



BOREHOLE PRODUCT RANGE

3SD 3" BOREHOLE PUMP

3SDM 3" BOREHOLE MOTOR

CONTROL BOX - SINGLE PHASE

2014 PRODUCT CATALOGUE
Q/S&M/BOREHOLE/3" CAT/14/03



3" BOREHOLE PUMP



APPLICATIONS

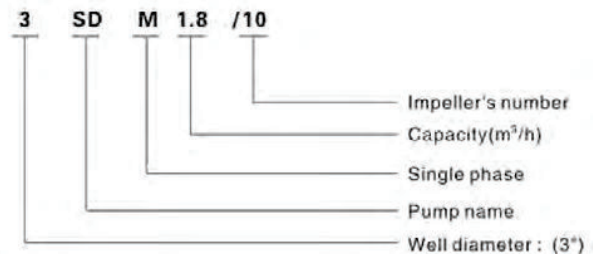
For water supply from wells or reservoirs.
For domestic use for civil and industrial applications.
For garden use and irrigation.

OPERATING CONDITIONS

Maximum fluid temperature: 35°C
Maximum solid content: 3%
Maximum immersion: 80m
Minimum well diameter: 3"

MOTOR AND PUMP

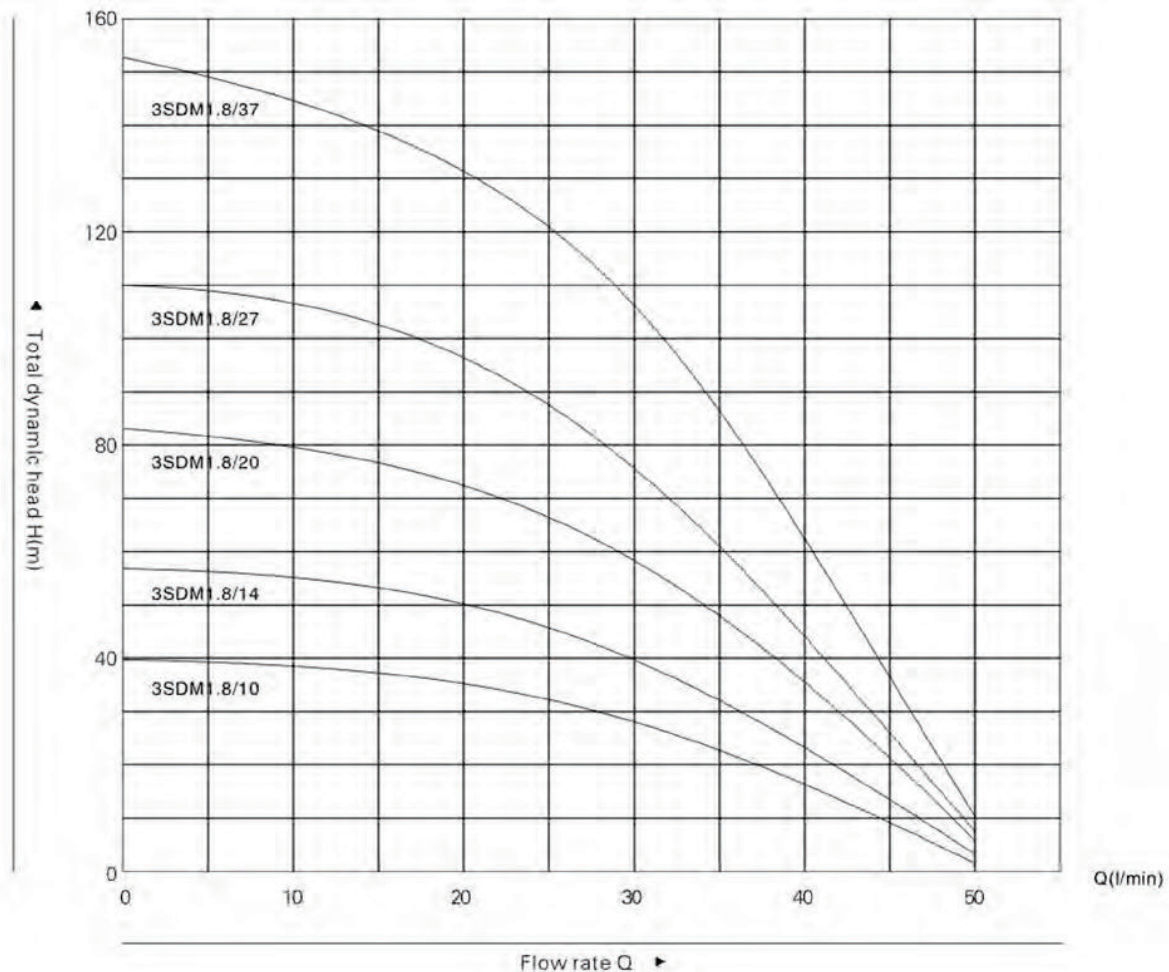
Internal diameter of outlet: 1"
Rewindable motor
Single-phase: 220V
Equipped with start control box
Pumps are designed by casing stressed
NEMA dimensions standards
Curve tolerance according to ISO 9001



MATERIALS

COMPONENTS	MATERIAL
Delivery casing	AISI 304 SS/201SS
Strainer	AISI 304 SS/201SS
Diffuser	Polycarbonate
Impeller	POM
Shaft	AISI 304 SS/2Cr13
Shaft coupling	AISI 304 SS/201SS
Wear ring	Rubber
Motor external casing	AISI 204 SS
Mechanical seal	Special seal for deep wells (carbor-sic/tc)
Shaft	AISI 304 SS/2Cr13
Bearing	NSK etc.
Seal lubricant oil	5# White Oil

PERFORMANCE CURVES



PERFORMANCE TABLE

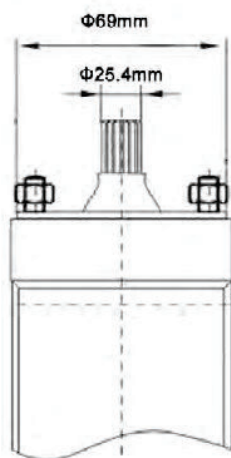
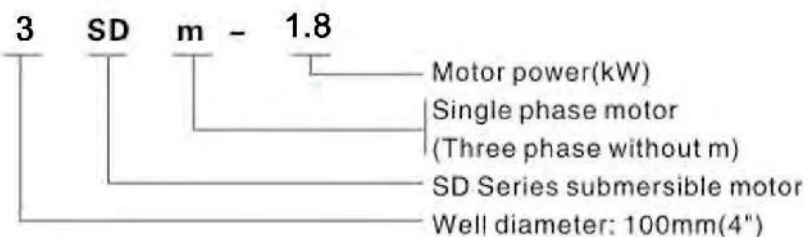
TYPE	MOTOR POWER		DELIVERY N ~ 2850 R/MIN											
	kW	HP	Q	m ³ /h l/min	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0
					0	5	10	15	20	25	30	35	40	50
3SDm1.8/10	0.25	0.33	H(m)		40	38	37	36	33	32	28	23	16	2
3SDm1.8/14	0.37	0.5			57	56	54	53	50	45	40	35	22	3
3SDm1.8/20	0.55	0.75			82	80	78	76	72	65	57	47	36	6
3SDm1.8/27	0.75	1.0			110	108	105	98	96	87	77	67	41	8
3SDm1.8/37	1.10	1.5			152	148	142	137	132	121	105	85	63	11

3" BOREHOLE MOTOR



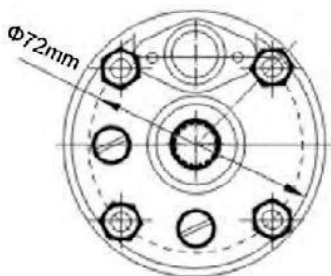
MOTOR TECHNICAL DATA

Single phase power:	0.25 to 1.1kW
Speed:	2850rpm
Voltage:	220V~/50Hz
Insulation class:	B
Protection grade:	IP 68
Maximum liquid temperature:	35°C
Maximum solid content:	40g/m ³
Motor casing:	stainless steel
Maximum diameter:	Φ74mm
With sandproof cover/pressure balance membrabe/mechanical seal for high performance.	
Flange and coupling according to NEMA standards.	



MOTOR DIMENSIONS

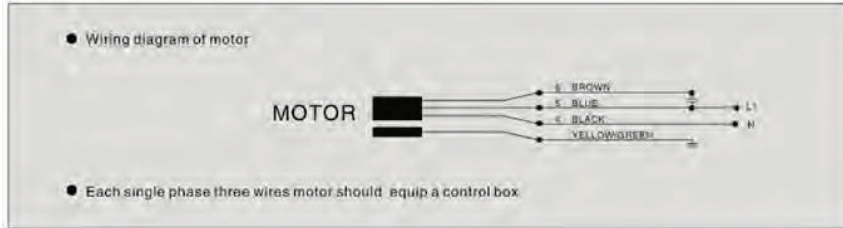
TYPE Single Phase 220 V~/50HZ	MOTOR POWER		DIMENSIONS	
	kW	HP	Length (mm)	Weight (kg)
3SDm - 0.25	0.25	0.33	296	5
3SDm - 0.37	0.37	0.5	321	6
3SDm - 0.55	0.55	0.75	365	7.3
3SDm - 0.75	0.75	1.0	416	9
3SDm - 1.1	1.10	1.5	481	10.6



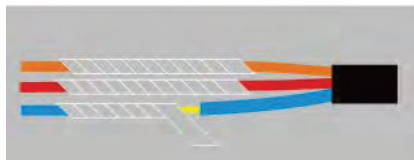
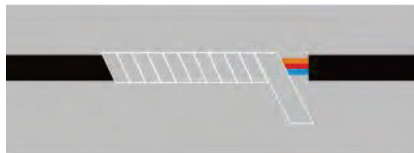
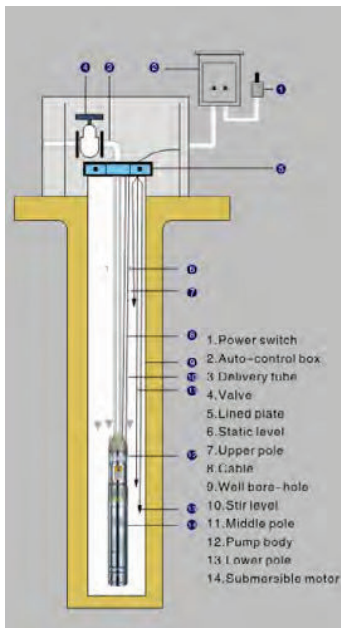
CSR PERFORMANCE DATA OF 3" SINGLE PHASE MOTOR (220Volt/50Hz)

P _N		THRUST LOAD	U _N	n _N	I _N	I _A	η (%)			COSφ			T _N	T _A
(kW)	(HP)	(N)	(V)	(min- 1)	(A)	(A)	50	75	100	50	75	100	(Nm)	(Nm)
0.25	0.33	1500	220	2798	2.4	6.3	35.1	41.2	44.2	0.95	0.97	0.99	0.85	0.68
0.37	0.5	1500	220	2811	3.1	9.3	37	46.4	52.1	0.95	0.96	0.97	1.26	1.02
0.55	0.75	1500	220	2802	4.3	13.1	44	50.6	57.8	0.92	0.94	0.96	1.87	1.41
0.75	1	1500	220	2801	6	18.1	46.1	50.7	58.1	0.92	0.94	0.95	2.55	1.92
1.1	1.5	1500	220	2809	7.7	25.6	53.4	56.1	62.9	0.94	0.96	0.97	3.74	2.77

MOTOR WIRING



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
220V~/50H	0.25	3.9	122	207			
	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

3" CONTROL BOX

TECHNICAL DATA

This single phase capacitor operating motor is equipped with an external capacitor and over-load protector.

APPLICATION RANGE

Type of motor:	Single phase motor
Motor power:	0.25-2.2kW
Voltage:	220V
Frequency:	50Hz



PRODUCT FUNCTIONS

Protects against short circuiting and over current.

OPERATING METHOD

Manual control.

INSTALLATION ENVIRONMENT INDEX

Grade protection:	IP20
Environment temperature:	-25°C to +55°C
Environment humidity:	(20-90)%RH

PERFORMANCE DATA

POWER		RUNNING CAPACITOR	MCB
kW	HP	Microfarad (μF)	Amp
0.25	0.33	16	6
0.37	0.50	20	8
0.55	0.75	30	10
0.75	1.00	40	15
1.1	1.50	50	15

