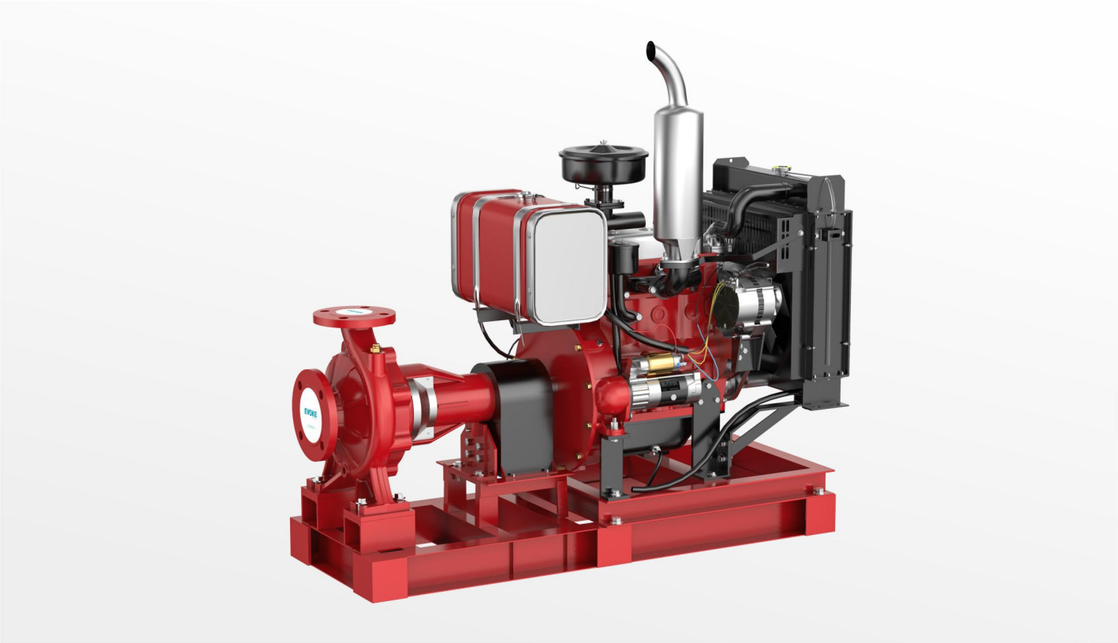

ESD Diesel Engine Pump

Description

Special designed for fire fighting pump, easy to assemble, optimize noise, reduce vibration amplitude, reduce oil consumption and be more environmentally friendly, can also used in life, and meet the emission standards of China.

Air-cooled 1-2-cylinder in-line naturally aspirated engines.

Water-cooling 2-to 6-cylinder naturally and turbo engines.

Advanced direct injection and combustion system.

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.

According to NFPA 20, diesel engines for fire pump is of the compression ignition type advanced direct injection and combustion system.

Model Definition

ES (ESD) 80 - 250 / 40

- 40=Rated power(kw)x10
- 250=Nominal impeller size(mm)
- 80=Discharge
- ESD=End suction pump with diesel&base
- ES=End suction pump

Technical Sheet

Model	ESD	Model	ESD
Capacity	0-1000 GPM	Casing	Cast iron
Head	0-164 m	Power	6.3-300 kW
DN	32-150 mm	Shaft	45# steel/SS304
Speed	3000/3600 rpm	Shaft seal	Mechanical Seal/Packing Seal
T max	120°C	Bearing	Grease lubrication rolling bearing
Impeller	Cast iron/SS304		

Performance Table

Q=Delivery 50Hz n=2900

Model	DN	Power		Pump	GPM	0	26	40	66	79	106	119	159	185	211	238	317	370	396	476	529	608	793	925
					L/min	0	100	150	250	300	400	450	600	700	800	900	1200	1400	1500	1800	2000	2300	3000	3500
	mm	kW	HP		m³/h	0	6	9	15	18	24	27	36	42	48	54	72	84	90	108	120	138	180	210
ESD 32-250/60	50x32	6	8	ES 32-250/55	H= Head (m)	60	59.5	59	55	50.2	34.5	-	-	-	-	-	-	-	-	-	-	-	-	-
ESD 32-250/125	50x32	7.8	11	ES 32-250/75		69.5	69	68.5	66	63	53	-	-	-	-	-	-	-	-	-	-	-	-	-
ESD 32-250/150	50x32	14	19	ES 32-250/110		92	90	88.5	82.5	78	66	-	-	-	-	-	-	-	-	-	-	-	-	-
ESD 40-250/150	65x40	14	19	ES 40-250/110		72	-	-	-	67.5	65	63.5	57.5	52.2	47	-	-	-	-	-	-	-	-	-
ESD 40-250/200	65x40	20	27	ES 40-250/150		82	-	-	-	79.3	77.3	76.5	71	66	61	54.8	-	-	-	-	-	-	-	-
ESD 50-250/200	65x50	20	27	ES 50-250/150		68.5	-	-	-	-	-	-	64	63	61.5	59	50	41	-	-	-	-	-	-
ESD 50-250/280	65x50	20	27	ES 50-250/185		77	-	-	-	-	-	-	73.2	72	70	68	60.5	51.5	-	-	-	-	-	-
ESD 50-250/280	65x50	28	38	ES 50-250/220		86.3	-	-	-	-	-	-	83	81.5	80	78	70	61	-	-	-	-	-	-
ESD 65-250/280	80x65	28	38	ES 65-250/220		64.8	-	-	-	-	-	-	-	-	-	64.7	62	60	58.5	53	50	-	-	-
ESD 65-250/360	80x65	36	49	ES 65-250/300		76	-	-	-	-	-	-	-	-	-	75	73	70	69	64	61	54	-	-
ESD 65-250/450	80x65	42	58	ES 65-250/370		90	-	-	-	-	-	-	-	-	-	88	86	84	82	78	74	68	-	-
ESD 65-315/550	80x65	55	75	ES 65-315/450		107	-	-	-	-	-	-	-	-	-	102.2	100	98	96.8	94.8	93	86	-	-
ESD 65-315/750	80x65	75	100	ES 65-315/550		128	-	-	-	-	-	-	-	-	-	122.8	120.9	119.2	117.9	115.9	113	106	78	-

Model	DN	Power		Pump	GPM	0	264	396	529	634	793	881	925	969	1057	1233	1322	1586	1762	2203	2643	2907	3524	4405
					L/min	0	1000	1500	2000	2400	3000	3333	3500	3667	4000	4667	5000	6000	6667	8333	10000	11000	13333	16667
	mm	kW	HP		m³/h	0	60	90	120	144	180	200	210	220	240	280	300	360	400	500	600	660	800	1000
ESD 80-250/450	100x80	42	58	ES 80-250/370	H= Head (m)	71.5	70.9	70.5	65.5	61	49.5	43.2	38.5	-	-	-	-	-	-	-	-	-	-	-
ESD 80-250/550	100x80	55	75	ES 80-250/450		82	86.7	80.5	76.5	71.5	62	60	51	-	-	-	-	-	-	-	-	-	-	-
ESD 80-250/750	100x80	75	100	ES 80-250/550		95	94.5	93.5	89.9	86.5	77.6	72.1	68.3	-	-	-	-	-	-	-	-	-	-	-
ESD 80-315/550	100x80	55	75	ES 80-315/450		88	87	85.1	84	80	70.3	63	58	-	-	-	-	-	-	-	-	-	-	-
ESD 80-315/750	100x80	75	100	ES 80-315/550		101	100	98.5	98	94	83.7	76	71	-	-	-	-	-	-	-	-	-	-	-
ESD 80-315/900	100x80	90	122	ES 80-315/750		128	127	125.2	125	121	110.5	103	98	93	83.2	-	-	-	-	-	-	-	-	-
ESD 100-250/550	125x100	55	75	ES 100-250/450		66.8	66.5	65.3	64.1	62	58.8	56.6	56.5	53.8	50.4	39.3	33.7	-	-	-	-	-	-	-
ESD 100-250/750	125x100	75	100	ES 100-250/550		78.8	77.5	76.8	76.1	74.8	72.8	72.3	73	71.2	69.4	62.6	59.2	-	-	-	-	-	-	-
ESD 100-250/900	125x100	90	122	ES 100-250/750		92.8	92.5	91.8	90.8	89	86.3	84.6	84.8	82	78.4	72	68.7	48.2	-	-	-	-	-	-
ESD 100-250/1100	125x100	110	150	ES 100-250/900		101.8	101.5	100.8	99.8	98	95.3	93.6	93.8	91	87.4	81	77.7	57.2	-	-	-	-	-	-
ESD 100-315/900	125x100	90	122	ES 100-315/750		81.4	-	-	79.6	77.7	74.8	73.6	74.3	73	71.1	68.3	64.2	52.2	-	-	-	-	-	-
ESD 100-315/1100	125x100	110	150	ES 100-315/900		101.5	-	-	99.6	97.7	94.8	93.6	94.3	93	91.1	88.3	84.2	72.2	-	-	-	-	-	-
ESD 100-315/1320	125x100	132	180	ES 100-315/1100		119.6	-	-	117.6	115.7	112.8	111.6	112.3	111	109.1	106.3	102.2	90.2	-	-	-	-	-	-
ESD 100-315/1700	125x100	170	231	ES 100-315/1320		132	-	-	128.6	126.7	123.8	122.6	123.3	122	120.1	117.3	112.2	101.2	-	-	-	-	-	-
ESD 125-250/750	150x125	75	100	ES 125-250/550		71	-	-	68.1	67	64.8	63.6	63.5	61.5	59.9	54.3	50.7	-	-	-	-	-	-	-
ESD 125-250/900	150x125	90	122	ES 125-250/750		82	-	-	77.6	76.5	74.8	73.6	73.5	72	70.4	67.3	65.2	56.2	-	-	-	-	-	-
ESD 125-250/1100	150x125	110	150	ES 125-250/900		88	-	-	85.1	83.5	81.8	80.1	80.5	78.5	77.4	73.8	71.7	65.2	60.2	-	-	-	-	-
ESD 125-250/1320	150x125	132	180	ES 125-250/1100		98.9	-	-	95.9	94.7	92.8	91.8	91.1	90.5	89.1	85.7	85.2	77.5	72.4	-	-	-	-	-
ESD 125-315/1700	150x125	170	231	ES 125-315/1320		97.9	-	-	-	-	-	97.1	97	96.9	96.7	95.9	95.4	93.6	90.3	77.5	-	-	-	-
ESD 125-315/1900	150x125	190	258	ES 125-315/1600		114.2	-	-	-	-	-	113.4	113.3	113.2	113	112.2	111.7	110	108.1	99.5	81.6	-	-	-

*More and larger sizes can be customized

Diesel Engine

Engine model	ED-178	ED-186	ED-192	ED-195
Power(kW)	3.7/4.0	6.0/6.6	7.8/8.2	8.2/8.7
Power(HP)	5/5.4	8.2/9.0	10.5/11	11/11.8
Speed(rpm)	3000/3600	3000/3600	3000/3600	3000/3600
Type	Air-cooled,V-type,4-stroke			
Cylinder number	1	1	1	1
Bore*Stroke	78*62	86*72	92*75	95*75
Displacement(L)	0.296	0.418	0.499	0.531
Aspiration type	Naturally	Naturally	Naturally	Naturally
Cooling type	Air-cooled			
Minimum fuel consumption(g/kw.h)	276/281	275/281	275/281	275/281
Start voltage	12V	12V	12V	12V
Mode of speed regulation	Mechanical	Mechanical	Mechanical	Mechanical
Standard configuration	Radiator, fan, starter, charge alternator, air filter, muffler, stop solenoid(optional), PTO shaft(optional), fuel tank(optional), meter panel(optional), water temperature sensor and oil pressure sensor(optional).			

Engine model	ED-288	ED-292	ED-295	ED-2100	ED-2105
Power(kW)	13/14	15/16	18.8	20.8	22.8
Power(HP)	17.4/18.8	20/21.4	25	27.9	30.5
Speed(rpm)	3000/3600	3000/3600	3000	3000	3000
Type	Air-cooled,V-type,4-stroke				
Cylinder number	2	2	2	2	2
Bore*Stroke	88*75	92*75	95*88	100*88	105*88
Displacement(L)	0.912	0.997	1.247	1.382	1.523
Aspiration type	Naturally	Naturally	Naturally	Naturally	Naturally
Cooling type	Air-cooled&Water cooled				
Minimum fuel consumption(g/kw.h)	260/265	260/265	260/265	260/265	260/265
Start voltage	12V	12V	12V	12V	12V
Mode of speed regulation	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Standard configuration	Radiator, fan, starter, charge alternator, air filter, muffler, stop solenoid(optional), PTO shaft(optional), fuel tank(optional), meter panel(optional), water temperature sensor and oil pressure sensor(optional).				

Diesel Engine

Engine model	ED-380	ED-385	ED-480	ED-485	ED-490	ED-490B	ED-490Z	ED-4102	ED-4102Z	ED-4105
Power(kW)	20	24	28	36	42	45	55	63	73	67
Power(HP)	27	32	38	49	58	60	75	86	99	91
Speed(rpm)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Type	Air-cooled,V-type,4-stroke									
Cylinder number	3	3	4	4	4	4	4	4	4	4
Bore*Stroke	80*90	85*90	80*90	85*100	90*100	90*105	90*105	102*118	102*118	105*118
Displacement(L)	1.357	1.532	1.8	2.27	2.54	2.67	2.67	3.857	3.857	4.087
Aspiration type	Naturally	Naturally	Naturally	Naturally	Naturally	Naturally	Tubo-charged	Naturally	Tubo-charged	Naturally
Cooling type	Water cooled									
Minimum fuel consumption(g/kw.h)	253	253	215	228	245	245	245	252	252	252
Start voltage	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V
Mode of speed regulation	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Standard configuration	Radiator, fan, starter, charge alternator, air filter, muffler, stop solenoid(optional), PTO shaft(optional), fuel tank(optional), meter panel(optional), water temperature sensor and oil pressure sensor(optional).									

Engine model	ED-4105Z	ED-4108	ED-4108Z	ED-4108ZL	ED-6102	ED-6102Z	ED-6102ZL	ED-6126	ED-6126Z	ED-6126ZL
Power(kW)	98	73	83	92	110	132	170	190	230	280
Power(HP)	102	99	113	125	150	180	231	258	313	381
Speed(rpm)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Type	Air-cooled,V-type,4-stroke									
Cylinder number	4	4	4	4	6	6	6	6	6	6
Bore*Stroke	105*118	108*118	108*118	108*118	102*118	102*118	102*118	126*130	126*130	126*130
Displacement(L)	4.087	4.324	4.324	4.324	5.785	5.785	5.785	9.726	9.726	9.726
Aspiration type	Tubo-charged	Naturally	Tubo-charged	Turbocharged &Inter Cooled	Naturally	Tubo-charged	Turbocharged &Inter Cooled	Naturally	Tubo-charged	Turbocharged &Inter Cooled
Cooling type	Water cooled									
Minimum fuel consumption(g/kw.h)	238	238	238	238	242	242	242	250	250	250
Start voltage	12V	12V	12V	12V	24V	24V	24V	24V	24V	24V
Mode of speed regulation	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Standard configuration	Radiator, fan, starter, charge alternator, air filter, muffler, stop solenoid(optional), PTO shaft(optional), fuel tank(optional), meter panel(optional), water temperature sensor and oil pressure sensor(optional).									