

YBX3 Series High Efficiency Explosion-proof Induction Motors



- Frame sizes: 80 to 355 Rated output: 0.18 to 375kW
- Voltage: 380V,660V,380/660V 50Hz & 400V,415V,440V,460V,480V,690V 60Hz (for Exd-symbol Exd II and frame size 80-355)
- 660V/1140V 50Hz & 400V,415V,440V,460V,480V,690V 60Hz (for Exd-symbol Exd II and frame size 112-355)
- Degree of protection: IP55 Efficiency levels: IE3

Applications: Ideal for the coal mine (Ex d I) and dangerous plant (Ex d II AT4、d II BT4) where methane and coal dust may be present; And the environment where there is Category II Class A and B flammable gas or the flammable mixture of air and steam in Temperature Group T1~T4.

Features: Exd-symbol Exd、Exd II AT4、Exd II BT4, Category I:surface highest temperature no higher than 150°C(when coal dust may cover the motor surface), no higher than 450°C(when coal dust will not cover the surface or some protection work has been done to prevent the coal dust accumulation) Category II:surface highest temperature no higher than T1 (450°C)、T2 (300°C)、T3 (200°C)、T4 (135°C); Terminal box with three or six terminals for rubber jacket cable (plastic cable) and steel cable.

Ambient temperature: —15°C~35°C in coal mine and —15°C~40°C in plant

Rated voltage: 380V, 660V, 1140V, 380/660V, 660V/1140V

Performance Data

380V 50Hz

Model	Output kW	FLA	RPM	Eff. η%	Power Factor	FLT N.m	$\frac{LRT}{FLT} \frac{T_{st}}{T_N}$	$\frac{LRA}{FLA} \frac{I_{st}}{I_N}$	$\frac{BDT}{FLT} \frac{T_{max}}{T_N}$	dB(A)
Synchronous speed 3000r/min										
YBX3-80M1-2	0.75	1.7	2870	80.7	0.83	2.50	2.2	7.0	2.3	67
YBX3-80M2-2	1.1	2.4	2880	82.7	0.83	3.65	2.2	7.3	2.3	67
YBX3-90S-2	1.5	3.2	2880	84.2	0.84	4.97	2.2	7.6	2.3	72
YBX3-90L-2	2.2	4.6	2880	85.9	0.85	7.30	2.2	7.6	2.3	72
YBX3-100L-2	3	6.0	2880	87.1	0.87	9.95	2.2	7.8	2.3	76
YBX3-112M-2	4	7.8	2915	88.1	0.88	13.1	2.2	8.3	2.3	77
YBX3-132S1-2	5.5	10.6	2935	89.2	0.88	17.9	2.0	8.3	2.3	80
YBX3-132S2-2	7.5	14.2	2930	90.1	0.88	24.4	2.0	7.9	2.3	80
YBX3-160M1-2	11	20.6	2950	91.2	0.89	35.6	2.0	8.1	2.3	86
YBX3-160M2-2	15	27.9	2945	91.9	0.89	48.6	2.0	8.1	2.3	86
YBX3-160L-2	18.5	34.2	2945	92.4	0.89	60.0	2.0	8.2	2.3	86

Performance Data

380V 50Hz

Model	Output kW	FLA	RPM	Eff. $\eta\%$	Power Factor	FLT N.m	$\frac{LRT}{FLT}$ $\frac{Tst}{T_N}$	$\frac{LRA}{FLA}$ $\frac{Ist}{I_N}$	$\frac{BDT}{FLT}$ $\frac{Tmax}{T_N}$	dB(A)
Synchronous speed 3000r/min										
YBX3-180M-2	22	40.5	2950	92.7	0.89	71.2	2.0	8.2	2.3	88
YBX3-200L1-2	30	54.9	2965	93.3	0.89	96.6	2.0	7.6	2.3	90
YBX3-200L2-2	37	67.4	2965	93.7	0.89	119	2.0	7.6	2.3	90
YBX3-225M-2	45	80.8	2965	94.0	0.90	145	2.0	7.7	2.3	92
YBX3-250M-2	55	98.5	2975	94.3	0.90	177	2.0	7.7	2.3	93
YBX3-280S-2	75	134	2975	94.7	0.90	241	1.8	7.1	2.3	94
YBX3-280M-2	90	160	2975	95.0	0.90	289	1.8	7.1	2.3	94
YBX3-315S-2	110	195	2975	95.2	0.90	353	1.8	7.1	2.3	96
YBX3-315M-2	132	234	2975	95.4	0.90	424	1.8	7.1	2.3	96
YBX3-315L1-2	160	279	2975	95.6	0.91	514	1.8	7.2	2.3	98
YBX3-315L2-2	200	349	2975	95.8	0.91	642	1.8	7.2	2.3	98
YBX3-355S1-2	185	323	2980	95.6	0.91	593	1.8	7.2	2.3	98
YBX3-355S2-2	200	349	2980	95.8	0.91	641	1.8	7.2	2.2	98
YBX3-355M1-2	220	383	2980	95.8	0.91	705	1.8	7.2	2.2	100
YBX3-355M2-2	250	436	2980	95.8	0.91	801	1.6	7.2	2.2	100
YBX3-355L1-2	280	488	2980	95.8	0.91	897	1.6	7.2	2.2	100
YBX3-355L2-2	315	549	2980	95.8	0.91	1009	1.6	7.2	2.2	100
YBX3-355L3-2	355	619	2980	95.8	0.91	1138	1.6	7.2	2.2	104
YBX3-355L4-2	375	654	2980	95.8	0.91	1202	1.6	7.2	2.2	104
Synchronous speed 1500r/min										
YBX3-80M1-4	0.55	1.4	1430	80.6	0.75	3.7	2.3	6.5	2.3	58
YBX3-80M2-4	0.75	1.8	1430	82.5	0.75	5.0	2.3	6.6	2.3	58
YBX3-90S-4	1.1	2.6	1430	84.1	0.76	7.3	2.3	6.8	2.3	61
YBX3-90L-4	1.5	3.5	1430	85.3	0.77	10.0	2.3	7.0	2.3	61
YBX3-100L1-4	2.2	4.8	1440	86.7	0.81	14.6	2.3	7.6	2.3	64
YBX3-100L2-4	3	6.3	1440	87.7	0.82	19.9	2.3	7.6	2.3	64
YBX3-112M-4	4	8.4	1455	88.6	0.82	26.3	2.2	7.8	2.3	65
YBX3-132S-4	5.5	11.2	1465	89.6	0.83	35.9	2.0	7.9	2.3	71
YBX3-132M-4	7.5	15.0	1465	90.4	0.84	48.9	2.0	7.5	2.3	71
YBX3-160M-4	11	21.5	1470	91.4	0.85	71.5	2.0	7.7	2.3	75
YBX3-160L-4	15	28.8	1470	92.1	0.86	97.4	2.0	7.8	2.3	75
YBX3-180M-4	18.5	35.3	1470	92.6	0.86	120	2.0	7.8	2.3	76
YBX3-180L-4	22	41.8	1470	93.0	0.86	143	2.0	7.8	2.3	76
YBX3-200L-4	30	56.6	1475	93.6	0.86	194	2.0	7.3	2.3	79
YBX3-225S-4	37	69.6	1480	93.9	0.86	239	2.0	7.4	2.3	81
YBX3-225M-4	45	84.4	1480	94.2	0.86	290	2.0	7.4	2.3	81
YBX3-250M-4	55	103	1485	94.6	0.86	354	2.0	7.4	2.3	83
YBX3-280S-4	75	136	1490	95.0	0.88	481	2.0	6.7	2.3	86

Model	Output kW	FLA	RPM	Eff. $\eta\%$	Power Factor	FLT N.m	$\frac{LRT}{FLT}$ $\frac{Tst}{T_N}$	$\frac{LRA}{FLA}$ $\frac{Ist}{I_N}$	$\frac{BDT}{FLT}$ $\frac{Tmax}{T_N}$	dB(A)
Synchronous speed 1500r/min										
YBX3-280M-4	90	163	1490	95.2	0.88	579	2.0	6.9	2.3	86
YBX3-315S-4	110	197	1485	95.4	0.89	707	2.0	7.0	2.2	93
YBX3-315M-4	132	236	1485	95.6	0.89	846	2.0	7.0	2.2	93
YBX3-315L1-4	160	285	1485	95.8	0.89	1026	2.0	7.1	2.2	94
YBX3-315L2-4	200	352	1485	96.0	0.90	1282	2.0	7.1	2.2	94
YBX3-355S1-4	185	330	1490	95.8	0.89	1186	2.0	7.1	2.2	94
YBX3-355S2-4	200	352	1490	96.0	0.90	1282	2.0	7.1	2.2	94
YBX3-355M1-4	220	387	1490	96.0	0.90	1410	2.0	7.1	2.2	95
YBX3-355M2-4	250	440	1490	96.0	0.90	1602	2.0	7.1	2.2	95
YBX3-355L1-4	280	492	1490	96.0	0.90	1795	2.0	7.1	2.2	95
YBX3-355L2-4	315	554	1490	96.0	0.90	2019	2.0	7.1	2.2	95
YBX3-355L3-4	355	638	1490	96.0	0.88	2275	1.7	7.0	2.2	102
YBX3-355L4-4	375	674	1490	96.0	0.88	2404	1.7	7.0	2.2	102
Synchronous speed 1000 r/min										
YBX3-80M1-6	0.37	1.2	910	68.0	0.70	3.88	1.9	5.5	2.1	54
YBX3-80M2-6	0.55	1.6	925	72.0	0.71	5.68	1.9	5.8	2.1	54
YBX3-90S-6	0.75	2.0	945	78.9	0.71	7.58	2.0	6.0	2.1	57
YBX3-90L-6	1.1	2.8	950	81.0	0.73	11.1	2.0	6.0	2.1	57
YBX3-100L-6	1.5	3.8	950	82.5	0.73	15.1	2.0	6.5	2.1	61
YBX3-112M-6	2.2	5.4	965	84.3	0.74	21.8	2.0	6.6	2.1	65
YBX3-132S-6	3	7.2	975	85.6	0.74	29.4	1.9	6.8	2.1	69
YBX3-132M1-6	4	9.5	975	86.8	0.74	39.2	1.9	6.8	2.1	69
YBX3-132M2-6	5.5	12.7	975	88.0	0.75	53.9	1.9	7.0	2.1	69
YBX3-160M-6	7.5	16.2	980	89.1	0.79	73.1	2.0	7.0	2.1	73
YBX3-160L-6	11	23.1	980	90.3	0.80	107	2.0	7.2	2.1	73
YBX3-180L-6	15	30.9	980	91.2	0.81	146	1.9	7.3	2.1	73
YBX3-200L1-6	18.5	37.8	985	91.7	0.81	179	1.9	7.3	2.1	76
YBX3-200L2-6	22	44.8	985	92.2	0.81	213	1.9	7.4	2.1	76
YBX3-225M-6	30	59.1	985	92.9	0.83	291	1.9	6.9	2.1	76
YBX3-250M-6	37	71.7	985	93.3	0.84	359	1.9	7.1	2.1	78
YBX3-280S-6	45	85.8	990	93.7	0.85	434	1.9	7.3	2.0	80
YBX3-280M-6	55	103	990	94.1	0.86	531	1.9	7.3	2.0	80
YBX3-315S-6	75	143	990	94.6	0.84	723	1.9	6.6	2.0	85
YBX3-315M-6	90	170	990	94.9	0.85	868	1.9	6.7	2.0	85
YBX3-315L1-6	110	207	990	95.1	0.85	1061	1.9	6.7	2.0	85
YBX3-315L2-6	132	244	990	95.4	0.86	1273	1.9	6.8	2.0	85
YBX3-355S-6	160	296	990	95.6	0.86	1543	1.9	6.8	2.0	92
YBX3-355M1-6	185	342	990	95.6	0.86	1785	1.9	6.8	2.0	92

Performance Data

380V 50Hz

Model	Output kW	FLA	RPM	Eff. $\eta\%$	Power Factor	FLT N.m	$\frac{LRT}{FLT}$ $\frac{T_{st}}{T_N}$	$\frac{LRA}{FLA}$ $\frac{I_{st}}{I_N}$	$\frac{BDT}{FLT}$ $\frac{T_{max}}{T_N}$	dB(A)
Synchronous speed 1000 r/min										
YBX3-355M2-6	200	365	990	95.8	0.87	1929	1.9	6.8	2.0	92
YBX3-355L1-6	220	401	990	95.8	0.87	2122	1.9	6.8	2.0	92
YBX3-355L2-6	250	456	990	95.8	0.87	2412	1.9	6.8	2.0	92
YBX3-355L3-6	280	510	990	95.8	0.87	2701	1.9	6.8	2.0	92
YBX3-355L4-6	315	581	990	95.8	0.86	3039	1.9	6.8	2.0	92
Synchronous speed 750r/min										
YBX3-80M1-8	0.18	0.80	700	56.0	0.61	2.5	1.8	3.3	1.9	52
YBX3-80M2-8	0.25	1.1	700	59.0	0.61	3.4	1.8	3.3	1.9	52
YBX3-90S-8	0.37	1.4	695	66.0	0.61	5.1	1.8	4.0	2.0	56
YBX3-90L-8	0.55	2.0	695	70.0	0.61	7.6	1.8	4.0	2.0	56
YBX3-100L1-8	0.75	2.3	705	73.5	0.67	10.2	1.8	4.0	2.0	59
YBX3-100L2-8	1.1	3.2	705	76.5	0.69	14.9	1.8	5.0	2.0	59
YBX3-112M-8	1.5	4.2	715	77.5	0.70	20.0	1.8	5.0	2.0	61
YBX3-132S-8	2.2	5.9	730	80.0	0.71	28.8	1.8	6.0	2.2	64
YBX3-132M-8	3	7.6	730	82.5	0.73	39.2	1.8	6.0	2.2	64
YBX3-160M1-8	4	9.8	725	85.0	0.73	52.7	1.9	6.0	2.2	68
YBX3-160M2-8	5.5	13.1	725	86.0	0.74	72.4	1.9	6.0	2.2	68
YBX3-160L-8	7.5	17.4	730	87.5	0.75	98.1	1.9	6.0	2.2	68
YBX3-180L-8	11	25.0	725	89.0	0.75	145	1.9	6.5	2.2	70
YBX3-200L-8	15	33.2	730	90.4	0.76	196	2.0	6.6	2.2	73
YBX3-225S-8	18.5	40.6	735	91.2	0.76	240	2.0	6.6	2.2	73
YBX3-225M-8	22	46.8	735	91.5	0.78	286	2.0	6.6	2.2	73
YBX3-250M-8	30	62.6	735	92.2	0.79	390	1.9	6.5	2.0	75
YBX3-280S-8	37	76.5	740	93.0	0.79	478	1.8	6.6	2.0	76
YBX3-280M-8	45	92.6	740	93.5	0.79	581	1.8	6.6	2.0	76
YBX3-315S-8	55	110	740	93.8	0.81	710	1.8	6.6	2.0	82
YBX3-315M-8	75	150	740	94.0	0.81	968	1.8	6.2	2.0	82
YBX3-315L1-8	90	176	740	94.5	0.82	1161	1.8	6.4	2.0	82
YBX3-315L2-8	110	215	740	94.8	0.82	1420	1.8	6.4	2.0	82
YBX3-355S-8	132	257	745	95.0	0.82	1692	1.8	6.4	2.0	90
YBX3-355M-8	160	312	745	95.0	0.82	2051	1.8	6.4	2.0	90
YBX3-355L1-8	185	360	745	95.2	0.82	2371	1.8	6.4	2.0	90
YBX3-355L2-8	200	385	745	95.2	0.83	2564	1.8	6.4	2.0	90
YBX3-355L3-8	220	423	745	95.2	0.83	2820	1.8	6.4	2.0	90
YBX3-355L4-8	250	481	745	95.2	0.83	3205	1.8	6.5	2.0	90
Synchronous speed 600 r/min										
YBX3-315S-10	45	99.1	590	92.0	0.75	728	1.5	6.2	2.0	82
YBX3-315M-10	55	120	590	92.5	0.75	890	1.5	6.2	2.0	82

Performance Data

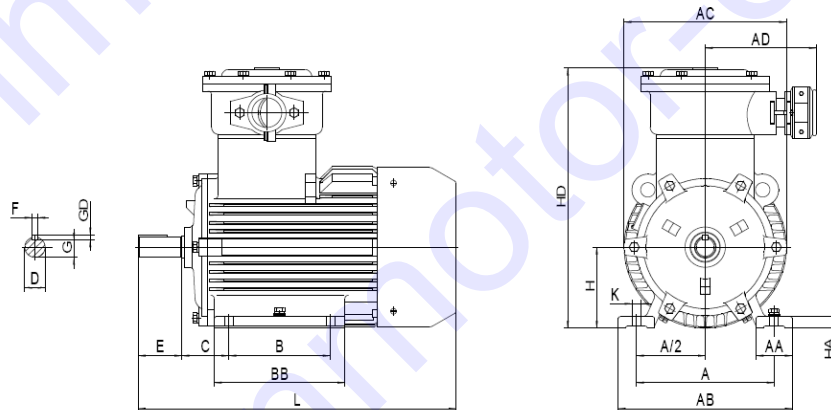
380V 50Hz

Model	Output kW	FLA	RPM	Eff. $\eta\%$	Power Factor	FLT N.m	$\frac{LRT}{FLT}$ $\frac{T_{st}}{T_N}$	$\frac{LRA}{FLA}$ $\frac{I_{st}}{I_N}$	$\frac{BDT}{FLT}$ $\frac{T_{max}}{T_N}$	dB(A)
Synchronous speed 600 r/min										
YBX3-315L1-10	75	161	590	93.0	0.76	1214	1.5	5.8	2.0	82
YBX3-315L2-10	90	190	590	93.4	0.77	1457	1.5	5.9	2.0	82
YBX3-355S-10	90	190	595	93.4	0.77	1445	1.3	6.0	2.0	90
YBX3-355M1-10	110	228	595	93.8	0.78	1766	1.3	6.0	2.0	90
YBX3-355M2-10	132	273	595	94.2	0.78	2119	1.3	6.0	2.0	90
YBX3-355L1-10	160	331	595	94.2	0.78	2568	1.3	6.0	2.0	90
YBX3-355L2-10	185	383	595	94.2	0.78	2969	1.3	6.0	2.0	90
YBX3-355L3-10	200	414	595	94.2	0.78	3210	1.3	6.0	2.0	90
YBX3-355L4-10	220	455	595	94.2	0.78	3531	1.3	6.0	2.0	90

Dimensions & Mounting

mm

B3 (Horizontal Foot Mounted Only)

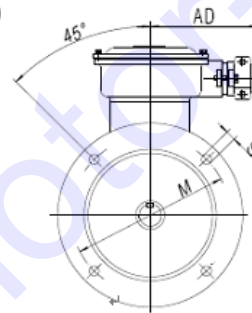
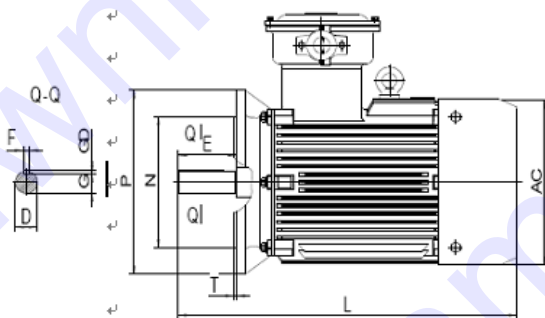


Frame	Poles	Mounting Dimension									Overall Dimension							
		A	B	C	D	E	F	G	H	K	AA	BB	HA	AB	AC	AD	HD	L
80M	2,4,6,8	125	100	50	19	40	6	15.5	80	10	34	150	10	160	165	180	300	330
90S	2,4,6,8	140	100	56	24	50	8	20	90	10	36	140	14	180	180	180	330	385
90L			125									165						415
100L	2,4,6,8	160	140	63	28	60	8	24	100	12	39	190	14	200	210	180	355	435
112M	2,4,6,8	190		70							50	180	16	240	230	205	370	480
132S	2,4,6,8	216	140	89	38	80	10	33	132	12	60	190	18	280	290	205	420	470
132M			178									230						510
160M	2,4,6,8	254	210	108	42	110	12	37	160	15	70	255	20	325	330	215	495	665
160L			254									300						695
180M	2,4,6,8	279	241	121	48	110	14	42.5	180	15	70	315	22	350	360	215	535	735
180L			279									350						770
200L	2,4,6,8	318	305	133	55	110	16	49	200	19	70	370	25	390	400	255	590	815

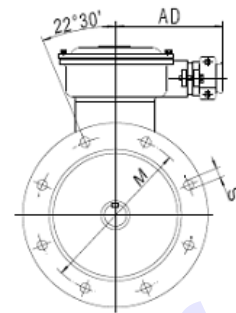
225S	4,8	356	286	149	60	140	18	53	225	19	75	355	28	435	450	255	630	855
225M	2		311		55	110	16	49				390						850

	4,6,8	406	349	168	60	140	18	53	250	24	80	420	30	490	510	285	720	880		
250M	2				60	140	18											58	940	
	4,6,8				65															
280S	2	457	368	190	65	140	18	280	24	90	460	35	545	550	285	785	1000			
	4,6,8				75		20										67.5	1030		
280M	2		419		65		18				58						510			
	4,6,8				75		20				67.5									
315S	2	508	406	216	65	140	18	315	28	120	570	45	630	630	365	960	1220			
	4,6,8,10				80	170	22				71						1250			
315M	2		457		65	140	18				58						680	1330		
	4,6,8,10				80	170	22				71								1360	
315L	2		508		65	140	18				58									1330
	4,6,8,10				80	170	22				71								1360	
355S	2	610	500	254	75	140	20	355	28	116	640	50	730	730	365	1050	1420			
	4,6,8,10				95	170	25										86	1450		
355M	2		560		75	140	20				67.5						700	1500		
	4,6,8,10				95	170	25				86								1530	
355L	2		630		75	140	20				67.5									770
	4,6,8,10				95	170	25				86								1630	

B5 (Footless and B5 Flange Mounted)

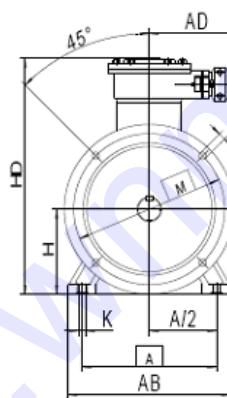
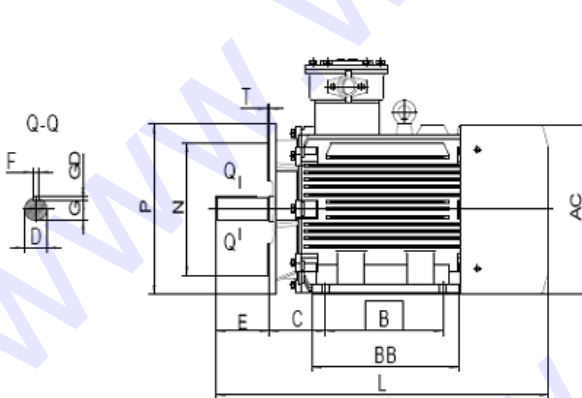


H80-200mm

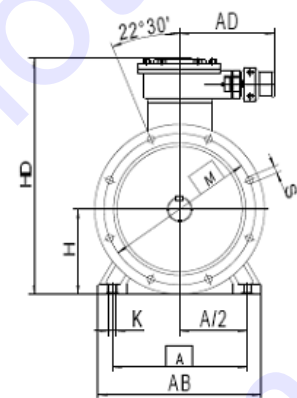


H225-280mm

B35 (Foot and B5 Flange Mounted)



H80-200mm



H225-355mm

Frame	Poles	Mounting Dimension																	Overall Dimension							
		A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	Hole s	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	12	3.5	4	34	150	10	160	165	180	300	330	
90S	2,4,6,8	140	100	56	24	50	8	20	90	10	165	130	200	0	12	3.5	4	36	140	14	180	180	180	330	385	
90L			125																165						415	
100L	2,4,6,8	160	140	63	28	60	8	24	100	12	215	180	250	0	15	4	4	39	190	14	200	210	180	355	435	
112M	2,4,6,8	190	140	70					112									50	180	16	240	230	205	370	480	
132S	2,4,6,8	216	140	89	38	80	10	33	132	12	265	230	300	0	15	4	4	60	190	18	280	290	205	420	470	
132M			178																230						510	
160M	2,4,6,8	254	210	108	42	110	12	37	160	15	300	250	350	0	19	5	4	70	255	20	325	330	215	495	665	
160L			254																300						695	
180M	2,4,6,8	279	241	121	48	110	14	42.5	180	15	300	250	350	0	19	5	4	70	315	22	350	360	215	535	735	
180L			279																350						770	
200L	2,4,6,8	318	305	133	55	110	16	49	200	19	350	300	400	0	19	5	4	70	370	25	390	400	255	590	815	
225S	4,8	356	286	149	60	140	18	53	225	19	400	350	450	0	19	5	8	75	355	28	435	450	255	630	855	
225M	2		311		55	110	16	49											850							
	4,6,8				60	140	18	53											390						880	
250M	2	406	349	168	60	140	18	53	250	24	500	450	550	0	19	5	8	80	420	30	490	510	285	720	940	
	4,6,8				65			58																		
280S	2	457	368	190	65	140	18	58	280	24	500	450	550	0	19	5	8	90	460	35	545	550	285	785	1000	
280M	4,6,8				75			67.5											510							
	2		419		65		18	58											1030							
	4,6,8				75		20	67.5																		
315S	2	508	406	216	65	140	18	58	315	28	600	550	660	0	24	6	8	120	570	45	630	630	365	960	1220	
315M	4,6,8,10				80	170	22	71											1250							
	2		457		65	140	18	58											1330							
	4,6,8,10				80	170	22	71											1360							
315L	2	508	406	216	65	140	18	58	315	28	600	550	660	0	24	6	8	120	680	45	630	630	365	960	1330	
	4,6,8,10				80	170	22	71																	1360	
355S	2	610	500	254	75	140	20	67.5	355	28	740	680	800	0	24	6	8	116	640	50	730	730	365	1050	1420	
355M	4,6,8,10				95	170	25	86											1450							
	2		560		75	140	20	67.5											1500							
	4,6,8,10				95	170	25	86											1530							
355L	2	630	500	254	75	140	20	67.5	355	28	740	680	800	0	24	6	8	116	700	50	730	730	365	1050	1600	
	4,6,8,10				95	170	25	86																	1630	

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	V17	V35	V37	B14	B34	V18
80~112	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
132~160	√	√	√	√	√	√	√	√	√	√	√	√	√	√	-	-	-
180~280	√	√	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-
315~355	√	-	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: If there is no other request in the order or agreement, terminal box position at top of the frame is regarded as standard. Data above may be changed without prior notice.