



EBARA



Agrometer a/s

Fælledvej 10 • 7200 Grindsted
Tlf. 76 72 13 00 • Fax 76 72 13 98
www.agrometer.dk • agrometer@agrometer.dk

	Page
- SPECIFICATIONS	200
SELECTION CHART	201
TYPE KEY	202
PERFORMANCE CHART COMPACT A	203
PERFORMANCE CHART COMPACT B	204
- CONSTRUCTIONS	300
SECTIONAL VIEW	300
MECHANICAL SEAL	301
MECHANICAL SEAL	302
DIAGRAM AND ELECTRIC CONNECTIONS	303
DIAGRAM AND ELECTRIC CONNECTIONS	304
- DIMENSIONS	400
PACKING	401
- TECHNICAL DATA	500

SPECIFICATIONS

50Hz

Rev E

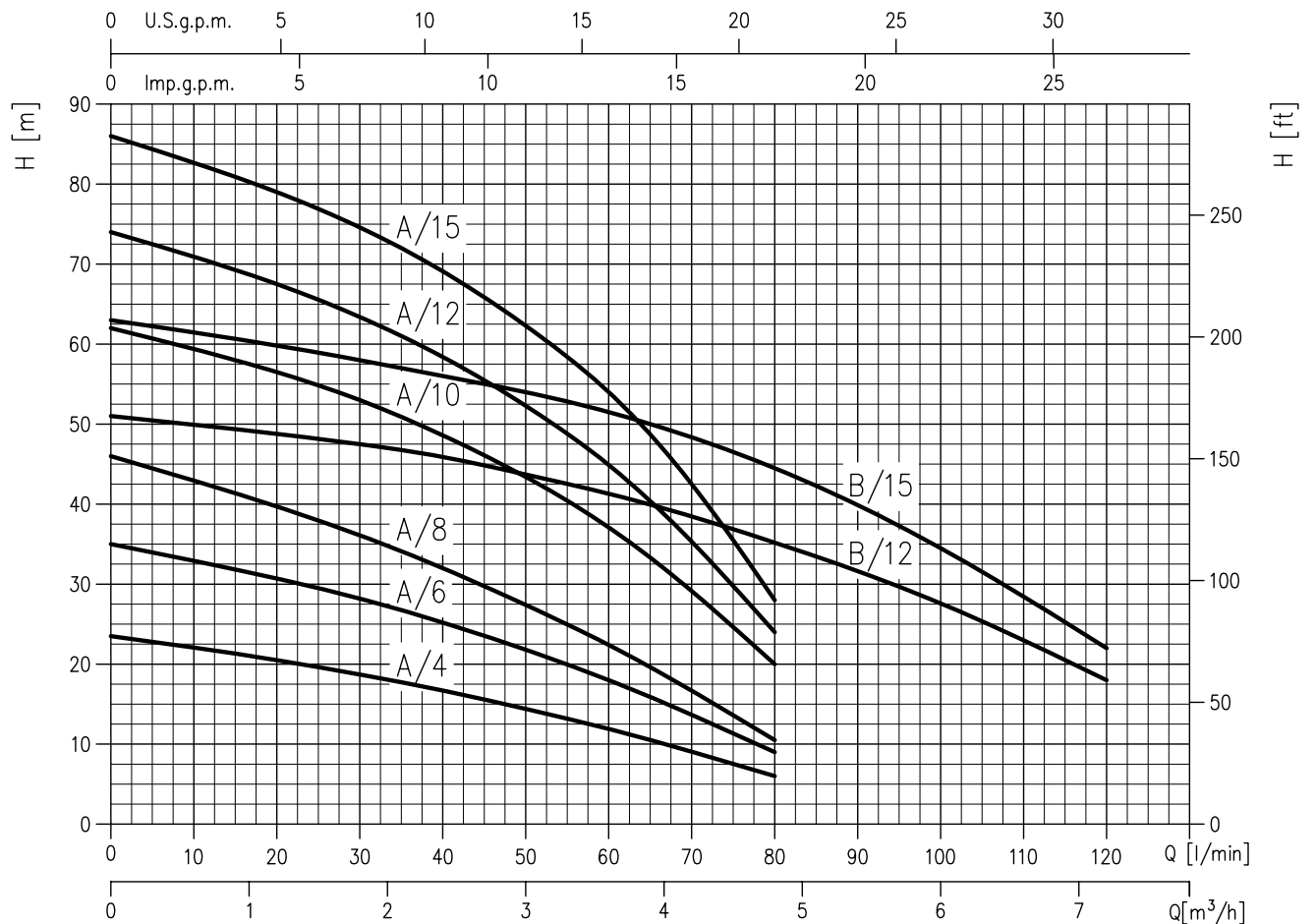
PUMP		
Liquid Handled	Type of liquid	Clean water
	Max temperature [°C]	40
Maximum working pressure [MPa]		1
Construction	Impeller	Closed centrifugal
	Shaft seal type	Mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction	G 1" (Compact A version) UNI ISO 228
		G 1"¼ (Compact B version) UNI ISO 228
	Discharge	G 1" (All version) UNI ISO 228
Material	Casing	Cast iron
	Impeller	Noryl®
	Shaft seal	Ceramic/Carbon/NBR
	External pump casing	AISI 304
	Shaft	AISI 416
	Stages	Noryl®/PTFE
	Diffuser	Noryl®
Bracket	Cast iron	
Applicable standard of test		ISO 9906 – Annex A

MOTOR		
Type	Electric - TEFC	
	Single Phase	Three Phase
No. of Poles	2	
Synchronous speed [min ⁻¹]	3000	
Insulation Class	F	
Protection degree	IP 44	
Power rating	[kW]	0.3 ÷ 1.1
	[HP]	0.4 ÷ 1.5
Frequency [Hz]	50	
Voltage [V]	230 ±10%	230/400 ±10%
Capacitor	Built in	-
Over load protection	Built in	Provided by the user
Casing material	Aluminium	
Base material/motor support	Cast iron	
Dimensions of cable entry	PG11	

SELECTION CHART

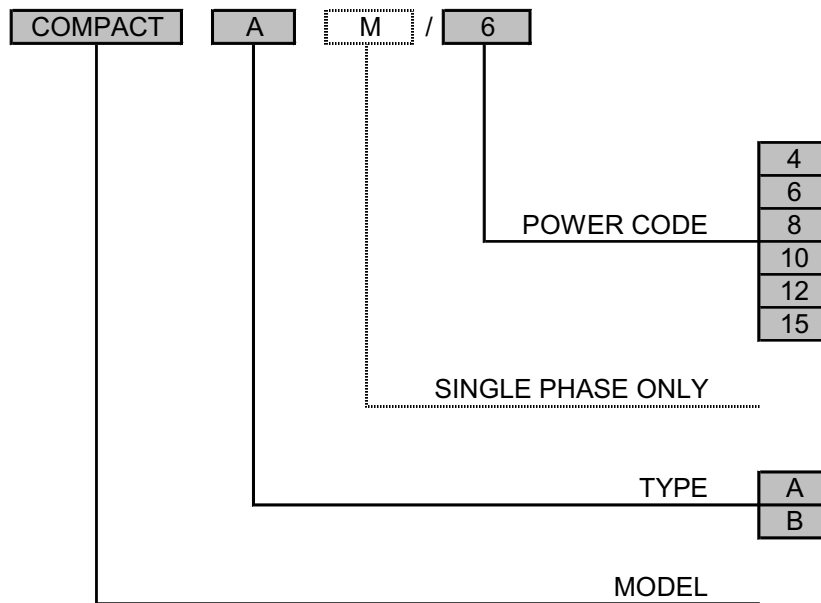
50Hz

Rev E



Type pumps		kW	HP	Q=Capacity							
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz			l/min m³/h	20 1.2	30 1.8	40 2.4	50 3	60 3.6	80 4.8	100 6
COMPACT AM/4	COMPACT A/4	0.3	0.4	21	18.7	16.7	14.4	11.9	6	-	-
COMPACT AM/6	COMPACT A/6	0.44	0.6	31	28.2	25.2	21.8	18	9	-	-
COMPACT AM/8	COMPACT A/8	0.6	0.8	40	36.1	32	27.4	22.4	10.5	-	-
COMPACT AM/10	COMPACT A/10	0.75	1	57	53	48.6	43.4	37.1	20	-	-
COMPACT AM/12	COMPACT A/12	0.9	1.2	68	63.4	58.4	52.3	44.9	24	-	-
COMPACT AM/15	COMPACT A/15	1.1	1.5	79	74.6	69.1	62.3	54	28	-	-
COMPACT BM/12	COMPACT B/12	0.9	1.2	-	47.5	45.9	43.7	41.3	35.2	27.6	18
COMPACT BM/15	COMPACT B/15	1.1	1.5	-	58	56	54	51.5	44.5	34.5	22

TYPE KEY:



Curve specifications

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9906 Annex A

The curves refer to effective speed of asynchronous motors at 50 Hz

Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)

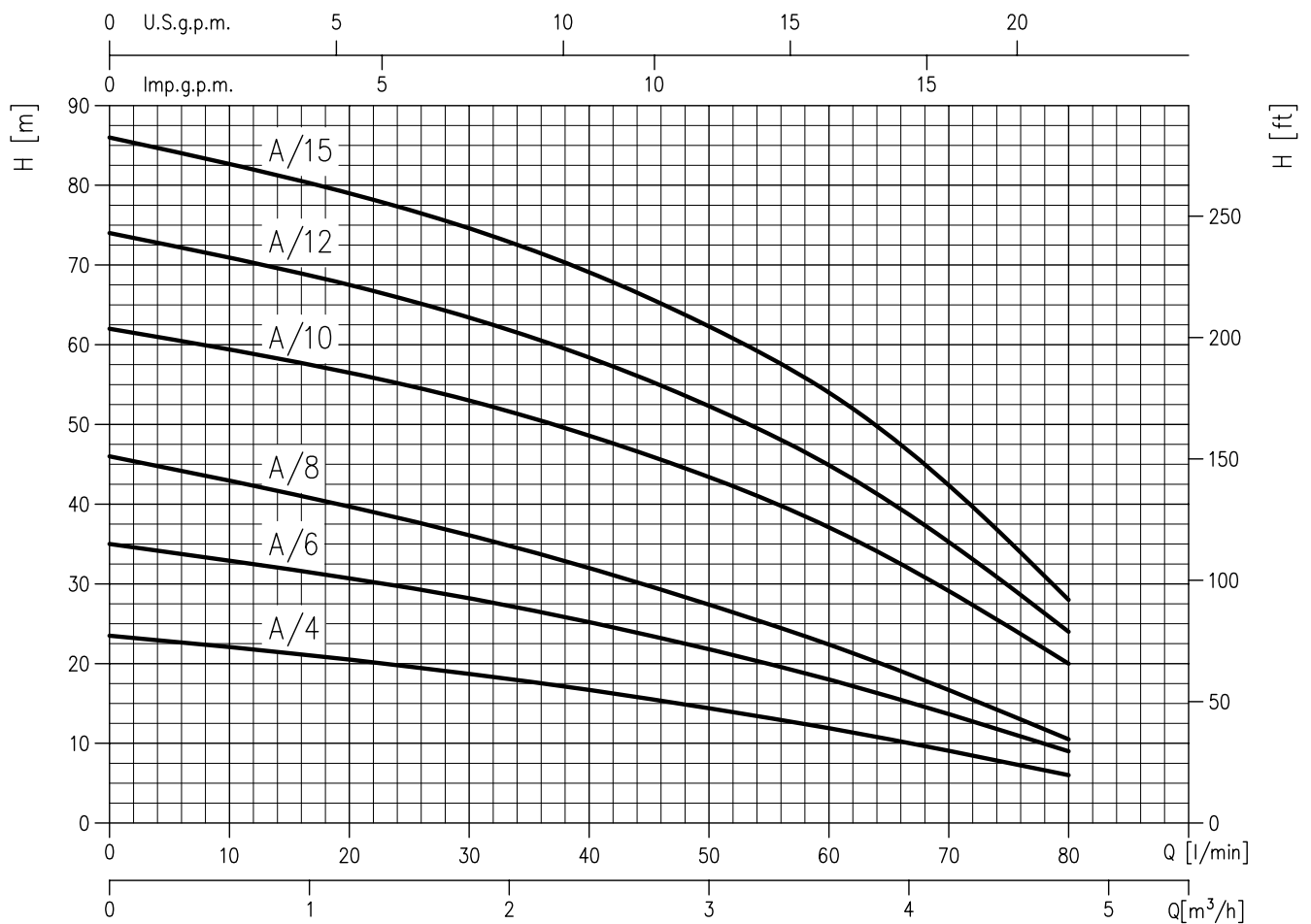
In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

Symbols explanation:

Q = volume flow rate

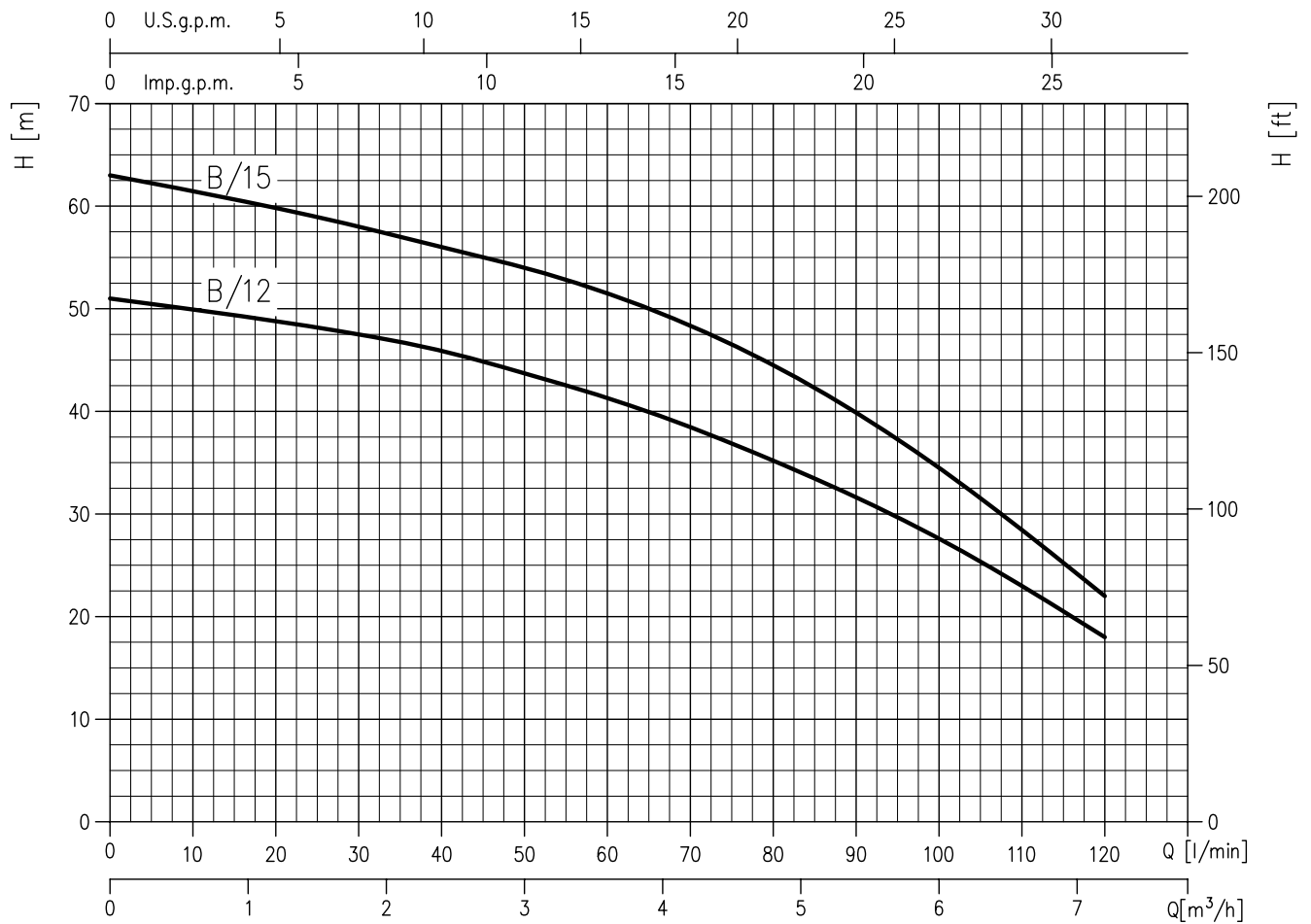
H = total head

COMPACT A/4 (0.3 kW)
COMPACT A/8 (0.6 kW)
COMPACT A/10 (0.75 kW)
COMPACT A/12 (0.9 kW)
COMPACT A/15 (1.1 kW)



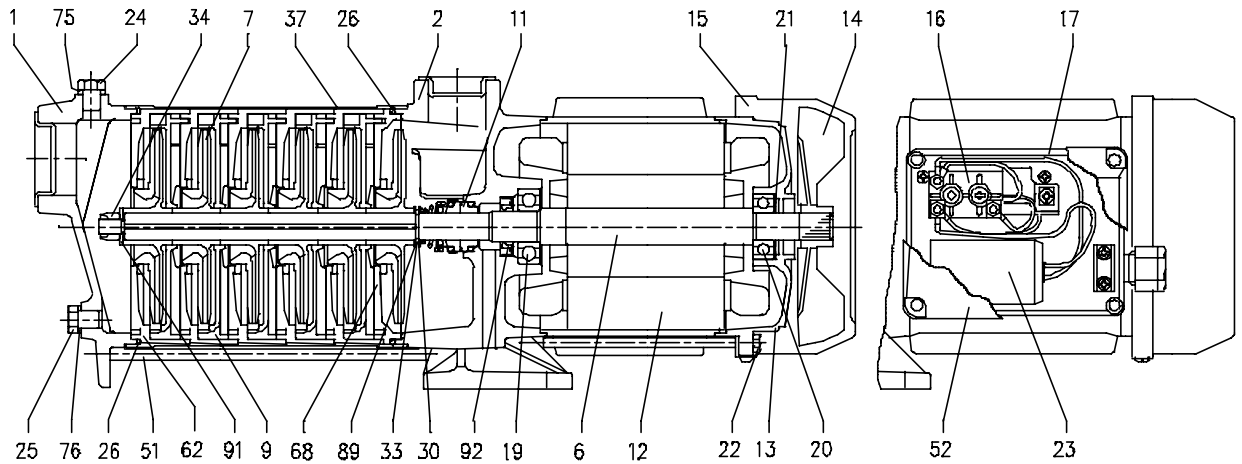
Impeller = Ø102 x 2.2 mm
 Test standard: ISO 9906 – Annex A

CVM B/12 (0.9 kW)
CVM B/15 (1.1 kW)



Impeller = Ø102 x 4 mm
Test standard: ISO 9906 – Annex A

SECTIONAL VIEW

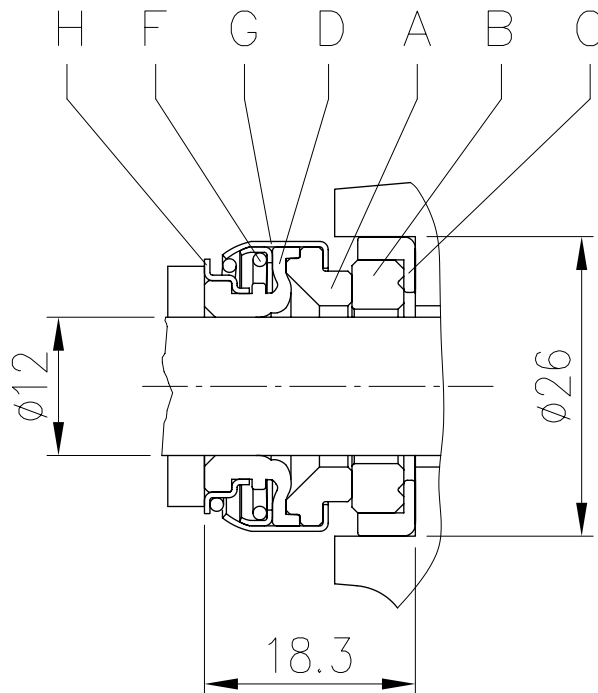


N°	PART NAME	MATERIAL	Q.TY	N°	PART NAME	MATERIAL	Q.TY
1	Suction casing	G20	1	23	Capacitor [1]	-	1
2	Delivery casing	G20	1	24	Priming plug	Brass	1
6	Shaft with rotor	AISI 416	1	25	Drain plug	Brass	1
7	Impeller	Noryl	[3]	26	O-ring	NBR	2
9	Diffuser	Noryl	[3]	30	Washer	AISI 304	1
11	Mechanical seal [2]	Carbon/Ceramic/NBR	1	33	Seeger ring	AISI 304	1
12	Motor frame with stator	-	1	34	Impeller nut	AISI 304	1
13	Motor cover	Aluminium	1	37	External pump casing	AISI 304	1
14	Fan	Polypropilene	1	51	Tie rod	Fe P04 Zinked	4
15	Fan cover	Fe P04 Zinked	1	52	Capacitor box [1]	Polypropilene	1
16	Terminal board	-	1	62	Stage housing	Noryl	[3]
17	Terminal box cover [2]	Aluminium [4] Polypropilene [1]	1	68	Stage	Noryl/PTFE	1
19	Pump side ball bearing	-	1	75	Washer	AISI 304	1
20	Fan side ball bearing	-	1	76	Washer	AISI 304	1
21	Adjusting ring	Steel C70	1	89	Washer	AISI 304	1
22	Tie rod	Fe 42 Zinked	4	91	Washer	AISI 304	1
				92	Lip seal	-	1

- [1] Only for single phase
- [2] See constructions mechanical seal 301-302
- [3] See following table

Type pumps	QUANTITY FOR MODEL		
	N° 7 Impeller	N° 9 Diffuser	N° 62 Stage housing
COMPACT A/4	2	1	1
COMPACT A/6	3	2	2
COMPACT A/8	4	3	3
COMPACT A/10	5	4	4
COMPACT A/12	6	5	5
COMPACT A/15	7	6	6
COMPACT B/12	4	3	3
COMPACT B/15	5	4	4

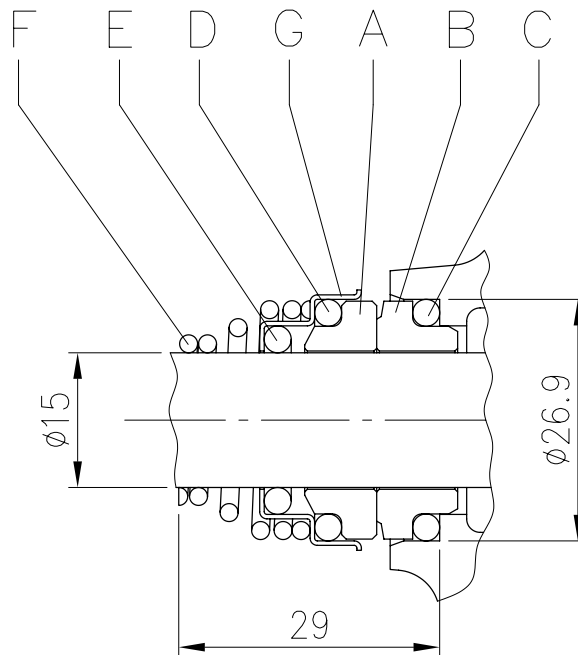
MECHANICAL SEAL



REF	PART NAME	MATERIAL
A	Rotary seal ring	carbon graphite
B	Stationary seal ring	ceramic
C	Gasket	NBR
D	Bellows	NBR
F	Self driving spring	AISI 304
G	Frame	AISI 304
H	Retainer ring	AISI 304

Version: Compact A/4 - Compact AM/4
 Compact A/6 - Compact AM/6
 Compact A/8 - Compact AM/8

MECHANICAL SEAL



REF	PART NAME	MATERIAL product standard
A	Rotary seal ring	ceramic
B	Stationary seal ring	carbon graphite
C	O Ring	NBR
D	O Ring	NBR
E	O Ring	NBR
F	Self driving spring	AISI 316
G	Frame	AISI 304

Version: Compact A/10 - Compact AM/10
 Compact A/12 - Compact AM/12
 Compact A/15 - Compact AM/15
 Compact B/12 - Compact BM/12
 Compact B/15 - Compact BM/15

DIAGRAM AND ELECTRIC CONNECTIONS

SINGLE PHASE MOTOR

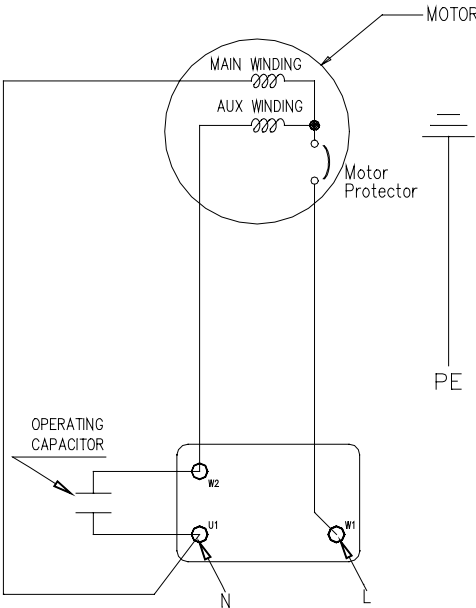
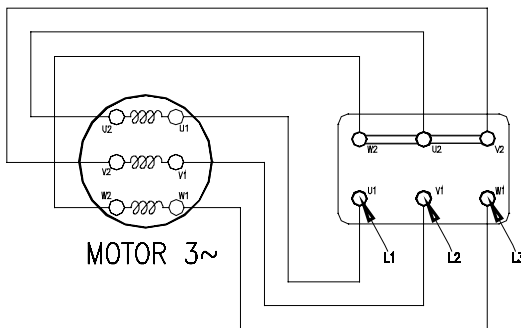


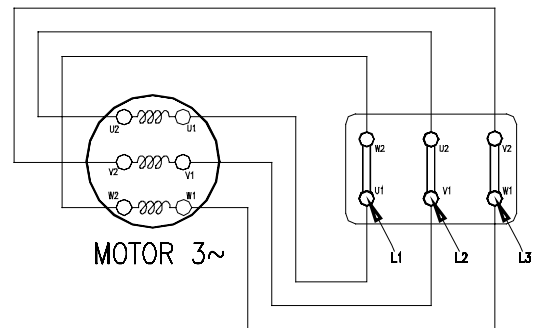
DIAGRAM AND ELECTRIC CONNECTIONS

THREE PHASE MOTOR

STAR CONNECTION

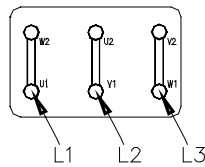


DELTA CONNECTION

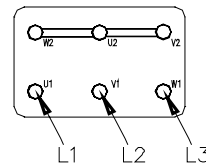


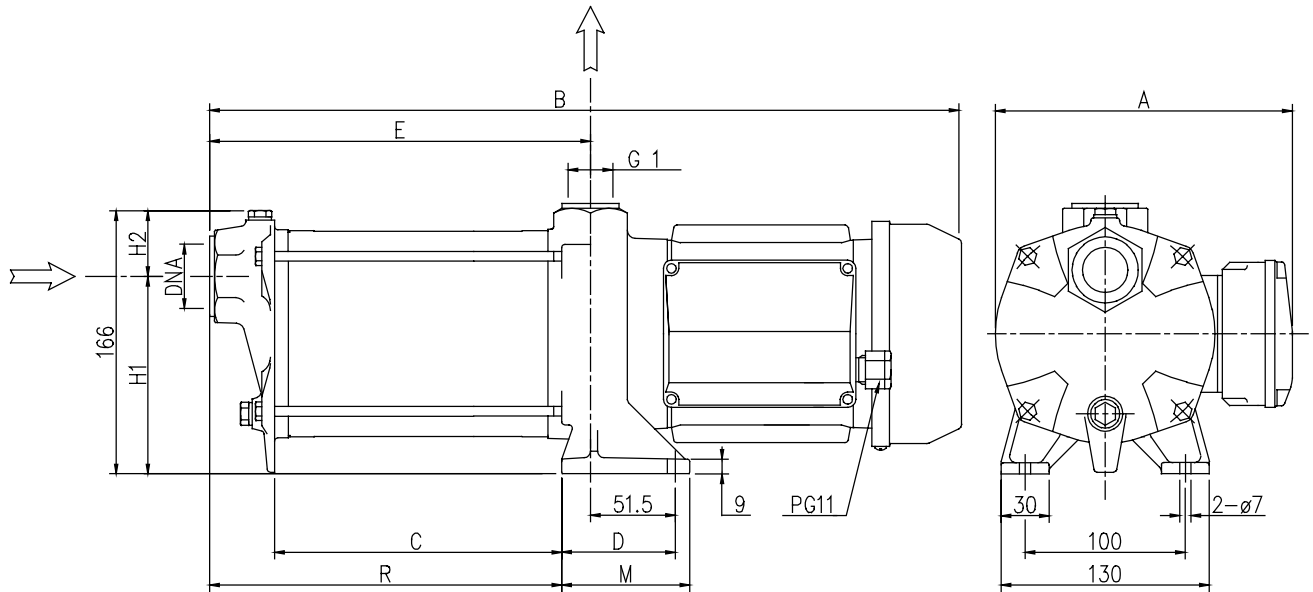
FOR MOTOR 4 kW AND BELOW

DELTA CONNECTION 230 V



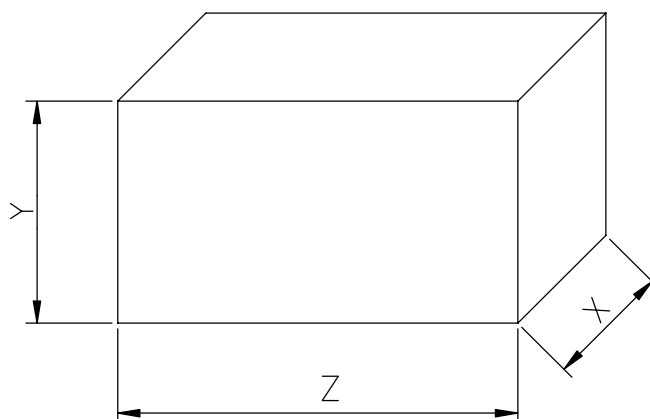
STAR CONNECTION 400 V





Pump type		Dimensions mm										
Single phase	Three phase	A		B	C	D	E	H1	H2	M	R	DNA
		[1]	[2]									
COMPACT AM/4	COMPACT A/4	159	183.5	307.5	82	51.5	120.5	127.5	38.5	62	120.5	G 1
COMPACT AM/6	COMPACT A/6	159	183.5	333.5	108	51.5	146.5	127.5	38.5	62	146.5	G 1
COMPACT AM/8	COMPACT A/8	159	183.5	359.5	134	51.5	172.5	127.5	38.5	62	172.5	G 1
COMPACT AM/10	COMPACT A/10	169	193.5	426	142	69.5	198.5	123.5	42.5	80	180.5	G 1
COMPACT AM/12	COMPACT A/12	169	193.5	452	168	69.5	224.5	123.5	42.5	80	206.5	G 1
COMPACT AM/15	COMPACT A/15	169	193.5	490	194	69.5	250.5	123.5	42.5	80	232.5	G 1
COMPACT BM/12	COMPACT B/12	169	193.5	400	116	69.5	172.5	123.5	42.5	80	154.5	G 1 1/4
COMPACT BM/15	COMPACT B/15	169	193.5	438	142	69.5	198.5	123.5	42.5	80	180.5	G 1 1/4

[1] = Only for three phase
 [2] = Only for single phase



Type pumps		PACKING [mm]			WEIGHT [kg]
Single Phase	Three Phase	X	Y	Z	
COMPACT AM/4	COMPACT A/4	375	185	195	8.4
COMPACT AM/6	COMPACT A/6	375	185	195	9.3
COMPACT AM/8	COMPACT A/8	375	185	195	10.3
COMPACT AM/10	COMPACT A/10	515	212	201	14.5
COMPACT AM/12	COMPACT A/12	515	212	201	15.5
COMPACT AM/15	COMPACT A/15	515	212	201	16.7
COMPACT BM/12	COMPACT B/12	515	212	201	14.9
COMPACT BM/15	COMPACT B/15	515	212	201	15.9

TECHNICAL DATA

50 Hz

Rev E

Type pumps		kW	HP	Capacitor		Input [kW]		Full load current [A]			Locked rotor current		
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz			Single Phase µF	VI	Single Phase	Three Phase	Single Phase	Three Phase 230 V	400 V	Single Phase 230 V 50 Hz	Three Phase 230 V 50 Hz	400 V 50 Hz
COMPACT AM/4	COMPACT A/4	0.3	0.4	10	450	0.53	0.50	2.5	1.9	1.1	8.6	8.7	5
COMPACT AM/6	COMPACT A/6	0.44	0.6	12.5	450	0.70	0.65	3.0	2.3	1.3	10.6	10.5	6.1
COMPACT AM/8	COMPACT A/8	0.6	0.8	14	450	0.90	0.82	4.0	2.6	1.5	13.2	13.1	7.6
COMPACT AM/10	COMPACT A/10	0.75	1	20	450	1.25	1.15	6.0	4.2	2.4	24	24.2	14
COMPACT AM/12	COMPACT A/12	0.9	1.2	31.5	450	1.38	1.30	6.2	4.7	2.7	25	28.6	16.5
COMPACT AM/15	COMPACT A/15	1.1	1.5	31.5	450	1.60	1.60	7.3	5.7	3.3	31	31.5	18.2
COMPACT BM/12	COMPACT B/12	0.9	1.2	31.5	450	1.30	1.30	5.8	4.7	2.7	25	28.6	16.5
COMPACT BM/15	COMPACT B/15	1.1	1.5	31.5	450	1.60	1.65	7.3	5.9	3.4	31	31.5	18.2

Type pumps		Ball Bearing	
Single Phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz	Pump side	Fan side
COMPACT AM/4	COMPACT A/4	6201 ZZ	6201 ZZ
COMPACT AM/6	COMPACT A/6	6201 ZZ	6201 ZZ
COMPACT AM/8	COMPACT A/8	6201 ZZ	6201 ZZ
COMPACT AM/10	COMPACT A/10	6203 ZZ	6202 ZZ
COMPACT AM/12	COMPACT A/12	6203 ZZ	6202 ZZ
COMPACT AM/15	COMPACT A/15	6203 ZZ	6202 ZZ
COMPACT BM/12	COMPACT B/12	6203 ZZ	6202 ZZ
COMPACT BM/15	COMPACT B/15	6203 ZZ	6202 ZZ