-90L-4	1.5	3.68	1390	78.5	0.79	10.3	76			
YVF2-100L1-4	2.2	5.09	1410	81.0	0.81	14.9	79			
YVF2-100L2-4	3	6.73	1410	82.6	0.82	20.3	79			
YVF2-112M-4	4	8.80	1440	84.2	0.82	26.5	80			
YVF2-132S-4	5.5	11.7	1440	85.7	0.83	36.5	86			
YVF2-132M-4	7.5	15.6	1440	87.0	0.84	49.7	86			
YVF2-160M-4	11	22.5	1460	88.4	0.84	72.0	90			
YVF2-160L-4	15	30.0	1460	89.4	0.85	98.1	90			
YVF2-180M-4	18.5	36.1	1470	90.5	0.86	120	91			
YVF2-180L-4	22	42.7	1470	91.0	0.86	143	91			
YVF2-200L-4	30	57.6	1470	92.0	0.86	195	92			
YVF2-225S-4	37	69.9	1475	92.5	0.87	240	94			
YVF2-225M-4	45	84.7	1475	92.8	0.87	291	94			
YVF2-250M-4	55	103	1480	93.0	0.87	355	96			
YVF2-280S-4	75	140	1480	93.8	0.87	484	99			
YVF2-280M-4	90	167	1480	94.2	0.87	581	99			
YVF2-315S-4	110	201	1480	94.5	0.88	710	105			
YVF2-315M-4	132	240	1480	94.8	0.88	852	105			
YVF2-315L1-4	160	288	1480	94.9	0.89	1032	109			
YVF2-315L-4	185	333	1480	94.9	0.89	1194	109			
YVF2-315L2-4	200	360	1480	94.9	0.89	1291	109			

Performance Data

380V 50Hz

Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz
Synchronous speed 1500r/min									
YVF2-315L3-4	220	396	1480	94.9	0.89	1420	109	5-50	50-75
YVF2-355M1-4	220	396	1490	94.9	0.89	1410	111		
YVF2-355M-4	250	444	1490	95.1	0.90	1602	111		
YVF2-355L1-4	280	497	1490	95.1	0.90	1795	113		
YVF2-355L-4	315	559	1490	95.1	0.90	2019	113		
YVF2-355L2-4	355	630	1490	95.1	0.90	2275	113		
YVF2-355L3-4	375	666	1490	95.1	0.90	2404	113		
Synchronous speed 1000r/min									
YVF2-80M1-6	0.37	1.30	885	62.0	0.70	3.99	73	5-50	50-100
YVF2-80M2-6	0.55	1.79	885	65.0	0.72	5.94	73		
YVF2-90S-6	0.75	2.29	910	69.0	0.72	7.87	76		
YVF2-90L-6	1.1	3.18	910	72.0	0.73	11.5	76		
YVF2-100L-6	1.5	4.00	920	76.0	0.75	15.6	79		
YVF2-112M-6	2.2	5.57	935	79.0	0.76	22.5	80		
YVF2-132S-6	3	7.40	960	81.0	0.76	29.8	86		
YVF2-132M1-6	4	9.75	960	82.0	0.76	39.8	86		
YVF2-132M2-6	5.5	12.9	965	84.0	0.77	54.4	86		
YVF2-160M-6	7.5	17.2	970	86.0	0.77	73.8	90		
YVF2-160L-6	11	24.5	970	87.5	0.78	108	90		
YVF2-180L-6	15	31.6	970	89.0	0.81	148	91		
YVF2-200L1-6	18.5	38.6	980	90.0	0.81	180	92		
YVF2-200L2-6	22	44.7	980	90.0	0.83	214	92		
YVF2-225M-6	30	59.3	980	91.5	0.84	292	94		
YVF2-250M-6	37	71.1	980	92.0	0.86	361	96		
YVF2-280S-6	45	85.9	980	92.5	0.86	439	99		
YVF2-280M-6	55	105	980	92.8	0.86	536	99		
YVF2-315S-6	75	142	985	93.5	0.86	727	105		
YVF2-315M-6	90	170	985	93.8	0.86	873	105		
YVF2-315L1-6	110	207	985	94.0	0.86	1066	109		
YVF2-315L2-6	132	245	985	94.2	0.87	1280	109		
YVF2-315L3-6	160	292	985	94.5	0.88	1551	109		
YVF2-355M1-6	160	292	990	94.5	0.88	1543	111		
YVF2-355M-6	185	338	990	94.5	0.88	1785	111		
YVF2-355M2-6	200	364	990	94.8	0.88	1929	111		
YVF2-355L1-6	220	401	990	94.8	0.88	2122	113		
YVF2-355L-6	250	454	990	95.0	0.88	2412	113		

Performance Data

380V 50Hz

Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz		
Synchronous speed 1000r/min											
YVF2-355L2-6	280	509	990	95.0	0.88	2701	113	5-50	50-100		
YVF2-355L3-6	315	572	990	95.0	0.88	3039	113				
Synchronous speed 750r/min											
YVF2-80M1-8	0.18	0.88	645	51.0	0.61	2.67	73	5-50	50-100		
YVF2-80M2-8	0.25	1.15	645	54.0	0.61	3.70	73				
YVF2-90S-8	0.37	1.49	670	62.0	0.61	5.27	76				
YVF2-90L-8	0.55	2.17	670	63.0	0.61	7.83	76				
YVF2-100L1-8	0.75	2.40	680	71.0	0.67	10.5	79				
YVF2-100L2-8	1.1	3.32	680	73.0	0.69	15.4	79				
YVF2-112M-8	1.5	4.40	690	75.0	0.69	20.8	80				
YVF2-132S-8	2.2	6.04	705	78.0	0.71	29.8	86				
YVF2-132M-8	3	7.90	705	79.0	0.73	40.6	86				
YVF2-160M1-8	4	10.3	720	81.0	0.73	53.1	90				
YVF2-160M2-8	5.5	13.6	720	83.0	0.74	73.0	90				
YVF2-160L-8	7.5	17.8	720	85.5	0.75	99.5	90				
YVF2-180L-8	11	25.1	730	87.5	0.76	144	91				
YVF2-200L-8	15	34.1	730	88.0	0.76	196	92				
YVF2-225S-8	18.5	41.1	730	90.0	0.76	242	94				
YVF2-225M-8	22	47.4	730	90.5	0.78	288	94				
YVF2-250M-8	30	63.4	735	91.0	0.79	390	96				
YVF2-280S-8	37	77.8	735	91.5	0.79	481	99				
YVF2-280M-8	45	94.1	735	92.0	0.79	585	99				
YVF2-315S-8	55	111	735	92.8	0.81	715	105				
YVF2-315M-8	75	151	735	93.0	0.81	974	105				
YVF2-315L1-8	90	178	735	93.8	0.82	1169	109				
YVF2-315L2-8	110	217	735	94.0	0.82	1429	109				
YVF2-355M1-8	132	261	740	93.7	0.82	1704	111				
YVF2-355M2-8	160	315	740	94.2	0.82	2065	111				
YVF2-355L1-8	185	364	740	94.2	0.82	2388	113				
YVF2-355L-8	200	387	740	94.5	0.83	2581	113				
YVF2-355L2-8	220	426	740	94.5	0.83	2839	113				
YVF2-355L3-8	250	484	740	94.5	0.83	3126	113				
Synchronous speed 600r/min											
YVF2-315S-10	45	100	590	91.5	0.75	728	105			5-50	50-100
YVF2-315M-10	55	121	590	92.0	0.75	890	105				
YVF2-315L1-10	75	162	590	92.5	0.76	1214	109				

Performance Data

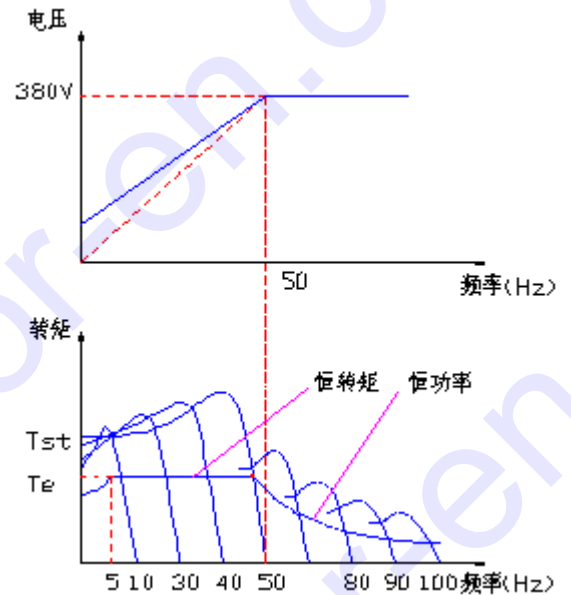
380V

50Hz

Model	Output kW	FLA	RPM	Eff.%	Power Factor	FLT N.m	dB(A)	Constant Torque Frequency Range Hz	Constant Output Frequency Range Hz
Synchronous speed 600r/min									
YVF2-315L2-10	90	191	590	93.0	0.77	1457	109	5-50	50-100
YVF2-355M1-10	110	230	590	93.2	0.78	1781	111		
YVF2-355M2-10	132	275	590	93.5	0.78	2137	111		
YVF2-355L1-10	160	333	590	93.5	0.78	2590	113		
YVF2-355L-10	185	385	590	93.5	0.78	2994	113		
YVF2-355L2-10	200	417	590	93.5	0.78	3237	113		
YVF2-355L3-10	220	458	590	93.5	0.78	3561	113		

The torque characteristic under the condition of V/f control

The voltage needs to be compensated to increase the torque at low frequency when the motor is operated under the condition of V/f control with constant torque output.



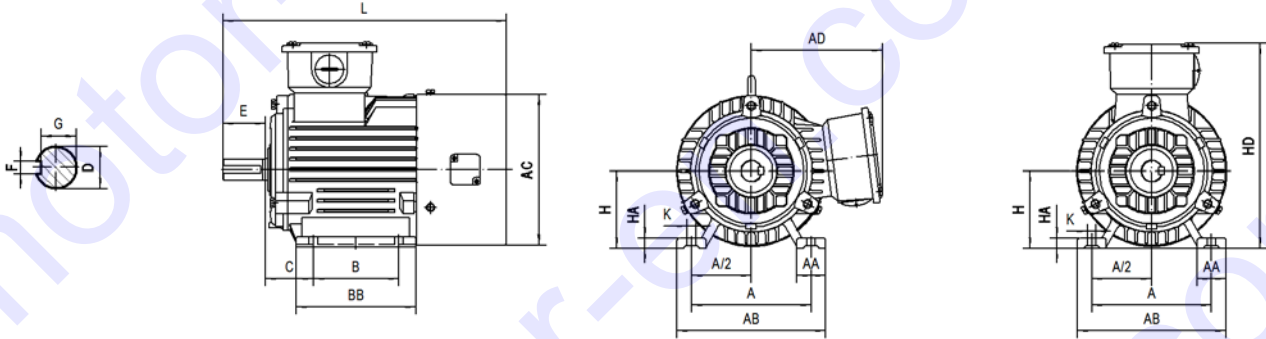
Specifications of cooling blower and brake for the motor

Motor	Frame	80	90	100	112	132	160	180	200	225	250	280	315	355
Cooling Fan	(W) Power	30	42	52	55	55	80	80	150	200	230	320	700	700
	(A) Current	0.09	0.16	0.18	0.18	0.19	0.26	0.30	0.6	0.6	0.6	1.1	1.8	1.9
	Voltage	Standard 380V, but blower of other voltage can be customized depending on user's requirement.												
Brake	(N·m) Braking Torque	7.5	15	30	40	80	150	200	300	450	600	850	200	-
	(W) Excitation Power	50	60	80	110	130	150	150	200	200	210	340	400	-
	Excitation Voltage	DC99、DC170												
Encoder	Incremental Encoder													

Dimensions & Mounting

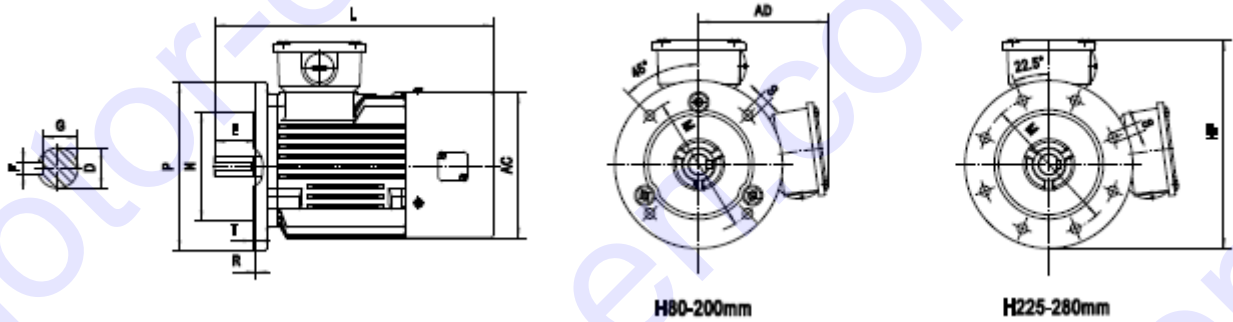
B3 (Horizontal Foot Mounted Only)

mm



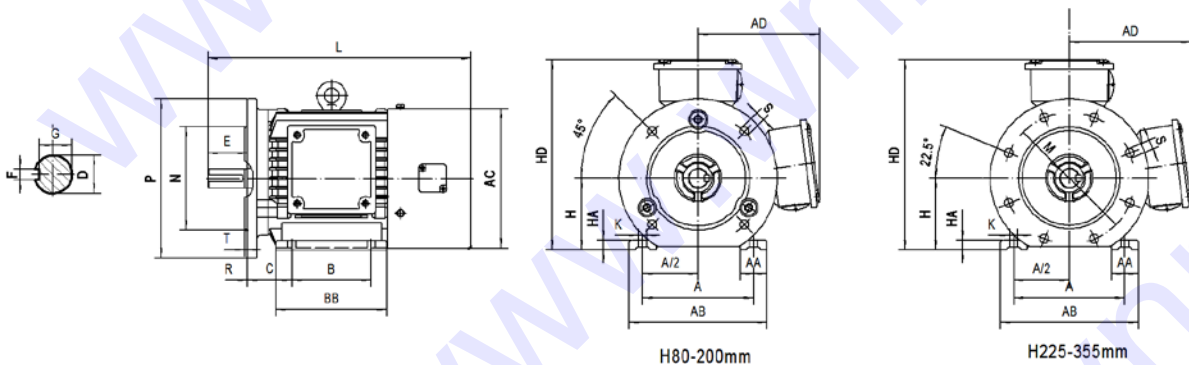
Frame	Poles	Mounting Dimension									Overall Dimension																		
		A	B	C	D	E	F	G	H	K	AA	BB	HA	AB	AC	AD	HD	L											
80M	2,4,6,8	125	100	50	19	40	6	15.5	80	10	32	135	10	160	165	145	225	355											
90S	2,4,6,8	140	100	56	24	50	8	20	90	10	34	145	12	180	180	165	255	385											
90L			125									170						410											
100L	2,4,6,8	160	140	63	28	60	8	24	100	12	39	186	14	200	205	175	275	460											
112M	2,4,6,8	190	140	70	28	60	8	24	112	12	45	200	14	230	225	190	300	485											
132S	2,4,6,8	216	140	89	38	80	10	33	132	12	55	190	18	265	270	220	350	565											
132M			178									230						605											
160M	2,4,6,8	254	210	108	42	110	12	37	160	15	65	260	20	315	320	260	420	700											
160L			254									304						745											
180M	2,4,6,8	279	241	121	48	110	14	42.5	180	15	70	311	22	355	360	265	445	795											
180L			279									349						835											
200L	2,4,6,8	318	305	133	55	110	16	49	200	19	74	379	26	395	400	305	505	835											
225S	4,8	356	286	149	60	140	18	53	225	19	78	375	28	435	450	325	550	855											
225M	2		311															55	110	16	49	400	850						
	4, 6, 8		60															140	18	53	880								
250M	2	406	349	168	60	140	18	53	250	24	80	445	30	490	510	380	630	960											
	4, 6, 8				65			58																					
280S	2	457	368	190	65	140	18	58	280	24	90	485	35	545	550	395	675	1080											
	4, 6, 8							75											20	67.5									
280M	2							419											65	18	58	280	536	1130					
	4, 6, 8																								75	20	67.5		
315S	2	508	406	216	65	140	18	58	315	28	120	570	45	635	630	540	855	1285											
	4,6,8,10							80										170	22	71	1315								
315M	2							457										65	140	18	58	315	610	45	635	630	540	855	1320
	4,6,8,10																												80
315L	2	508	65	140	18	58	315	680	45	635	630	540	855	1395															
	4,6,8,10													80	170	22	71	1425											
355M	2	610	560	254	75	140	20	67.5	355	28	130	690	52	735	715	645	1000	1500											
	4,6,8,10							95										170	25	86	1530								
355L/L1	2							630										75	140	20	67.5	355	750	52	735	715	645	1000	1610
	4,6,8,10																												95
355L2/L3	2	630	80	170	22	71	355	750	52	735	715	645	1000	1640															
	4,6,8,10													110	210	28	100	1680											

B5 (Footless and B5 Flange Mounted)



Frame	Poles	Mounting Dimension										Overall Dimension			
		D	E	F	G	M	N	P	R	S	T	AC	AD	HF	L
80M	2,4,6,8	19	40	6	15.5	165	130	200	0	4-Φ12	3.5	165	145	245	355
90S	2,4,6,8	24	50	8	20	165	130	200	0	4-Φ12	3.5	180	165	265	385
90L															410
100L	2,4,6,8	28	60	8	24	215	180	250	0	4-Φ15	4	205	175	300	460
112M	2,4,6,8	28	60	8	24	215	180	250	0	4-Φ15	4	225	190	315	485
132S	2,4,6,8	38	80	10	33	265	230	300	0	4-Φ15	4	270	220	370	565
132M															605
160M	2,4,6,8	42	110	12	37	300	250	350	0	4-Φ19	5	320	260	435	700
160L															745
180M	2,4,6,8	48	110	14	42.5	300	250	350	0	4-Φ19	5	360	265	440	795
180L															835
200L	2,4,6,8	55	110	16	49	350	300	400	0	4-Φ19	5	400	305	505	835
225S	4,8	60	140	18	53	400	350	450	0	8-Φ19	5	450	325	550	855
225M	2	55	110	16	49										850
	4,6,8	60	140	18	53										880
250M	2	60	140	18	53	500	450	550	0	8-Φ19	5	510	380	655	960
	4,6,8	65		58											
280S	2	65	140	18	58	500	450	550	0	8-Φ19	5	550	395	670	1080
	4,6,8	75		20	67.5										
280M	2	65		18	58										1130
	4,6,8	75	20	67.5											

B35 (Foot and B5 Flange Mounted)



Frame	Poles	Mounting Dimension	Overall Dimension
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		A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	AA	BB	HA	AB	AC	AD	HD	L				
80M	2,4,6,8	125	100	50	19	40	6	15.5	80	10	165	130	200	0	4-Φ12	3.5	32	135	10	160	165	145	225	355				
90S	2,4,6,8	140	100	56	24	50	8	20	90	10	165	130	200	0	4-Φ12	3.5	34	145	12	180	180	165	255	385				
90L			125															170						410				
100L	2,4,6,8	160	140	63	28	60	8	24	100	12	215	180	250	0	4-Φ15	4	39	186	14	200	205	175	275	460				
112M	2,4,6,8	190	140	70	28	60	8	24	112	12	215	180	250	0	4-Φ15	4	45	200		230	225	190	300	485				
132S	2,4,6,8	216	140	89	38	80	10	33	132	12	265	230	300	0	4-Φ15	4	55	190	18	265	270	220	350	565				
132M			178															230						605				
160M	2,4,6,8	254	210	108	42	110	12	37	160	15	300	250	350	0	4-Φ19	5	65	260	20	315	320	260	420	700				
160L			254															304						745				
180M	2,4,6,8	279	241	121	48	110	14	42.5	180	15	300	250	350	0	4-Φ19	5	70	311	22	355	360	265	445	795				
180L			279															349						835				
200L	2,4,6,8	318	305	133	55	110	16	49	200	19	350	300	400	0	4-Φ19	5	74	379	26	395	400	305	505	835				
225S	4,8	356	286	149	60	140	18	53	225	19	400	350	450	0	8-Φ19	5	78	375	28	435	450	325	550	855				
225M	2		311		55	110	16	49										400						8-Φ19	5	78	400	850
	4,6,8		60		140	53	880																					
250M	2	406	349	168	60	140	18	58	250	24	500	450	550	0	8-Φ19	5	80	445	30	490	510	380	630	960				
	4,6,8				65																							
280S	2	457	368	190	65	140	20	67.5	280	24	500	450	550	0	8-Φ19	5	90	485	35	545	550	395	675	1080				
	4,6,8				75																							
280M	2	419	65	18	58	20	67.5	536	1130																			
	4,6,8									75																		
315S	2	508	406	216	65	140	18	58	315	28	600	550	660	0	8-Φ24	6	120	570	45	635	630	540	855	1285				
	4,6,8,10				80	170	22	71																1315				
315M	2	508	457	216	65	140	18	58	315	28	600	550	660	0	8-Φ24	6	120	610	45	635	630	540	855	1320				
	4,6,8,10				80	170	22	71																1350				
315L	2	508	65	140	18	58	680	1395																				
	4,6,8,10								80	170	22	71	1425															
355M	2	610	560	254	75	140	20	67.5	355	28	740	680	800	0	8-Φ24	6	130	690	52	735	715	645	1000	1500				
	4,6,8,10				95	170	25	86																1530				
355L/L1	2	630	75	140	20	67.5	750	1610																				
	4,6,8,10								95	170	25	86	1640															
355L2/L3	2	630	80	170	22	71	1640																					
	4,6,8,10							110	210	28	100	1680																

Above dimensions are the maximum values. Specifications are subject to the physical product.

Conventional mounting type and suitable frame size are given in following table (with “√”)

Frame	basic type		derived type												
	B3	B5	B35	V1	V3	V5	V6	B6	B7	B8	V15	V36	B14	B34	V18
80~112	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
132~160	√	√	√	√	√	√	√	√	√	√	√	√	-	-	-
180~280	√	√	√	√	-	-	-	-	-	-	-	-	-	-	-
315~355	√	-	√	√	-	-	-	-	-	-	-	-	-	-	-

If there is no other request in the order or agreement, terminal box position at the right side of the frame is regarded as standard; data above may be changed without prior notice.