

BOREHOLE RANGE

4ST & 4SD



NITRO PUMPS

2023 V1

PERFORMANCE PERFECTED

This Slimline submersible borehole pump is suitable for 4" or larger boreholes, wells or reservoirs. Manufactured from corrosion & abrasion resistant materials. This range is manufactured to NEMA standard for submersible motors. Designed for flow rates up to 1.5m³/h and heads of up to 325 meters.

Application

Groundwater supply to reservoirs.
Irrigation in horticulture and agriculture.
Groundwater Lowering.
Pressure boosting.
Solar applications.

Specification

Capacity:	0.5m ³ /h to 1.5m ³ /h at 2850rpm, 50Hz
Head:	up to 325m at 2850rpm, 50Hz
Power:	0.37kW to 1.5kW
Power Supply:	Single-phase 220 ~ 240V Three-phase 380 ~ 415V Solar 220v -3phase
Water Temp:	up to 35°C
Solid Handling:	less than 0.02%
Water PH:	6.5-8.0

Construction characteristics

Abrasion-resistant construction. The front wear plate, combined with the floating impellers, ensure optimum resistance to abrasion.

The upper and lower support brackets are cast 304 SS and offer a sturdy platform for connection to motor and discharge pipe. Offers resistance to corrosion and abrasion.

The hexagonal pump shaft guarantees effective impeller rotation.

A Stainless Steel non-return valve is fitted in the discharge and prevents back flow of water.



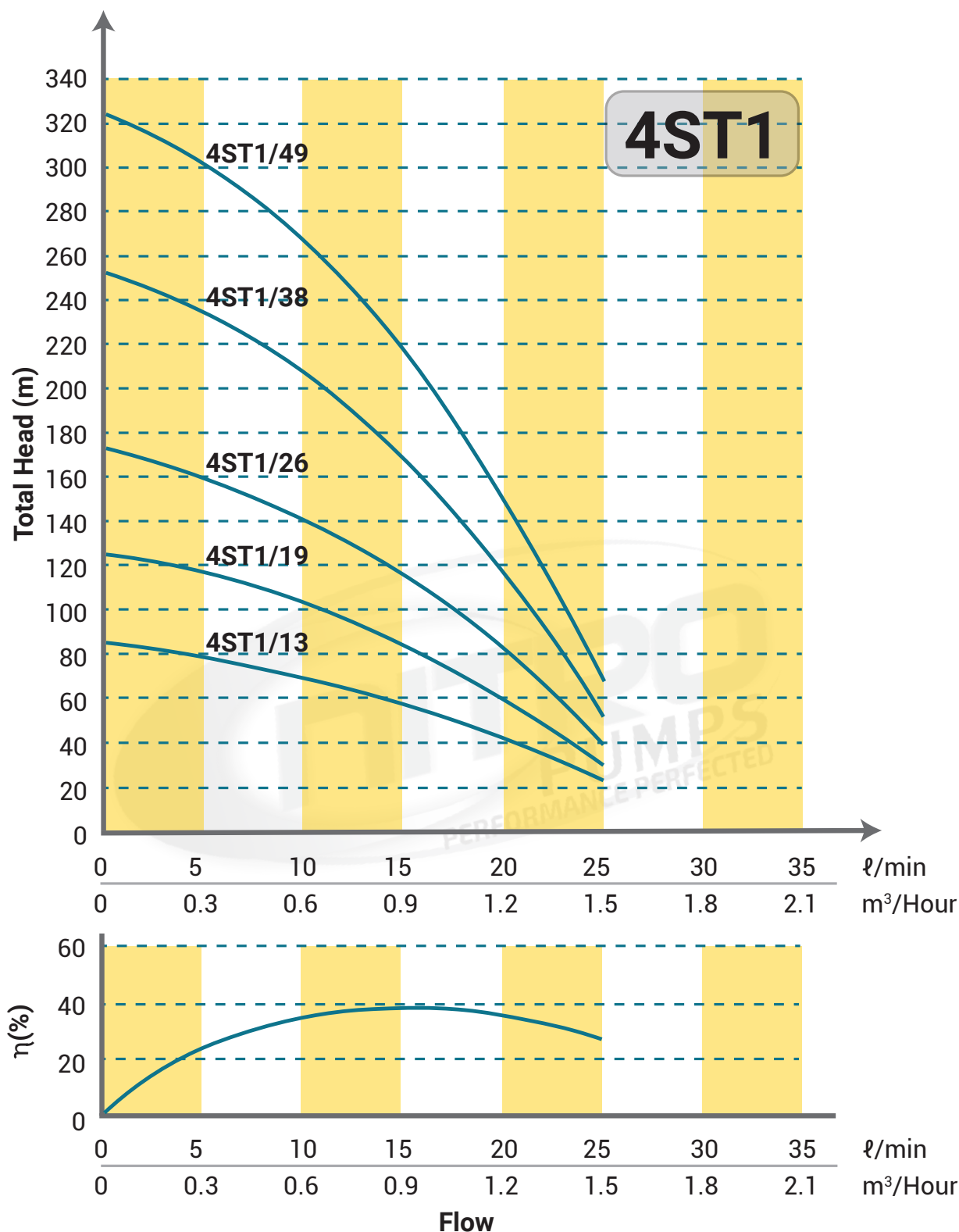
4 ST 1 / 7

NO. OF IMPELLERS

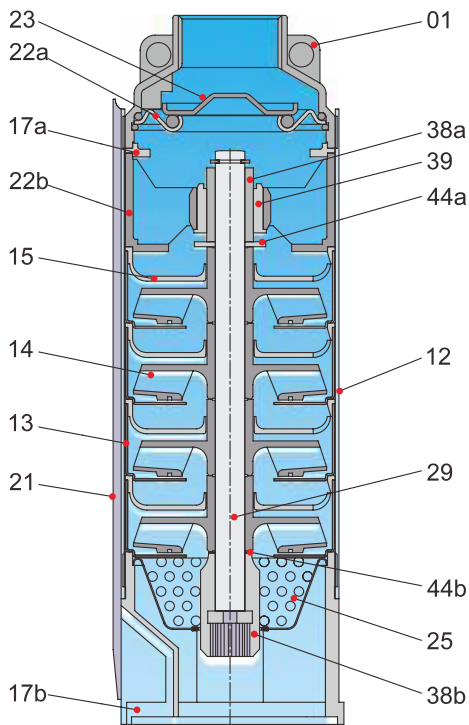
RATED CAPACITY (M³/H) @ HIGHEST EFFICIENCY

SERIES NAME

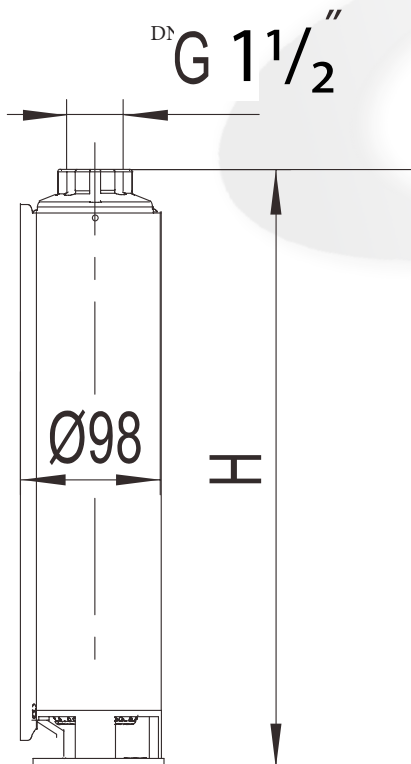
PERFORMANCE DATA



MODEL (50Hz)	P2		Delivery						
			n≈2850 1/min						
	kW	HP	m³/h	0	0.3	0.6	0.9	1.2	1.5
			l/min	0	5	10	15	20	25
4ST1/13	0.37	0.5	HEAD (m)	86	78	70	56	42	23
4ST1/19	0.55	0.75		126	110	105	86	60	30
4ST1/26	0.75	1		173	160	141	117	81	39
4ST1/38	1.1	1.5		253	234	208	169	117	52
4ST1/49	1.5	2		325	302	268	219	151	68



ITEM No.	PART NAME	MATERIAL
1	Discharge head	AISI304SS
12	Outer Casing	AISI304SS
13	Bowl	AISI304SS
14	Impeller	PPO
15	Diffuser	PC
17a	Coupling ring	PC
17b	Motor adapter	AISI304SS
21	Cable tube	AISI304SS
22a	Valve seat	AISI304SS
22b	Seat assembly	PC
23	Valve	AISI304SS
25	Strainer	AISI304SS
29	Shaft	AISI304SS
38a	Shaft sleeve	AISI304SS
38b	Coupling spline	AISI304SS
39	Bush bearing	PU
44a	Washer	AISI304SS
44b	Adjusting washer	AISI304SS



MODEL (50Hz)	MOTOR POWER		DIMENSIONS & WEIGHTS		DN
	kW	HP	LENGTH (mm)	N.W kg	
4ST1/13	0.37	0.5	382	3.7	1½"
4ST1/19	0.55	0.75	481	4.7	1½"
4ST1/26	0.75	1	596	5.8	1½"
4ST1/38	1.1	1.5	832	8.1	1½"
4ST1/49	1.5	2	1052	10.45	1½"

4 SD BOREHOLE RANGE (4")



Applications

For water supply from boreholes, wells or reservoirs
For domestic use, for civil and industrial applications
For garden use and irrigation

Operating conditions

Maximum fluid temperature: up to 35 °C
Maximum sand content: 0.25%
Minimum well diameter: 4"

Motor and Pump

Single-phase: 220 ~240V/50Hz
Three-phase: 380 ~415V/50Hz
Solar: 220v-3phase

Equipped with start control box or digital auto-control box
NEMA dimension standards
Curve tolerance according to ISO 9906

Warranty: 1year

(according to our general sales conditions).

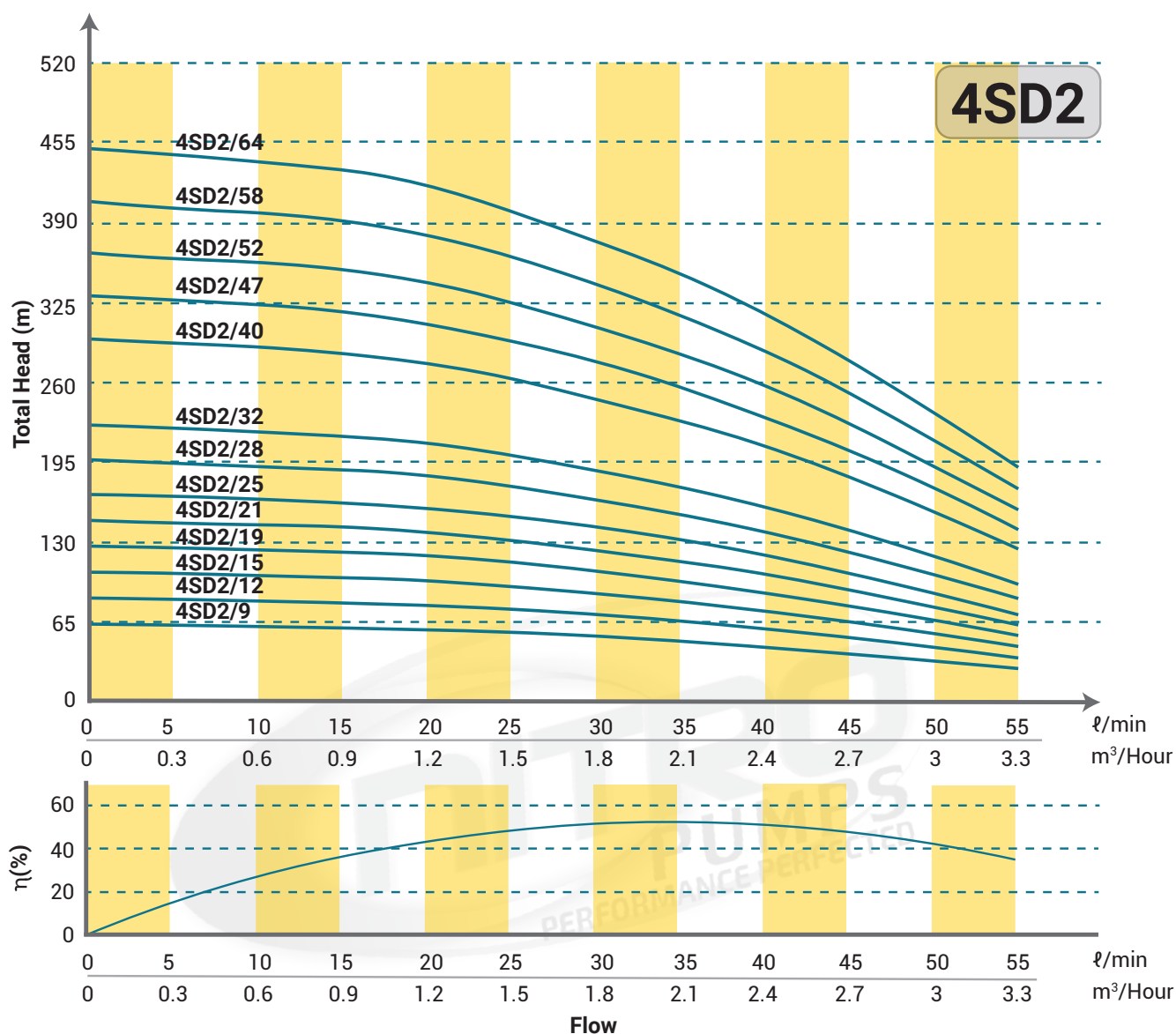
Materials of Construction

Components	Material
Wet End	
Pump external casing	AISI 304 SS
Delivery casing	Cast-Cu ASTM C85500
Suction lantern	Cast-Cu ASTM C85500
Diffuser	Plastic.PC
Impeller	Plastic.POM
Shaft	AISI 304 SS
Shaft coupling	AISI 304 SS
Wear ring	AISI 304 SS
Motor	
Motor external casing	AISI 304 SS
Top chock	Cast-Cu ASTM C85500
	Cast-Iron ASTM No.30
Bottom support	AISI 304 SS
Mechanical seal	Graphite - Ceramic
Shaft	AISI 304 SS - ASTM 5140
Bearing	NSK
Seal lubricant oil	Food grade oil



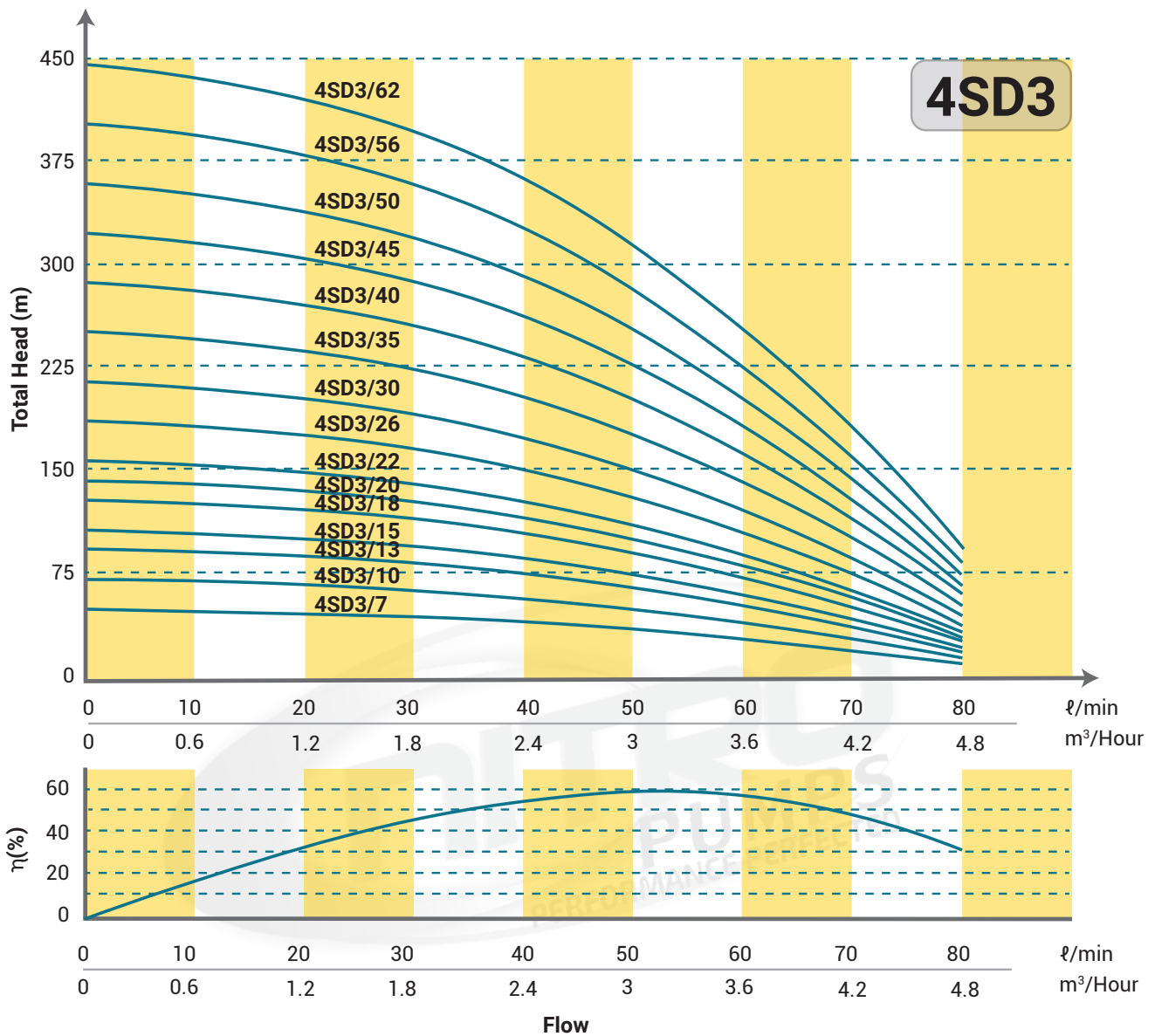
4SD(M) 3 / 5(N)

Build-in capacitor
Number of impellers
Capacity (m³/h)
Single phase
Pump model name
Well Size 4"



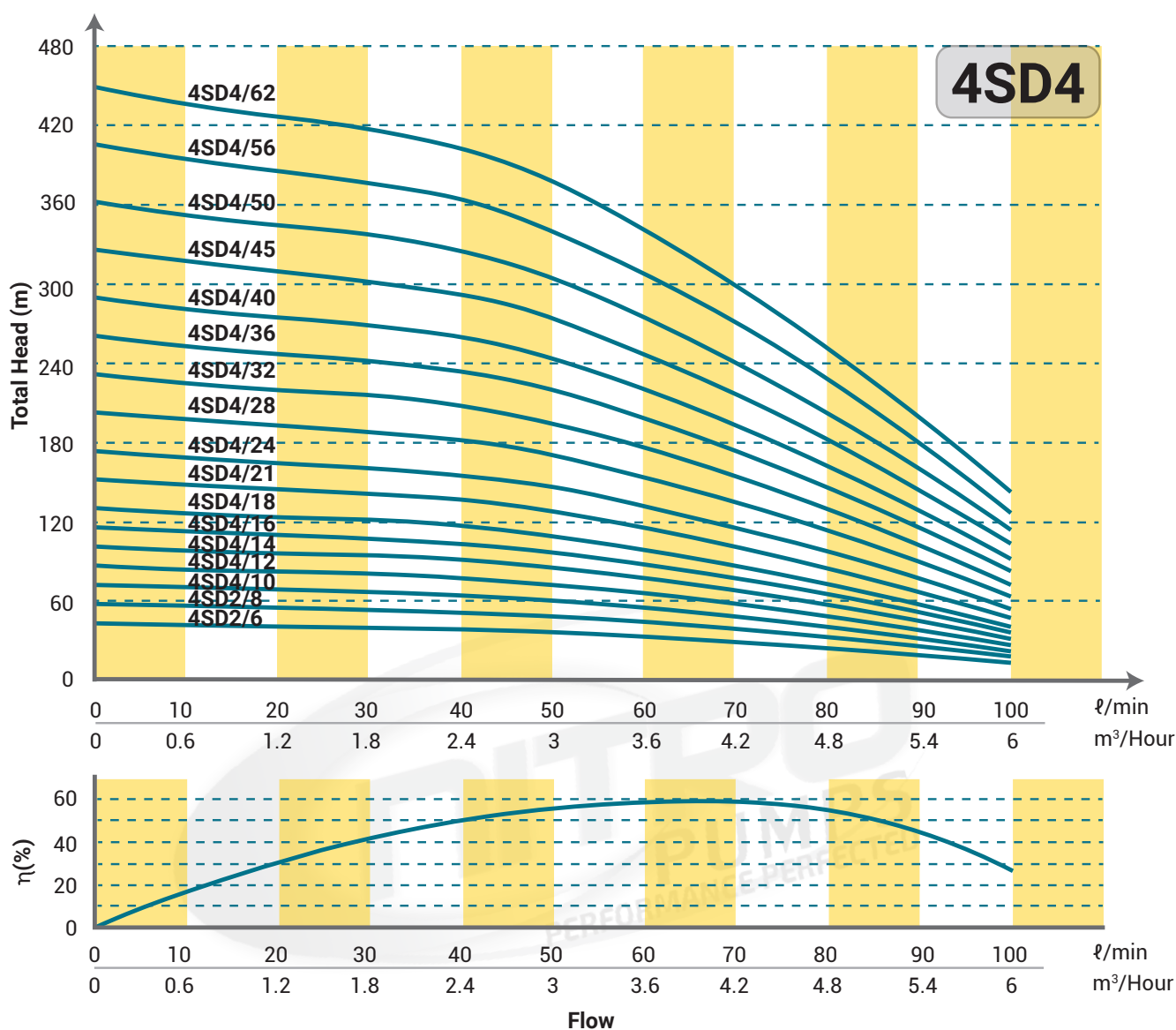
Performance Data 50Hz

MODEL (50Hz)		P2		Delivery n≈2850 1/min												
				m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3
1 - 220-240V	3 - 380 - 415V	kW	HP	l/min	0	5	10	15	20	25	30	35	40	45	50	55
4SDM2/9	4SD2/9	0.37	0.5	HEAD (m)	63	63	63	62	59	56	52	47	42	35	27	17
4SDM2/12	4SD2/12	0.55	0.75		84	84	84	82	79	75	69	63	56	47	36	23
4SDM2/15	4SD2/15	0.75	1		98	98	98	96	92	87	81	73	65	54	42	27
4SDM2/19	4SD2/19	1.1	1.5		134	134	132	130	125	118	109	100	88	74	57	36
4SDM2/21	4SD2/21	1.1	1.5		155	155	153	151	145	137	127	115	102	85	66	42
4SDM2/25	4SD2/25	1.5	2		176	176	174	171	164	155	144	131	116	97	75	48
4SDM2/28	4SD2/28	1.5	2		197	197	195	192	184	174	161	147	130	109	84	53
4SDM2/32	4SD2/32	2.2	3		239	239	237	233	223	211	196	178	157	132	102	65
4SDM2/40	4SD2/40	2.2	3		281	281	279	274	263	249	230	210	185	155	120	76
-	4SD2/47	3	4		323	323	321	315	302	286	265	241	213	178	138	88
-	4SD2/52	3	4		366	366	362	356	342	323	299	273	241	202	156	99
-	4SD2/58	4	5.5		408	408	404	397	381	360	334	304	269	225	174	111
-	4SD2/64	4	5.5		457	457	453	445	427	404	374	341	301	252	195	124



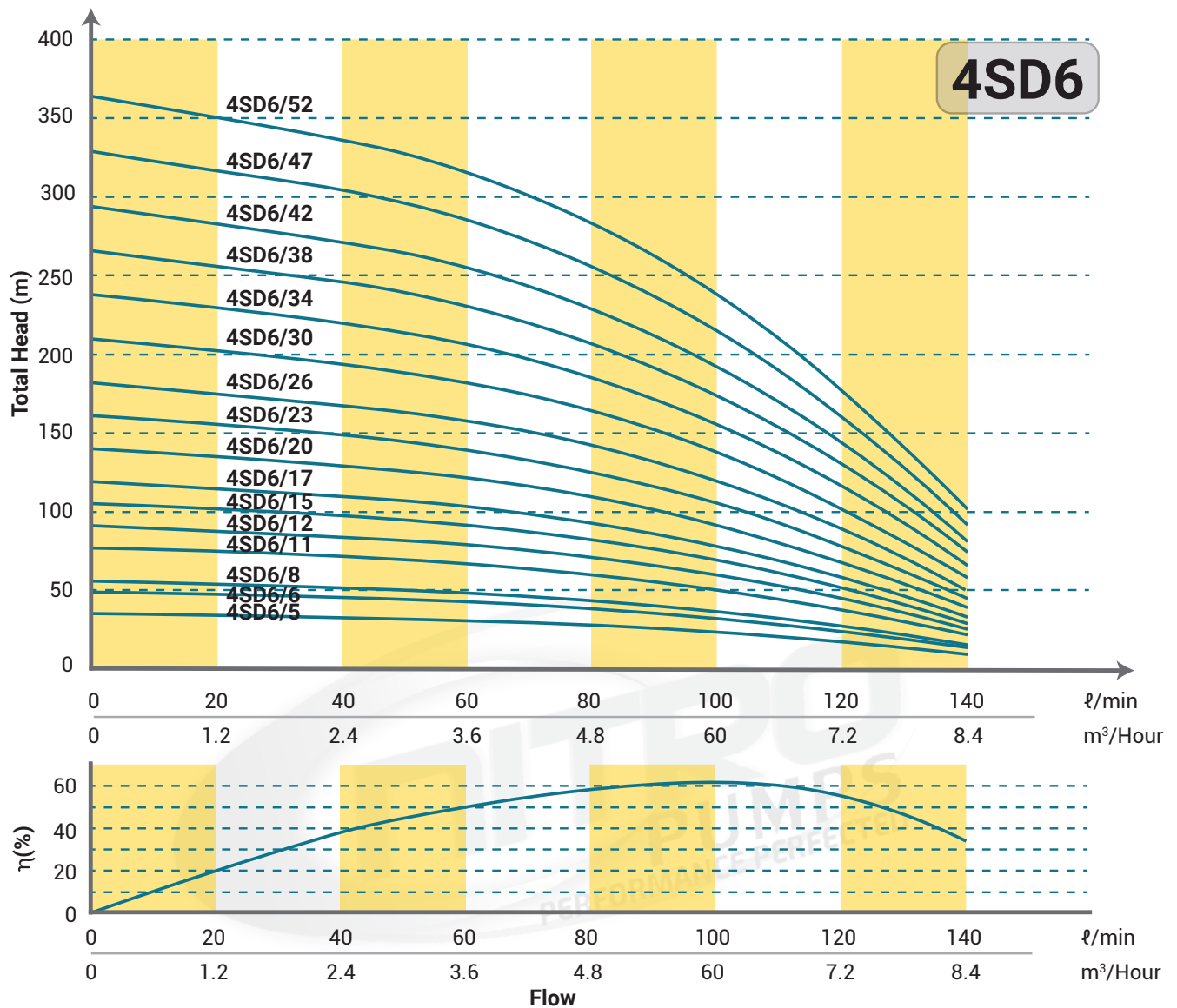
Performance Data 50Hz

MODEL (50Hz)		P2		Delivery n≈2850 1/min									
1 - 220-240V	3 - 380 - 415V	kW	HP	m³/h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8
				l/min	0	10	20	30	40	50	60	70	80
4SDM3/7	4SD3/7	0.37	0.5	HEAD (m)	50	49	47	45	41	35	28	20	10
4SDM3/10	4SD3/10	0.55	0.75		72	70	68	64	58	50	40	29	15
4SDM3/13	4SD3/13	0.75	1		93	91	88	83	76	66	53	38	19
4SDM3/15	4SD3/15	1.1	1.5		108	105	102	96	88	76	61	43	22
4SDM3/18	4SD3/18	1.1	1.5		129	126	122	115	105	91	73	52	27
4SDM3/20	4SD3/20	1.5	2		144	140	135	128	117	101	81	58	30
4SDM3/22	4SD3/22	1.5	2		158	154	149	141	128	111	89	64	33
4SDM3/26	4SD3/26	2.2	3		187	182	176	166	152	131	105	75	39
4SDM3/30	4SD3/30	2.2	3		215	210	203	192	175	151	121	87	45
-	4SD3/35	3	4		251	245	237	224	204	177	142	101	52
-	4SD3/40	3	4		287	280	271	255	234	202	162	115	60
-	4SD3/45	4	5.5		323	315	305	287	263	227	182	130	67
-	4SD3/50	4	5.5		359	350	339	319	292	252	202	144	75
-	4SD3/56	5.5	7.5		402	392	379	358	327	283	227	162	84
-	4SD3/62	5.5	7.5		445	434	420	396	362	313	251	179	93



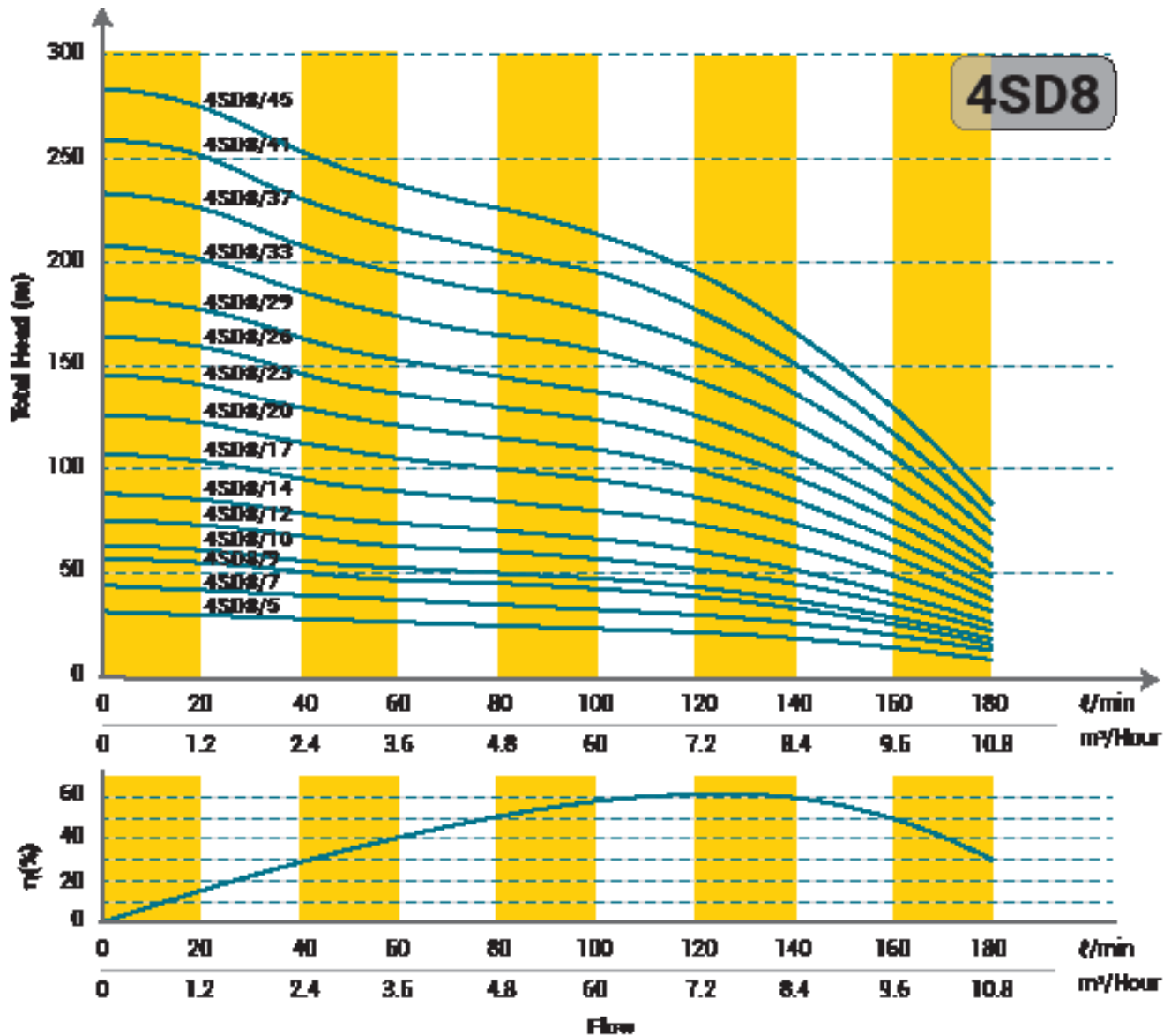
Performance Data 50Hz

MODEL (50Hz)		P2		Delivery											
1 - 220-240V	3 - 380 - 415V	kW	HP	m³/h l/min	n≈2850 1/min										
					0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0
					0	10	20	30	40	50	60	70	80	90	100
4SDM4/6	4SD4/6	0.37	0.5	HEAD (m)	44	42	41	40	39	36	33	29	24	19	14
4SDM4/8	4SD4/8	0.55	0.75		58	56	55	54	52	49	44	39	33	26	18
4SDM4/10	4SD4/10	0.75	1		73	70	69	67	65	61	55	48	41	32	23
4SDM4/12	4SD4/12	1.1	1.5		87	84	82	81	78	73	66	58	49	39	27
4SDM4/14	4SD4/14	1.1	1.5		102	98	96	94	91	85	77	68	57	45	32
4SDM4/16	4SD4/16	1.5	2		116	113	110	107	104	97	88	77	65	51	37
4SDM4/18	4SD4/18	1.5	2		131	127	124	121	117	109	99	87	73	58	41
4SDM4/21	4SD4/21	2.2	3		152	148	144	141	136	128	115	102	85	67	48
4SDM4/24	4SD4/24	2.2	3		174	169	165	161	156	146	132	116	98	77	55
-	4SD4/28	3	4		203	197	192	188	182	170	154	135	114	90	64
-	4SD4/32	3	4		232	225	220	215	208	195	176	155	130	103	73
-	4SD4/36	4	5.5		261	253	247	242	234	219	198	174	146	116	82
-	4SD4/40	4	5.5		290	281	275	268	260	243	220	194	163	128	92
-	4SD4/45	5.5	7.5		327	316	309	302	293	274	248	218	183	144	103
-	4SD4/50	5.5	7.5		363	352	344	335	325	304	275	242	203	160	115
-	4SD4/56	7.5	10		406	394	385	376	364	341	308	271	228	180	128
-	4SD4/62	7.5	10		450	436	426	416	403	377	341	300	252	199	142



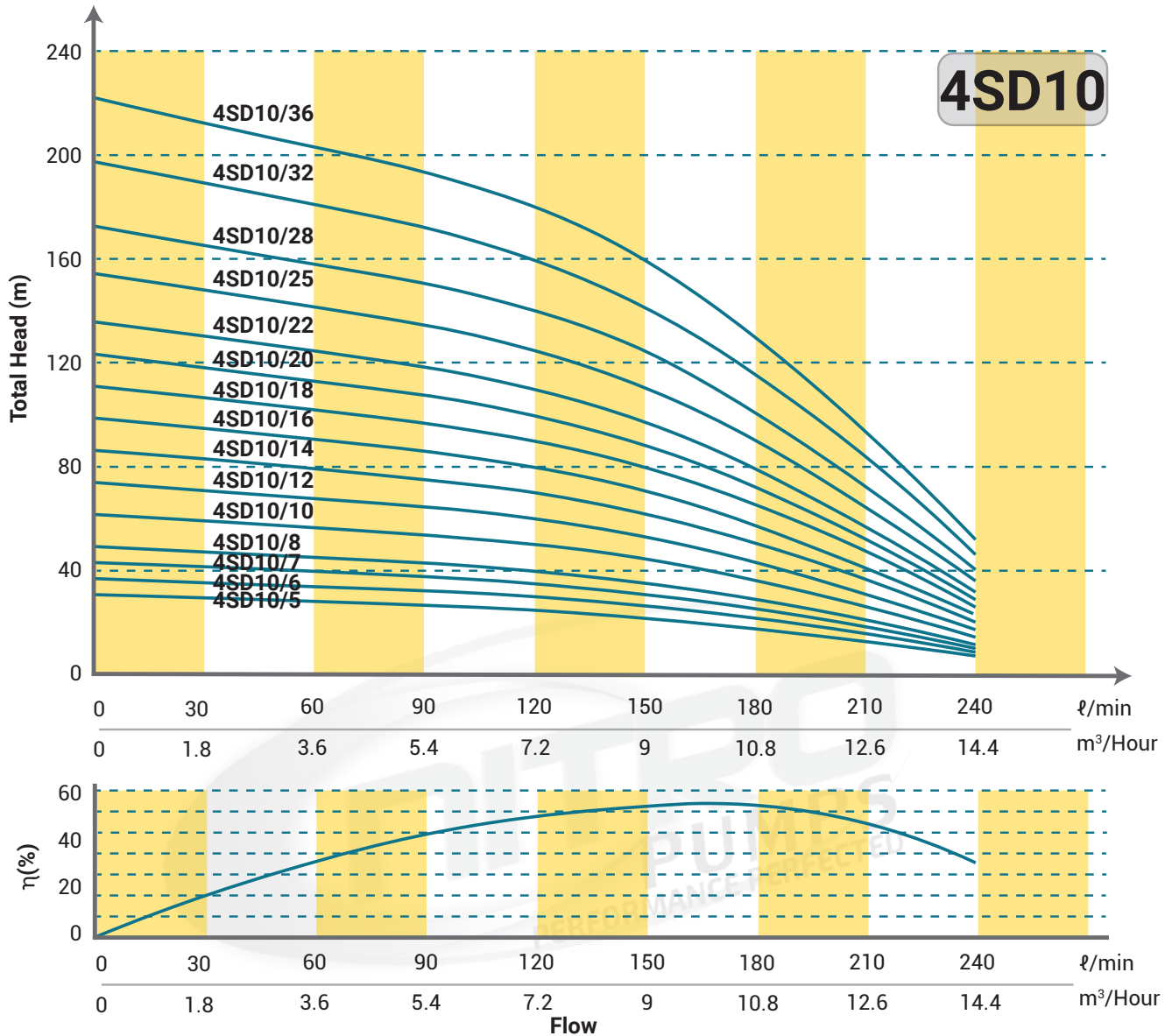
Performance Data 50Hz

MODEL (50Hz)		P2		Delivery								
1 - 220-240V	3 - 380 - 415V	kW	HP	m³/h l/min	n≈2850 1/min							
					0	1.2	2.4	3.6	4.8	6.0	7.2	8.4
					0	20	40	60	80	100	120	140
4SDM6/5	4SD6/5	0.37	0.5	HEAD (m)	36	34	33	31	28	24	19	12
4SDM6/6	4SD6/6	0.55	0.75		43	41	39	37	34	29	23	15
4SDM6/8	4SD6/8	0.75	1		58	54	52	50	45	38	30	20
4SDM6/11	4SD6/11	1.1	1.5		80	74	72	69	62	52	41	27
4SDM6/12	4SD6/12	1.5	2		87	81	79	75	68	57	45	29
4SDM6/15	4SD6/15	1.5	2		101	95	92	87	79	67	53	34
4SDM6/17	4SD6/17	2.2	3		123	115	111	106	96	81	64	42
4SDM6/20	4SD6/20	2.2	3		145	135	131	125	113	95	75	49
-	4SD6/23	3	4		166	156	151	143	130	110	87	56
-	4SD6/26	3	4		188	176	171	162	147	124	98	63
-	4SD6/30	4	5.5		217	203	197	187	170	143	113	73
-	4SD6/34	4	5.5		246	230	223	212	193	162	128	83
-	4SD6/38	5.5	7.5		275	257	249	237	216	181	143	93
-	4SD6/42	5.5	7.5		304	284	275	262	238	200	158	103
-	4SD6/47	7.5	10		340	318	308	293	267	224	177	115
-	4SD6/52	7.5	10		376	352	341	324	295	248	196	127



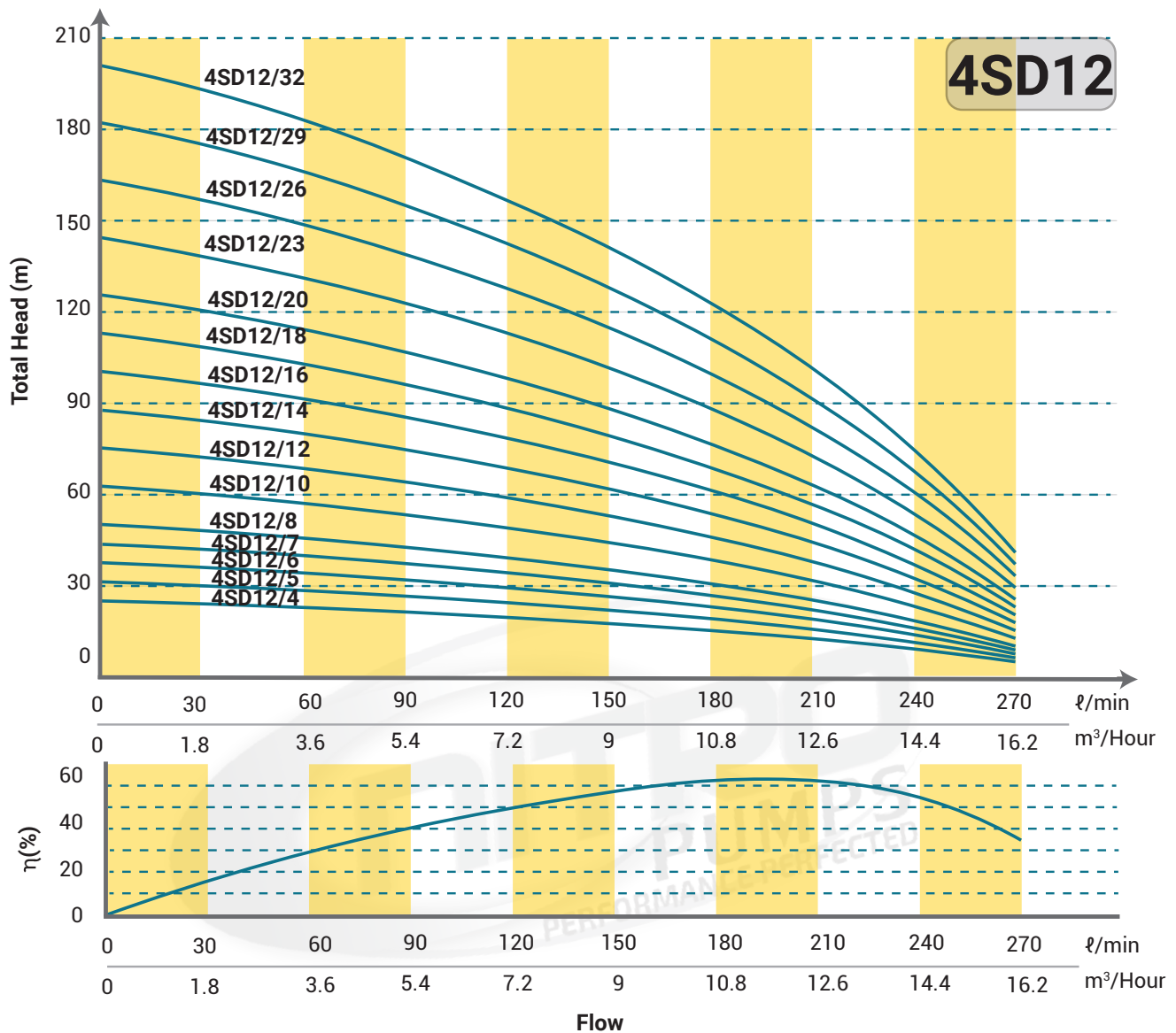
Performance Data 50Hz

MODEL (50Hz)		P2		Delivery										
1 - 220-240V	3 - 380 - 415V	kW	HP	m³/h	n≈2850 1/min									
				l/min	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8
					0	20	40	60	80	100	120	140	160	180
4SDM8/5	4SD8/5	0.55	0.75	HEAD (m)	32	31	28	26	25	24	22	18	14	9
4SDM8/7	4SD8/7	0.75	1		44	43	39	37	35	33	30	26	20	13
4SDM8/9	4SD8/9	1.1	1.5		57	55	51	47	45	43	39	33	26	17
4SDM8/10	4SD8/10	1.5	2		63	61	56	53	50	48	43	37	28	18
4SDM8/12	4SD8/12	1.5	2		76	73	67	63	60	57	52	44	34	22
4SDM8/14	4SD8/14	2.2	3		88	86	79	74	70	67	61	52	40	26
4SDM8/17	4SD8/17	2.2	3		107	104	96	90	85	81	74	63	48	31
4SDM8/20	4SD8/20	3	4		126	122	112	105	100	95	87	74	57	37
-	4SD8/23	3	4		145	141	129	121	115	109	100	85	65	42
-	4SD8/26	4	5.5		164	159	146	137	130	124	113	96	74	48
-	4SD8/29	4	5.5		183	177	163	153	145	138	126	107	82	53
-	4SD8/33	5.5	7.5		208	202	186	174	165	157	143	122	94	61
-	4SD8/37	5.5	7.5		234	226	208	195	185	176	160	136	105	68
-	4SD8/41	7.5	10		259	251	231	216	205	195	178	151	117	76
-	4SD8/45	7.5	10		284	275	253	237	225	214	195	166	128	83



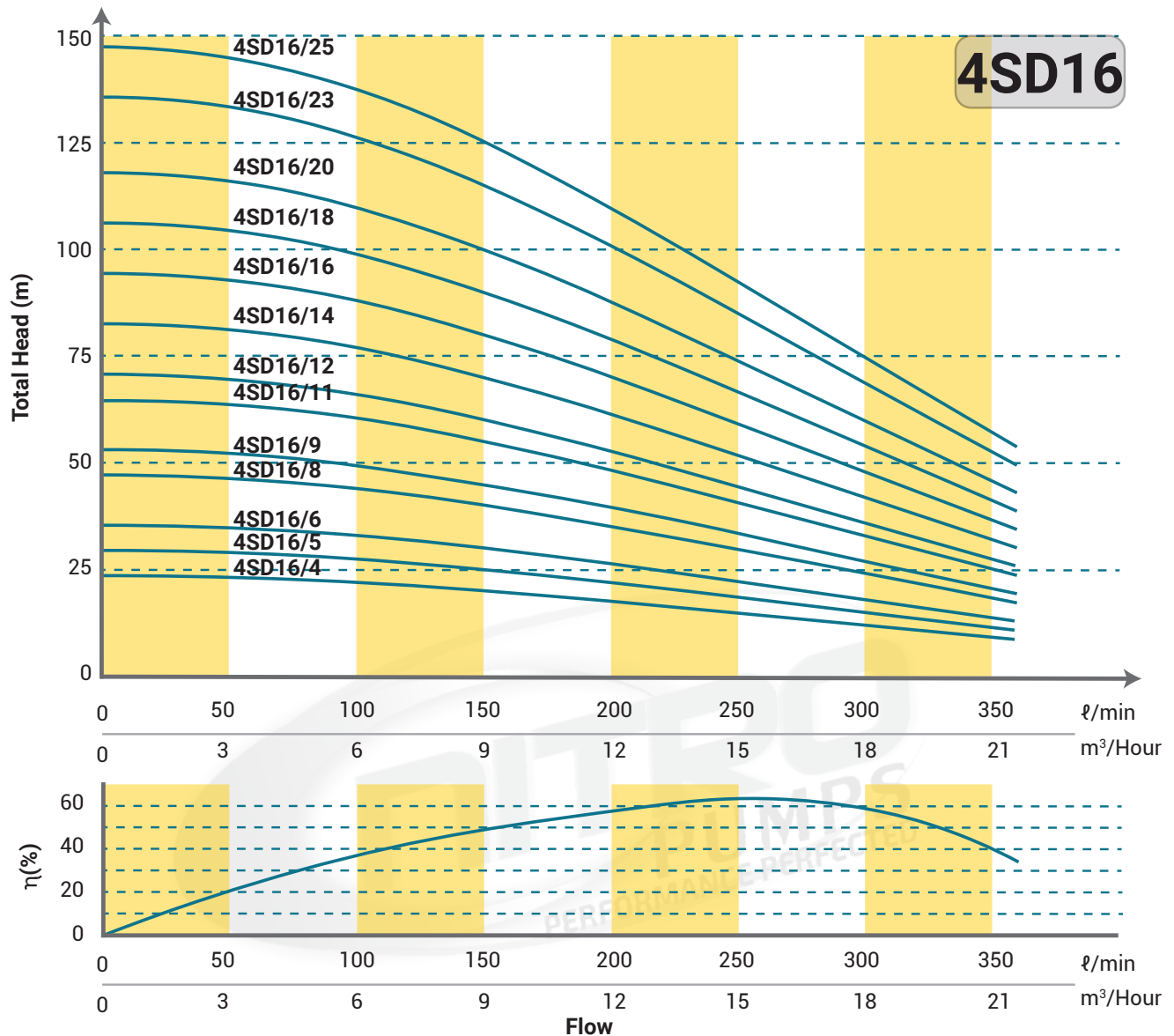
Performance Data 50Hz

MODEL (50Hz)		P2		Delivery n≈2850 1/min									
1 - 220-240V	3 - 380 - 415V	kW	HP	m³/h	0	1.8	3.6	5.4	7.2	9.0	10.8	12.6	14.4
				l/min	0	30	60	90	120	150	180	210	240
4SDM10/5	4SD10/5	0.75	1	HEAD (m)	31	30	28	27	25	22	18	13	7
4SDM10/6	4SD10/6	1.1	1.5		37	36	34	32	30	26	22	15	9
4SDM10/7	4SDM10/7	1.1	1.5		43	42	39	38	35	31	25	18	10
4SDM10/8	4SD10/8	1.5	2		49	48	45	43	40	35	29	21	12
4SDM10/10	4SD10/10	1.5	2		62	59	56	54	50	44	36	26	14
4SDM10/12	4SD10/12	2.2	3		74	71	68	64	60	53	43	31	17
4SDM10/14	4SD10/14	2.2	3		86	83	79	75	70	62	51	36	20
-	4SD10/16	3	4		99	95	90	86	80	71	58	41	23
-	4SD10/18	3	4		111	107	101	96	90	79	65	46	26
-	4SD10/20	4	5.5		123	119	113	107	100	88	72	52	29
-	4SD10/22	4	5.5		136	131	124	118	110	97	79	57	32
-	4SD10/25	5.5	7.5		154	149	141	134	125	110	90	65	36
-	4SD10/28	5.5	7.5		176	166	158	150	140	124	101	72	40
-	4SD10/32	7.5	10		197	190	180	172	160	141	116	83	46
-	4SD10/36	7.5	10		222	214	203	193	180	159	130	93	52



Performance Data 50Hz

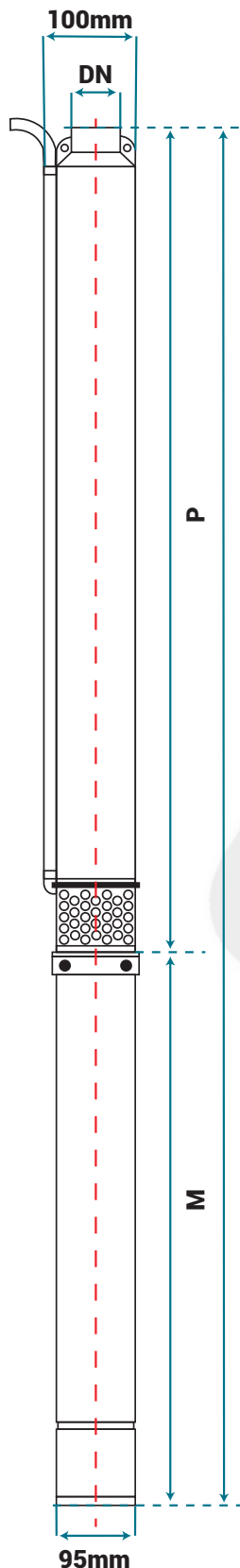
MODEL (50Hz)		P2		Delivery											
				n≈2850 1/min											
1 - 220-240V	3 - 380 - 415V	kW	HP	m³/h	0	1.8	3.6	5.4	7.2	9.0	10.8	12.6	14.4	16.2	
				l/min	0	30	60	90	120	150	180	210	240	270	
4SDM12/4	4SD12/4	0.75	1	HEAD (m)	25	24	23	21	20	18	15	13	9	5	
4SDM12/5	4SD12/5	1.1	1.5		31	30	29	27	25	22	19	16	12	6	
4SDM12/6	4SD12/6	1.1	1.5		38	36	34	32	29	26	23	19	14	8	
4SDM12/7	4SD12/7	1.5	2		44	42	40	37	34	31	27	22	16	9	
4SDM12/8	4SD12/8	1.5	2		50	48	46	43	39	35	31	25	19	10	
4SDM12/10	4SD12/10	2.2	3		63	60	57	53	49	44	38	32	23	13	
4SDM12/12	4SD12/12	2.2	3		75	72	69	64	59	53	46	38	28	15	
-	4SD12/14	3	4		88	84	80	75	69	62	54	44	33	18	
-	4SD12/16	3	4		101	96	92	86	79	71	62	51	38	21	
-	4SD12/18	4	5.5		113	108	103	96	88	79	69	57	42	23	
-	4SD12/20	4	5.5		126	120	114	107	98	88	77	63	47	26	
-	4SD12/23	5.5	7.5		144	138	132	123	113	101	88	73	54	29	
-	4SD12/26	5.5	7.5		163	156	149	139	128	115	100	82	61	33	
-	4SD12/29	7.5	10		182	174	166	155	142	128	111	92	68	37	
-	4SD12/32	7.5	10		201	192	183	171	157	141	123	101	75	41	



Performance Data 50Hz

MODEL (50Hz)		P2		Delivery								
				n≈2850 1/min								
1 - 220-240V	3 - 380 - 415V	kW	HP	m³/h	0	3	6	9	12	15	18	21
				l/min	0	50	100	150	200	250	300	350
4SDM16/4	4SD16/4	1.1	1.5	HEAD (m)	24	23	22	20	18	15	12	9
4SDM16/5	4SD16/5	1.5	2		30	29	28	25	22	19	15	11
4SDM16/6	4SD16/6	1.5	2		36	35	33	30	26	22	18	13
4SDM16/8	4SD16/8	2.2	3		47	46	44	40	35	30	24	17
4SDM16/9	4SD16/9	2.2	3		53	52	50	45	40	33	27	19
-	4SD16/11	3	4		65	64	61	55	48	41	33	24
-	4SD16/12	3	4		71	70	66	60	53	45	36	26
-	4SD16/14	4	5.5		83	81	77	70	62	52	42	30
-	4SD16/16	4	5.5		95	93	88	80	70	60	48	35
-	4SD16/18	5.5	7.5		107	104	99	90	79	67	54	39
-	4SD16/20	5.5	7.5		118	116	110	100	88	74	60	43
-	4SD16/23	7.5	10		136	133	127	115	101	86	69	50
-	4SD16/25	7.5	10		148	145	138	125	110	93	75	54

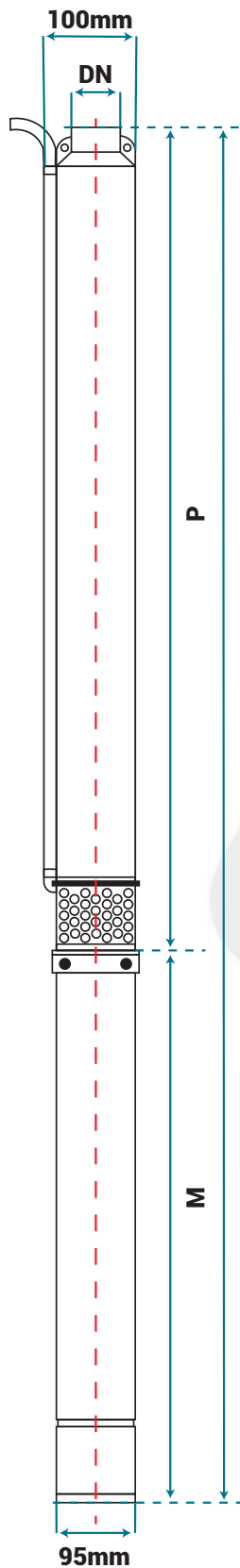
DIMENSIONS AND WEIGHTS



MODEL		DN	DIMENSIONS (mm)					WEIGHTS (kg)				
1 - 220-240V	3 - 380 - 415V		P	M(s)	M(T)	T(s)	T(T)	P	M(s)	M(T)	T(s)	T(T)
4SDM2/7	4SD2/7	1½"	392	299	299	691	691	3.3	5.5	5.8	8.8	9.1
4SDM2/9	4SD2/9	1½"	440	314	314	754	754	3.8	6.7	6.7	10.5	10.5
4SDM2/12	4SD2/12	1½"	514	329	329	843	843	4.6	7.3	7.3	11.9	11.9
4SDM2/14	4SD2/14	1½"	562	344	344	906	906	5.0	8.0	8.0	13.0	13.0
4SDM2/16	4SD2/16	1½"	611	359	344	970	955	5.5	8.7	8.0	14.2	13.5
4SDM2/19	4SD2/19	1½"	684	379	379	1063	1063	6.2	9.8	9.8	16.0	16.0
4SDM2/22	4SD2/22	1½"	789	399	379	1188	1168	7.0	10.6	9.8	17.6	16.8
4SDM2/25	4SD2/25	1½"	862	424	424	1286	1286	7.7	11.7	11.7	19.4	19.4
4SDM2/28	4SD2/28	1½"	936	449	424	1385	1360	8.4	12.9	11.7	21.3	20.1
4SDM2/34	4SD2/34	1½"	1082	502	514	1584	1596	9.7	15.7	15.7	25.4	25.4
4SDM2/40	4SD2/40	1½"	1228	542	514	1770	1742	10.9	17.7	15.7	28.6	26.6
4SDM2/46	4SD2/46	1½"	1406	594	554	2000	1960	12.4	19.8	17.7	32.2	30.1
-	4SD2/52	1½"	1553	-	594	-	2147	13.9	-	19.8	-	33.7
-	4SD2/58	1½"	1699	-	658	-	2357	15.8	-	21.4	-	37.2
-	4SD2/65	1½"	1901	-	698	-	2599	17.5	-	23.7	-	41.2
4SDM3/5	4SD3/5	1½"	355	299	299	654	654	2.8	5.5	5.8	8.3	8.6
4SDM3/7	4SD3/7	1½"	409	314	314	723	723	3.4	6.7	6.7	10.1	10.1
4SDM3/10	4SD3/10	1½"	490	329	329	814	819	4.1	7.3	7.3	11.4	11.4
4SDM3/11	4SD3/11	1½"	517	344	344	861	861	4.4	8.0	8.0	12.4	12.4
4SDM3/13	4SD3/13	1½"	571	359	344	930	915	4.9	8.7	8.0	13.6	12.9
4SDM3/15	4SD3/15	1½"	624	379	379	1003	1003	5.4	9.8	9.8	15.2	15.2
4SDM3/18	4SD3/18	1½"	737	399	379	1136	1116	6.2	10.6	9.8	16.8	16.0
4SDM3/20	4SD3/20	1½"	790	424	424	1214	1214	6.7	11.7	11.7	18.4	18.4
4SDM3/22	4SD3/22	1½"	844	449	424	1293	1268	7.3	12.9	11.7	20.2	19.0
4SDM3/26	4SD3/26	1½"	952	502	514	1454	1466	8.3	15.7	15.7	24.0	24.0
4SDM3/30	4SD3/30	1½"	1059	542	514	1601	1573	9.3	17.7	15.7	27.0	25.0
4SDM3/35	4SD3/34	1½"	1194	594	554	1664	1748	10.6	19.8	17.7	30.4	28.3
-	4SD3/40	1½"	1360	-	594	-	1954	11.9	-	19.8	-	31.7
-	4SD3/45	1½"	1494	-	658	-	2152	13.2	-	21.4	-	34.6
-	4SD3/50	1½"	1629	-	698	-	2327	14.5	-	23.7	-	38.2
-	4SD3/56	1½"	1790	-	738	-	2528	16.1	-	25.5	-	41.6
-	4SD3/62	1½"	1983	-	788	-	2771	17.6	-	28.0	-	45.6
4SDM4/6	4SD4/6	1½"	396	314	314	710	710	3.2	6.7	6.7	9.9	9.9
4SDM4/8	4SD4/8	1½"	454	329	329	783	783	3.7	7.3	7.3	11.0	11.0
4SDM4/9	4SD4/9	1½"	484	344	344	828	828	4.0	8.0	8.0	12.0	12.0
4SDM4/10	4SD4/10	1½"	513	359	344	872	857	4.3	8.7	8.0	13.0	12.3
4SDM4/12	4SD4/12	1½"	571	379	379	950	950	4.8	9.8	9.8	14.6	14.6
4SDM4/14	4SD4/14	1½"	630	399	379	1029	1009	5.3	10.6	9.8	15.9	15.1
4SDM4/16	4SD4/16	1½"	688	424	424	1112	1112	5.9	11.7	11.7	17.6	17.6
4SDM4/18	4SD4/18	1½"	778	449	424	1227	1202	6.4	12.9	11.7	19.3	18.1
4SDM4/21	4SD4/21	1½"	866	502	514	1368	1380	7.2	15.7	15.7	22.9	22.9
4SDM4/24	4SD4/24	1½"	953	542	514	1495	1467	8.1	17.7	15.7	25.8	23.8
4SDM4/28	4SD4/28	1½"	1070	594	554	1664	1624	9.1	19.8	17.7	28.9	25.8
-	4SD4/32	1½"	1167	-	594	-	1781	10.2	-	19.8	-	30.0
-	4SD4/36	1½"	1335	-	658	-	1993	11.3	-	21.4	-	32.7
-	4SD4/40	1½"	1452	-	698	-	2150	12.4	-	23.7	-	36.1
-	4SD4/45	1½"	1598	-	738	-	2336	13.7	-	25.5	-	39.2
-	4SD4/50	1½"	1744	-	788	-	2532	15.1	-	26.0	-	43.1
-	4SD4/56	1½"	1951	-	848	-	2799	16.7	-	30.0	-	46.7
-	4SD4/62	1½"	2126	-	908	-	3034	18.4	-	34.0	-	52.4

* M(s) is single phase motor, M(T) is three phase motor.

* T(s) is single phase motor, T(T) is three phase motor.

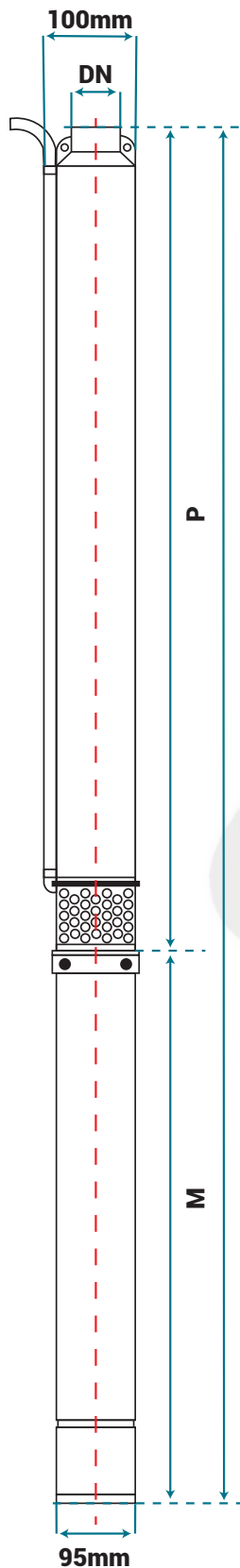


MODEL		DN	DIMENSIONS (mm)					WEIGHTS (kg)				
1 - 220-240V	3 - 380 - 415V		P	M(S)	M(T)	T(S)	T(T)	P	M(S)	M(T)	T(S)	T(T)
4SDM6/5	4SD6/5	1 3/4"	400	314	314	714	714	3.0	6.7	6.7	9.7	9.7
4SDM6/6	4SD6/6	1 3/4"	435	329	329	764	764	3.3	7.3	7.3	10.6	10.6
4SDM6/7	4SD6/7	1 3/4"	469	344	344	813	813	3.6	8.0	8.0	11.6	11.6
4SDM6/8	4SD6/8	1 3/4"	504	359	344	863	848	3.8	8.7	8.0	12.5	11.8
4SDM6/9	4SD6/9	1 3/4"	538	379	379	917	917	4.1	9.8	9.8	13.9	13.9
4SDM6/11	4SD6/11	1 3/4"	607	399	379	1006	986	4.7	10.6	9.8	15.3	14.5
4SDM6/12	4SD6/12	1 3/4"	642	424	424	1066	1066	5.0	11.7	11.7	16.7	16.7
4SDM6/14	4SD6/14	1 3/4"	742	449	424	1191	1166	5.6	12.9	11.7	18.5	17.3
4SDM6/17	4SD6/17	1 3/4"	846	502	514	1348	1360	6.4	15.7	15.7	22.1	22.1
4SDM6/20	4SD6/20	1 3/4"	949	542	514	1491	1463	7.3	17.7	15.7	25.0	23.0
4SDM6/23	4SD6/23	1 3/4"	1053	594	554	1647	1607	8.1	19.8	17.7	27.9	25.8
-	4SD6/26	1 3/4"	1156	-	594	-	1750	9.0	-	19.8	-	28.8
-	4SD6/30	1 3/4"	1326	-	658	-	1984	1.01	-	21.4	-	31.5
-	4SD6/34	1 3/4"	1464	-	698	-	2162	11.3	-	23.7	-	35.0
-	4SD6/38	1 3/4"	1602	-	738	-	2340	12.4	-	25.5	-	37.9
-	4SD6/42	1 3/4"	1740	-	788	-	2528	13.6	-	28.0	-	41.6
-	4SD6/47	1 3/4"	1944	-	848	-	2792	15.0	-	30.0	-	45
-	4SD6/52	1 3/4"	2116	-	908	-	3024	16.4	-	34.0	-	50.4
4SDM8/5	4SD8/5	1 3/4"	418	329	329	747	747	3.0	7.3	7.3	10.3	10.3
4SDM8/6	4SD8/6	1 3/4"	456	344	344	800	800	3.2	8.0	8.0	11.2	11.2
4SDM8/7	4SD8/7	1 3/4"	494	359	344	853	838	3.6	8.7	8.0	12.3	11.6
4SDM8/8	4SD8/8	1 3/4"	532	379	379	911	911	3.9	9.8	9.8	13.7	13.7
4SDM8/9	4SD8/9	1 3/4"	570	399	379	969	949	4.2	10.6	9.8	14.8	14.0
4SDM8/10	4SD8/10	1 3/4"	609	424	424	1033	1033	4.5	11.7	11.7	16.2	16.2
4SDM8/12	4SD8/12	1 3/4"	717	449	424	1165	1141	5.1	12.9	11.7	18.0	16.8
4SDM8/14	4SD8/14	1 3/4"	793	502	514	1295	1307	5.7	15.7	15.7	21.4	21.4
4SDM8/17	4SD8/17	1 3/4"	907	542	514	1449	1421	6.6	17.7	15.7	24.3	22.3
4SDM8/20	4SD8/20	1 3/4"	1021	594	554	1615	1575	7.5	19.8	17.7	27.3	25.2
-	4SD8/23	1 3/4"	1136	-	594	-	1730	8.4	-	19.8	-	28.2
-	4SD8/26	1 3/4"	1250	-	658	-	1908	9.2	-	21.4	-	30.6
-	4SD8/29	1 3/4"	1396	-	698	-	2094	10.1	-	23.7	-	33.8
-	4SD8/33	1 3/4"	1548	-	738	-	2286	11.3	-	25.5	-	36.8
-	4SD8/37	1 3/4"	1701	-	788	-	2489	12.5	-	28.0	-	40.5
-	4SD8/41	1 3/4"	1884	-	848	-	2732	13.7	-	30.0	-	43.7
-	4SD8/45	1 3/4"	2037	-	908	-	2945	14.9	-	34.0	-	48.9

* M(S) is single phase motor, M(T) is three phase motor.

* T(S) is single phase motor, T(T) is three phase motor.

DIMENSIONS AND WEIGHTS

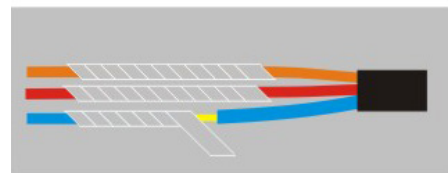
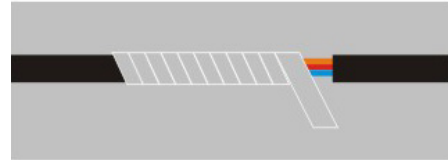
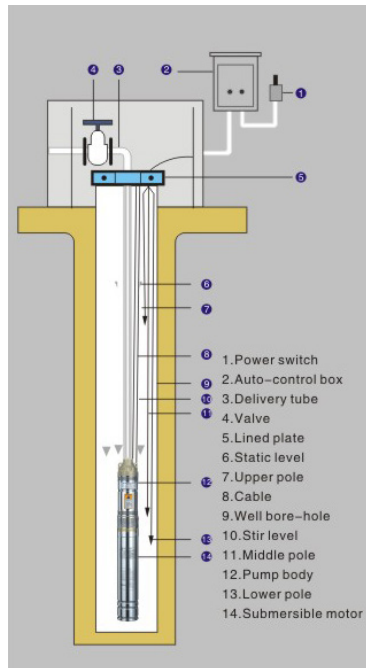


MODEL		DN	DIMENSIONS (mm)					WEIGHTS (kg)				
1 - 220-240V	3 - 380 - 415V		P	M(S)	M(T)	T(S)	T(T)	P	M(S)	M(T)	T(S)	T(T)
4SDM10/5	4SD10/5	2"	418	359	344	777	762	3.0	8.7	8.0	11.7	11.0
4SDM10/6	4SD10/6	2"	456	379	379	835	835	3.3	9.8	9.8	13.1	13.1
4SDM10/7	4SD10/7	2"	494	399	379	893	873	3.6	10.6	9.8	14.2	13.4
4SDM10/8	4SD10/8	2"	532	424	424	956	956	3.9	11.7	11.7	15.6	15.6
4SDM10/10	4SD10/10	2"	609	449	424	1058	1033	4.5	12.9	11.7	17.4	16.2
4SDM10/12	4SD10/12	2"	716	502	514	1218	1231	5.1	15.7	15.7	20.8	20.8
4SDM10/14	4SD10/14	2"	793	542	514	1335	1307	5.7	17.7	15.7	23.4	21.4
4SDM10/16	4SD10/16	2"	869	594	554	1463	1423	6.3	19.8	17.7	26.1	24.0
-	4SD10/18	2"	945	-	594	-	1539	6.9	-	19.8	-	26.7
-	4SD10/20	2"	1021	-	658	-	1679	7.5	-	21.4	-	28.9
-	4SD10/22	2"	1097	-	698	-	1796	8.1	-	23.7	-	31.8
-	4SD10/25	2"	1212	-	738	-	1950	9.0	-	25.5	-	34.5
-	4SD10/28	2"	1357	-	788	-	2146	9.8	-	28.0	-	37.8
-	4SD10/32	2"	1510	-	848	-	2358	11.0	-	30.0	-	41.0
-	4SD10/36	2"	1662	-	908	-	2570	12.2	-	34.0	-	46.2
4SDM12/4	4SD12/4	2"	452	359	344	811	796	3.1	8.7	8.0	11.8	11.1
4SDM12/5	4SD12/5	2"	508	379	379	887	887	3.5	9.8	9.8	13.3	13.3
4SDM12/6	4SD12/6	2"	564	399	379	963	943	3.8	10.6	9.8	14.4	13.6
4SDM12/7	4SD12/7	2"	620	424	424	1044	1044	4.2	11.7	11.7	15.9	15.9
4SDM12/8	4SD12/8	2"	676	449	424	1125	1100	4.6	12.9	11.7	17.5	16.3
4SDM12/10	4SD12/10	2"	819	502	514	1321	1334	5.4	15.7	15.7	21.1	21.1
4SDM12/12	4SD12/12	2"	931	542	514	1473	1445	6.1	17.7	15.7	23.8	21.8
4SDM12/14	4SD12/14	2"	1043	594	554	1637	1597	6.9	19.8	17.7	26.7	24.6
-	4SD12/16	2"	1155	-	594	-	1749	7.6	-	19.8	-	27.4
-	4SD12/18	2"	1298	-	658	-	1956	8.4	-	21.4	-	29.8
-	4SD12/20	2"	1410	-	698	-	2108	9.2	-	23.7	-	32.9
-	4SD12/23	2"	1578	-	738	-	2316	10.3	-	25.5	-	35.8
-	4SD12/26	2"	1745	-	788	-	2533	11.4	-	28.0	-	39.4
-	4SD12/29	2"	1944	-	848	-	2793	12.6	-	30.0	-	42.6
-	4SD12/32	2"	2143	-	908	-	3020	13.7	-	34.0	-	47.7
4SDM16/4	4SD16/4	2"	502	399	379	907	881	3.4	10.6	9.8	14.0	13.2
4SDM16/5	4SD16/5	2"	570	424	424	994	995	3.8	11.7	11.7	15.5	15.5
4SDM16/6	4SD16/6	2"	639	449	424	1088	1063	4.3	12.9	11.7	17.2	16.0
4SDM16/8	4SD16/8	2"	807	502	514	1309	1322	5.2	15.7	15.7	20.9	20.9
4SDM16/9	4SD16/9	2"	876	542	514	1418	1390	5.6	17.7	15.7	23.3	21.3
4SDM16/11	4SD16/11	2"	1013	594	554	1607	1567	6.5	19.8	17.7	26.3	24.2
-	4SD16/12	2"	1081	-	594	-	1675	7.0	-	19.8	-	26.8
-	4SD16/14	2"	1218	-	658	-	1876	7.9	-	21.4	-	29.3
-	4SD16/16	2"	1386	-	698	-	2084	8.8	-	23.7	-	32.5
-	4SD16/18	2"	1523	-	738	-	2261	9.7	-	25.5	-	35.2
-	4SD16/20	2"	1660	-	788	-	2448	10.6	-	28.0	-	38.6
-	4SD16/23	2"	1897	-	848	-	2745	11.9	-	30.0	-	41.9
-	4SD16/25	2"	2034	-	908	-	2942	12.8	-	34.0	-	46.8

* M(S) is single phase motor, M(T) is three phase motor.

* T(S) is single phase motor, T(T) is three phase motor.

INSTALLING A BOREHOLE PUMP AND MOTOR



MAXIMUM CABLE LENGTH FROM PUMP TO STARTER

Type	kW	i_n (A)	1.5 mm ²	2.5 mm ²	4 mm ²	6 mm ²	10 mm ²	16 mm ²	25 mm ²
220V~/50H	0.37	4.2	111	185	295				
	0.55	4.5	80	133	211	315			
	0.75	6	58	96	153	229	377		
	1.1	9	48	79	153	190	316		
	1.5	10.3	34	57	92	137	228		
	2.2	14.6		43	68	102	169		
380V~/50H	0.37	1.4	768						
	0.55	2.2	489	811					
	0.75	2.3	416	691					
	1.1	3.4	281	467	744				
	1.5	4.2	219	363	579	862			
	2.2	5.5	153	254	405	605	997		
	3	7.9	113	188	300	447	736		
	4	9.6	89	147	235	350	578	909	
	5.5	13.6	66	109	174	260	427	671	
	7.5	17.6	49	81	130	193	319	501	746

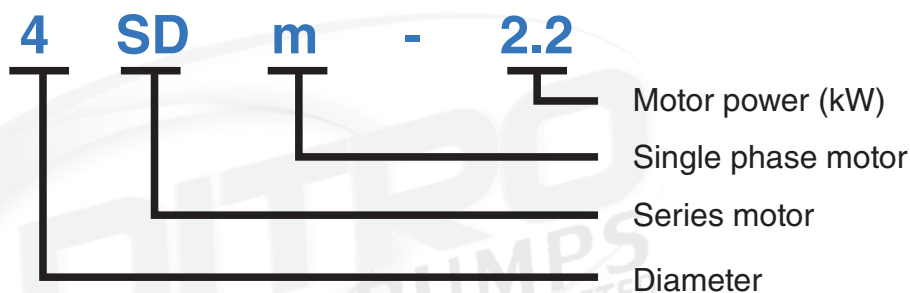
4" OIL FILLED MOTOR

20 Bar Single phase

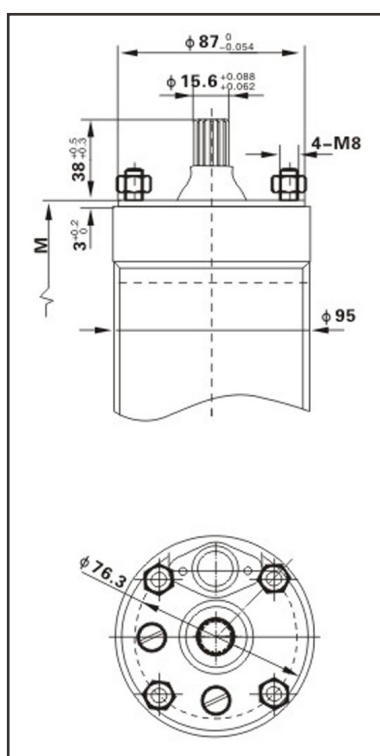


Motor technical data

Single phase power:	0.37 to 2.2 kW
Speed:	2850rpm
Voltage:	220 ~ 240V/50Hz
Insulation class:	B
Protection grade:	IP 68
Highest temperature of Liquid:	35°C
Maximum solid handling:	40g/m ³
Motor casing:	stainless steel
Maximum diameter:	Φ 95 mm
With sand proof cover/pressure balance membrane/mechanical seal for high performance.	
Flange and coupling according to NEMA standard.	

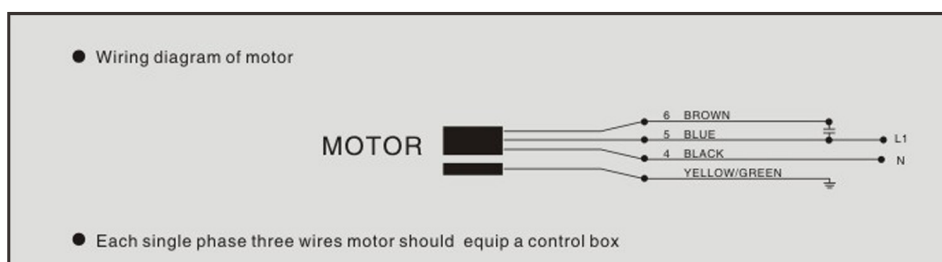


Motor dimensions



TYPE	MOTOR POWER		CAP	RUNNING	DIMENSIONS	
	kW	HP			Length (mm)	Weight (kg)
Single Phase 220V~/50HZ			μf	Amps		
4SDm-0.37	0.37	0.5	20	3.7	314	6.7
4SDm-0.55	0.55	0.75	25	4.7	329	7.3
4SDm-0.75	0.75	1.0	35	6.2	344	8.0
4SDm-1.1	1.1	1.5	45	8.0	399	10.6
4SDm-1.5	1.5	2.0	55	10.5	424	11.7
4SDm-2.2	2.2	3.0	60	15	502	15.7

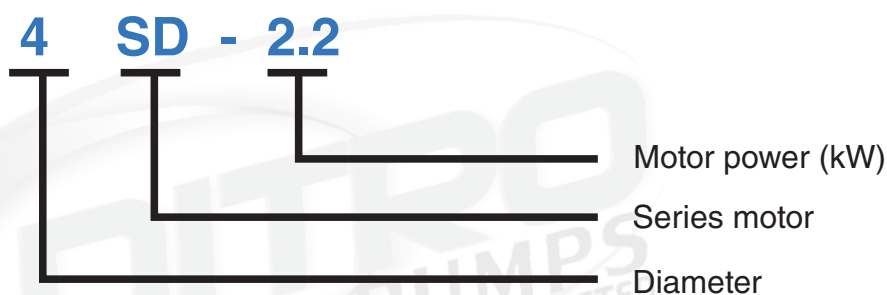
Motor wiring





Motor technical data

Three phase power:	0.37 to 7.5kW
Speed:	2850rpm
Voltage:	380 ~ 415V/50Hz
Insulation class:	B
Protection grade:	IP 68
Highest temperature of liquid:	35°C
Maximum solid handling:	40g/m ³
Motor casing:	stainless steel
Maximum diameter:	Φ 95 mm
With sand proof cover/pressure balance membrane/mechanical seal for high performance.	
Flange and coupling according to NEMA standard.	

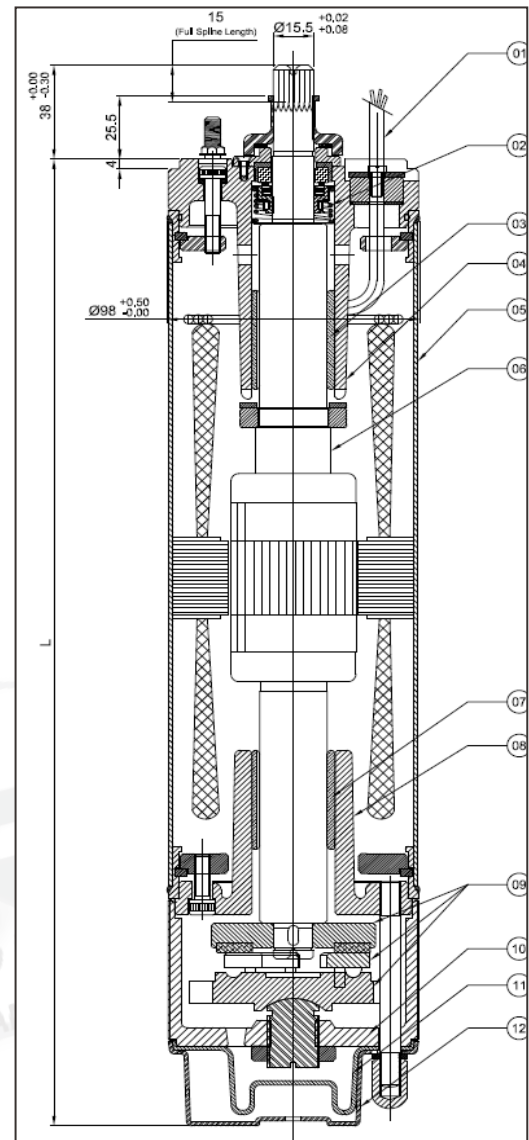


Motor dimensions

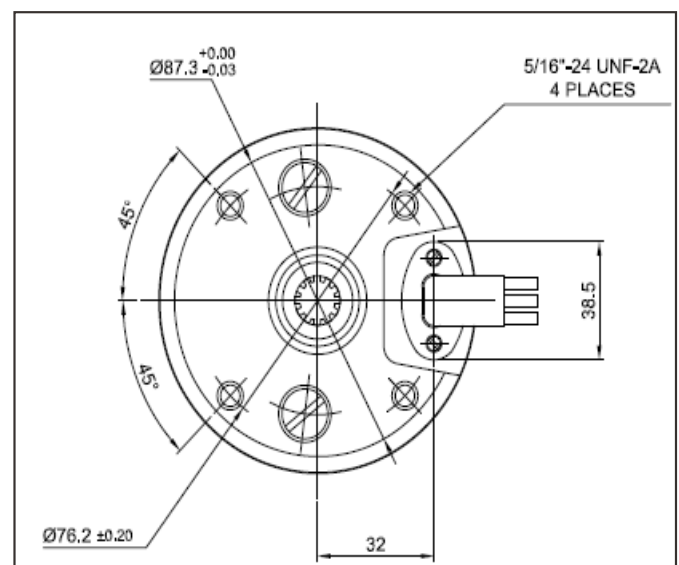
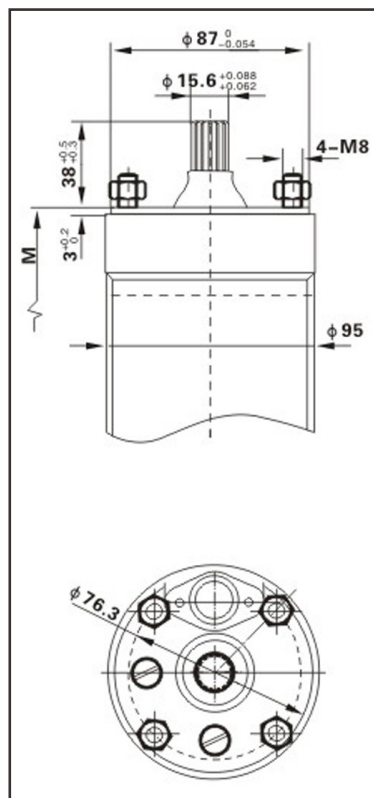
TYPE Three Phase 380V~/50HZ	MOTOR POWER			DIMENSIONS	
	kW	HP	RUNNING AMPS	Length (mm)	Weight (kg)
4SD - 0.37	0.37	0.5	1.5	314	6.7
4SD - 0.55	0.55	0.75	1.8	329	7.3
4SD - 0.75	0.75	1.0	2.5	344	8
4SD - 1.1	1.1	1.5	3.2	379	9.8
4SD - 1.5	1.5	2.0	4.3	424	11.7
4SD - 2.2	2.2	3.0	6.0	514	15.7
4SD - 3	3.0	4.0	8.0	594	19.8
4SD - 4	4.0	5.5	10.0	698	23.7
4SD - 5.5	5.5	7.5	13.0	788	28
4SD - 7.5	7.5	10.0	17.0	908	34

Motor parts

SERIAL NO.	PART NAME	MATERIAL
01	Cable 3 Core/ 4 Core	EPR
02	Mechanical Seal	Ceramic/Carbon
03	Bearing Bush	Carbon
04	Upper Housing	CI (FG-200)/S.S.304
05	Motor Pipe	Stainless Steel
06	Rotor shaft	S.S.420
07	Bearing Bush	Carbon
08	Lower Housing	CI (FG-200)
09	Thrust Bearing set	Carbon/S.S. 420
10	Lower Part - 2	CI (FG-200)
11	Pressure Cup	N.B.R.
12	Motor Base	S.S.304
13	All Hardware	S.S.316



Dimensional drawings



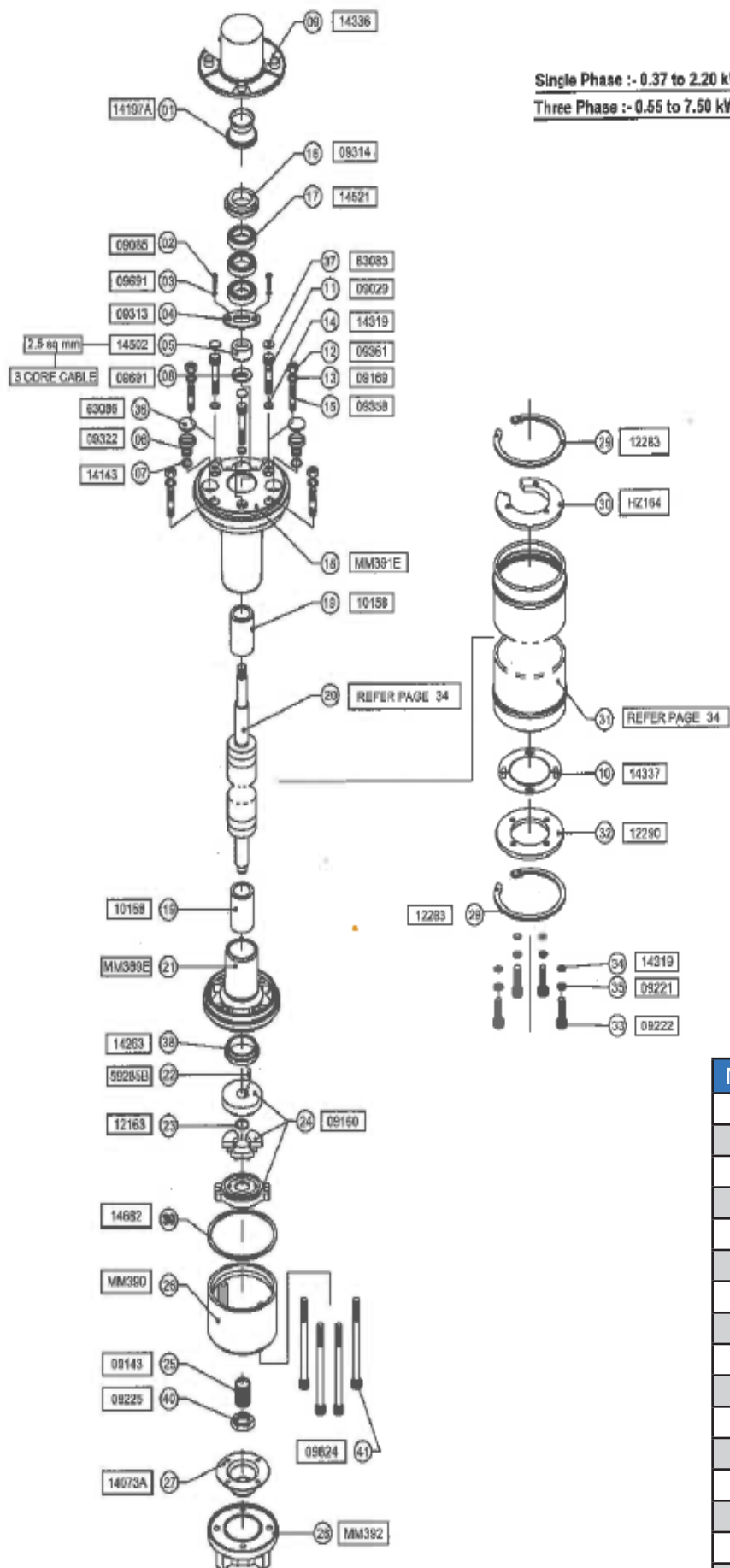
CSR PERFORMANCE DATA OF THREE PHASE MOTORS (380VOLT/50HZ)

P_N		THRUST LOAD	U_N	n_N	I_N	I_A	η (%)			$\cos\phi$			T_N	T_A
(kW)	(HP)	(N)	(V)	(min-1)	(A)	(A)	50	75	100	50	75	100	(Nm)	(Nm)
0.55	0.75	1500	380	2830	1.60	6.00	61	67	67	0.59	0.72	0.80	1.90	3.10
0.75	1	1500	380	2850	2.10	8.90	63	68	70	0.57	0.70	0.79	2.50	4.80
1.1	1.5	3000	380	2820	3.00	13.80	69	72	72	0.59	0.73	0.81	3.80	9.60
1.5	2	3000	380	2840	3.90	18.60	69	72	73	0.59	0.72	0.81	5.00	11.30
2.2	3	4000	380	2815	5.80	28.70	72	75	75	0.58	0.72	0.81	7.60	21.70
3	4	4000	380	2795	8.80	30.60	69	72	70	0.59	0.72	0.83	10.50	21.44
4	5.5	4000	380	2785	10.80	32.30	63	67	70	0.73	0.79	0.83	13.40	21.24
5.5	7.5	4000	380	2785	14.80	50.50	70	73	74	0.75	0.79	0.84	18.93	37.18
7.5	10	4000	380	2850	18.00	61.00	71	72	73	0.99	0.95	0.91	24.60	45.00

P_N	-	Rated Output	η	-	Motor Efficiency
U_N	-	Rated Voltage	$\cos\phi$	-	Power Factor
n_N	-	RPM	T_N	-	Full Load Torque
I_N	-	Full Load Current	T_A	-	Starting Torque
I_A	-	Starting Current	$F_{[N]}$	-	Axial Thrust Load

Single Phase :- 0.37 to 2.20 kW

Three Phase :- 0.55 to 7.50 kW



No	Part Name	No	Part Name
1	Sand Guard	22	Key
2	Cable clip screw	23	Circlip (external)
3	Cable washer	24	Thrust bearing pad
4	Cable clip	25	Rocker
5	Cable grommet	26	Lower housing part2
6	Drain plug	27	Pressure cup
7	Drain plug o-ring	28	Motor base
8	Cable washer	29	Circlip (internal)
9	Couple cap	30	Upper flange
10	Winding cap	31	Stator body
11	Allen bolt	32	Lower flange
12	Hex nut	33	Allen bolt
13	Spring washer	34	Stud o-ring
14	Allen bolt o-ring	35	Stud washer
15	Upper stud	36	Drain plug cap
16	Oil seal collar	37	Allen bolt cap
17	Oil Seal	38	C. T. Bearing
18	Upper housing	39	Lower gasket
19	Bearing bush	40	Rocker nut
20	Rotor shaft	41	Allen bolt
21	Lower housing		

4" OIL FILLED MOTOR 220V

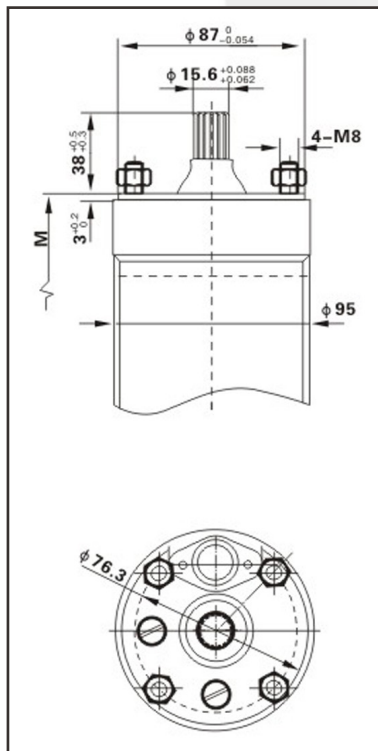
3 Phase - Solar Application



Motor technical data

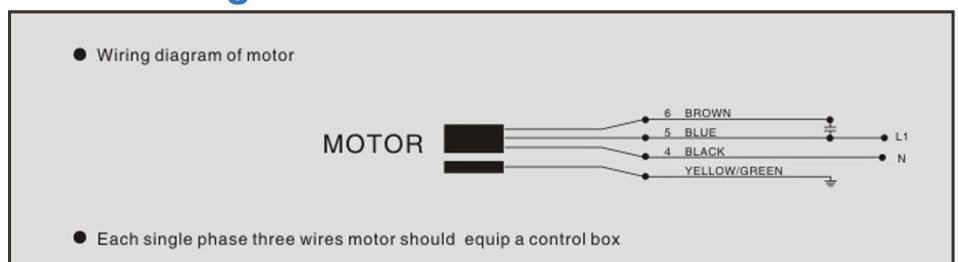
Single phase power:	0.75 to 5.5 kW
Speed:	2850rpm
Voltage:	220 3 phase
Insulation class:	B
Protection grade:	IP 68
Highest temperature of liquid:	35°C
Maximum solid handling:	40g/m ³
Motor casing:	stainless steel
Maximum diameter:	Φ 95 mm
With sand proof cover/pressure balance membrane/ mechanical seal for high performance.	
Flange and coupling according to NEMA standard.	

Motor dimensions



TYPE	MOTOR POWER		RUNNING	DIMENSIONS	
	kW	HP	Amps	Length (mm)	Weight (kg)
Single Phase 220V~/50HZ					
4SD-0.37	0.37	0.5	2.8	314	6.7
4SD-0.55	0.55	0.75	3.6	329	7.3
4SD-0.75	0.75	1.0	4	344	8.0
4SD-1.1	1.1	1.5	5.9	399	10.6
4SD-1.5	1.5	2.0	7.8	424	11.7
4SD-2.2	2.2	3.0	11.6	344	8.0
4SD-4.0	4	5.5	17	698	23.7
4SD-5.5	5.5	7.5	21	788	28

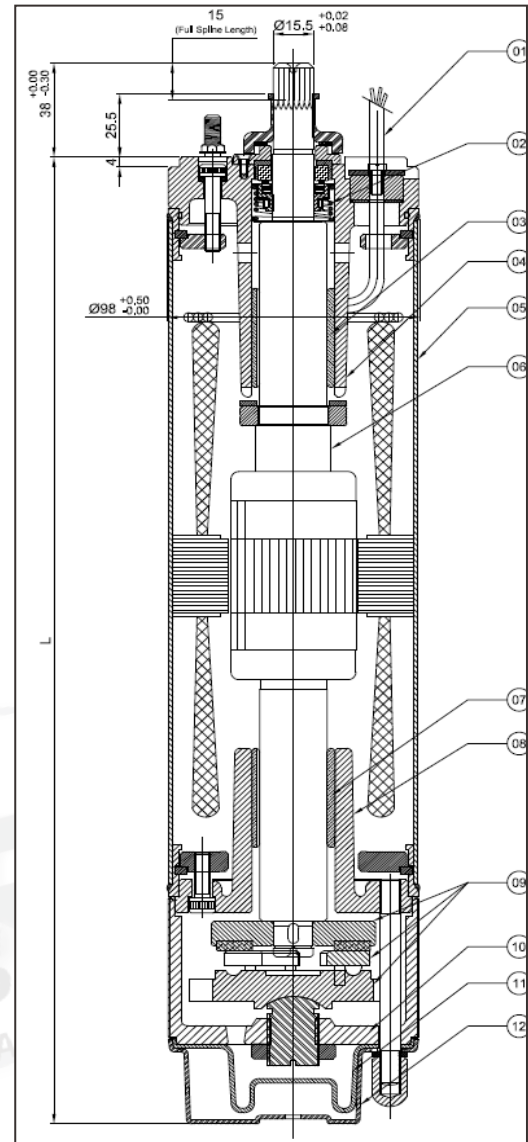
Motor wiring



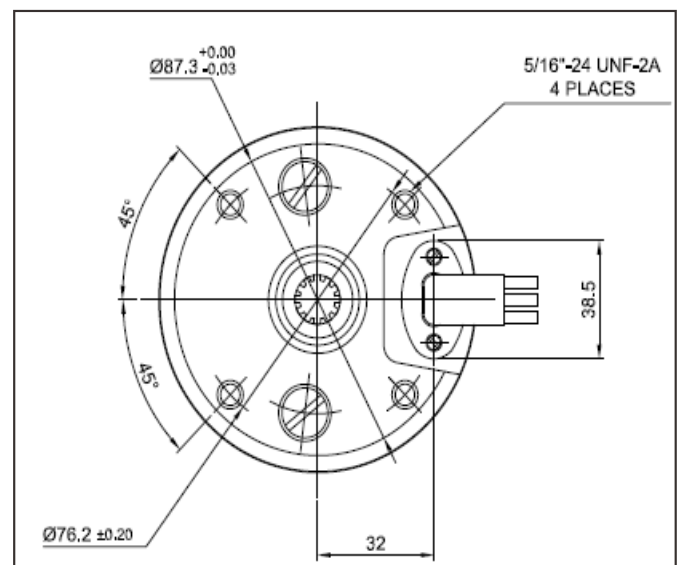
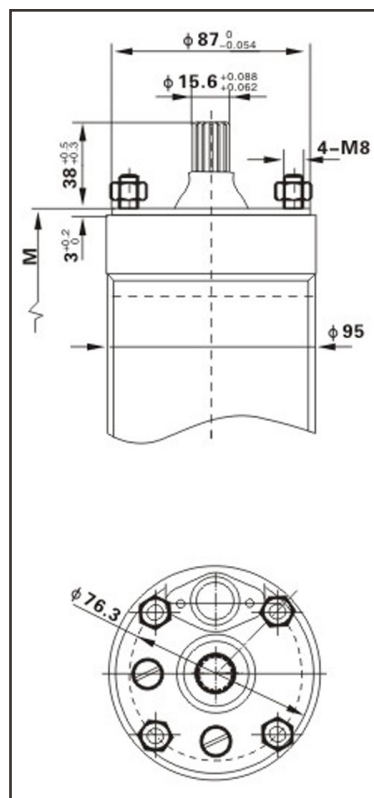
*Note: These motors make use of our AC-DC inverters
For more information go to the Solar Inverter AC-DC Catalogue (Solar Products)*

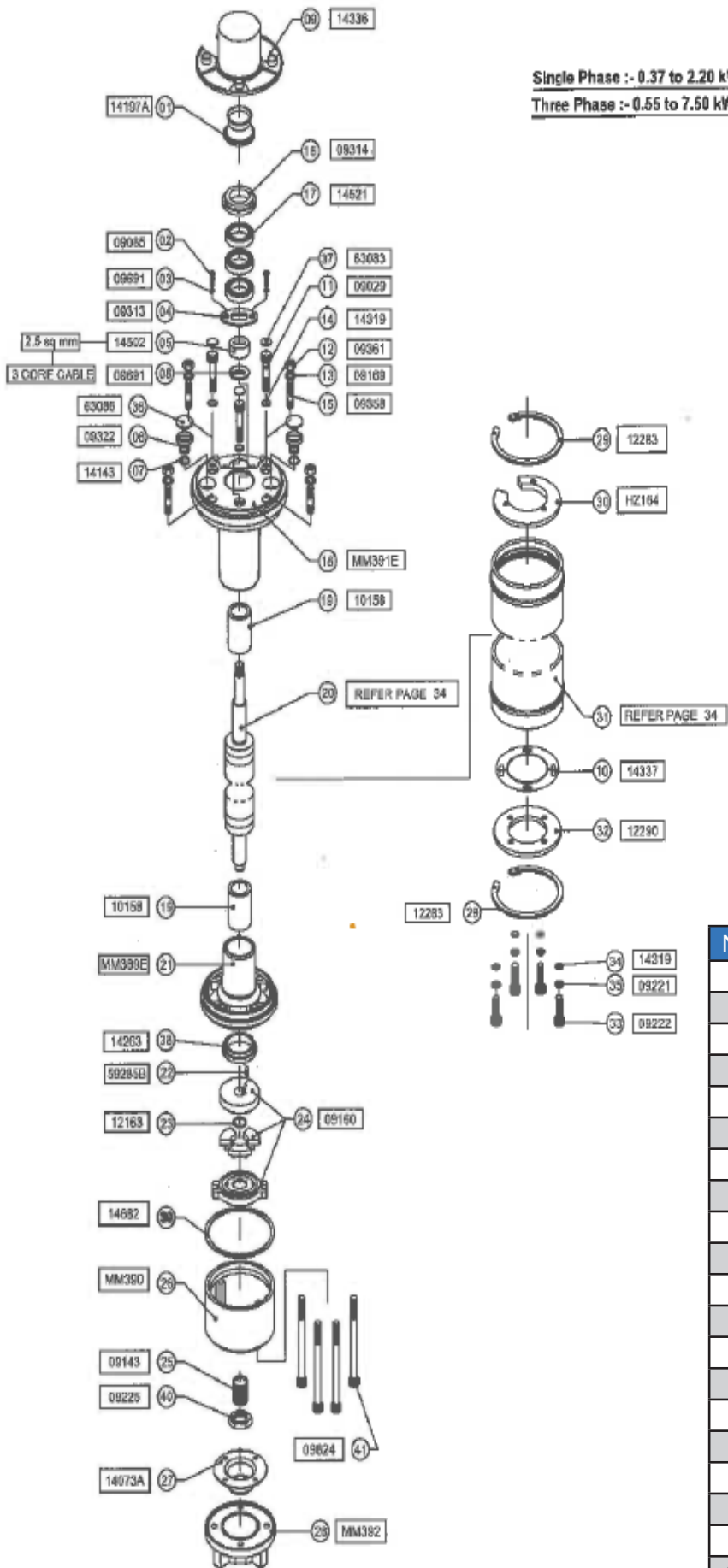
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11	Pressure Cup	N.B.R.
12	Motor Base	S.S.304
13	All Hardware	S.S.316



Dimensional drawings





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