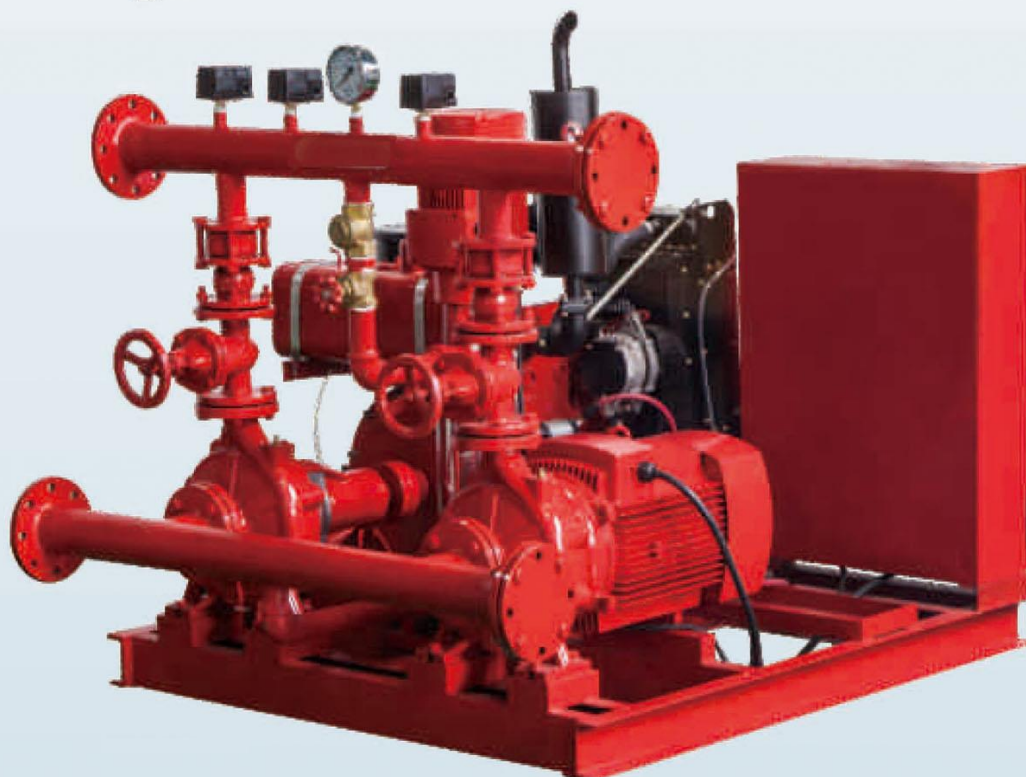
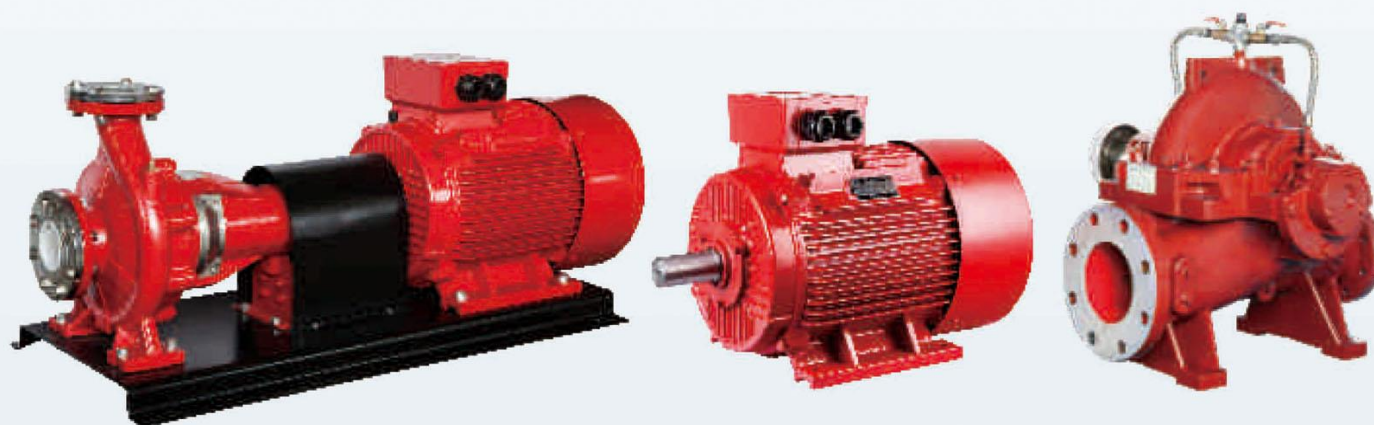




Fire Fighting Equipment

A Leader in Fire Protection Systems
Diverse Products, Best Quality Full Service

Made In Italy





Fire fighting system

NEW/NUEVO

DESCRIPTION

- ♦ Fire pumps are designed for whole operational life, the maximum reliability is always the first priority
- ♦ The components affixed onto a steel framing structure
- ♦ Each controller has its own individual pressure sensing line
- ♦ The suction line should never include a strainer
- ♦ Check valve and butterfly valve in the discharge line
- ♦ NFPA 20 not allows suction from negative level for end suction and split case pumps

PRINCIPLE

When pressure drops below the set value, jockey starts running with the signal from the pressure switch and continues running for 10 minutes till the system pressure reaches the set value. If the pressure continues drop, first the main pump starts to run. If the system pressure can't supply and pressure continues drop, the standby pump starts to run.

MODEL CODE

For example

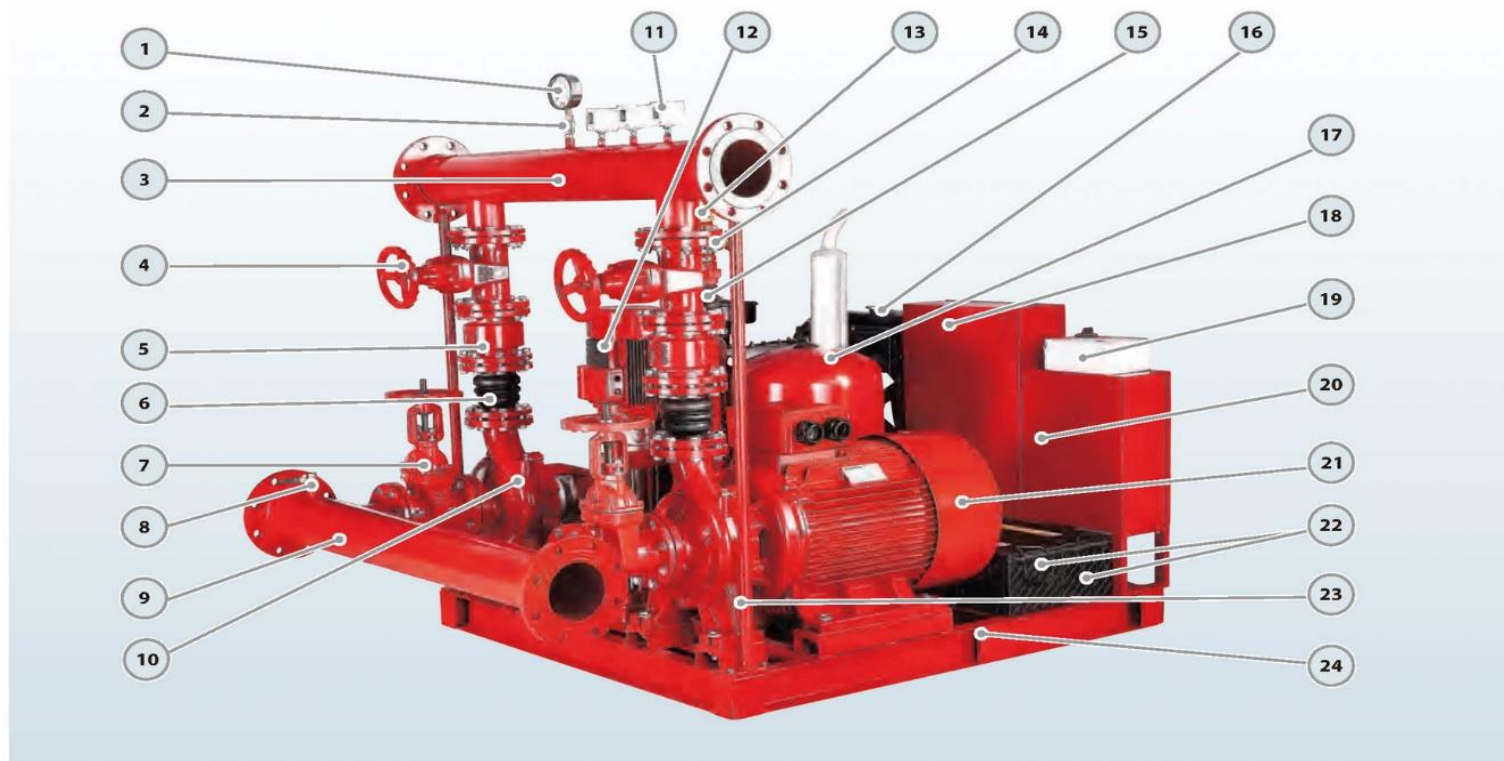
PEDJ 500 / 8 - 50 - 58 - 5.5

→ **5.5**=Jockey rated power(hp)
 → **58**=Diesel rated power(hp)
 → **50**=Electric rated power(hp)
 → **8**=Nominal pressure(Bar=10m)
 → **500**=Nominal flow(GPM)

Pump type
E=Electric driven pump
D=Diesel driven pump
J=Jockey pump



MATERIAL DESCRIPTION



No.	Description	Material
1	Pressure Gauge	0-16bar
2	Relief Valve	Brass
3	Discharge pipeline	Carbon steel
4	Gate Valve	Ductile Iron
5	Check Valve	Ductile Iron
6	Flexible Joint	Rubber
7	OS&Y valve	Ductile Iron
8	Relief Valve	Brass

No.	Description	Material
9	Suction pipeline	Carbon steel
10	Diesel pump	Standby supplier
11	Pressure Switch	0-16bar
12	Jockey pump	Maintain supplier
13	Jockey Check Valve	Brass
14	Jockey Gate Valve	Brass
15	Flexible Joint	Rubber
16	Diesel engine	Internal combustion

No.	Description	Material
17	Pressure tank	Iron/EPDM membrane
18	Electric controller	DOL/Star-delta
19	Jockey controller	DOL
20	Diesel controller	DOL
21	Electric pump	Main supplier
22	Batteries	Main/Standby
23	Support rod	Iron
24	Base	Iron



TECHNICAL SHEET

Model	PSM
Capacity	0-1000 m ³ /h
Head	0-164 m
DN	32-150 mm
Speed	2900 rpm
T max	120 °C
Power	1.5-315 kW
Casing	Grey cast iron
Impeller	AISI 304/Brass
Shaft	AISI 304
Shaft seal	Mechanical Seal
Bearing	Grease lubrication rolling bearing

Electric

 Electric pump to primarily provide flow and pressure in the system



Seperate coupled type



PS

NEW

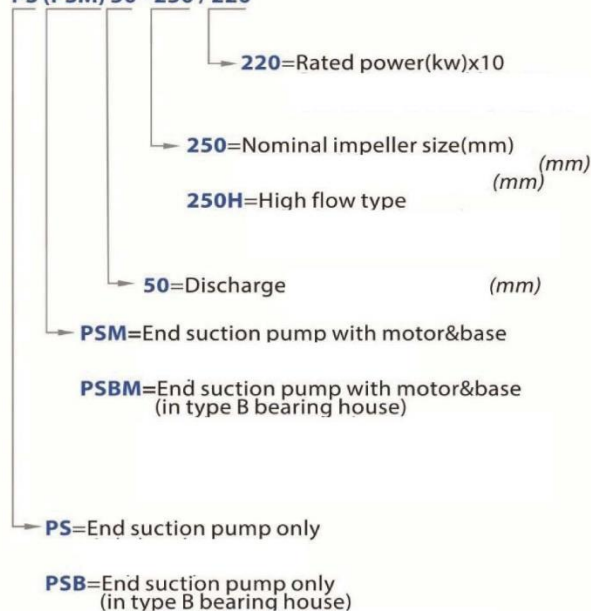
DESCRIPTION

-  According to NFPA20, centrifugal pump shall be of the overhung impeller design with close or separate coupled end suction type
- ♦ Pump capacities are based on the calculated system demand
- ♦ Fire pump shutoff head should not exceed 140% of the nominal value
- ♦ Recommended the maximum system demand flow correlate to a point on pump curve between 90% to 140% of the pump capacity

MODEL CODE

For example

PS (PSM) 50 - 250 / 220



TECHNICAL DATA

50Hz n=2900 r/min

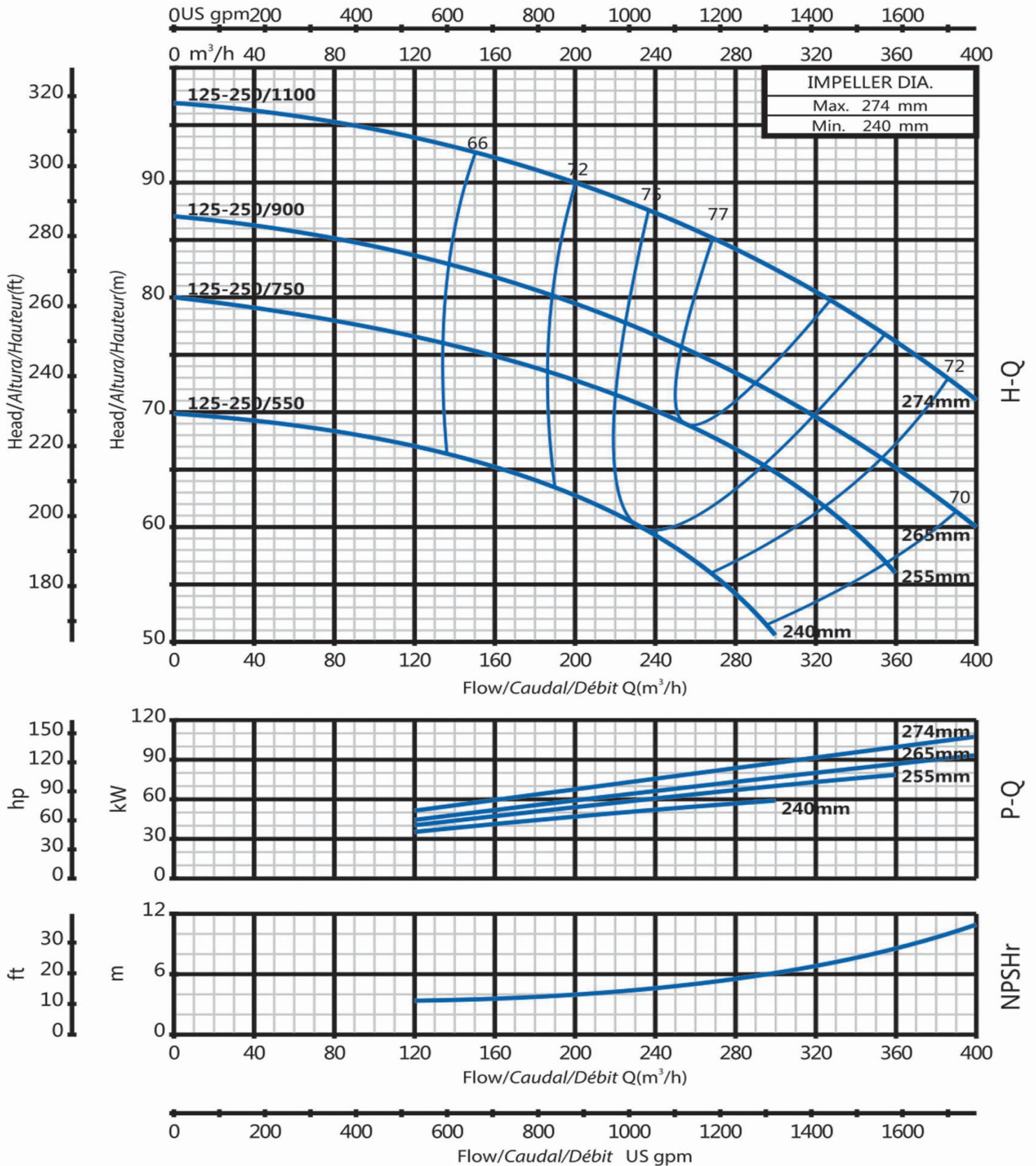
MODEL	DN	Implr dia.	Power		Q=DELIVERY															
					us	25	50	75	100	120	150	200	250	300	350	400	450	500	600	
					gpm	0	95	190	283	383	450	567	750	950	1133	1317	1517	1700	1900	2267
					l/min	0	5.7	11.4	17	23	27	34	45	57	68	79	91	102	114	136
	mm	mm	kw	hp	H=Head							(m)								
PSM 32-250/55	50x32	208	5.5	7.5	60	60	58	52	39	-	-	-	-	-	-	-	-	-	-	
PSM 32-250/75	50x32	230	7.5	10	69.5	69.5	68	64	56	-	-	-	-	-	-	-	-	-	-	
PSM 32-250/92	50x32	237	9.2	12.5	75	75	73.5	70	61	-	-	-	-	-	-	-	-	-	-	
PSM 32-250/110	50x32	250	11	15	90	89	86	80	69	-	-	-	-	-	-	-	-	-	-	
PSM 32-250/150	50x32	258	15	20	97	96.8	94	88	76	-	-	-	-	-	-	-	-	-	-	
PSM 40-250/110	65x40	230	11	15	72	-	-	68	66	63.5	59	50	-	-	-	-	-	-	-	
PSM 40-250/150	65x40	250	15	20	84.5	-	-	79.5	77.5	75.2	71.5	63	-	-	-	-	-	-	-	
PSM 40-250/185	65x40	258	18.5	25	90	-	-	86	83.5	80.7	77	68	-	-	-	-	-	-	-	
PSM 50-250/150	65x50	228	15	20	68.5	-	-	-	-	65	62	58	53	45	-	-	-	-	-	
PSM 50-250/185	65x50	235	18.5	25	79	-	-	-	-	77	74	71	66	59	47	-	-	-	-	
PSM 50-250/220	65x50	250	22	30	89.5	-	-	-	-	88	85	81.5	76	68	57	-	-	-	-	
PSM 50-250/300	65x50	258	30	40	95.5	-	-	-	-	92	90	87	81	74	63	-	-	-	-	
PSM 65-250/220	80x65	225	22	30	64.8	-	-	-	-	-	-	63.5	62	61	58.5	56	52.5	-	-	
PSM 65-250/300	80x65	244	30	40	80	-	-	-	-	-	-	79	78	77	74.5	72	70	59	59	
PSM 65-250/370	80x65	258	37	50	92	-	-	-	-	-	-	89.5	88.5	87	85	83	80	69	69	

MODEL	DN	Implr dia.	Power		Q=DELIVERY																		
					us	0	250	400	500	600	750	850	950	1000	1250	1350	1500	1750	2000	2500	3000	3500	4500
					l/min	0	950	1517	1900	2267	2833	3217	3600	3783	4733	5100	5683	6617	7567	9467	11350	13250	17033
					m³/h	0	57	91	114	136	170	193	216	227	284	306	341	397	454	568	681	795	1022
		mm	mm	kw	hp	H=Head (m)																	
PSM 65-315/450	80x65	262	45	60	102	98	94.5	90	83	-	-	-	-	-	-	-	-	-	-	-	-		
PSM 65-315/550	80x65	290	55	75	122	120	114.5	111	104	85	-	-	-	-	-	-	-	-	-	-	-		
PSM 65-315/750	80x65	317	75	100	141	141	134.5	132	123	105	86	64	-	-	-	-	-	-	-	-	-		
PSM 65-315/900	80x65	328	90	125	151	150	144.5	141	133	115	95	74	-	-	-	-	-	-	-	-	-		
PSM 80-250/450	100x80	240	45	60	88	86.7	86	84	80	72	62	49	-	-	-	-	-	-	-	-	-		
PSM 80-250/550	100x80	258	55	75	94.5	94.5	94.5	92	89	82	76	66	-	-	-	-	-	-	-	-	-		
PSM 80-250/750	100x80	276	75	100	108.5	108.5	108.5	106	103	96.5	90	80	-	-	-	-	-	-	-	-	-		
PSM 80-315/550	100x80	270	55	75	98	97	95.6	95	92	86	78	67	-	-	-	-	-	-	-	-	-		
PSM 80-315/750	100x80	295	75	100	124	123	121.6	119	116	110	103	94.5	89	-	-	-	-	-	-	-	-		
PSM 80-315/900	100x80	320	90	125	144	143	141.6	140	137	130	122	114	108	-	-	-	-	-	-	-	-		
PSM 80-315/1100	100x80	328	110	150	153	152	150.6	149	146	140	132	123	118	-	-	-	-	-	-	-	-		
PSM 100-250/550	125x100	240	55	75	77	76	75.5	76	75	73	72	70	70	62.3	59	-	-	-	-	-	-		
PSM 100-250/750	125x100	257	75	100	91	91	90.5	89.7	88	86	84	82	81	71.7	68.5	56	-	-	-	-	-		
PSM 100-250/900	125x100	270	90	125	100	100	99.5	98	97	95	93	91	90	80.7	77.5	65	-	-	-	-	-		
PSM 100-315/1100	125x100	300	110	150	118	-	-	116	115.5	114	112	111	110	104	102	95	-	-	-	-	-		
PSM 100-315/1320	125x100	315	132	180	129	-	-	127	126	124	123	122	121	115	112	105	-	-	-	-	-		
PSM 100-315/1600	125x100	328	160	220	148	-	-	146	145	144	142	141	140	134	132	125	-	-	-	-	-		
PSM 125-250/750	150x125	255	75	100	80	-	-	77	76	74.5	73	72	71	67	65	60	-	-	-	-	-		
PSM 125-250/900	150x125	265	90	125	87	-	-	84	83	81.5	80	78.5	78	73.5	71.5	67.5	60	-	-	-	-		
PSM 125-250/1100	150x125	274	110	150	97	-	-	94	93	92	90.5	89	88	84	83.5	78.5	71	-	-	-	-		
PSM 125-250H/1100	150x125	240	110	150	74	-	-	74.5	74	74	73	73	72.5	70.8	70.4	69	66	62.5	53	-	-		
PSM 125-250H/1320	150x125	260	132	180	84	-	-	84	84	83.5	83	82.5	82	80.8	80.4	78.5	76	72	63	-	-		
PSM 125-250H/1600	150x125	280	160	220	98	-	-	97.5	97.5	97.5	97	97	96.5	94.8	94.4	93	90	87	78	66	-		
PSM 125-315/1320	150x125	280	132	180	96	-	-	-	-	-	-	96	96	94	93.5	92	88.5	84	65	-	-		
PSM 125-315/1600	150x125	295	160	220	112	-	-	-	-	-	-	111.5	111	110	109.5	108	106	102	88	-	-		
PSM 125-315/1850	150x125	310	185	250	125	-	-	-	-	-	-	125	124.7	123	122.5	121.5	119	113	98	-	-		
PSM 125-315/2000	150x125	328	200	270	136	-	-	-	-	-	-	136	135.5	135	133.5	133	130	125	110	-	-		
PSM 150-250/1320	200x150	265	132	180	80.2	-	-	-	-	-	-	-	-	-	78	75	73.5	71	67	61	54		
PSM 150-250/1600	200x150	280	160	220	90	-	-	-	-	-	-	-	-	-	88	87	85	84	79	74	66		
PSM 150-250/2000	200x150	295	200	270	100	-	-	-	-	-	-	-	-	-	97	96	95	93	89	84	76		
PSM 150-315/1850	200x150	287	185	250	92	-	-	-	-	-	-	-	-	-	90	89	87.2	85	80	71	61		
PSM 150-315/2500	200x150	305	250	340	111	-	-	-	-	-	-	-	-	-	110	108	106	104	98	90	82		
PSM 150-315/2800	200x150	315	280	380	124	-	-	-	-	-	-	-	-	-	121	120	118	116	111	104	95		
PSM 150-315/3150	200x150	327	315	430	135	-	-	-	-	-	-	-	-	-	134	133	132	130	124	116	107		

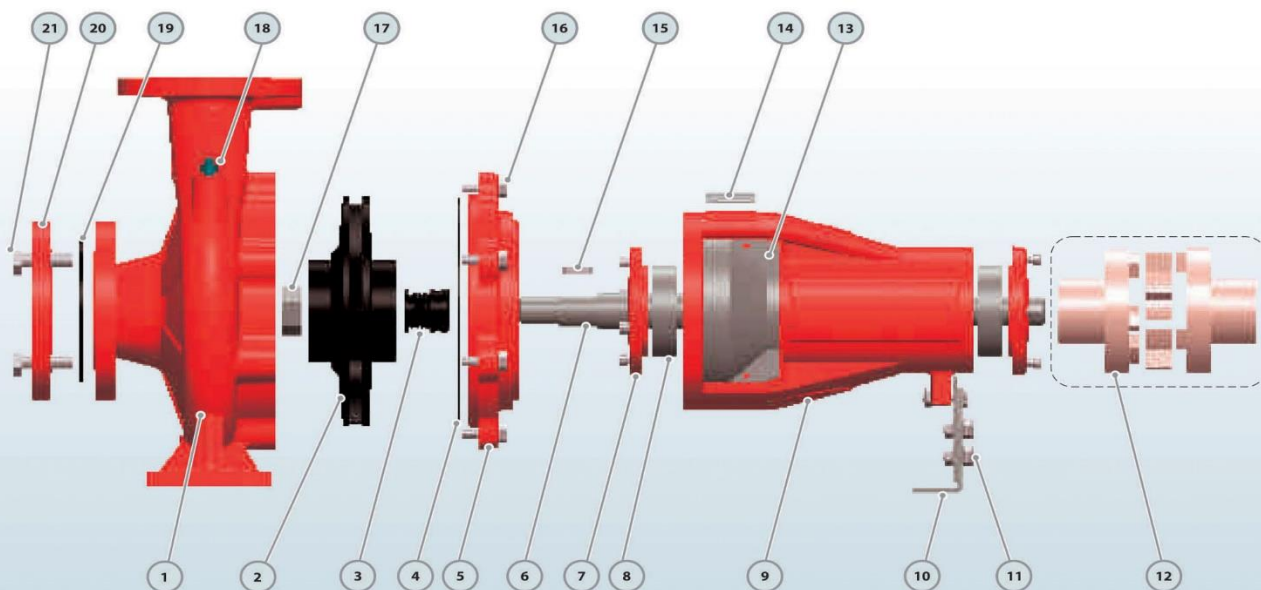


125-250

2900rpm



MATERIAL DESCRIPTION



No.	Description	Material
1	Pump Case	Cast iron
2	Impeller	SS304/Cast iron Bronze
3	Mechanical Seal	SiC/Carbon/SS304
4	O-ring	Rubber
5	Connection	Cast iron
6	Shaft	SS304/45# Steel
7	Bearing Cover	Cast iron

No.	Description	Material
8	Bearing	Ball Bearing
9	Support Case	Cast iron
10	Support Foot	Iron
11	Foot Bolt	Steel
12	Coupling(Optional)	Steel
13	Case Cover	SS304
14	Nameplate	Aluminum

No.	Description	Material
15	Impeller Key	Iron
16	Connection Bolt	Steel
17	Impeller Nut	Galvanized Steel
18	Release Valve	Brass
19	Gasket	Rubber
20	Counter Flange	Galvanized Cast iron
21	Flange Bolt	Steel



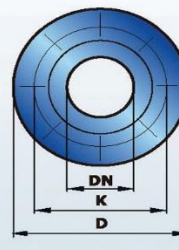
Technical drawing of a blue centrifugal pump assembly. The drawing shows the pump body, impeller, and shaft. Key dimensions and labels include:

- DN1**: Inlet diameter.
- DN2**: Outlet diameter.
- a**: Distance from inlet to outlet.
- f**: Total length of the pump body.
- x**: Distance from outlet to the end of the shaft.
- w**: Distance from inlet to the end of the shaft.
- m1**: Distance from inlet to the impeller center.
- m2**: Distance from inlet to the outlet.
- d**: Shaft diameter.
- l**: Length of the shaft.

Below the drawing, there is a table with dimensions and their values:

Dimension	Value
DN1	25
DN2	25
a	100
f	150
x	100
w	150
m1	50
m2	100
d	25
l	100

mm		
d	u	t
24	8	27
32	10	35
42	12	45
60	18	64



DN	D	K	HOLES	
	mm	mm	N	Φmm
32	140	100	4	18
40	150	110		
50	165	125		
65	185	145		
80	200	160		
100	220	180	8	22
125	250	210		
150	285	240		
200	340	295		
250	405	355		
			12	26



TECHNICAL SHEET

Model	PSD	
Capacity	0-1000	m ³ /h
Head	0-164	m
DN	32-150	mm
Speed	3000	rpm
T max	120	°C
Power	6.3-300	kW
Casing	Grey cast iron	
Impeller	AISI 304/Brass	
Shaft	AISI 304	
Shaft seal	Mechanical Seal	
Bearing	Grease lubrication rolling bearing	

Diesel

 Diesel pump as standby provider flow and pressure in the system



NEW

DESCRIPTION

-  Diesel engines have proven to be very reliable and effective for driving fire pumps
- Diesel engines are currently the only type of internal combustion engine permitted by NFPA 20
- Each engine shall be provided with two storage battery units according to NFPA20
- Diesel engines for fire pump is of the compression ignition type
- Advanced direct injection and combustion system.

MODEL CODE

For example

PS (PSD) 50 - 250 / 220

→ **220**=Rated power(kw)x10

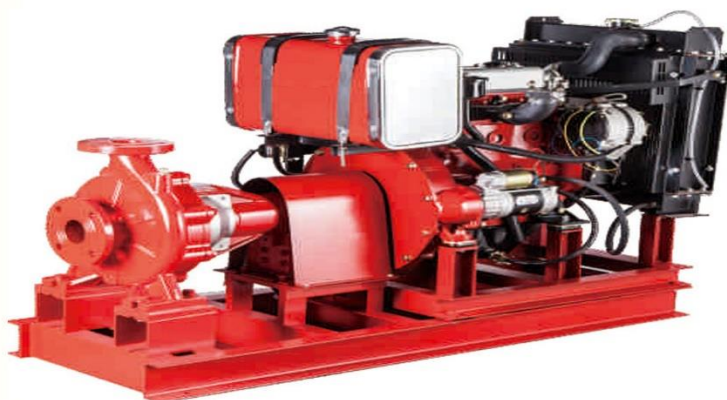
→ **250**=Nominal impeller size(mm)

250H=High flow type

→ **50**=Discharge

→ **PSD**=End suction pump with diesel&base

→ **PS**=End suction pump only



TECHNICAL DATA

50Hz n=2900 r/min

MODEL	DN	Implr dia.	Power		Q=DELIVERY															
					us	25	50	75	100	120	150	200	250	300	350	400	450	500	600	
					l/min	95	190	283	383	450	567	750	950	1133	1317	1517	1700	1900	2267	
					m³/h	5.7	11.4	17	23	27	34	45	57	68	79	91	102	114	136	
	mm	mm	kw	hp	H=Head (m)															
PSD 32-250/55	50x32	208	6.3	8.6	60	60	58	52	39	-	-	-	-	-	-	-	-	-	-	
PSD 32-250/75	50x32	230	7.2	10	69.5	69.5	68	64	56	-	-	-	-	-	-	-	-	-	-	
PSD 32-250/92	50x32	237	8.2	12	75	75	73.5	70	61	-	-	-	-	-	-	-	-	-	-	
PSD 32-250/110	50x32	250	8.2	12	90	89	86	80	69	-	-	-	-	-	-	-	-	-	-	
PSD 32-250/150	50x32	258	20	27	97	96.8	94	88	76	-	-	-	-	-	-	-	-	-	-	
PSD 40-250/110	65x40	230	8.2	12	72	-	-	68	66	63.5	59	50	-	-	-	-	-	-	-	
PSD 40-250/150	65x40	250	20	27	84.5	-	-	79.5	77.5	75.2	71.5	63	-	-	-	-	-	-	-	
PSD 40-250/185	65x40	258	20	27	90	-	-	86	83.5	80.7	77	68	-	-	-	-	-	-	-	
PSD 50-250/150	65x50	228	20	27	68.5	-	-	-	-	-	65	62	58	53	45	-	-	-	-	
PSD 50-250/185	65x50	235	20	27	79	-	-	-	-	-	77	74	71	66	59	47	-	-	-	
PSD 50-250/220	65x50	250	24	32	89.5	-	-	-	-	-	88	85	81.5	76	68	57	-	-	-	
PSD 50-250/300	65x50	258	28	38	95.5	-	-	-	-	-	92	90	87	81	74	63	-	-	-	
PSD 65-250/220	80x65	225	24	32	64.8	-	-	-	-	-	-	-	63.5	62	61	58.5	56	52.5	-	
PSD 65-250/300	80x65	244	28	38	80	-	-	-	-	-	-	-	79	78	77	74.5	72	70	59	
PSD 65-250/370	80x65	258	42	58	92	-	-	-	-	-	-	-	89.5	88.5	87	85	83	80	69	

MODEL	DN	Implr dia.	Power		Q=DELIVERY																	
					us	250	400	500	600	750	850	950	1000	1250	1350	1500	1750	2000	2500	3000	3500	4500
					l/min	950	1517	1900	2267	2833	3217	3600	3783	4733	5100	5683	6617	7567	9467	11350	13250	17033
					m³/h	57	91	114	136	170	193	216	227	284	306	341	397	454	568	681	795	1022
		mm	mm	kw	hp	H=Head								(m)								
PSD 65-315/450	80x65	262	45	61	102	98	94.5	90	83	-	-	-	-	-	-	-	-	-	-	-		
PSD 65-315/550	80x65	290	55	75	122	120	114.5	111	104	85	-	-	-	-	-	-	-	-	-	-		
PSD 65-315/750	80x65	317	75	100	141	141	134.5	132	123	105	86	64	-	-	-	-	-	-	-	-		
PSD 65-315/900	80x65	328	90	125	151	150	144.5	141	133	115	95	74	-	-	-	-	-	-	-	-		
PSD 80-250/450	100x80	240	45	61	88	86.7	86	84	80	72	62	49	-	-	-	-	-	-	-	-		
PSD 80-250/550	100x80	258	55	75	94.5	94.5	94.5	92	89	82	76	66	-	-	-	-	-	-	-	-		
PSD 80-250/750	100x80	276	75	100	108.5	108.5	108.5	106	103	96.5	90	80	-	-	-	-	-	-	-	-		
PSD 80-315/550	100x80	270	55	75	98	97	95.6	95	92	86	78	67	-	-	-	-	-	-	-	-		
PSD 80-315/750	100x80	295	75	100	124	123	121.6	119	116	110	103	94.5	89	-	-	-	-	-	-	-		
PSD 80-315/900	100x80	320	90	125	144	143	141.6	140	137	130	122	114	108	-	-	-	-	-	-	-		
PSD 80-315/1100	100x80	328	110	150	153	152	150.6	149	146	140	132	123	118	-	-	-	-	-	-	-		
PSD 100-250/550	125x100	240	55	75	77	76	75.5	76	73	72	70	70	62.3	59	-	-	-	-	-	-		
PSD 100-250/750	125x100	257	75	100	91	91	90.5	89.7	88	86	84	82	81	71.7	68.5	56	-	-	-	-		
PSD 100-250/900	125x100	270	90	125	100	100	99.5	98	97	95	93	91	90	80.7	77.5	65	-	-	-	-		
PSD 100-315/1100	125x100	300	110	150	118	-	-	116	115.5	114	112	111	110	104	102	95	-	-	-	-		
PSD 100-315/1320	125x100	315	125	170	129	-	-	127	126	124	123	122	121	115	112	105	-	-	-	-		
PSD 100-315/1600	125x100	328	165	225	148	-	-	146	145	144	142	141	140	134	132	125	-	-	-	-		
PSD 125-250/750	150x125	255	75	100	80	-	-	77	76	74.5	73	72	71	67	65	60	-	-	-	-		
PSD 125-250/900	150x125	265	90	125	87	-	-	84	83	81.5	80	78.5	78	73.5	71.5	67.5	60	-	-	-		
PSD 125-250/1100	150x125	274	110	150	97	-	-	94	93	92	90.5	89	88	84	83.5	78.5	71	-	-	-		
PSD 125-250H/1100	150x125	240	110	150	74	-	-	74.5	74	74	73	73	72.5	70.8	70.4	69	66	62.5	53	-		
PSD 125-250H/1320	150x125	260	125	170	84	-	-	84	84	83.5	83	82.5	82	80.8	80.4	78.5	76	72	63	-		
PSD 125-250H/1600	150x125	280	165	225	98	-	-	97.5	97.5	97.5	97	97	96.5	94.8	94.4	93	90	87	78	66		
PSD 125-315/1320	150x125	280	125	170	96	-	-	-	-	-	-	96	96	94	93.5	92	88.5	84	65	-		
PSD 125-315/1600	150x125	295	165	225	106	-	-	-	-	-	-	105.5	105	104	103.5	102	100	96	82	-		
PSD 125-315/1850	150x125	310	200	270	122	-	-	-	-	-	-	122	121.7	120	119.5	118.5	116	110	95	-		
PSD 125-315/2000	150x125	328	200	270	136	-	-	-	-	-	-	136	135.5	135	133.5	133	130	125	110	-		
PSD 150-250/1320	200x150	265	125	170	80.2	-	-	-	-	-	-	-	-	-	78	75	73.5	71	67	61		
PSD 150-250/1600	200x150	280	165	225	90	-	-	-	-	-	-	-	-	-	88	87	85	84	79	74		
PSD 150-250/2000	200x150	295	200	270	100	-	-	-	-	-	-	-	-	-	97	96	95	93	89	84		
PSD 150-315/1850	200x150	287	200	270	92	-	-	-	-	-	-	-	-	-	90	89	87.2	85	80	71		
PSD 150-315/2500	200x150	305	250	340	111	-	-	-	-	-	-	-	-	-	110	108	106	104	98	90		
PSD 150-315/2800	200x150	315	300	410	124	-	-	-	-	-	-	-	-	-	121	120	118	116	111	104		
PSD 150-315/3150	200x150	327	300	410	135	-	-	-	-	-	-	-	-	-	134	133	132	130	124	116		



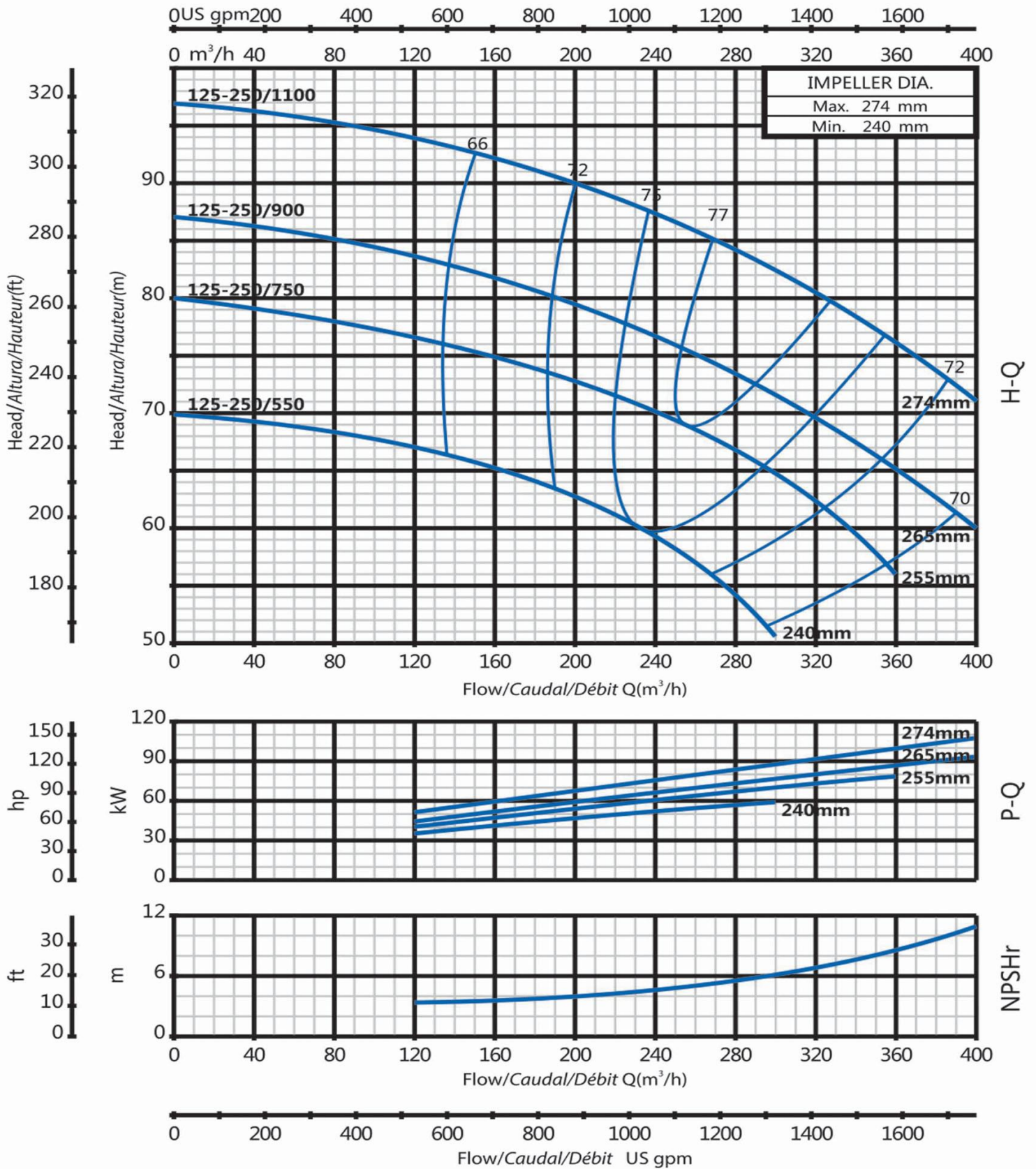
Model	178	186	188	192	380	385	480	485	490N	490	495	498	4102	4105	4108
Type	4 strokes,Air cooling				Direct Injection,4 strokes, Water-cooling										
Intake Type	Naturally Aspirated														
Bore*Stroke(mm)	78*62	86*72	88*75	92*75	80*90	85*90	80*90	85*100	90*100	90*105	95*105	98*105	102*118	105*118	108*118
Cylinder No.	1	1	1	1	3	3	4	4	4	4	4	4	4	4	4
Displacement	0.296L	0.418L	0.456L	0.499L	1.357L	1.532L	1.8L	2.27L	2.54L	2.67L	2.977L	3.168L	3.857L	4.087L	4.324L
r/min	3000 3600	3000 3600	3000 3600	3000 3600	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Rated kW	3.7kW 4.0kW	5.7kW 6.3kW	6.6kW 7.2kW	7.5kW 8.2kW	20kW	24kW	28kW	36kW	42kW	45kW	50kW	55KW	62kW	67kW	73kW
Rated HP	5.0HP 5.5HP	7.8HP 8.6HP	9HP 10HP	10.2HP 12HP	27HP	32HP	38HP	49HP	58HP	61HP	68HP	75HP	85HP	91HP	99HP
Fuel Consumption(q/kw.h)	280.3 282.5	273.5 285.7	273.5 285.7	275 281	228	228	215	228	228	228	228	228	228	238	238
Start Voltage	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	24V	24V
Speed regulation type	Mechanical														
Including	Radiator, Fan, Starter, charge alternator, Air filter, Muffler, Stop Solenoid, PTO shaft, Fuel Tank, Meter Panel														

Model	485Z	490NZ	498Z	4102Z	4105Z	4108Z	490T	4108T	4108TL	6102NT	6102T	6102TL	6126T	6126TL	6126TS
Type	Direct Injection,4 strokes, Water-cooling														
Intake Type	Turbo-charging									Naturally	Turbo-charging				
Bore*Stroke(mm)	85*100	90*100	98*105	102*118	105*118	108*118	90*102	108*125	108*125	102*118	102*118	102*118	126*130	126*130	126*155
Cylinder No.	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6
Displacement	2.27L	2.54L	3.168L	3.857L	4.087L	4.324L	2.6L	3.8L	3.8L	5.78L	5.78L	5.78L	9.726L	9.726L	9.726L
r/min	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Rated kW	44KW	50KW	60KW	73KW	75KW	83KW	55KW	75KW	90KW	110KW	125KW	165KW	200KW	250KW	300KW
Rated HP	60HP	68HP	81HP	99HP	102HP	113HP	75HP	100HP	125HP	150HP	170HP	225HP	270HP	340HP	410HP
Fuel Consumption(g/kw.h)	228	228	228	238	238	238	228	218	218	229	229	229	250	250	250
Start Voltage	12V	12V	12V	24V	24V	24V	12V	24V	24V	24V	24V	24V	24V	24V	24V
Speed regulation type	Mechanical												Electronic		
Including	Radiator, Fan, Starter, charge alternator, Air filter, Muffler, Stop Solenoid, PTO shaft, Fuel Tank, Meter Panel														

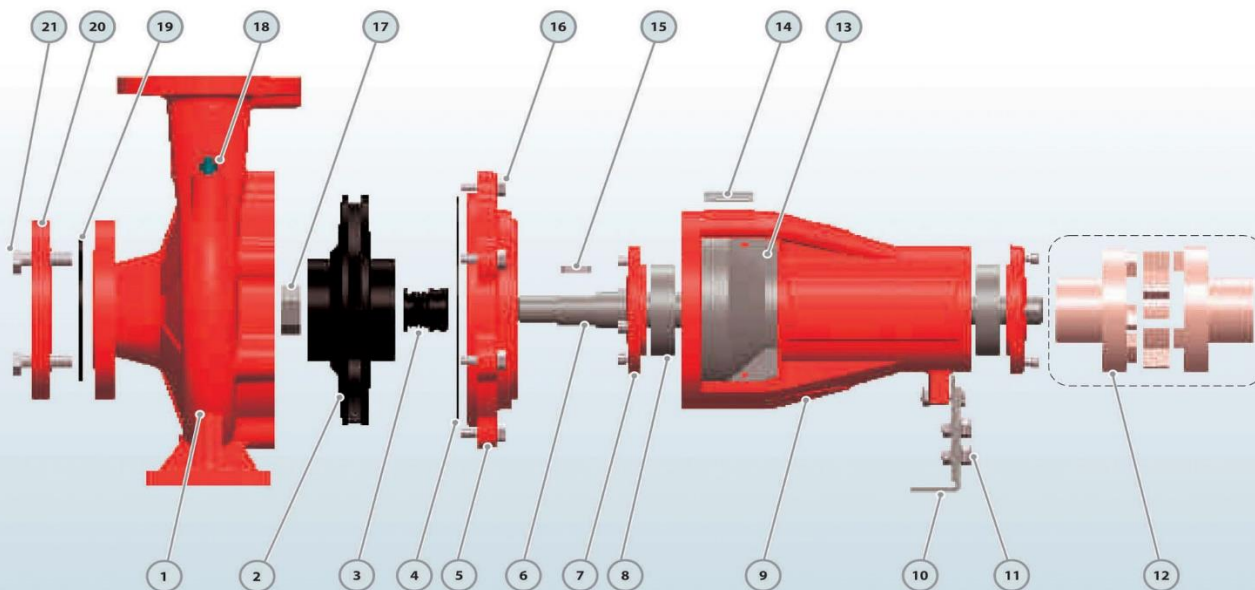


125-250

2900rpm



MATERIAL DESCRIPTION



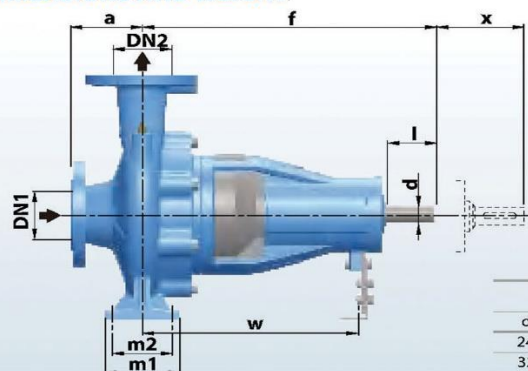
No.	Description	Material
1	Pump Case	Cast iron
2	Impeller	SS304/Cast iron Bronze
3	Mechanical Seal	SiC/Carbon/SS304
4	O-ring	Rubber
5	Connection	Cast iron
6	Shaft	SS304/45# Steel
7	Bearing Cover	Cast iron

No.	Description	Material
8	Bearing	Ball Bearing
9	Support Case	Cast iron
10	Support Foot	Iron
11	Foot Bolt	Steel
12	Coupling(Optional)	Steel
13	Case Cover	SS304
14	Nameplate	Aluminum

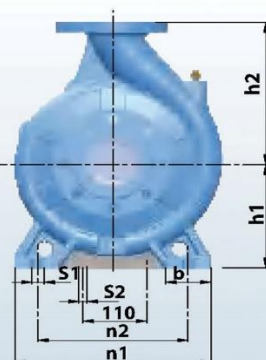
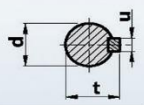
No.	Description	Material
15	Impeller Key	Iron
16	Connection Bolt	Steel
17	Impeller Nut	Galvanized Steel
18	Release Valve	Brass
19	Gasket	Rubber
20	Counter Flange	Galvanized Cast iron
21	Flange Bolt	Steel



DIMENSIONS AND WEIGHT



mm		
d	u	t
24	8	27
32	10	35
42	12	45
60	18	64



DN	D	K	HOLES	
			N	Φmm
32	140	100	4	18
40	150	110		
50	165	125		
65	185	145		
80	200	160	8	22
100	220	180		
125	250	210		
150	285	240		
200	340	295	12	26
250	405	355		

MODEL	DIMENSIONS																	kg
	DN1	DN2	a	f	h1	h2	b	m1	m2	n1	n2	s1	s2	w	x	d	l	
32-160	50	32	80	360	132	160	55	95	70	240	190	14	14	260	100	24	50	31
32-200	50	32	80	360	160	180	55	95	70	240	190	14	14	260	100	24	50	35
32-250	50	32	80	360	160	180	55	95	70	240	190	14	14	260	100	24	50	35
40-160	65	40	80	360	132	160	50	100	70	240	190	14	14	260	100	24	50	35
40-200	65	40	100	360	160	180	55	100	70	265	212	14	14	260	100	24	50	38
40-250	65	40	100	360	180	225	65	125	95	320	250	14	14	260	100	24	50	58
40-315	65	40	125	500	200	160	65	125	95	345	280	14	14	370	140	32	80	82
50-125	65	50	100	360	132	180	50	100	70	240	190	14	14	260	100	24	50	30
50-160	65	50	100	360	160	200	55	100	70	265	212	14	14	260	100	24	50	35
50-200	65	50	100	360	160	225	50	100	70	265	212	14	14	260	100	24	50	45
50-250	65	50	100	360	180	180	65	125	95	320	250	14	14	260	100	24	50	50
50-315	65	50	125	500	225	280	65	125	95	345	280	14	14	370	140	32	80	90
65-125	80	65	100	360	160	250	65	125	95	280	212	14	14	260	100	24	50	42
65-160	80	65	100	360	160	200	65	125	95	280	212	14	14	260	100	24	50	45
65-200	80	65	100	360	180	225	65	125	95	320	250	14	14	260	140	24	50	50
65-250	80	65	100	470	200	250	80	160	120	360	280	18	14	340	140	32	80	71
65-315	80	65	125	470	225	280	80	160	120	360	280	18	14	340	140	32	80	98
80-125	100	80	100	360	180	225	65	125	95	320	250	14	14	260	140	24	50	46
80-160	100	80	100	360	180	225	65	125	95	345	250	14	14	260	140	24	50	48
80-200	100	80	100	470	200	250	65	125	95	345	280	14	14	340	140	32	80	65
80-250	100	80	100	470	200	280	80	160	120	400	315	18	14	340	140	32	80	79
80-315	100	80	125	470	250	315	80	160	120	400	315	18	14	340	140	24	50	118
80-400	100	80	125	540	280	355	80	160	120	400	315	18	14	340	140	32	80	150
100-160	125	100	125	360	200	280	80	160	120	360	280	18	14	260	140	32	80	55
100-200	125	100	125	470	200	280	80	160	120	360	280	18	14	340	140	32	80	75
100-250	125	100	125	470	225	280	80	160	120	400	315	18	14	340	140	32	80	88
100-315	125	100	140	470	250	315	80	160	120	400	315	19	14	340	140	32	80	116
100-400	125	100	140	530	280	355	100	200	150	500	400	23	14	370	140	42	110	178
125-200	150	125	140	470	250	315	80	160	120	400	315	19	14	340	140	32	80	112
125-250	150	125	140	470	250	355	80	160	120	400	315	19	14	340	140	32	80	112
125-250H	150	125	140	530	250	355	80	160	120	400	315	19	14	370	140	42	110	140
125-315	150	125	140	530	280	355	100	200	150	500	400	23	14	370	140	42	110	152
125-400	150	125	140	530	315	400	100	200	150	500	400	23	14	370	140	42	110	200
150-200	200	150	160	470	280	400	100	200	150	550	450	23	14	370	140	32	80	166
150-250	200	150	160	530	280	400	100	200	150	550	450	23	14	370	140	42	110	180
150-315	200	150	160	530	280	400	100	200	150	550	450	23	14	370	140	42	110	186
150-400	200	150	160	530	315	450	100	200	150	550	450	23	14	370	140	42	110	228
200-250	250	200	180	530	355	475	100	200	150	550	450	23	14	370	200	42	110	230
200-315	250	200	180	530	355	450	100	200	150	550	450	23	14	370	200	42	110	234
200-400	250	200	180	770	400	500	110	300	250	710	600	28	14	525	250	60	140	363
250-315	300	250	250	530	400	500	110	300	250	710	600	28	14	525	250	42	110	316
250-400	300	250	250	770	400	560	110	300	250	710	600	28	14	525	250	60	140	400





PV

Vertical multistage centrifugal pump

NEW DESCRIPTION

- ◆ New design noiseless, energy-saving multistage pump
- ◆ Ensuring durability and easy in operation
- ◆ A wide range of products will meet every requirement
- ◆ YE3 high efficient motor, with protection IP55 class F
- ◆ Impeller in techno-polimer
- ◆ Suction and discharge port in cast iron G20 thread
- ◆ Quality NSK bearing, wear resistance mechanical seal
- ◆ Compact and proportional design

APPLICATIONS

- ◆ The high efficiency and noiseless operation which allows these pumps to be used in conditions households, irrigation, car washes, fire protection systems, air conditioning and lifting installations water pressure in the network.

USING LIMITS

- ◆ Liquid temperature between **-10°C** and **+120°C**
- ◆ Ambient temperature between **-10°C** and **+50°C**
- ◆ Max. working pressure **25 bar**
- ◆ Continuous service **S1**



TECHNICAL DATA

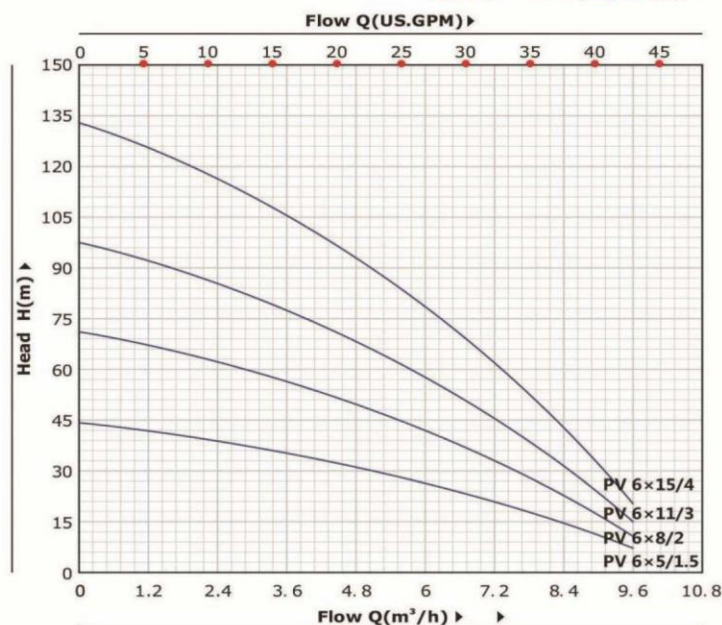
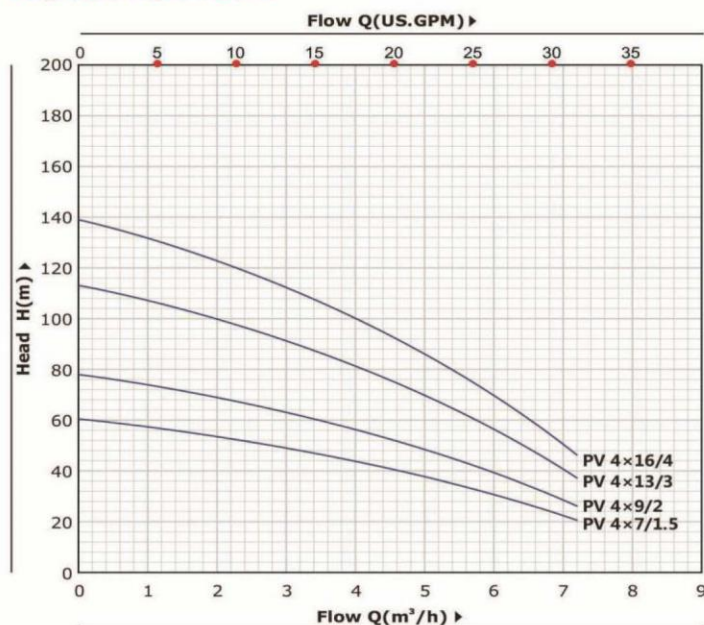
50 Hz n=2900 1/min

MODEL	Power		us gpm l/min m³/h	Q=DELIVERY																		DN			
				0	5	11	13	16	19	21	24	26	29	32	37	42	48	53	58	63	69		74	79	
				0	20	40	50	60	70	80	90	100	110	120	140	160	180	200	220	240	260		280	300	
	kw	hp	0	1.2	2.4	3	3.6	4.2	4.8	5.4	6	6.6	7.2	8.4	9.6	10.8	12	13.2	14.4	15.6	16.8		18	mm	
PV 4×7/1.5	1.1	1.5	H(m)	60.7	56.8	52.1	49	45.9	42.8	38.9	35	30.3	25.7	20.2										25x25	
PV 4×9/2	1.5	2		78	73	67	63	59	55	50	45	39	33	26										25x25	
PV 4×13/3	2.2	3		113	105	96.8	91	85.2	79.4	72.2	65	56.3	47.7	37.5										25x25	
PV 4×16/4	3	4		139	130	119	112	105	97.8	88.9	80	69.3	58.7	46.2										25x25	
PV 6×5/1.5	1.1	1.5		44.4				135.5	33.3	30.9	28.4	26.1	23.4	20.2	14.3	6.8								32x32	
PV 6×8/2	1.5	2		71.1				56.7	53.2	49.5	45.5	41.8	37.5	32.4	22.9	10.9								32x32	
PV 6×11/3	2.2	3		97.7				78	73.2	68	62.5	57.5	51.5	44.5	31.5	15								32x32	
PV 6×15/4	3	4		133				106	99.8	92.7	85.2	78.4	70.2	60.7	43	20.5								32x32	
PV 8×4/1.5	1.1	1.5		36.8							30	28.4	27.2	26	24.4	21.2	17.6	13.2	9.2	4.8				40x40	
PV 8×7/2	1.5	2		64.4							52.5	49.7	47.6	45.5	42.7	37.1	30.8	23.1	16.1	8.4				40x40	
PV 8×9/3	2.2	3		82.8							67.5	63.9	61.2	58.5	54.9	47.7	39.6	29.7	20.7	10.8				40x40	
PV 8×12/4	3	4		110							90	85.2	81.6	78	73.2	63.6	52.8	39.6	27.6	14.4				40x40	
PV 8×16/5.5	4	5.5		147							120	114	109	104	97.6	84.8	70.4	52.8	36.8	19.2				40x40	
PV 12×3/1.5	1.1	1.5		31									25.4	24.7	24	22.4	20.6	18.4	16.2	13.3	10.9	8.3	5.1	2	50x50
PV 12×5/2	1.5	2		51.7									42.4	41.2	40	37.3	34.3	30.7	27	22.2	18.2	13.8	8.5	3.3	50x50
PV 12×7/3	2.2	3		72.3									59.3	57.6	56	52.3	48.1	43	37.8	31	25.5	19.4	11.9	4.7	50x50
PV 12×9/4	3	4	93									76.2	74.1	72	67.2	61.8	55.2	48.6	39.9	32.8	24.9	15.4	6	50x50	
PV 12×12/5.5	4	5.5	122									102	98.8	96	89.6	82.4	73.6	64.8	53.2	43.8	33.2	20.5	8	50x50	
PV 12×17/7.5	5.5	7.5	176									144	140	136	127	117	104	91.8	75.4	62	47	29	11.3	50x50	

MODEL	Power		us gpm	Q=DELIVERY									DN
				0	26	53	79	106	132	159	185	211	
				l/min	0	100	200	300	400	500	600	700	
	kw	hp	m³/h	0	6	12	18	24	30	36	42	48	
PV 30×7/10	7.5	10	H(m)	104	100	93	83	74	64	49	31	4	50x50 65x65
PV 30×9/12	9.2	12.5		133	128	119	108	96	82	63	40	5	
PV 30×11/15	11	15		163	156	145	132	116	99	77	48	6	

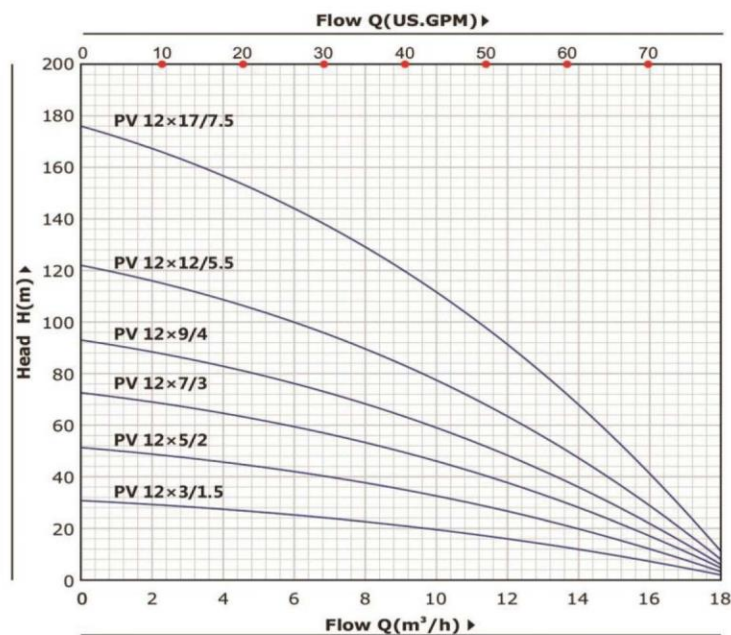
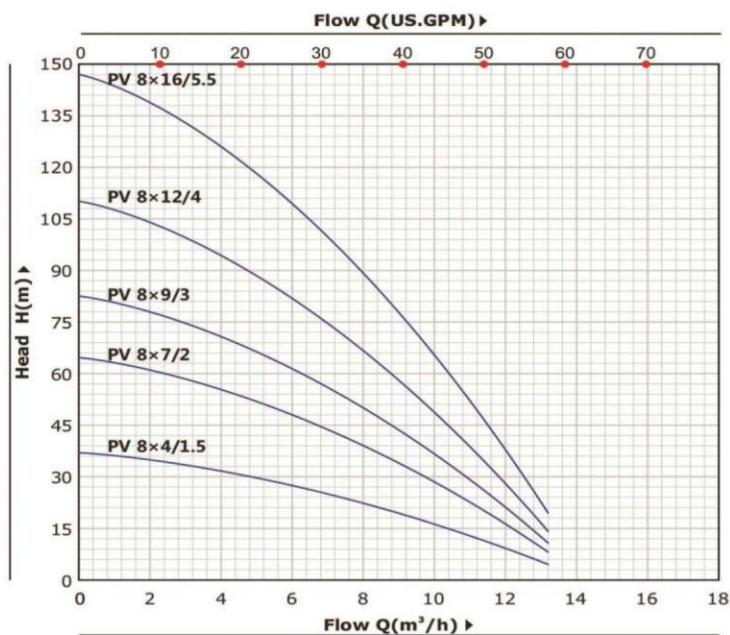
PERFORMANCE CURVE

50 Hz n=2900 1/min

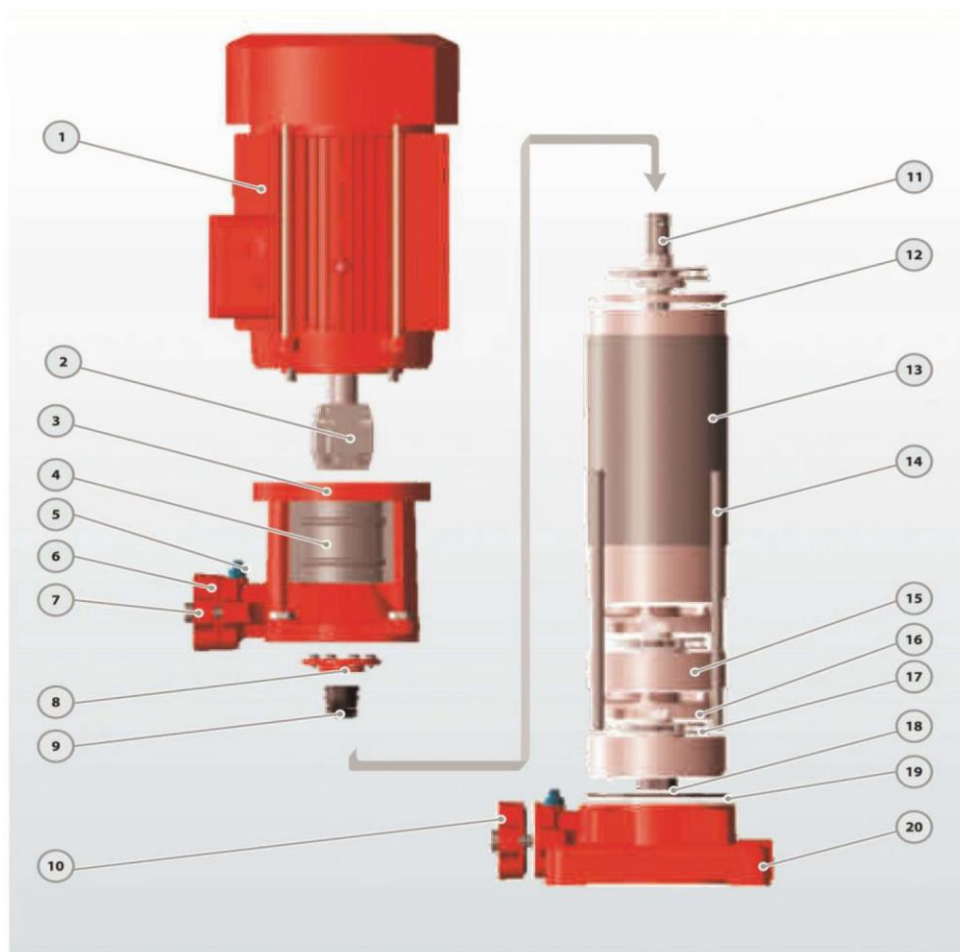


PERFORMANCE CURVE

50 Hz n=2900 1/min



MATERIAL DESCRIPTION

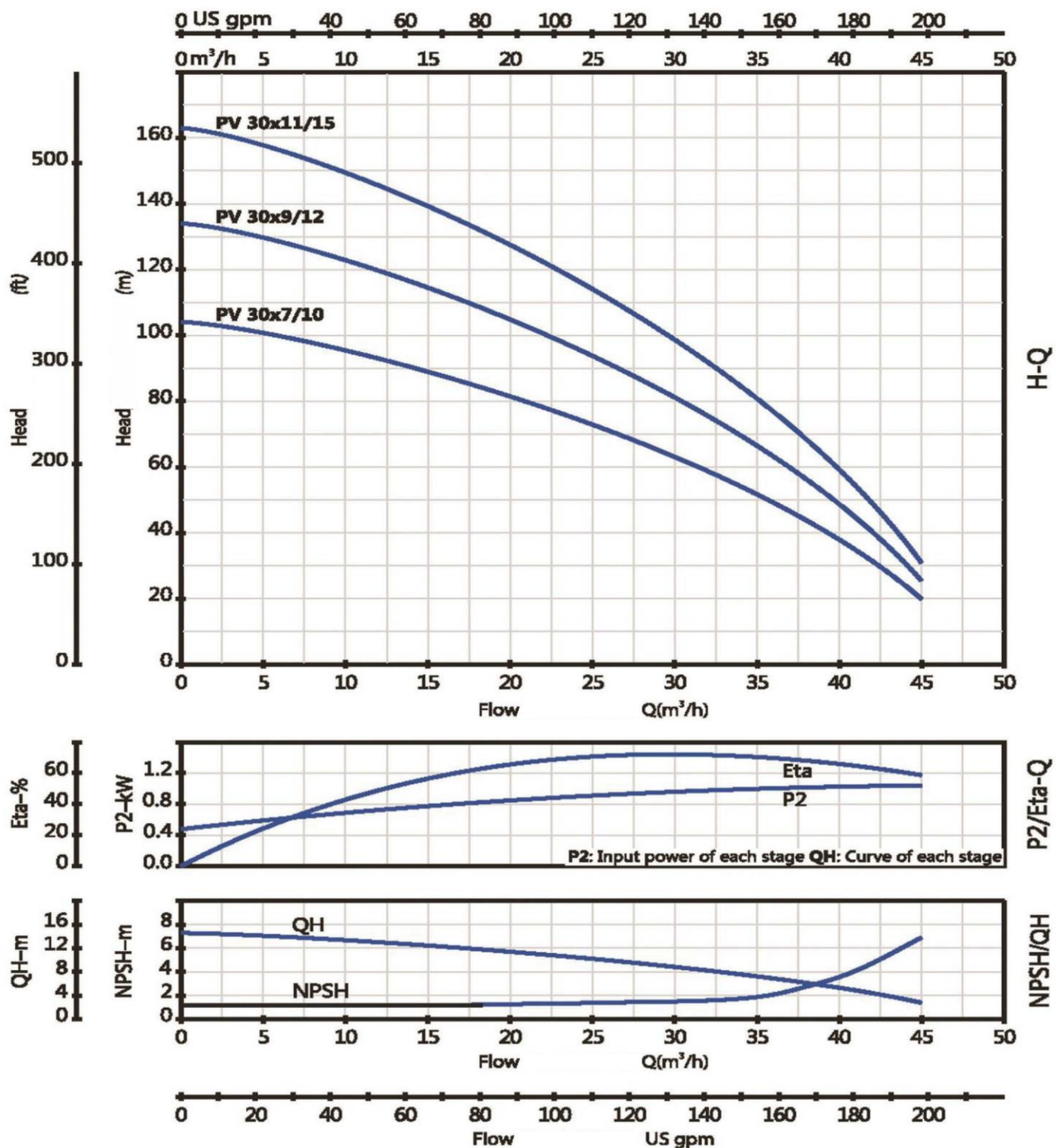


No.	Description	Material
1	Motor	IP55 Class F
2	Coupling	Iron
3	Discharge Body	Cast iron
4	Cover	SS304
5	Release Valve	Brass
6	Discharge	Cast iron
7	Bolt	Steel
8	Seal Cover	Cast iron
9	Mechanical Seal	SiC/Carbon/SS304
10	Suction	Cast iron
11	Pump Shaft	SS304/45# Iron
12	Diffuser Top Cover	Technopolimer
13	Pump Cover	SS304
14	Through Bolt	Steel
15	Diffuser Cover	Technopolimer with SS304 ring
16	Diffuser	Technopolimer with SS304 ring
17	Impeller	Technopolimer
18	Impeller Nut	Galvanized Steel
19	O-ring	Rubber
20	Suction Body	Cast iron



PV 30

2900rpm



YE3

Electric motor TEFC type



NEW

DESCRIPTION



- ◆ Design according to IEC60034 standard
- ◆ TOTAL ENCLOSED FAN COOLING TYPE motor
- ◆ YE3 high efficient motor
- ◆ Protection IP55 class F
- ◆ Quality NSK bearing
- ◆ Continuous duty S1
- ◆ Reliable used for fire fighting system etc.
- ◆ Ambient temperature up to +50°C
- ◆ Cooling type : IC411

MODEL CODE

For example

YE3 - 160 (S/M/L) 2/1-2/4

2=2 poles motor 2900rpm

4=4 poles motor 1450rpm

Stator size code

2=Longer size

1=Long size

Blank:Standard size

Frame length code

S=Short size/Talla corta/Taille courte

M=Middle size/Tamaño medio/Taille moyenne

L=Long size/Talla larga/Taille longue

160=Motor frame size(mm)

YE3=YE3 high efficient motor



TECHNICAL DATA/DATOS TÉCNICOS/DONNÉES TECHNIQUES

50 Hz n=2900 1/min

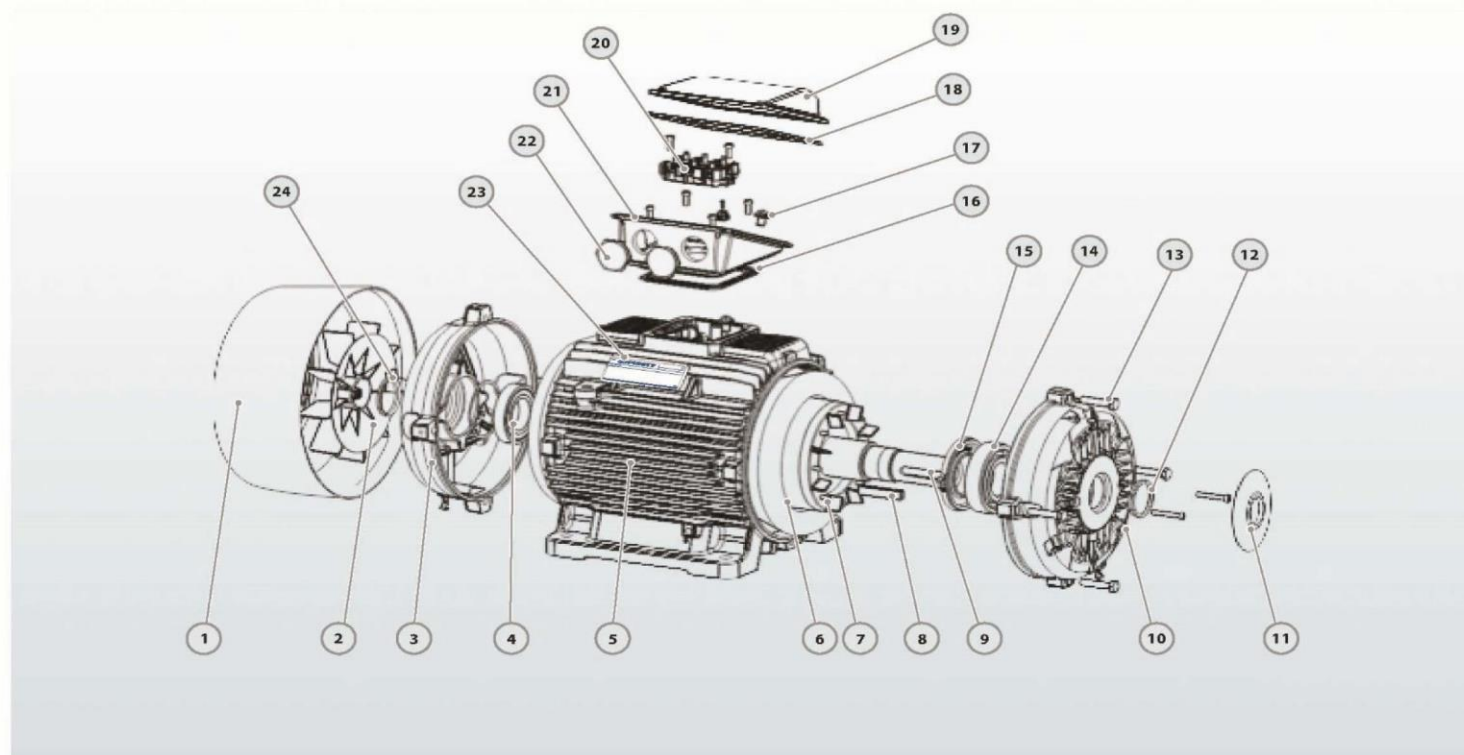
MODEL MODELO MODÈLE	Power Potencia Puissance		RPM 1/min	η %	η 75%	η 50%	$\cos \Phi$	A			Nm	Ts/Tn	Tmax/Tn	Is/In	dB(A)	Kgs
	kw	hp						380V	400V	415V						
YE3-801-2	0.75	1	2880	80.7	80.7	79.1	0.82	1.72	1.64	1.58	2.49	2.3	2.3	7	73	18.1
YE3-802-2	1.1	1.5	2880	82.7	82.7	81	0.83	2.43	2.31	2.23	3.65	2.2	2.3	7.3	73	19.5
YE3-90S-2	1.5	2	2895	84.2	84.2	82.5	0.84	3.22	3.06	2.95	4.95	2.2	2.3	7.6	76	23.3
YE3-90L-2	2.2	3	2895	85.9	85.9	84.2	0.85	4.58	4.35	4.19	7.26	2.2	2.3	7.6	77	27.1
YE3-100L-2	3	4	2895	87.1	87.1	85.4	0.87	6.02	5.71	5.51	9.9	2.2	2.3	7.8	79	38.8
YE3-112M-2	4	5.5	2905	88.1	88.1	86.3	0.88	7.84	7.45	7.18	13.1	2.2	2.3	8.3	80	48.3
YE3-132S1-2	5.5	7.5	2930	89.2	89.2	87.4	0.88	10.6	10.1	9.75	17.9	2	2.3	8.3	83	55.1
YE3-132S2-2	7.5	10	2930	90.1	90.1	88.3	0.88	14.4	13.7	13.2	24.4	2	2.3	7.9	84	69.2
YE3-160M1-2	11	15	2945	91.2	91.2	89.4	0.89	20.6	19.6	18.9	35.7	2	2.3	8.1	87	113
YE3-160M2-2	15	20	2945	91.9	91.9	90.1	0.89	27.9	26.5	25.5	48.6	2	2.3	8.1	87	123
YE3-160L-2	18.5	25	2940	92.4	92.4	90.6	0.89	34.2	32.5	31.3	60.1	2	2.3	8.2	90	142
YE3-180M-2	22	30	2955	92.7	92.7	90.8	0.89	45.5	38.5	37.1	71.1	2	2.3	8.2	90	182
YE3-200L1-2	30	40	2960	93.3	93.3	91.4	0.89	58.9	52.1	50.3	96.8	2	2.3	7.6	91	246
YE3-200L2-2	37	50	2960	93.7	93.7	91.8	0.89	67.4	64	61.7	119.4	2	2.3	7.6	91	265
YE3-225M-2	45	60	2965	94	94	92.1	0.9	87.8	76.8	74	144.9	2	2.3	7.7	93	323
YE3-250M-2	55	75	2970	94.3	94.3	92.4	0.9	112	93.5	90.2	176.9	2	2.3	7.7	93	413
YE3-280S-2	75	100	2975	94.7	94.7	92.8	0.9	144	127	122	240.8	1.8	2.3	7.1	94	546
YE3-280M-2	90	125	2975	95	95	93.1	0.9	170	152	146	288.9	1.8	2.3	7.1	94	569
YE3-315S-2	110	150	2978	95.2	95.2	93.3	0.9	209	185	179	352.8	1.8	2.3	7.1	94	897
YE3-315M-2	132	180	2978	95.4	95.4	93.5	0.9	244	222	214	423.3	1.8	2.3	7.1	95	1029
YE3-315L1-2	160	220	2980	95.6	95.6	93.7	0.91	279	265	256	512.8	1.8	2.3	7.2	95	1067
YE3-315L2-2	200	270	2980	95.8	95.8	93.9	0.91	349	331	319	640.9	1.8	2.2	7.2	95	1194
YE3-355M-2	250	340	2982	95.8	95.8	93.9	0.91	436	414	399	800.6	1.6	2.2	7.2	103	1685
YE3-355L-2	315	430	2982	95.8	95.8	93.9	0.91	549	522	503	1009	1.6	2.2	7.2	103	1734

50 Hz n=1450 1/min

MODEL MODELO MODÈLE	Power Potencia Puissance		RPM 1/min	η %	η 75%	η 50%	$\cos \Phi$	A			Nm	Ts/Tn	Tmax/Tn	Is/In	dB(A)	Kgs
	kw	hp						380V	400V	415V						
YE3-801-4	0.55	0.75	1400	80.8	80.8	79.2	0.75	1.38	1.31	1.26	3.75	2.4	2.3	5.2	63	17.6
YE3-802-4	0.75	1	1420	82.5	82.5	80.9	0.75	1.84	1.75	1.69	5.04	2.3	2.3	6.6	63	18.4
YE3-90S-4	1.1	1.5	1445	84.1	84.1	82.4	0.76	2.61	2.48	2.39	7.27	2.3	2.3	6.8	66	24.2
YE3-90L-4	1.5	2	1445	85.3	85.3	83.6	0.77	3.47	3.3	3.18	9.91	2.3	2.3	7	66	29.7
YE3-100L1-4	2.2	3	1450	86.7	86.7	85	0.81	4.76	4.52	4.36	14.6	2.3	2.3	7.6	68	41.5
YE3-100L2-4	3	4	1450	87.7	87.7	85.9	0.82	6.34	6.02	5.8	20	2.3	2.3	7.6	68	46
YE3-112M-4	4	5.5	1450	88.6	88.6	86.8	0.82	8.37	7.95	7.66	26.5	2.2	2.3	7.8	72	63.2
YE3-132S-4	5.5	7.5	1460	89.6	89.6	87.8	0.83	11.2	10.7	10.3	36	2	2.3	7.9	74	71.2
YE3-132M-4	7.5	10	1460	90.4	90.4	88.6	0.84	15	14.3	13.7	49.1	2	2.3	7.5	77	85.1
YE3-160M-4	11	15	1465	91.4	91.4	89.6	0.85	21.5	20.4	19.7	71.7	2.2	2.3	7.7	78	121
YE3-160L-4	15	20	1465	92.1	92.1	90.3	0.86	28.8	27.3	26.3	97.8	2.2	2.3	7.8	82	142
YE3-180M-4	18.5	25	1470	92.6	92.6	90.7	0.86	35.3	33.5	32.3	120.2	2	2.3	7.8	82	181
YE3-180L-4	22	30	1470	93	93	91.1	0.86	41.8	39.7	38.3	142.9	2	2.3	7.8	82	209
YE3-200L-4	30	40	1475	93.6	93.6	91.7	0.86	56.6	53.8	51.8	194.2	2	2.3	7.3	84	284
YE3-225S-4	37	50	1485	93.9	93.9	92	0.86	69.6	66.1	63.7	237.9	2	2.3	7.4	85	328
YE3-225M-4	45	60	1485	94.2	94.2	92.3	0.86	84.4	80.2	77.3	289.4	2	2.3	7.4	86	363
YE3-250M-4	55	75	1485	94.6	94.6	92.7	0.86	103	97.6	94.1	353.7	2.2	2.3	7.4	86	442
YE3-280S-4	75	100	1486	95	95	93.1	0.88	136	139	125	482	2	2.3	6.9	89	569
YE3-280M-4	90	125	1486	95.2	95.2	93.3	0.88	163	155	149	578.4	2	2.3	6.9	89	639
YE3-315S-4	110	150	1488	95.4	95.4	93.5	0.89	197	187	180	706	2	2.2	7	89	939
YE3-315M-4	132	180	1488	95.6	95.6	93.7	0.89	236	224	216	847.2	2	2.2	7	92	1033
YE3-315L1-4	160	220	1488	95.8	95.8	93.9	0.89	285	271	261	1027	2	2.2	7.1	92	1126
YE3-315L2-4	200	270	1490	96	96	94.1	0.9	352	334	322	1282	2	2.2	7.1	92	1238
YE3-355M-4	250	340	1490	96	96	94.1	0.9	440	418	403	1602	2	2.2	7.1	101	1830
YE3-355L-4	315	430	1490	96	96	94.1	0.9	554	526	507	2019	2	2.2	7.1	101	1950



MATERIAL DESCRIPTION



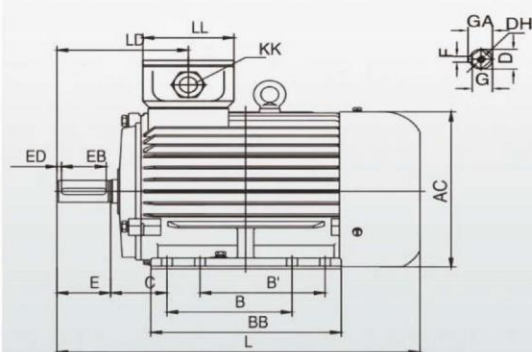
No.	Description	Material
1	Fan cover	Iron
2	Fan	Plastic
3	Rear endshield	Cast iron
4	Rear bearing	Ball Bearing
5	Frame	Cast iron
6	Wound Stator	Silicon Steel/Copper
7	Rotor	Silicon Steel
8	Key	Iron

No.	Description	Material
9	Shaft	45# Steel
10	Front endshield	Cast iron
11	Bearing cap	Cast iron
12	Seal	Rubber
13	Bolt	Steel
14	Front bearing	Ball Bearing
15	Internal bearing cap	Cast iron
16	Gasket	Rubber

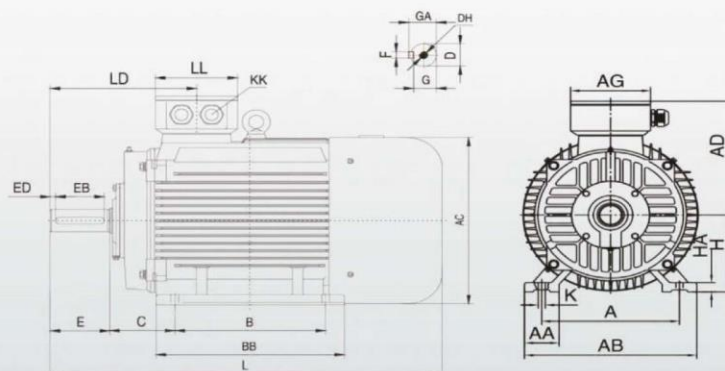
No.	Description	Material
17	Screw	Steel
18	Gasket	Rubber
19	Terminal box cover	Aluminum
20	Terminal board	Plastic
21	Terminal box	Aluminum
22	Terminal box plug	Plastic
23	Nameplate	Aluminum
24	Seal	Rubber



DIMENSIONS



80-132



160-355

MODEL	DIMENSIONS																				mm			
	A	AA	AB	AC	AD	AG	B	BB	C	D	DH	E	EB	ED	F	G	GA	H	HA	K	KK	L	LD	LL
80	125	34	160	167	147	102	100	150	50	19	M6X16	40	30	2.5	6	15.5	21.5	80	10	4-Φ10	1-M25X1.5	304	119	102
90S	140	36	176	182.4	154.5	102	100	161	56	24	M8X19	50	40	5	8	20	27	90	12	4-Φ10	1-M25X1.5	336	143	102
90L	140	36	176	182.4	154.5	102	125	186	56	24	M8X19	50	40	5	8	20	27	90	12	4-Φ10	1-M25X1.5	361	143	102
100L	160	40	200	205.4	166	102	140	213	63	28	M10X22	60	50	5	8	24	31	100	14	4-Φ12	1-M32X1.5	406	147	102
112M	190	50	240	230	188	118	140	188	70	28	M10X22	60	50	5	8	24	31	112	15	4-Φ12	2-M32X1.5	394	147	110
132S	216	55	265	258.4	203	118	140	186	89	38	M12X28	80	65	5	10	33	41	132	18	4-Φ12	2-M32X1.5	438	172	110
132M	216	55	265	258.4	203	118	178	224	89	38	M12X28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32X1.5	476	172	110
160M	254	65	314	314	251	162	210	260	108	42	M16X36	110	90	7.5	12	37	45	160	20	4-Φ14.5	2-M40X1.5	608	256	152
160L	254	65	314	314	251	162	254	304	108	42	M16X36	110	90	10	12	37	45	160	20	4-Φ14.5	2-M40X1.5	652	256	152
180M	279	70	349	355	267	162	241	311	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40X1.5	688	271	152
180L	279	70	349	355	267	162	279	349	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40X1.5	726	271	152
200L	318	70	388	397	299	210	305	369	133	55	M20X42	110	100	10	16	49	59	200	25	4-Φ18.5	2-M50X1.5	779	296	190
225S	356	75	431	446	322	210	286	368	149	60	M20X42	140	125	5	18	53	64	225	28	4-Φ18.5	2-M50X1.5	824	329	190
225M	356	75	431	446	322	210	311	393	149	55	M20X42	110	100	7.5	16	49	59	225	28	4-Φ18.5	2-M50X1.5	819	299	190
250M	406	80	484	485	358	248	349	445	168	60	M20X42	140	125	7.5	18	53	64	250	30	4-Φ24	2-M63X1.5	910	347	218
280S	457	85	542	547	387	248	368	485	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63X1.5	982	355.5	218
280M	457	85	542	547	387	248	419	536	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63X1.5	1033	355.5	218
315S	508	120	628	620	527	320	406	570	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1194	397	280
315M	508	120	628	620	527	320	457	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1304	397	280
315L	508	120	628	620	527	320	508	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1304	397	280
355M	610	116	726	698	642	380	560	750	254	75	M20X42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63X1.5	1486	414	330
355L	610	116	726	698	642	380	630	750	254	75	M20X42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63X1.5	1486	414	330

