



CENTRIFUGAL PUMPS**CMR****CONTENTS****50Hz**

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CENTRIFUGAL PUMPS

CMR

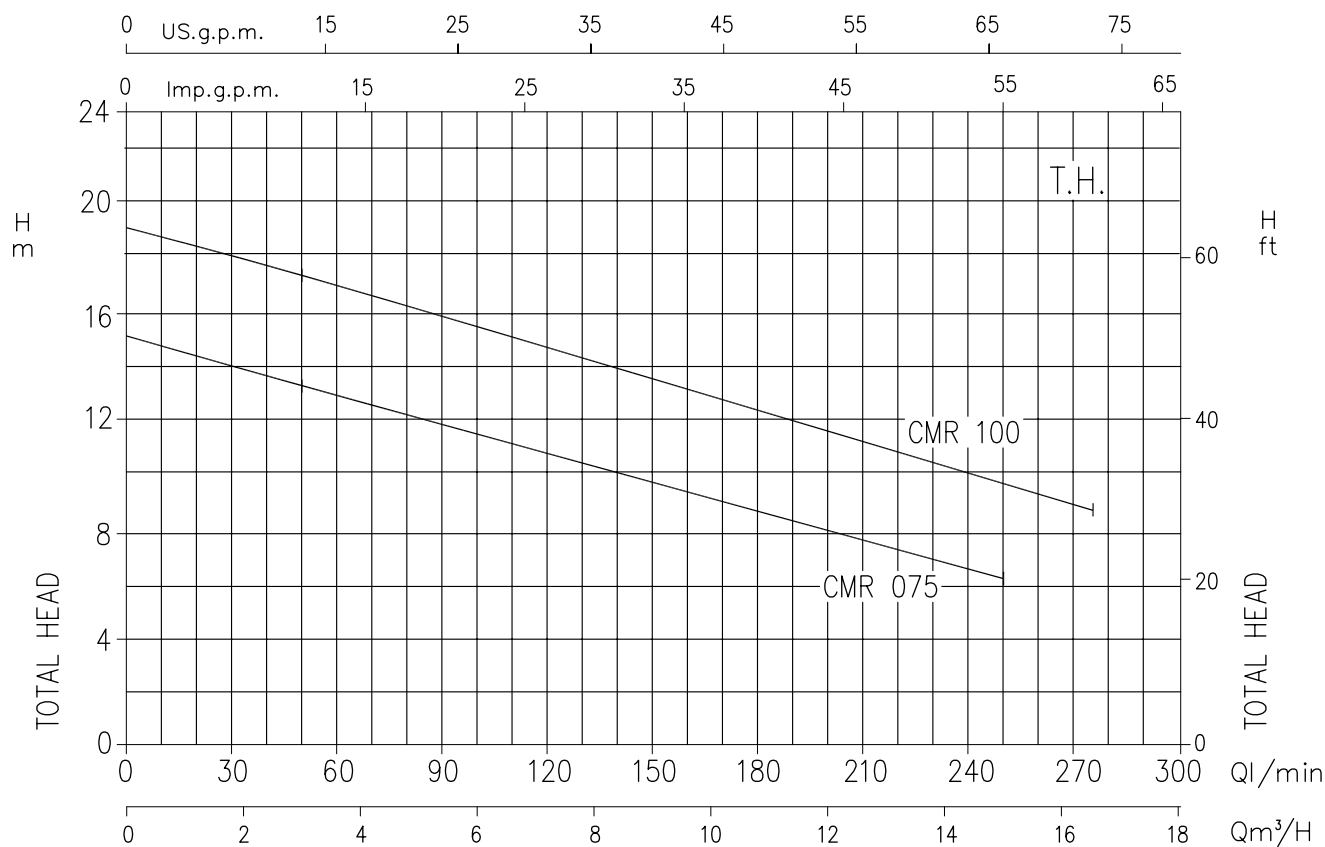
SPECIFICATIONS

50Hz

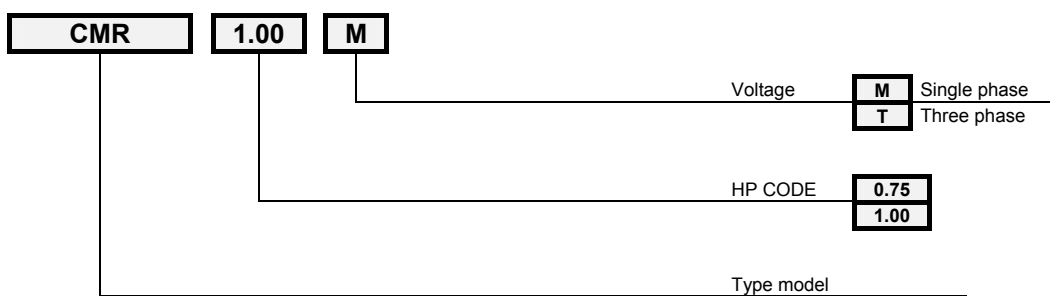
PUMP		
Liquid Handled	Type of liquid	Clean water
	Max temperature [°C]	90
Maximum working pressure [MPa]		0.6
Construction	Impeller	Open centrifugal
	Shaft seal type	Mechanical seal
	Bearing	Sealed ball bearing
Pipe Connection	Suction	G 1"½
	Discharge	G 1"½
Material	Casing	Cast iron
	Impeller	Brass
	Shaft seal	Ceramic/Carbon/NBR
	Shaft	AISI 416
	Bracket	Aluminium
	Casing cover	AISI 304
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	0.55 ÷ 0.75	
	0.75 ÷ 1	
Frequency [Hz]	50 Hz	
Voltage [V]	230V ±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 / Plastic foot	
Dimensions of cable entry	PG11	

CENTRIFUGAL PUMPS

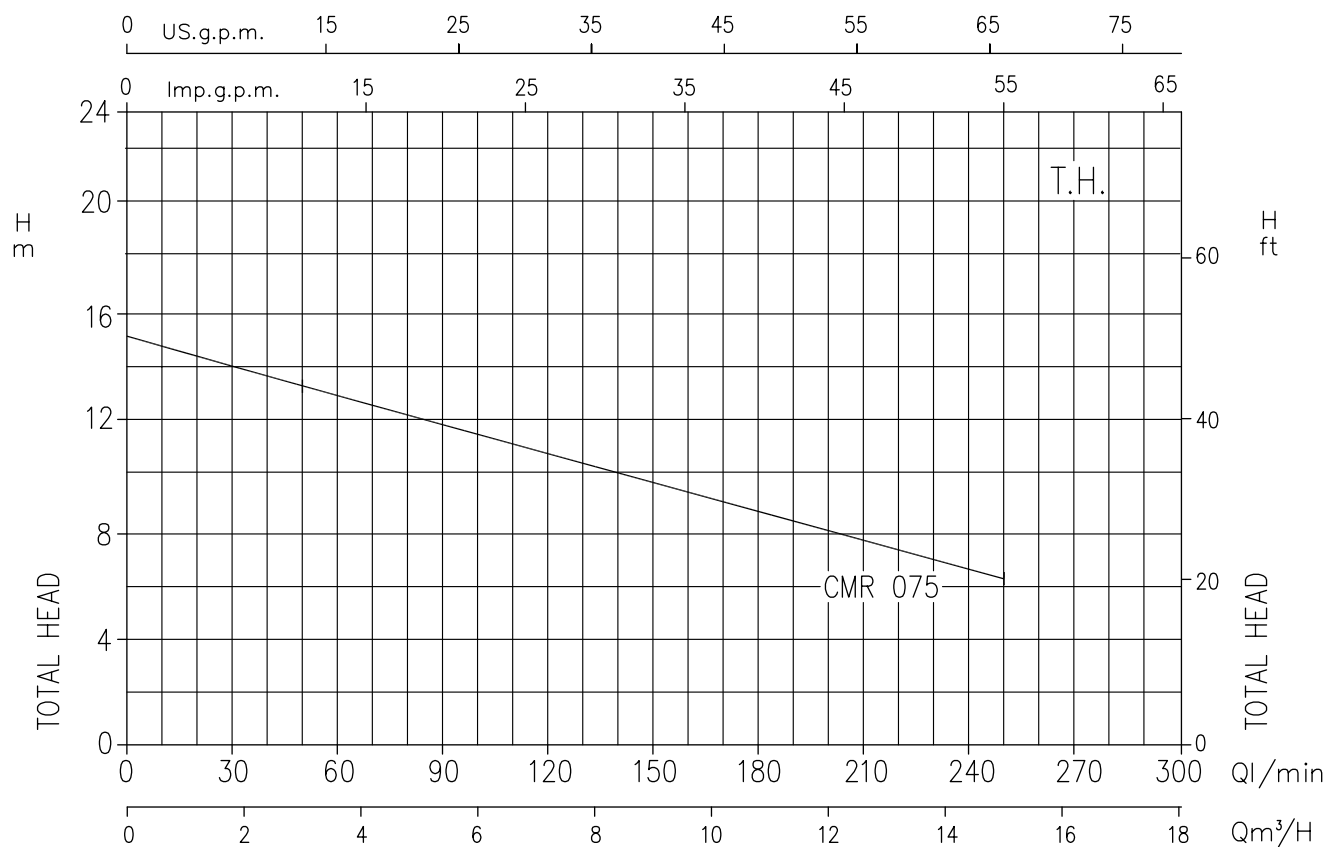
CMR**SELECTION CHART****50Hz**

Type pumps		kW	HP	Q=Capacity					
Single phase	Three phase			l/min	50	100	200	250	275
230 V	230/400 V			m³/h	3	6	12	15	16.5
50 Hz	50 Hz			H=Total manometric head in meters					
CMR 0.75 M	CMR 0.75 T	0.55	0.75	13.6	11.4	8.1	6.3	-	
CMR 1.00 M	CMR 1.00 T	0.75	1	17.3	15.4	11.5	9.6	8.7	

TYPE KEY:

CENTRIFUGAL PUMPS**CMR****PERFORMANCE CURVE****50Hz**

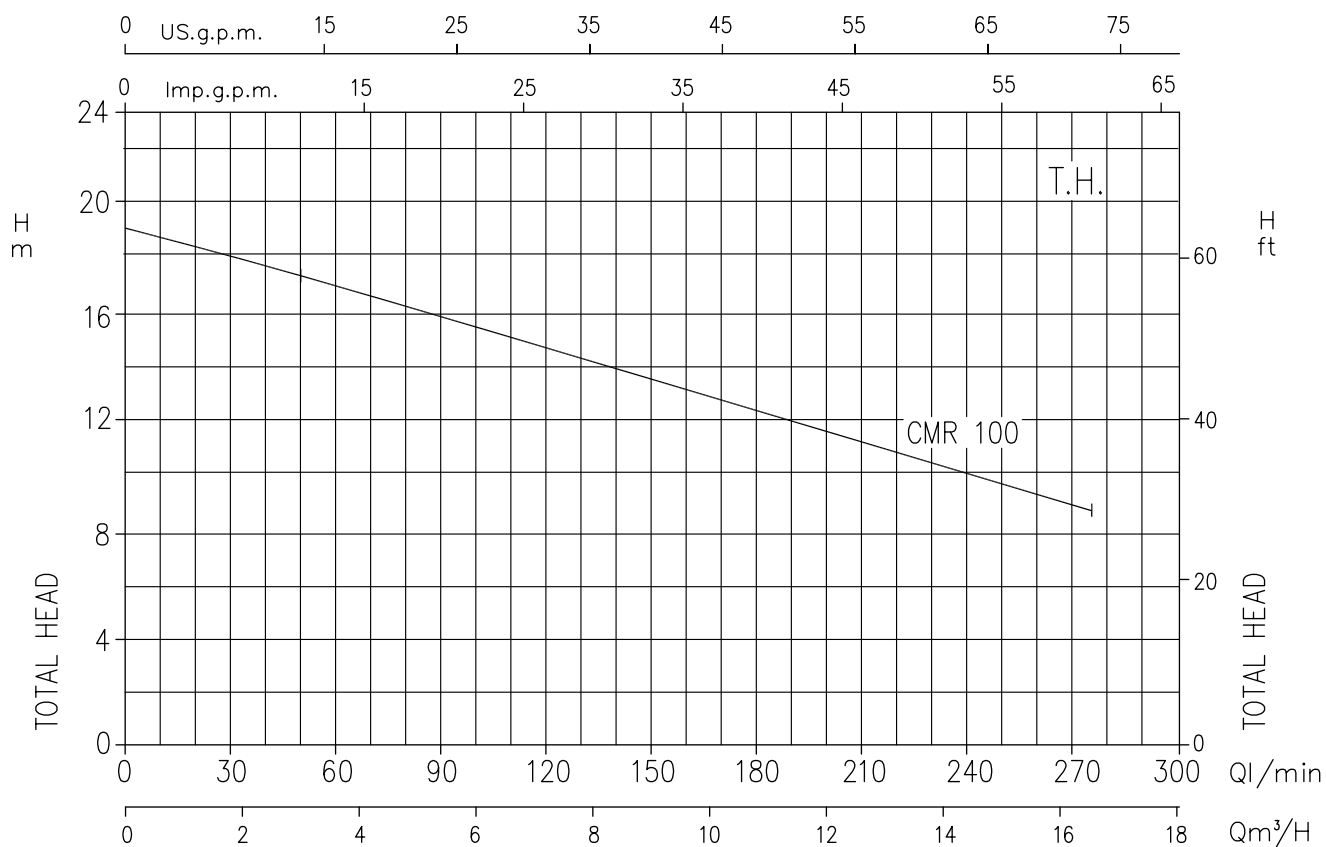
CMR 0.75 (0.55 kW)
SYNCHRONOUS SPEED: 3000 min⁻¹



Temperature of water: 20°C
 Impeller diameter = 114 mm
 Applicable standard of test: ISO 9909 – Annex A

CENTRIFUGAL PUMPS**CMR****PERFORMANCE CURVE****50Hz**

CMR 1.00 (0.75 kW)
SYNCHRONOUS SPEED: 3000 min⁻¹



Temperature of water: 20°C
 Impeller diameter = 120 mm
 Applicable standard of test: ISO 9906 – Annex A

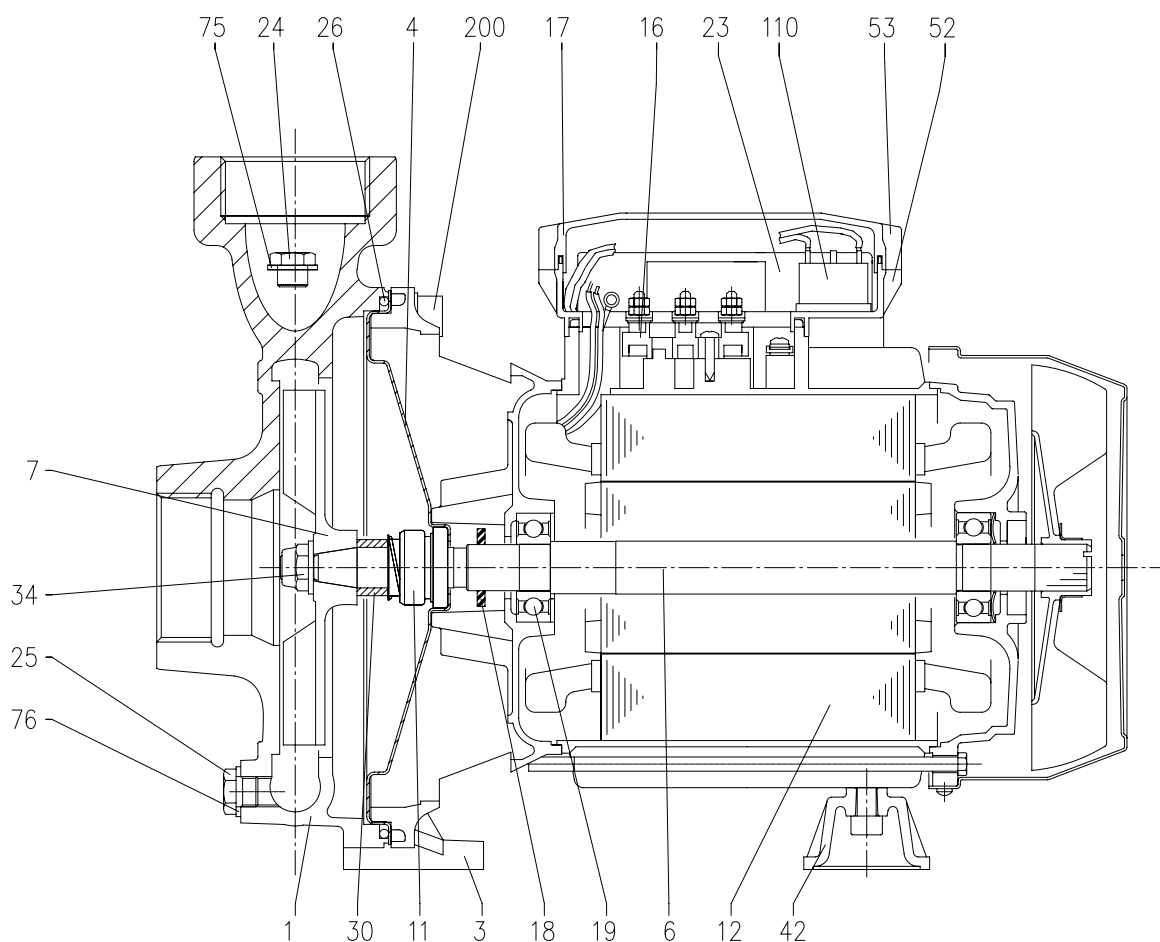
CENTRIFUGAL PUMPS

CMR

CONSTRUCTIONS

50Hz

SECTIONAL VIEW



N°	PART NAME	MATERIAL	NO.FOR 1 UNIT	N°	PART NAME	MATERIAL	NO.FOR 1 UNIT
1	Casing	Cast iron	1	21	Adjusting ring	Steel C70	1
3	Motor bracket	Aluminium	1	22	Tie rod	Fe 42 Zinked	4
4	Casing cover	AISI 304	1	23	Capacitor [2]	-	1
6	Shaft with rotor	AISI 420	1	24	Priming plug	Brass	1
7	Impeller	Brass	1	25	Drain plug	Brass	1
11	Mechanical seal	Carbon/Ceramic/NBR	1	26	O-ring	NBR	1
12	Motor frame with stator	-	1	30	Mechanical seal spacer	Brass	1
13	Motor cover [1]	Aluminium	1	34	Impeller nut	AISI 304	1
14	Fan	Polypropilene	1	42	Foot	PVC	1
15	Fan cover	Fe P04 Zinked	1	52	Capacitor box [2]	Polypropilene	1
16	Terminal box	-	1	53	Capacitor box cover [2]	Polypropilene	1
17	Terminal box cover [1]	Aluminium	1	75	Washer	Aluminium	1
18	Splash ring	NBR	1	76	Washer	Aluminium	1
19	Pump side ball bearing	-	1	200	Screw	Stainless steel A2 UNI7323	4
20	Fan side ball bearing	-	1				

[1] Only for three phase

[2] Only for single phase

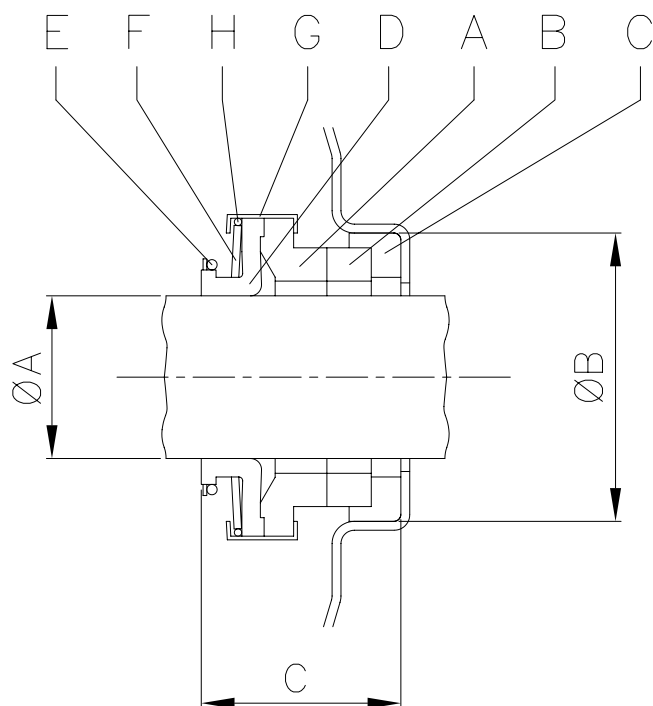
CENTRIFUGAL PUMPS

CMR

CONSTRUCTIONS

50Hz

MECHANICAL SEAL

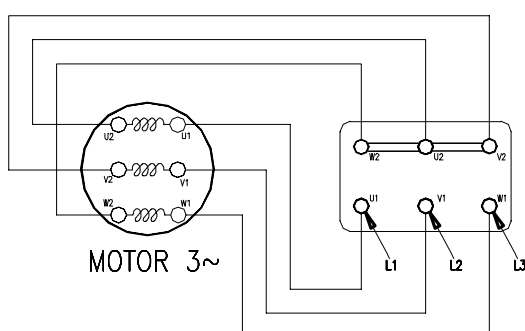


REF	PART NAME	MATERIAL product standard
A	Rotary seal ring	carbon graphite
B	Stationary seal ring	ceramic
C	Gasket	NBR
D	Bellows	NBR
E	Ring	AISI 304
F	Self driving spring	AISI 304
G	Frame	AISI 304
H	Retainer ring	AISI 304

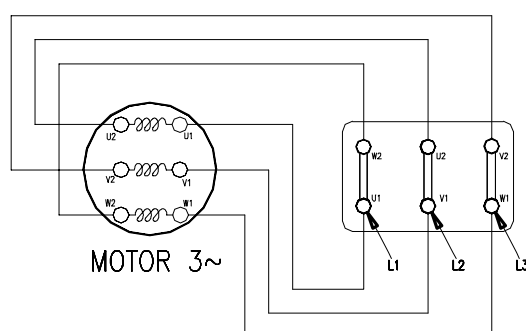
DIAGRAM AND ELECTRIC CONNECTIONS

THREE PHASE MOTOR

STAR CONNECTION

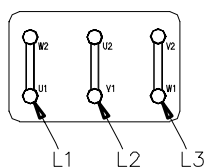


DELTA CONNECTION



FOR MOTOR 4 kW AND BELOW

DELTA CONNECTION 230 V



STAR CONNECTION 400 V

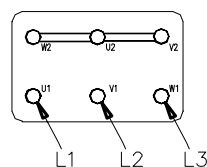
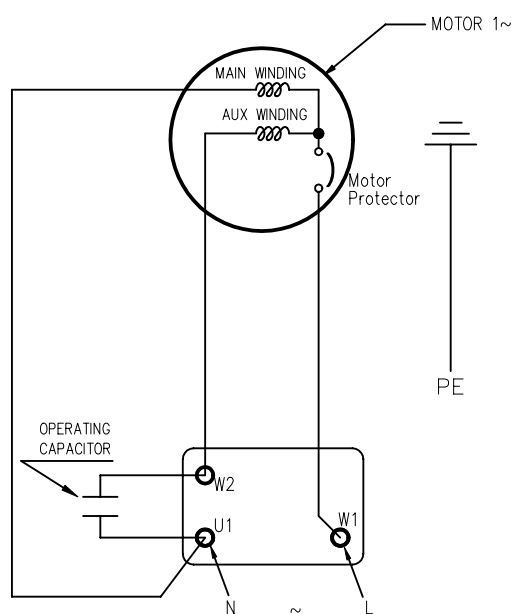


DIAGRAM AND ELECTRIC CONNECTIONS

SINGLE PHASE MOTOR

FOR MOTORS WITH LOCKED ROTOR CURRENT
UP TO 25 [A]
INTERNAL MOTORPROTECTOR

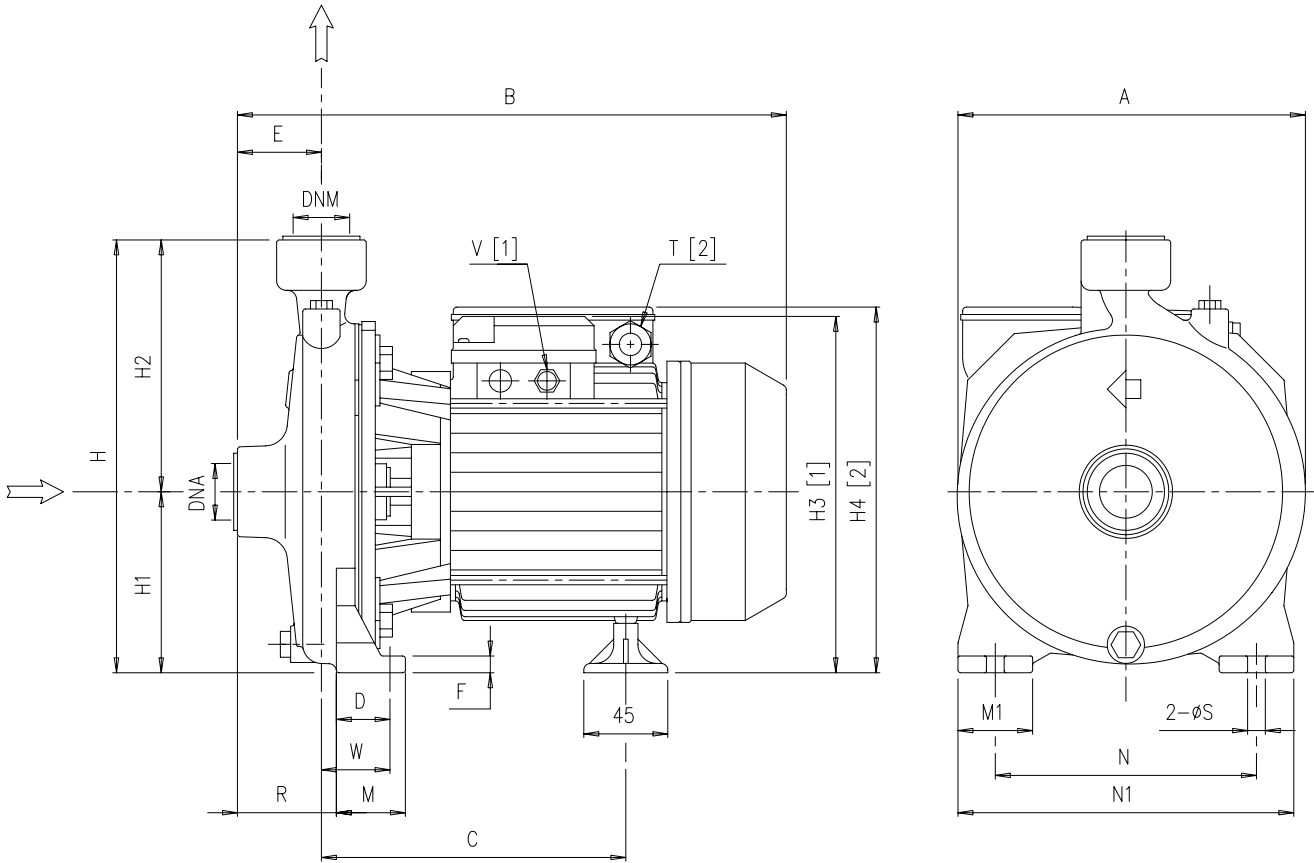


CENTRIFUGAL PUMPS

CMR

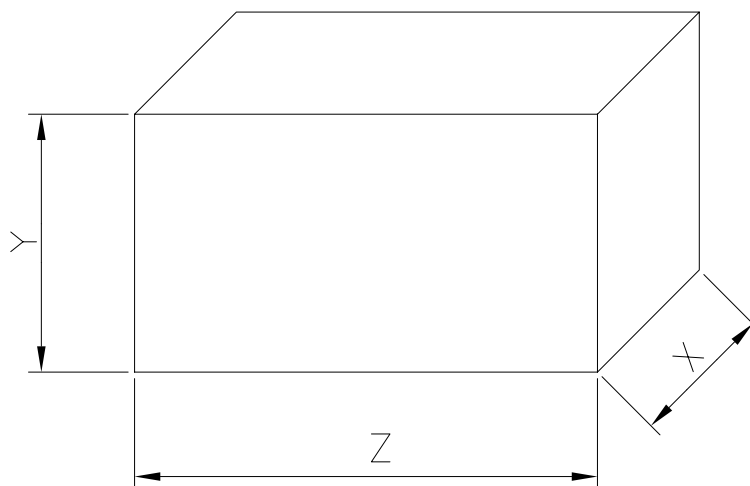
DIMENSIONS

50Hz



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

Pump type	Dimensions [mm]																			
	A	B	C	D	E	F	H	H1	H2	H3	H4	M	M1	N	N1	R	T	V	W	S
CMR 0.75	180	310.3	181.8	36.8	45	9	229	97	132	197.5	198	45	40	140	180	60.5	PG11	PG11	52.3	9.5
CMR 1.00	180	310.3	181.8	36.8	45	9	229	97	132	197.5	198	45	40	140	180	60.5	PG11	PG11	52.3	9.5

CENTRIFUGAL PUMPS**CMR****PACKING AND WEIGHT****50Hz**

Type pumps		PACKING [mm]			WEIGHT [kg]
		X	Y	Z	
CMR 0.75M	CMR 0.75T	205	260	330	11
CMR 1.00M	CMR 1.00T	205	260	330	12.2

CENTRIFUGAL PUMPS

CMR

TECHNICAL DATA

50Hz

Type pumps		kW	HP	Locked rotor current			Capacitor		Input		Full load current		
Single phase 230 V 50 Hz	Three Phase 230/400 V 50 Hz			Single phase 230 V	Three Phase		Single phase µF	VI	in [kW]		in [A]		
					230 V	400 V			Single Phase	Three Phase	Single Phase	Three Phase 230 V	400 V
CMR 0.75M	CMR 0.75T	0.55	0.75	13.3	11.2	6.5	14	450	1	0.98	4.5	3	1.7
CMR 1.00M	CMR 1.00T	0.75	1	20.3	15.1	8.7	20	450	1.2	1.15	5.5	3.6	2.1

Type pumps		Ball Bearing	
Single phase 230 V	Three Phase 230/400 V	Pump side	Fan side
CMR 0.75M	CMR 0.75T	6202 ZZ	6202 ZZ
CMR 1.00M	CMR 1.00T	6202 ZZ	6202 ZZ