THE HAMMER
FIRE PUMPS

THE HAMMER

ENGINEERED FOR PERFORMANCE.
BUILT FOR RELIABILITY.







SCAN FOR MORE INFO

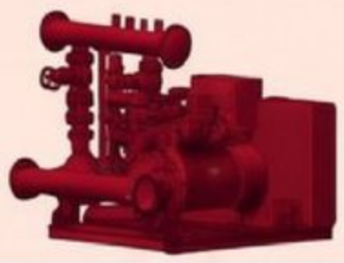
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NFPA National Fire

CE

TECHNICAL DATA / DATOS TÉCNICOS / DONNÉES TECHNIQUES

CEDJ FIRE PUMP SYSTEMS



	Q	H	Electric pump / Bomba eléctrica		Diesel pump / Bomba diesel	Jockey pump / Bomba Jockey	
			Option 1 Close coupled Acoplado cerrado Couplage étroit	Option 2 Separate coupled Acoplado separado Séparé couplé	Coupling type Tipo acoplado Type d'accouplement	Option 1 Plastic impeller Impulsor plástico Roue plastique	Option 2 SS304 impeller Impulsor inox304 Roue inox304
	GPM	Bar					
CEDJ 50/6-5.5-8.6-2	50	6	C2C 32-200/40 5.5HP	CSM 32-250/55 7.5HP	CSD 32-250/55 8.6HP	PV 4x9/2HP	PVT(S) 1-15 1HP
CEDJ 50/7-7.5-10-2	50	7	C2C 40-210/55 7.5HP	CSM 32-250/75 10HP	CSD 32-250/75 10HP	PV 4x9/2HP	PVT(S) 1-15 1HP
CEDJ 50/8-10-12-3	50	8	C2C 40-210/75 10HP	CSM 32-250/110 15HP	CSD 32-250/110 12HP	PV 4x13/3HP	PVT(S) 1-15 1HP
CEDJ 50/9-10-27-3	50	9	C2C 40-210/75 10HP	CSM 32-250/150 20HP	CSD 32-250/150 27HP	PV 4x13/3HP	PVT(S) 1-17 1.5HP
CEDJ 100/7-10-10-2	100	6-7	CST 32-250/75 10HP	CSM 32-250/75 10HP	CSD 32-250/75 10HP	PV 4x9/2HP	PVT(S) 2-11 1.5HP
CEDJ 100/8-15-27-3	100	8	C2C 40-200/110 15HP	CSM 32-250/150 20HP	CSD 32-250/150 27HP	PV 4x13/3HP	PVT(S) 2-13 2HP
CEDJ 100/9-17.5-27-3	100	9	C2C 40-250/130 17.5HP	CSM 40-250/185 25HP	CSD 40-250/185 27HP	PV 4x13/3HP	PVT(S) 2-13 2HP
CEDJ 120/7-10-12-3	120	7	CST 32-250/75D 10HP	CSM 32-250/75H 10HP	CSD 32-250/75H 12HP	PV 4x13/3HP	PVT(S) 2-13 2HP
CEDJ 150/7-15-12-3	150	7	CST 40-250/110 15HP	CSM 40-250/110 15HP	CSD 40-250/110 12HP	PV 4x13/3HP	PVT(S) 4-10 3HP
CEDJ 200/6-20-27-3	200	6	CST 50-250/150 20HP	CSM 50-250/150 20HP	CSD 50-250/150 27HP	PV 4x13/3HP	PVT(S) 4-10 3HP
CEDJ 200/7-25-27-3	200	7	CST 50-250/185 25HP	CSM 50-250/185 25HP	CSD 50-250/185 27HP	PV 4x13/3HP	PVT(S) 4-10 3HP
CEDJ 200/8-30-32-3	200	8	CST 50-250/220 30HP	CSM 50-250/220 30HP	CSD 50-250/220 32HP	PV 4x13/3HP	PVT(S) 4-12 3HP
CEDJ 200/9-40-38-4	200	9	-	CSM 50-250/300 40HP	CSD 50-250/300 38HP	PV 4x16/4HP	PVT(S) 4-12 3HP
CEDJ 200/10-50-58-4	200	10	-	CSM 50-315/370 50HP	CSD 50-315/370 58HP	PV 6x15/4HP	PVT(S) 4-14 4HP
CEDJ 250/7-25-27-4	250	7	CST 50-250/185 25HP	CSM 50-250/185 25HP	CSD 50-250/185 27HP	PV 6x15/4HP	PVT(S) 4-12 3HP
CEDJ 250/6-25-27-4	250	6	CST 50-250/185 25HP	CSM 50-250/185 25HP	CSD 50-250/185 27HP	PV 6x15/4HP	PVT(S) 8-6 3HP
CEDJ 250/7-30-32-4	250	7	CST 50-250/220 30HP	CSM 50-250/220 30HP	CSD 50-250/220 32HP	PV 6x15/4HP	PVT(S) 8-8 4HP
CEDJ 250/8-40-58-4	250	8	-	CSM 50-250/250 40HP	CSD 50-250/250 58HP	PV 8x12/4HP	PVT(S) 8-8 4HP
CEDJ 300/10-50-58-5.5	300	9-10	-	CSM 50-315/370 50HP	CSD 50-315/370 58HP	PV 8x16/5.5HP	PVT(S) 8-12 5.5HP
CEDJ 350/7-30-32-4	350	7	CST 50-250/220 30HP	CSM 50-250/220 30HP	CSD 50-250/220 32HP	PV 8x12/4HP	PVT(S) 8-8 4HP
CEDJ 400/6-30-32-4	400	6	CST 65-250/200 40HP	CSM 65-250/220 30HP	CSD 65-250/220 32HP	PV 8x12/4HP	PVT(S) 8-8 4HP
CEDJ 400/7-40-38-5.5	400	7	CST 65-250/300 40HP	CSM 65-250/300 40HP	CSD 65-250/300 38HP	PV 8x16/5.5HP	PVT(S) 8-8 4HP
CEDJ 400/8-50-58-5.5	400	8	CST 65-250/370 50HP	CSM 65-250/370 50HP	CSD 65-250/370 58HP	PV 8x16/5.5HP	PVT(S) 8-10 5.5HP
CEDJ 400/9-60-61-7.5	400	9	CST 65-315/450 60HP	CSM 65-315/450 60HP	CSD 65-315/450 61HP	PV 12x17/7.5HP	PVT(S) 8-12 5.5HP
CEDJ 500/8-75-75-5.5	500	8	-	CSM 80-250/450 75HP	CSD 80-250/450 75HP	PV 8x16/5.5HP	PVT(S) 8-10 5.5HP
CEDJ 500/10-100-100-5.5	500	10	-	CSM 80-315/750 100HP	CSD 80-315/750 100HP	PV 8x16/5.5HP	PVT(S) 8-10 5.5HP
CEDJ 750/8-100-99-10	750	8	-	CSM 100-250/750 100HP	CSD 100-250/750 99HP	PV 30x7/10HP	PVT(S) 20-8 15HP
CEDJ 750/10-150-150-12	750	10	-	CSM 100-315/750 150HP	CSD 100-315/750 150HP	PV 30x9/12HP	PVT(S) 20-10 15HP
CEDJ 1000/8-150-150-12	1000	8	-	CSM 125-250/1100 150HP	CSD 125-250/1100 150HP	PV 30x9/12HP	PVT(S) 32-60 15HP
CEDJ 1000/10-220-225-15	1000	10	-	CSM 125-315/1600 220HP	CSD 125-315/1600 225HP	PV 30x11/15HP	PVT(S) 32-80 20HP

TECHNICAL NOTES:

- Flow (Q) and head (H) values represent nominal system design parameters.
- All fire pump sets engineered and assembled in compliance with NFPA 20 standards.
- Electric motors: YE3 premium efficiency, 3-phase 380-415V / 50 Hz, class F, IP55.

THEHAMMER
FIRE PROTECTION SYSTEMS • MILANO ITALIA

FREQUENCY	NOMINAL SPEED
50 Hz	**n = 2900 1/min**

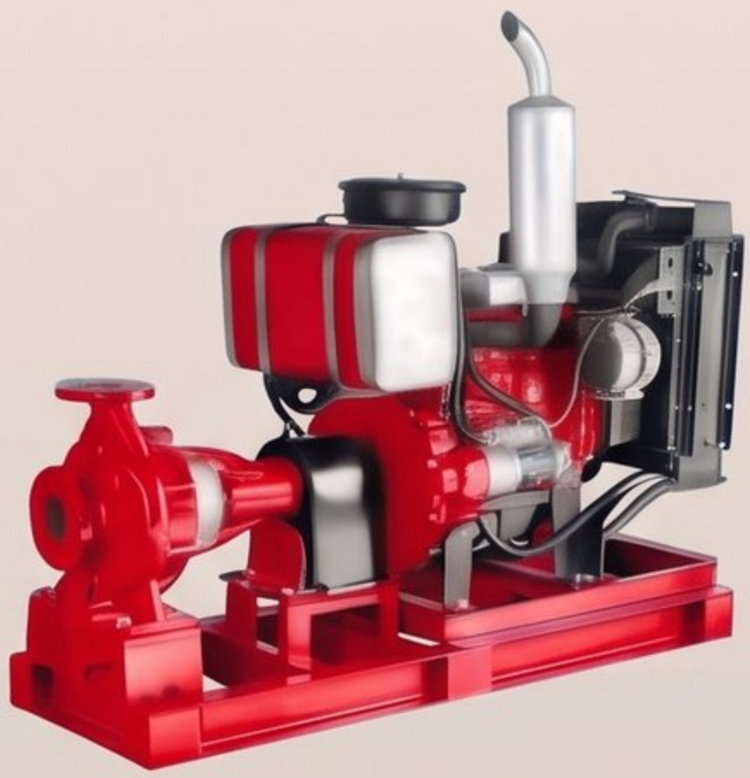
TECHNICAL SHEET / HOJA TÉCNICA / FICHE TECHNIQUE

TECHNICAL SHEET/HOJA TÉCNICA/FICHE TECHNIQUE

Model/Modele/Modele	CSD	
Capacity/Caudal/Débit	0-1000	m²/h
Head/Altura/Hauteur	0-164	m
DN	32-150	mm
Speed/Velocidad/Nitesse	3000	rpm
T max	120	°C
Power/Petencia/Puiss.	6.3-500	kW
Casing/Coorpo/Corps	Crey-saat fron Hiorre Romide piro Fonie fonie	
Impeller/Impuleur/Roue	AISI 304/Brose AISI 304/Bronse AISI 304/Bronse	
Shaft/Eje/Arbre	AISI 304 AISI 304 AISI 304	
Shaft seal/Selio/Scellé	Mechanical Seal Selie mecanise Goriohore mechanisce	
Bearing/Radamiento/Palier	Grasse iubrication refling hearing *Rodørventora mexensedan enguid* *Rodoment fubeneeration in precise*	

Diesel/Diésel/Diesel

- Diesel pumps as standby provider flow and pressure in the system
- Bamba diesel cosno proveador de reserva de flujo y presion
- Pompe diesel comme débit et pression du foumiseur de secours



NEW / *NUEVO / NOUVEAU*

DESCRIPTION/DESCRIPCIONES/DESCRIPTION

- **Diesel engines** have product to be very reliable and effective **for driving fire pumps**
- **Diesel engines** are currently the only type of contral combation engines permoved by **NFPA 20**
- Each engines shill be provived with two stattery battery units **according to NFPA30**
- **Diesel engines** for the pump is of the compression ignition type
- **Advanced direct injection and combastion system**

- Les motores diesel has dennussed wermay vevriables e effective para conduns hombas contra controles
- *Les engines diesel see ectecliment el notor tipo de mator de combiration interne parmitále por NFFA 20*
- *Codo motor debe contar con das unidades de bateria de aleacomentorate decomrada con NFFA20*
- *Les motores diesel para el accorrrionment de la bomba comba incentbas con del tipo de encondide por compresion*
- *Système avanizado de oyro com directe à combastion*

- *Les moteurs diesel se sent révétis lets Fables et efficaces pour entrainer des pompes à finamée*
- *Les engines diesel seet acthellement la reel type de mateur à combitation interne autorne por la NFPA 20*
- *Chagues engines che des tiquest du dest batteries accomountareux neton NFFA20*
- *Les mateurs diesel pour l'entreinement der pampes à l'amnée aunt du type d'ultumage por compression*
- *Système evance d'injection directe et ce combastion*

MODEL CODE/CÓDIGO MODELO/CODE MODÈLE

For exampler: For example: For example

CS (CSD) 50 - 220 / 220

CS=Rated power(kW)x10
Potencie nominal(kW)x10
Poissanse nominale (bw) x10

250=Nominal impeller size(mm)
Tamalto nominal del inipuleor (mm)
Tallle nominale de la roue (mm)

250H=High fiow type
Tipo de coudel grande
Type a heut débit

5D=Discharge/Descarge/Décharge(mm)

CSD=End auction pump with dieselSbase
Bomba con diesel y base
Pompe avec moteur et base

CS=End suction pump only
Solo bomba
Pompe uniquement

MODEL / MODELO / MODÈLE	DN mm	Impir dia. mm	Power Potencia Puissance kw	hp	Q=DELIVERY/CAUDAL/DÉBIT us gpm 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
					H=Head/Altura/Hauteur(m)																	
CSD 32-250/55	50x32	208	6.3	8.6	60	60	58	52	39	-	-	-	-	-	-	-	-	-	-	-	-	-
CSD 32-250/75	50x32	230	7.2	10	69.5	69.5	68	64	56	-	-	-	-	-	-	-	-	-	-	-	-	-
CSD 32-250/92	50x32	237	8.2	12	75	75	73.5	70	61	-	-	-	-	-	-	-	-	-	-	-	-	-
CSD 32-250/110	50x32	250	8.2	12	90	89	86	80	69	-	-	-	-	-	-	-	-	-	-	-	-	-
CSD 32-250/150	50x32	258	20	27	97	96.8	94	88	76	-	-	-	-	-	-	-	-	-	-	-	-	-
CSD 40-250/110	65x40	230	8.2	12	72	-	-	68	66	63.5	59	50	-	-	-	-	-	-	-	-	-	-
CSD 40-250/150	65x40	250	20	27	84.5	-	-	79.5	77.5	75.2	71.5	63	-	-	-	-	-	-	-	-	-	-
CSD 40-250/185	65x40	258	20	27	90	-	-	86	83.5	80.7	77	68	-	-	-	-	-	-	-	-	-	-
CSD 40-315/185	65x40	260	20	27	95	-	-	95	94	92.5	88	74	-	-	-	-	-	-	-	-	-	-
CSD 40-315/220	65x40	275	24	32	106	-	-	105	104	103.5	99	86	-	-	-	-	-	-	-	-	-	-
CSD 40-315/300	65x40	290	28	38	120	-	-	120	119	117	116	108	-	-	-	-	-	-	-	-	-	-
CSD 40-315/370	65x40	322	42	58	144	-	-	144	143	142	139	134	-	-	-	-	-	-	-	-	-	-
CSD 40-315/450	65x40	340	45	61	160	-	-	160	160	159	158	154	-	-	-	-	-	-	-	-	-	-
CSD 50-250/150	65x50	228	20	27	68.5	-	-	-	-	-	65	62	58	53	45	-	-	-	-	-	-	-
CSD 50-250/185	65x50	235	20	27	79	-	-	-	-	-	77	74	71	66	59	47	-	-	-	-	-	-
CSD 50-250/250	65x50	250	42	58	89.5	-	-	-	-	-	88	85	81.5	76	68	57	-	-	-	-	-	-
CSD 50-250/300	65x50	258	42	58	95.5	-	-	-	-	-	92	90	87	81	74	63	-	-	-	-	-	-
CSD 50-315/370	65x50	284	42	58	114	-	-	-	-	-	111	108	104	98	92	84	-	-	-	-	-	-
CSD 50-315/450	65x50	306	45	61	132	-	-	-	-	-	129	125.5	122	117	110	102	-	-	-	-	-	-
CSD 50-315/550	65x50	322	55	75	146	-	-	-	-	-	143	140	136	132	125	116	-	-	-	-	-	-
CSD 50-315/750	65x50	340	75	100	164	-	-	-	-	-	162	158	154	148	141	134	-	-	-	-	-	-
CSD 65-250/220	80x65	225	24	32	64.8	-	-	-	-	-	-	-	63.5	62	61	58.5	56	52.5	-	-	-	-
CSD 65-250/300	80x65	244	28	38	80	-	-	-	-	-	-	-	79	78	77	74.5	72	70	59	-	-	-
CSD 65-250/370	80x65	258	42	58	92	-	-	-	-	-	-	-	89.5	88.5	87	85	83	80	69	-	-	-
CSD 65-315/450	80x65	262	45	61	102	98	94.5	90	83	-	-	-	-	-	-	-	-	-	-	-	-	-
CSD 65-315/550	80x65	290	55	75	122	120	114.5	111	104	85	-	-	-	-	-	-	-	-	-	-	-	-
CSD 65-315/750	80x65	317	75	100	141	141	134.5	132	123	105	86	64	-	-	-	-	-	-	-	-	-	-
CSD 65-315/900	80x65	328	90	125	151	150	144.5	141	133	115	95	74	-	-	-	-	-	-	-	-	-	-
CSD 80-250/450	100x80	240	55	75	88	86.7	86	84	80	72	62	49	-	-	-	-	-	-	-	-	-	-
CSD 80-250/550	100x80	258	55	75	94.5	94.5	94.5	92	89	82	76	66	-	-	-	-	-	-	-	-	-	-
CSD 80-250/750	100x80	276	75	100	108.5	108.5	108.5	106	103	96.5	90	80	-	-	-	-	-	-	-	-	-	-
CSD 80-315/550	100x80	270	55	75	98	97	95.6	95	92	86	78	67	-	-	-	-	-	-	-	-	-	-
CSD 80-315/750	100x80	295	75	100	124	123	121.6	119	116	110	103	94.5	89	-	-	-	-	-	-	-	-	-
CSD 80-315/900	100x80	320	90	125	144	143	141.6	140	137	130	122	114	108	-	-	-	-	-	-	-	-	-
CSD 80-315/1100	100x80	328	110	150	153	152	150.6	149	146	140	132	123	118	-	-	-	-	-	-	-	-	-
CSD 100-250/550	125x100	240	55	75	77	76	75.5	76	75	73	72	70	70	62.3	59	-	-	-	-	-	-	-
CSD 100-250/750	125x100	257	75	100	91	91	90.5	89.7	88	86	84	82	81	71.7	68.5	56	-	-	-	-	-	-
CSD 100-250/900	125x100	270	90	125	100	100	99.5	98	97	95	93	91	90	80.7	77.5	65	-	-	-	-	-	-
CSD 100-315/1100	125x100	300	110	150	118	-	-	116	115.5	114	112	111	110	104	102	95	-	-	-	-	-	-
CSD 100-315/1320	125x100	315	125	170	129	-	-	127	126	124	123	122	121	115	112	105	-	-	-	-	-	-
CSD 100-315/1600	125x100	328	165	225	148	-	-	146	145	144	142	141	140	134	132	125	-	-	-	-	-	-
CSD 125-250/750	150x125	255	75	100	80	-	-	77	76	74.5	73	72	71	67	65	60	-	-	-	-	-	-
CSD 125-250/900	150x125	265	90	125	87	-	-	84	83	81.5	80	78.5	78	73.5	71.5	67.5	60	-	-	-	-	-
CSD 125-250/1100	150x125	274	110	150	97	-	-	94	93	92	90.5	89	88	84	83.5	78.5	71	-	-	-	-	-
CSD 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	-	-	-
CSD 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	-	-	-
CSD 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	-	-
CSD 125-315/1320	150x125	280	125	170	96	-	-	-	-	-	-	96	96	94	93.5	92	88.5	84	65	-	-	-
CSD 125-315/1600	150x125	295	165	225	106	-	-	-	-	-	-	105.5	105	104	103.5	102	100	96	82	-	-	-
CSD 125-315/1850	150x125	310	200	270	122	-	-	-	-	-	-	122	121.7	120	119.5	118.5	116	110	95	-	-	-
CSD 125-315/2000	150x125	328	200	270	136	-	-	-	-	-	-	136	135.5	135	133.5	133	130	125	110	-	-	-
CSD 150-250/1320	200x150	265	125	170	80.2	-	-	-	-	-	-	-	-	-	78	75	73.5	71	67	61	54	37
CSD 150-250/1600	200x150	280	165	225	90	-	-	-	-	-	-	-	-	-	88	87	85	84	79	74	66	47
CSD 150-250/2000	200x150	295	200	270	100	-	-	-	-	-	-	-	-	-	97	96	95	93	89	84	76	56
CSD 150-315/1850	200x150	287	200	270	92	-	-	-	-	-	-	-	-	-	90	89	87.2	85	80	71	61	-
CSD 150-315/2500	200x150	305	250	340	111	-	-	-	-	-	-	-	-	-	110	108	106	104	98	90	82	62
CSD 150-315/2800	200x150	315	300	410	124	-	-	-	-	-	-	-	-	-	121	120	118	116	111	104	95	73
CSD 150-315/3150	200x150	327	300	410	135	-	-	-	-	-	-	-	-	-	134	133	132	130	124	116	107	84

TECHNICAL NOTES:
- Diesel engines compression ignition type compliant with NFPA 20 standards.
- Flanged suction standard is 100% with suction valve. Diesel engine is non-stop running type.

TECHNICAL SHEET / HOJA TÉCNICA / FICHE TECHNIQUE

FIRE CIVIL INDUSTRY

CSM ELECTRIC FIRE PUMPS

TECHNICAL SHEET/*HOJA TÉCNICA/FICHE TECHNIQUE*

Model/Modele/Modelo	CSM	
Capacity/Caudal/Débit	0-1000	m^3/h
Head/Altura/Hauteur	0-164	m
DN	32-150	mm
Speed/Velocidad/Vitesse	2900	rpm
T max	120	°C
Power/Potencia/Puiss.	1.5-315	kW
Casing/Cuergo/Corps	Grey cast fron Hierro fundido gris Fonte grise	
Impeller/Impuloor/Roue	AISI 304/Brass Inox 304/Brance Inox 304/Laiton	
Shaft/Eje/Arhre	AISI 304 Inox 304 Inox 304	
Shaft saal/Seile/Soellé	Mechanical Seal Sello mecânice Garniture mécanique	
Bearing/Rodamiento/Palier	Grosse lubrication rolling bearing Rodamientee lubricacion con gresa Roulement lubritication à la griesse	

Electric/Eléctrico/Électrique

Electric pump to primarily provide flow and pressure in the system

Bomba eléctrico para proporcioner principalimente floja y presion

Pompe eléctrico pour foumir principalmente le débit et la pression



Separate coupled type
Tipo acoplado separado
Type séparé couplé

NEW/*NUEVO/NOUVEAU*

DESCRIPTION/*DESCRIPCIONES/DESCRIPTION*

- According to NFPA20, centrifugal pump shall b of the contifuge impeller design with biser or separate coupled and sucten type
- Pump capacities are based on the nomated system isstand
- Fire pump shutoff head would set sesied 190% of the noneral value
- Recommended the maximum system nextend flow correlate to a point on pump curre between 90% to 140% of the pump capacity

- *De ocuerdo con NFPA30, centrifugal pump shall del desito dispuito sabrenerente con una suctión exstema expacitile cemadao separado*
- *Las capacitades de la harote se horense in denandumdlalols del sistema*
- *Ehotoralslexture de la blama contro modelles, inscides excellen 140% del vèlumamat*
- *Se recomiende que el haja maxima de máximale ae correlacione con un punto en la curve entre 90% y 140% de la tapacidad contecal*

- *Sefon NFPA20, pompe centrifugulket élko du type à sour susplenable avec type d'aéposition à contrihité esmpité etroite à separate*
- *Les capacitat de la pompe centiables en la demelde coicole du systùne*
- *La téle diorité de la pompe le insencite ne doit pas depasser 140% de la valine nominale*
- *Pest recommende que le débit máximal de demande sait corroit à un pont sur la curvee entre 90% et 100% de la valimula norrmuta*

MODEL CODE/CÓDIGO MODELO/CODE MODÈLE

For example/Por ejemplo/Por example

CS (CSM) 50 - 250 / 220

220 - Bated power(kW)x10
Potencia nominal(kW)x10
Punsancia nominsil (kW) x10

250 - Nominal impeller zize (mm)
Numine del tippellon nominal (mm)
Pumancio rafe de la hore (nim)

25BN - High flow type
Tipe de cou flow mode
Type a neuif deflit

ꞔS - Discharge (mm)

CSM - End suction pump with motor& base
Bombo con motor y mtor
Pompe cum motoûr et bose

CSBM - End suction pump with motor& base (in type B bearing house)
Pompe son motor y mtor
Lin soporte de rodiementu type B)
Pompe pera motour et type
(dans une musion de rodiement de type B)

CS - End suction pump only
Safe suction
Pompe pompement

CSB - End suction pump only (In type B bearing house)
Sare pumpe
cuz sapuna de radomienta type B)
Pomge oanusement
(dans une musion de roulement de type B)

NFPA National Fire

CE

MODELE	mm	mm	kw	hp	H=Head/Altura/Hauteur(m)														
CSM 32-250/55	50x32	208	5.5	7.5	60	60	58	52	39	-	-	-	-	-	-	-	-	-	-
CSM 32-250/75	50x32	230	7.5	10	69.5	69.5	68	64	56	-	-	-	-	-	-	-	-	-	-
CSM 32-250/92	50x32	237	9.2	12.5	75	75	73.5	70	61	-	-	-	-	-	-	-	-	-	-
CSM 32-250/110	50x32	250	11	15	90	89	86	80	69	-	-	-	-	-	-	-	-	-	-
CSM 32-250/150	50x32	258	15	20	97	96.8	94	88	76	-	-	-	-	-	-	-	-	-	-
CSM 40-250/110	65x40	230	11	15	72	-	-	68	66	63.5	59	50	-	-	-	-	-	-	-
CSM 40-250/150	65x40	250	15	20	84.5	-	-	79.5	77.5	75.2	71.5	63	-	-	-	-	-	-	-
CSM 40-250/185	65x40	258	18.5	25	90	-	-	86	83.5	80.7	77	68	-	-	-	-	-	-	-
CSM 40-315/185	65x40	260	18.5	25	95	-	-	95	94	92.5	88	74	-	-	-	-	-	-	-
CSM 40-315/220	65x40	275	22	30	106	-	-	105	104	103.5	99	86	-	-	-	-	-	-	-
CSM 40-315/300	65x40	290	30	40	120	-	-	120	119	117	116	108	-	-	-	-	-	-	-
CSM 40-315/370	65x40	322	37	50	144	-	-	144	143	142	139	134	-	-	-	-	-	-	-
CSM 40-315/450	65x40	340	45	60	160	-	-	160	160	159	158	154	-	-	-	-	-	-	-
CSM 50-250/150	65x50	228	15	20	68.5	-	-	-	-	-	65	62	58	53	45	-	-	-	-
CSM 50-250/185	65x50	235	18.5	25	79	-	-	-	-	-	77	74	71	66	59	47	-	-	-
CSM 50-250/250	65x50	250	30	40	89.5	-	-	-	-	-	88	85	81.5	76	68	57	-	-	-
CSM 50-250/300	65x50	258	30	40	95.5	-	-	-	-	-	92	90	87	81	74	63	-	-	-
CSM 50-315/370	65x50	284	37	50	114	-	-	-	-	-	111	108	104	98	92	84	-	-	-
CSM 50-315/450	65x50	306	45	60	132	-	-	-	-	-	129	125.5	122	117	110	102	-	-	-
CSM 50-315/550	65x50	322	55	75	146	-	-	-	-	-	143	140	136	132	125	116	-	-	-
CSM 50-315/750	65x50	340	75	100	164	-	-	-	-	-	162	158	154	148	141	134	-	-	-
CSM 65-250/220	80x65	225	22	30	64.8	-	-	-	-	-	-	-	63.5	62	61	58.5	56	52.5	-
CSM 65-250/300	80x65	244	30	40	80	-	-	-	-	-	-	-	79	78	77	74.5	72	70	59
CSM 65-250/370	80x65	258	37	50	92	-	-	-	-	-	-	-	89.5	88.5	87	85	83	80	69

MODEL / MODELO / MODÈLE	DN	Implr dia.	Power Potencia Puissance		Q=DELIVERY/CAUDAL/DÉBIT																
					us gpm	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/Altura/Hauteur(m)																		
CSM 65-315/450	80x65	262	45	60	102	98	94.5	90	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM 65-315/550	80x65	290	55	75	122	120	114.5	111	104	85	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM 65-315/750	80x65	317	75	100	141	141	134.5	132	123	105	86	64	-	-	-	-	-	-	-	-	-	-	-
CSM 65-315/900	80x65	328	90	125	151	150	144.5	141	133	115	95	74	-	-	-	-	-	-	-	-	-	-	-
CSM 80-250/450	100x80	240	55	75	88	86.7	86	84	80	72	62	49	-	-	-	-	-	-	-	-	-	-	-
CSM 80-250/550	100x80	258	55	75	94.5	94.5	94.5	92	89	82	76	66	-	-	-	-	-	-	-	-	-	-	-
CSM 80-250/750	100x80	276	75	100	108.5	108.5	108.5	106	103	96.5	90	80	-	-	-	-	-	-	-	-	-	-	-
CSM 80-315/550	100x80	270	55	75	98	97	95.6	95	92	86	78	67	-	-	-	-	-	-	-	-	-	-	-
CSM 80-315/750	100x80	295	75	100	124	123	121.6	119	116	110	103	94.5	89	-	-	-	-	-	-	-	-	-	-
CSM 80-315/900	100x80	320	90	125	144	143	141.6	140	137	130	122	114	108	-	-	-	-	-	-	-	-	-	-
CSM 80-315/1100	100x80	328	110	150	153	152	150.6	149	146	140	132	123	118	-	-	-	-	-	-	-	-	-	-
CSM 100-250/550	125x100	240	55	75	77	76	75.5	76	75	73	72	70	70	62.3	59	-	-	-	-	-	-	-	-
CSM 100-250/750	125x100	257	75	100	91	91	90.5	89.7	88	86	84	82	81	71.7	68.5	56	-	-	-	-	-	-	-
CSM 100-250/900	125x100	270	90	125	100	100	99.5	98	97	95	93	91	90	80.7	77.5	65	-	-	-	-	-	-	-
CSM 100-315/1100	125x100	300	110	150	118	-	-	116	115.5	114	112	111	110	104	102	95	-	-	-	-	-	-	-
CSM 100-315/1320	125x100	315	132	180	129	-	-	127	126	124	123	122	121	115	112	105	-	-	-	-	-	-	-
CSM 100-315/1600	125x100	328	160	220	148	-	-	146	145	144	142	141	140	134	132	125	-	-	-	-	-	-	-
CSM 125-250/750	150x125	255	75	100	80	-	-	77	76	74.5	73	72	71	67	65	60	-	-	-	-	-	-	-
CSM 125-250/900	150x125	265	90	125	87	-	-	84	83	81.5	80	78.5	78	73.5	71.5	67.5	60	-	-	-	-	-	-
CSM 125-250/1100	150x125	274	110	150	97	-	-	94	93	92	90.5	89	88	84	83.5	78.5	71	-	-	-	-	-	-
CSM 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	-	-	-	-
CSM 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	-	-	-	-
CSM 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	-	-	-
CSM 125-315/1320	150x125	280	132	180	96	-	-	-	-	-	-	96	96	94	93.5	92	88.5	84	65	-	-	-	-
CSM 125-315/1600	150x125	295	160	220	112	-	-	-	-	-	-	111.5	111	110	109.5	108	106	102	88	-	-	-	-
CSM 125-315/1850	150x125	310	185	250	125	-	-	-	-	-	-	125	124.7	123	122.5	121.5	119	113	98	-	-	-	-
CSM 125-315/2000	150x125	328	200	270	136	-	-	-	-	-	-	136	135.5	135	133.5	133	130	125	110	-	-	-	-
CSM 150-250/1320	200x150	265	132	180	80.2	-	-	-	-	-	-	-	-	-	78	75	73.5	71	67	61	54	37	
CSM 150-250/1600	200x150	280	160	220	90	-	-	-	-	-	-	-	-	-	88	87	85	84	79	74	66	47	
CSM 150-250/2000	200x150	295	200	270	100	-	-	-	-	-	-	-	-	-	97	96	95	93	89	84	76	56	
CSM 150-315/1850	200x150	287	185	250	92	-	-	-	-	-	-	-	-	-	90	89	87.2	85	80	71	61	-	
CSM 150-315/2500	200x150	305	250	340	111	-	-	-	-	-	-	-	-	-	110	108	106	104	98	90	82	62	
CSM 150-315/2800	200x150	315	280	380	124	-	-	-	-	-	-	-	-	-	121	120	118	116	111	104	95	73	

TECHNICAL NOTES:

- Electric motors: YE3 premium efficiency, 3-phase 380-415V / 50 Hz, class F, IP55.
- Flanged suction standard is 100% with suction valve.



Clean Civil Industry Fire

PV

Vertical multistage centrifugal pump
Bomba centrifuga multietapa vertical
Pompe centrifuge multicellulaire verticale

NEW/*NUEVO/NOUVEAU*

DESCRIPTION/*DESCRIPCIONES/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

- *Nuevo diseño bomba que silencioso y ahorra energía*
- *Asegurando durabilidad y fácil operación*
- *Una amplia gama de productos satisfará todos los requisitos*
- *Motor de alta eficiencia YE3, con protección IP55 clase F*
- *Impulsor en tecnopolímero*
- *Puerto de succión y descarga en rosca G20 de hierro fundido*
- *Rodamiento de marca NSK y cierre mecánico personalizado*
- *El diseño compacto y proporcional*

- *Nouvelle conception de pompe silencieuse et économe*
- *Assurer la durabilité et facile à utiliser*
- *Une large gamme de produits répondra à toutes les exigences*
- *Moteur haute efficacité YE3, avec protection IP55 classe F*
- *Turbine en techno-polimer*
- *Orifice d'aspiration et de refoulement en filetage G20 fonte*
- *Roulement NSK qualité, joint mécanique résistance à l'usure*
- *La conception compacte et proportionnelle*

APPLICATIONS/*APLICACIONES/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.

La alta eficiencia y el funcionamiento silencioso que permite que estas bombas se utilicen en hogares, riego, lavado de autos, sistemas de protección contra incendios, aire acondicionado e instalaciones de elevación de presión de agua en la red.

Le rendement élevé et le fonctionnement silencieux qui permettent à ces pompes d'être utilisées dans des conditions domestiques, d'irrigation, de lave-autos, de systèmes de protection contre l'incendie, de climatisation et d'installations de levage sous pression d'eau dans le réseau.

USING LIMITS/*LÍMITES UTILIZACIÓN/UTILISATION LIMITES*

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

- *Temperatura del líquido de **-10 °C** hasta **+120 °C***
- *Temperatura ambiente de **-10 °C** hasta **+50°C***
- *Presión máxima en el cuerpo de la bomba **25 bar***
- *Funcionamiento continuo **S1***

- *Température du liquide entre **-10 °C** et **+120 °C***
- *Température ambiante entre **-10 °C** et **+50 °C***
- *Max. pression de service **25 bar***
- *Service continu **S1***

TECHNICAL NOTES:
- Jockey pumps vertical multistage type for automatic system pressure maintenance.
- Certified according to NFPA 20 and European CE machinery directives.

THEHAMMER
FIRE PROTECTION SYSTEMS • MILANO ITALIA

FREQUENCY	NOMINAL SPEED
50 Hz	n = 2900 1/min

TECHNICAL DATA / DATOS TÉCNICOS / DONNÉES TECHNIQUES

PV VERTICAL MULTISTAGE JOCKEY PUMPS

MODÈLE	mm	Puissance kw	hp	m³/h 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
				H=Head/*Altura/Hauteur*(m)																			
PV 4×7/1.5	25x25	1.1	1.5	60.7	56.8	52.1	49	45.9	42.8	38.9	35	30.3	25.7	20.2	-	-	-	-	-	-	-	-	-
PV 4×9/2	25x25	1.5	2	78	73	67	63	59	55	50	45	39	33	26	-	-	-	-	-	-	-	-	-
PV 4×13/3	25x25	2.2	3	113	105	96.8	91	85.2	79.4	72.2	65	56.3	47.7	37.5	-	-	-	-	-	-	-	-	-
PV 4×16/4	25x25	3	4	139	130	119	112	105	97.8	88.9	80	69.3	58.7	46.2	-	-	-	-	-	-	-	-	-
PV 6×5/1.5	32x32	1.1	1.5	44.4	-	-	-	135.5	33.3	30.9	28.4	26.1	23.4	20.2	14.3	6.8	-	-	-	-	-	-	-
PV 6×8/2	32x32	1.5	2	71.1	-	-	-	56.7	53.2	49.5	45.5	41.8	37.5	32.4	22.9	10.9	-	-	-	-	-	-	-
PV 6×11/3	32x32	2.2	3	97.7	-	-	-	78	73.2	68	62.5	57.5	51.5	44.5	31.5	15	-	-	-	-	-	-	-
PV 6×15/4	32x32	3	4	133	-	-	-	106	99.8	92.7	85.2	78.4	70.2	60.7	43	20.5	-	-	-	-	-	-	-
PV 8×4/1.5	40x40	1.1	1.5	36.8	-	-	-	-	-	30	28.4	27.2	26	24.4	21.2	17.6	13.2	9.2	4.8	-	-	-	-
PV 8×7/2	40x40	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	-	-	-	-
PV 8×9/3	40x40	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	-	-	-	-
PV 8×12/4	40x40	3	4	110	-	-	-	-	-	90	85.2	81.6	78	73.2	63.6	52.8	39.6	27.6	14.4	-	-	-	-
PV 8×16/5.5	40x40	4	5.5	147	-	-	-	-	-	120	114	109	104	97.6	84.8	70.4	52.8	36.8	19.2	-	-	-	-
PV 12×3/1.5	50x50	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
PV 12×5/2	50x50	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
PV 12×7/3	50x50	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
PV 12×9/4	50x50	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
PV 12×12/5.5	50x50	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
PV 12×17/7.5	50x50	5.5	7.5	176	-	-	-	-	-	-	-	144	140	136	127	117	104	91.8	75.4	62	47	29	11.3

MODEL *MODELO MODÈLE*	DN mm	Power *Potencia Puissance* kw	hp	us gpm 0	26	53	79	106	132	159	185	211
				l/min 0	100	200	300	400	500	600	700	800
				m³/h 0	6	12	18	24	30	36	42	48
				Q=DELIVERY/*CAUDAL/DÉBIT* H=Head/*Altura/Hauteur*(m)								
PV 30×7/10	65x65	7.5	10	104	100	93	83	74	64	49	31	4
PV 30×9/12	65x65	9.2	12.5	133	128	119	108	96	82	63	40	5
PV 30×11/15	65x65	11	15	163	156	145	132	116	99	77	48	6

Performance curve in page/*Curva en página/Courbe en page* 174-178

ODEL CODE/*CÓDIGO MODELO/CODE MODÈLE*

For example/*Por ejemplo/Par exemple*

PV m **6** x **11** / **3**

- **3**=Rated power(hp) *Potencia nominal (hp) Puissance nominale(hp)*
- **11**=Stage number *Número de etapa Numéro d'étape*
- **6**=Nominal flow(m^3/h) *Caudal nominal(m^3 / h) Débit nominal(m^3 / h)*
- **m**=Single phase *Monofásico Monophasé*
- **Blank**=Three phase *Blanco=Trifásico Blanc=Triphasé*
- **PV**=Vertical multistage pump *Bomba vertical de etapas múltiples Pompe multicellulaire verticale*

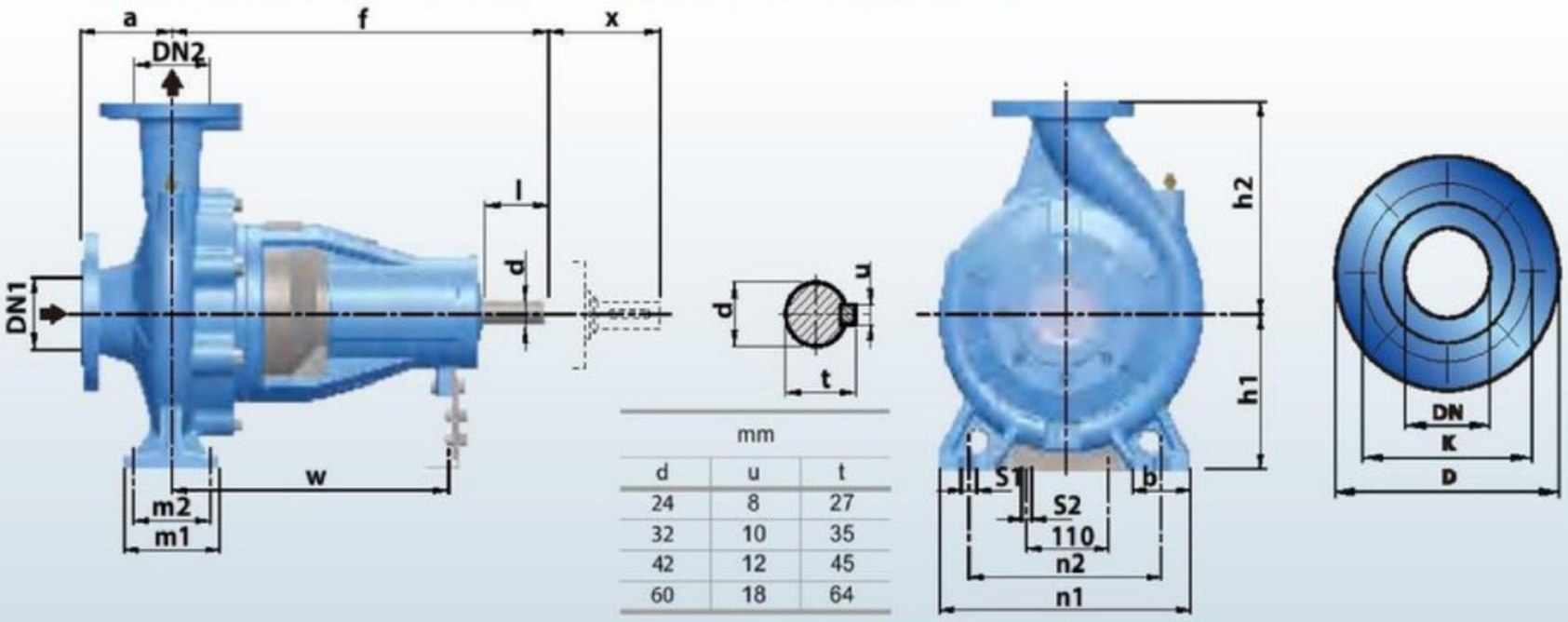
TECHNICAL SHEET/*HOJA TÉCNICA/FICHE TECHNIQUE*

Model/*Modelo/Modèle*	PV	
Capacity/*Caudal/Débit*	0-48	m^3/h
Head/*Altura/Hauteur*	0-176	m
DN	25-65	mm
Speed/*Velocidad/Vitesse*	2900	rpm
T max	120	℃
Power/*Potencia/Puiss.*	1.1-11	kW
Voltage/*Voltaje/Tension*	220/380/400/440	V
HZ	50	
Class/*Clase/Classe*	Class F	
IP	IP 55	
Duty/*Servicio/Devoir*	S1 continuous	
Casing/*Cuerpo/Corps*	Grey Cast iron/*Hierro fundido gris/Fonte grise*	
Impeller/*Impulsor/Roue*	Plastic/*Plástico/Plastique*	
Shaft/*Eje/Arbre*	SS304/*Inox 304/Inox 304*	
Shaft seal/*Sello/Scellé*	Mechanical Seal/*Sello mecánico/Garniture mécanique*	

TECHNICAL NOTES:
- Jockey pumps vertical multistage type for automatic system pressure maintenance.
- Certified according to NFPA 20 and European CE machinery directives.

FREQUENCY	NOMINAL SPEED
50 Hz	n = 2900 1/min

DIMENSIONS AND WEIGHT/*DIMENSIONES Y PESOS/DIMENSIONS ET POIDS*



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	8	
100	220	180		
125	250	210		
150	285	240		22
200	340	295		
250	405	355	12	26

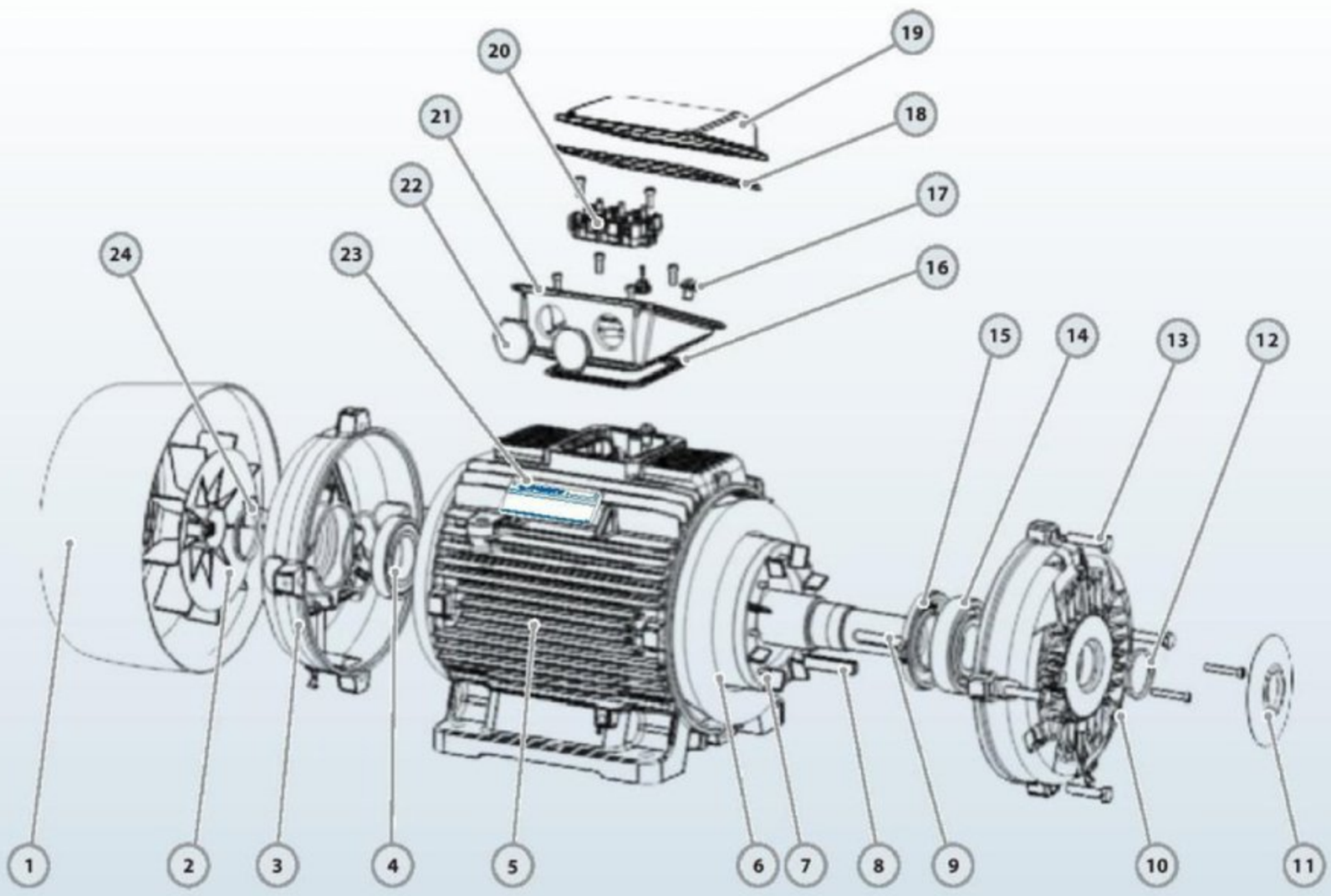
MODEL *MODELO MODÈLE*	DIMENSIONS/*DIMENSIONES/DIMENSIONS* mm																	kg
	DN1	DN2	a	f	h1	h2	b	m1	m2	n1	n2	s1	s2	w	x	d	l	3~
32-160	50	32	80	360	132	160	55	95	70	240	190	14	14	260	100	24	50	**31**
32-200	50	32	80	360	160	180	55	95	70	240	190	14	14	260	100	24	50	**35**
32-250	50	32	80	360	160	180	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**

TECHNICAL NOTES:
- Product specifications comply with applicable fire protection standards.
- Certified according to NFPA 20 and European CE machinery directives.

FREQUENCY	NOMINAL SPEED
50 Hz	n = 2900 1/min

MATERIAL DESCRIPTION / DESCRIPCIÓN DE MATERIAL / DESCRIPTION DU MATÉRIEL — YE3 THREE-PHASE MOTORS

MATERIAL DESCRIPTION/*DESCRIPCIÓN DE MATERIAL/DESCRIPTION DU MATÉRIEL*



No.	Description *Descripción* *Description*	Material *Material* *Matériel*
1	Fan cover *Tapa ventilador* *Capot de ventilateur*	Iron *Hierro* *Le fer*
2	Fan *Ventilador* *Ventilateur*	Plastic *Plástico* *Plastique*
3	Rear endshield *Escudo trasero* *Pare-brise arrière*	Cast iron *Fundición* *Fonte*
4	Rear bearing *Rodamiento trasero* *Roulement arrière*	Ball Bearing *Bola Rodamiento* *Roulement à billes*
5	Frame *Marco* *Cadre*	Cast iron *Fundición* *Fonte*
6	Wound Stator *Estator herido* *Stator de blessure*	Silicon Steel/Copper *Acero al Silicio/Cobre* *Acier au silicium / cuivre*
7	Rotor *Rotor* *Rotor*	Silicon Steel *Acero al Silicio* *Acier au silicium*
8	Key *Llave* *Clé*	Iron *Hierro* *Le fer*

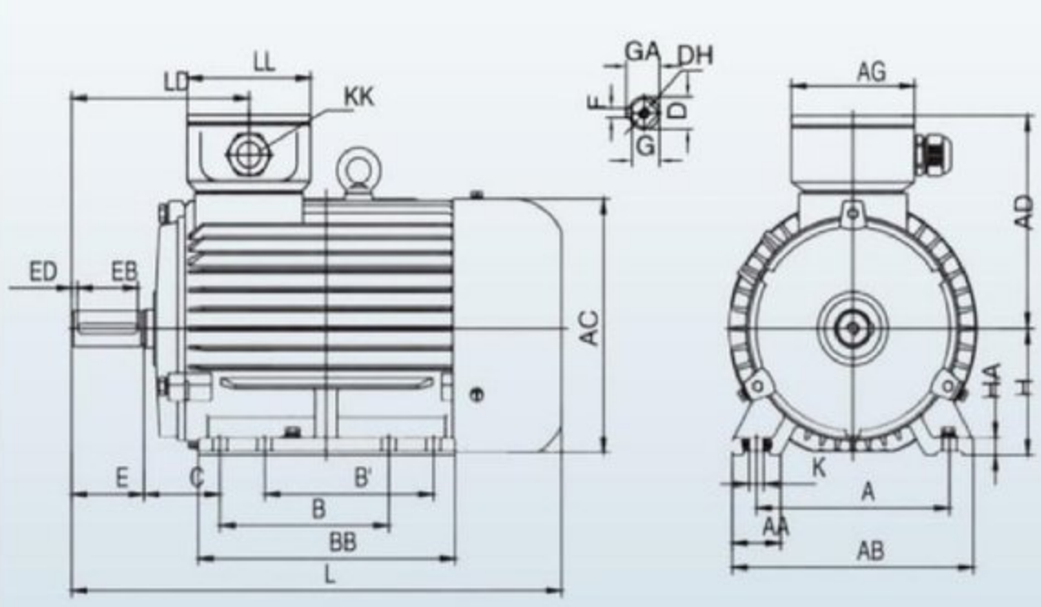
No.	Description *Descripción* *Description*	Material *Material* *Matériel*
9	Shaft *Eje* *Arbre*	45# Steel *45# Hierro* *45 # Acier*
10	Front endshield *Escudo frontal* *Pare-brise avant*	Cast iron *Fundición* *Fonte*
11	Bearing cap *Tapa de rodamiento* *Capuchon de roulement*	Cast iron *Fundición* *Fonte*
12	Seal *Sello* *Joint*	Rubber *Caucho* *Caoutchouc*
13	Bolt *Tornillo* *Boulon*	Steel *Acero* *Acier*
14	Front bearing *Rodamiento delantero* *Roulement avant*	Ball Bearing *Bola Rodamiento* *Roulement à billes*
15	Internal bearing cap *Tapa interna de rodamiento* *Chapeau de palier interne*	Cast iron *Fundición* *Fonte*
16	Gasket *Empaquetadura* *Joint*	Rubber *Caucho* *Caoutchouc*

No.	Description *Descripción* *Description*	Material *Material* *Matériel*
17	Screw *Tornillo* *Vis*	Steel *Acero* *Acier*
18	Gasket *Empaquetadura* *Joint*	*Rubber* *Caucho* *Caoutchouc*
19	Terminal box cover *Tapa de la caja* *Couvercle de boîte à bornes*	Aluminum *Aluminio* *Aluminium*
20	Terminal board *Tablero de terminales* *Bornier*	Plastic *Plástico* *Plastique*
21	Terminal box *Caja de terminales* *Boîte à bornes*	Aluminum *Aluminio* *Aluminium*
22	Terminal box plug *Enchufe de la caja* *Fiche de boîte à bornes*	Plastic *Plástico* *Plastique*
23	Nameplate *Placa de nombre* *Plaque signalétique*	Aluminum *Aluminio* *Aluminium*
24	Seal *Sello* *Scellé*	Rubber *Caucho* *Caoutchouc*

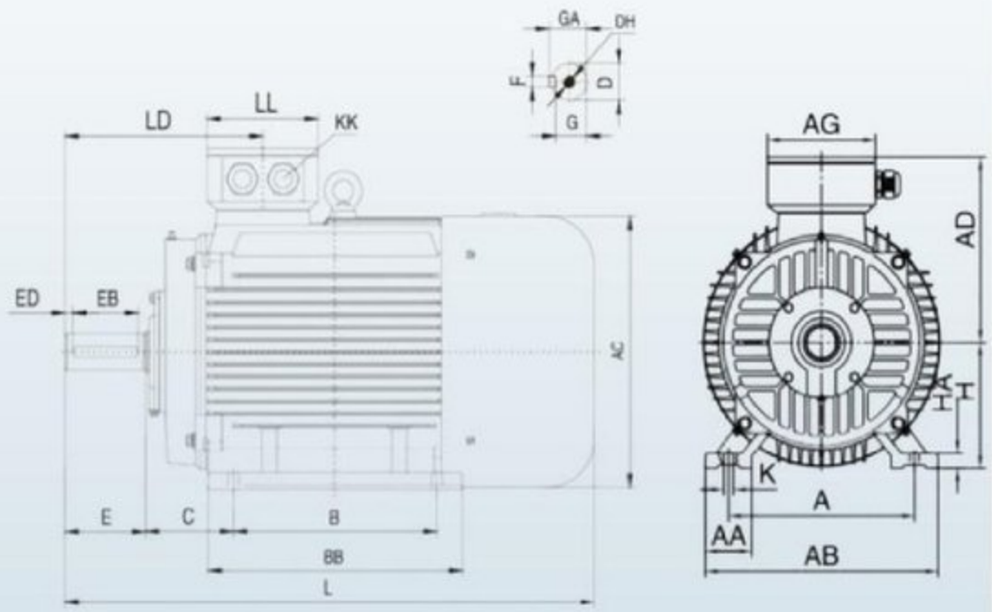
TECHNICAL NOTES:
- Premium efficiency YE3 three-phase asynchronous motors compliant with IEC 60034-30.
- Protection class IP55, insulation class F, continuous duty S1.

FREQUENCY	NOMINAL SPEED
50 Hz	n = 2900 1/min

DIMENSIONS/*DIMENSIONES*/*DIMENSIONS*



80-132



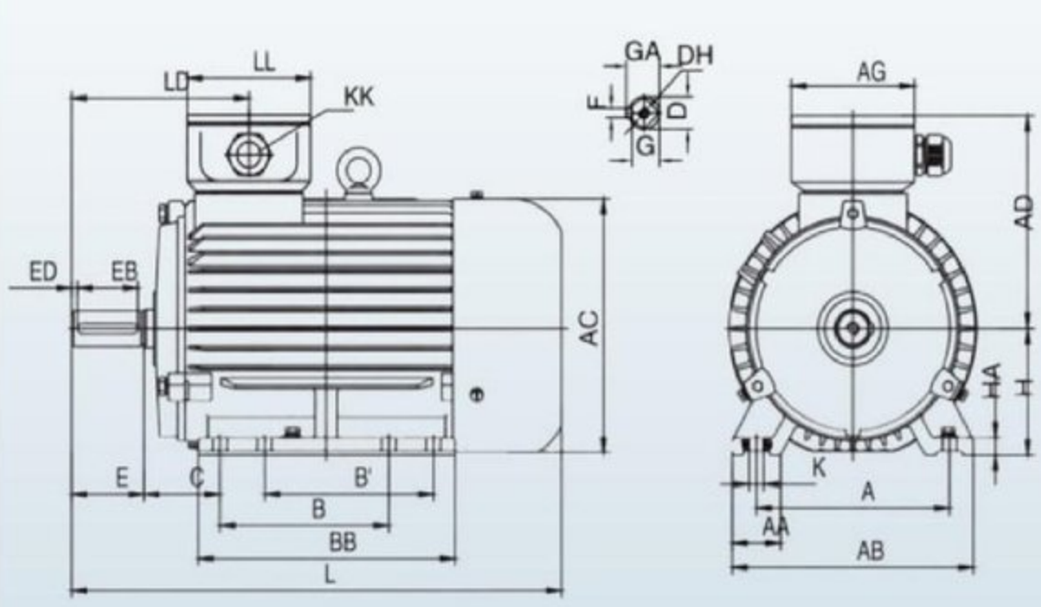
160-355

MODEL *MODELO MODÈLE*	DIMENSIONS/*DIMENSIONES*/*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

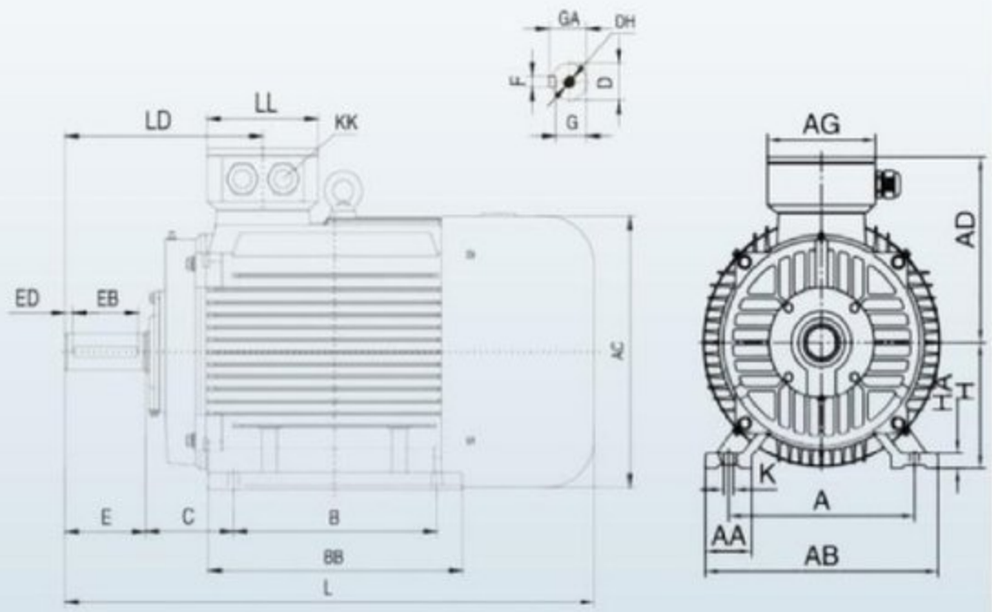
TECHNICAL NOTES:
- Premium efficiency YE3 three-phase asynchronous motors compliant with IEC 60034-30.
- Protection class IP55, insulation class F, continuous duty S1.

FREQUENCY	NOMINAL SPEED
50 Hz	n = 2900 1/min

DIMENSIONS/*DIMENSIONES*/*DIMENSIONS*



80-132



160-355

MODEL *MODELO MODÈLE*	DIMENSIONS/*DIMENSIONES*/*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

TECHNICAL NOTES:
- Premium efficiency YE3 three-phase asynchronous motors compliant with IEC 60034-30.
- Protection class IP55, insulation class F, continuous duty S1.

TECHNICAL DATA/*DATOS TÉCNICOS/DONNÉES TECHNIQUES*

50 Hz n=2900 1/min

MODEL *MODELO MODÈLE*	Power *Potencia Puissance*		RPM	η	η	η	cos Φ	A			Nm	Ts/Tn	Tmax/Tn	Is/In	dB(A)	Kgs
	kw	hp	1/min	%	75%	50%		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	40.5	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	54.9	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	80.8	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	98.5	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	134	127	122	240.8	1.8	2.3	7.1	94	546
YE3-280M-2	90	125	2975	95	95	93.1	0.9	160	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	195	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	234	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	η	η	η	cos Φ	A			Nm	Ts/Tn	Tmax/Tn	Is/In	dB(A)	Kgs
	kw	hp	1/min	%	75%	50%		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

TECHNICAL NOTES:

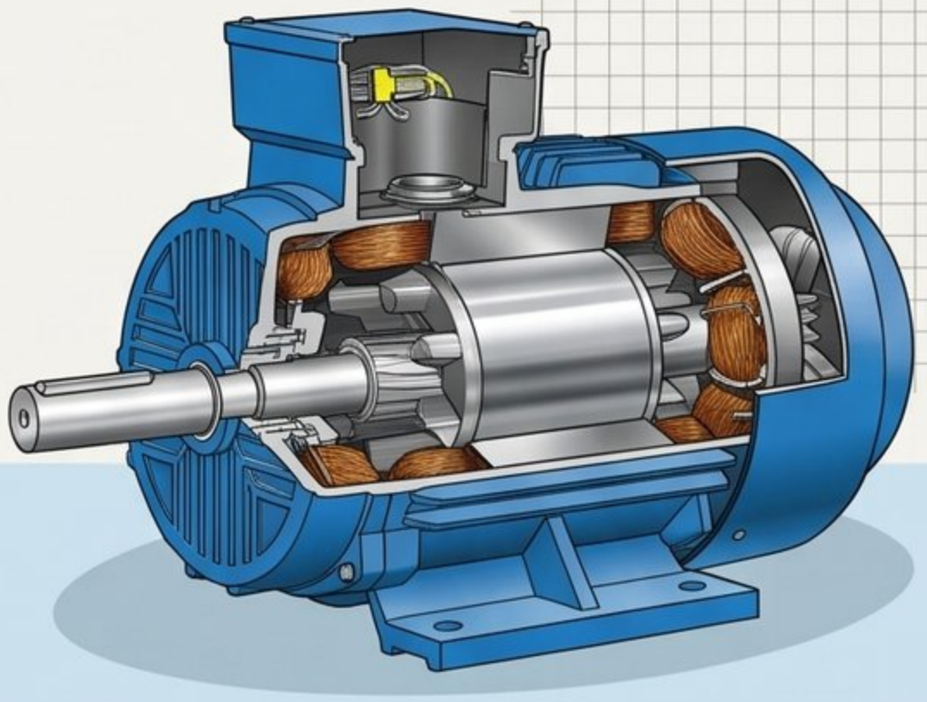
- Premium efficiency YE3 three-phase asynchronous motors compliant with IEC 60034-30.
- Protection class IP55, insulation class F, continuous duty S1.

FREQUENCY 50 Hz | NOMINAL SPEED n ≈ 2900 1/min

YE3 — ELECTRIC MOTOR TEFC TYPE / MOTOR ELÉCTRICO TIPO TEFC / MOTEUR ÉLECTRIQUE TYPE TEFC

Fire · Civil · Industry





NEW / NUEVO / NOUVEAU

DESCRIPTION/DESCRIPCIONES/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 the fighting system etc.
- Ambient temperature up to +50°C
- Cooling type : IC411

- Diseño de acuerdo con el esténder IEC60034
- TOTAL DE VENTILADOR CERRADO TIPO motor
- Motor de alta eficiencia YE3
- Protection IP55 class F
- Rodamiento NSK de salidad
- Servicio continuo 51
- Flable utilizado para el sistema de contro incendiox, etc.
- Temperature ambiente jusqu + 50°C
- Type de refromment: IC411

- Conception ceino le nonne IEC60034
- TOTAL REFRODSSSEMENT PAR VENTILATEUR MOTEUR TYPE
- Moteur hante efficacité YE3
- Protection iP55 class F
- Protection iP55 de qualité
- Service contino S1
- Fiable utilize pour le système de lutte contre l'incendie, etc.
- Temperature ambiente jusqu'à + 50°C
- Type de rafroidssement: IC411

MODEL CODE/CÓDIGO MODELO/CODE MODÈLE

For example/For example/For example

YE3 – 160 (S/M/L) 2/1-2/4

- 2/4: 2=2 poles motor 2900rpm / *Motor de 2 poles 2900 rpm* / *Moteur 2 poles 2900 rpm*; 4=4 poles motor 1400rpm / *Motor de 4 poles 1400 rpm* / *Moteur 4 poles 1400 rpm*
- 2/1: Stator size code / *Código de códigno del estator* / *Code de taille du stator*; 2=Longer size / Tamaño más largo / *Taille plus longue*; 1=Long size / Tamaño largo / *Taille langue*; Blank=Standard size / Blance: Tamaño *estander* / Blank: *Taille standard*
- (S/M/L): Frame length code / S=Short size/*Idigo del cuadto* / *Code de longueor de trame* / S=Short size/Taila corta/*Torta courte* / M=Midolo size/Tamotia media/*Taille moyonne* / L=Long size/*Taila larga/Tailla longue*
- 160= Motor frame size (mm) / Tamaño del bastidor del motor (mm) / Taille de châssie de motorr (mm)
- YE3= YE3 high efficient motor / *Motor de alta eficiencia YE3* / *Moteur de·nta eficiencia YE3*

NFPA National Fire · CE

TECHNICAL NOTES: High performance TEFC motors, Factory tested at 100% and 120% voted RAS, RF110 ensomd marohnage joatiay panty panty; DAE Xciam epres itum panty · WMTT. Tolliaz massage same panty.

TECHNICAL DATA/*DATOS TÉCNICOS/DONNÉES TECHNIQUES*

Model *Modelo* *Modèle*	178	186	188	192	380	385	480	485	490N	490	495	498	4102	4105	4108
Type *Tipo* *Type*	4 strokes,Air cooling *4 tiempos,Refrigeración por aire* *4 temps, refroidissement par air*				Direct Injection,4 strokes, Water-cooling *Inyección directa, 4 carreras, refrigeración por agua* *Injection directe, 4 temps, refroidissement par eau*										
Intake Type *Tipo de aspirada* *Type d'admission*	Naturally Aspirated/*Aspiración natural/Aspiration naturelle*														
Bore*Stroke(mm) *Diámetro*Carrera*(mm) *Alésage * Course*(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. *Cilindro No.* *N ° de cylindre*	1	1	1	1	3	3	4	4	4	4	4	4	4	4	4
Displacement *Desplazamiento* *Déplacement*	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 kW *nominal* kW *nominale*	3.7kW 4.0kW	5.7kW 6.3kW	6.6kW 7.2kW	7.5kW 8.2kW	20kW	24kW	28kW	36kW	42kW	45kW	50kW	54kW	62kW	67kW	73kW
Rated HP *HP nominal* *HP nominale*	5.0HP 5.5HP	7.8HP 8.6HP	9HP 10HP	10.2HP 12HP	27HP	32HP	38HP	49HP	58HP	61HP	68HP	73HP	85HP	91HP	99HP
Fuel Consumption(g/kw.h) *El consumo combustible* *Consommation carburant*	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 *Voltaje de inicio* *Tension de démarrage*	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	24V	24V
Speed regulation type *Tipo regulación* *Type régulation vitesse*	Mechanical/*Mecánico/Mécanique*														
Including *Incluso* *Comprenant*	Radiator, Fan, Starter, charge alternator, Air filter, Muffler, Stop Solenoid, PTO shaft, Fuel Tank, Meter Panel *Radiador, ventilador, arrancadora, alternador carga, filtro aire, silenciador, Solenoide parada, eje toma fuerza, tanque combustible, panel medidor* *Radiateur, ventilateur, démarreur, alternateur charge, filtre air, silencieux, solénoïde d'arrêt, arbre prise force, réservoir carburant, panneau compteur*														

Model *Modelo* *Modèle*	485Z	490NZ	498Z	4102Z	4105Z	4108Z	490T	4108T	4108TL	6102NT	6102T	6102TL	6126T	6126TL	6126TS
Type *Tipo* *Type*	Direct Injection,4 strokes, Water-cooling *Inyección directa, 4 carreras, refrigeración por agua* *Injection directe, 4 temps, refroidissement par eau*														
Intake Type *Tipo de aspirada* *Type d'admission*	Turbo-charging/*Turbocarga/Turbo-charge*									Naturally	Turbo-charging/*Turbocarga/Turbo-charge*				
Bore*Stroke(mm) *Diámetro*Carrera*(mm) *Alésage * Course*(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. *Cilindro No.* *N ° de cylindre*	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6
Displacement *Desplazamiento* *Déplacement*	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 kW *nominal* kW *nominale*	44KW	50KW	60KW	73KW	75KW	83KW	55KW	75KW	90KW	110KW	125KW	165KW	200KW	250KW	300KW
Rated HP *HP nominal* *HP nominale*	60HP	68HP	81HP	99HP	102HP	113HP	75HP	100HP	125HP	150HP	170HP	225HP	270HP	340HP	410HP
Fuel Consumption(g/kw.h) *El consumo combustible* *Consommation carburant*	228	228	228	238	238	238	228	218	218	229	229	229	250	250	250
Start Voltage *Voltaje de inicio* *Tension de démarrage*	12V	12V	12V	24V	24V	24V	12V	24V	24V	24V	24V	24V	24V	24V	24V
Speed regulation type *Tipo regulación* *Type régulation vitesse*	Mechanical/*Mecánico/Mécanique*												Electronic *Electrónico* *Électronique*		
Including *Incluso* *Comprenant*	Radiator, Fan, Starter, charge alternator, Air filter, Muffler, Stop Solenoid, PTO shaft, Fuel Tank, Meter Panel *Radiador, ventilador, arrancadora, alternador carga, filtro aire, silenciador, Solenoide parada, eje toma fuerza, tanque combustible, panel medidor* *Radiateur, ventilateur, démarreur, alternateur charge, filtre air, silencieux, solénoïde d'arrêt, arbre prise force, réservoir carburant, panneau compteur*														

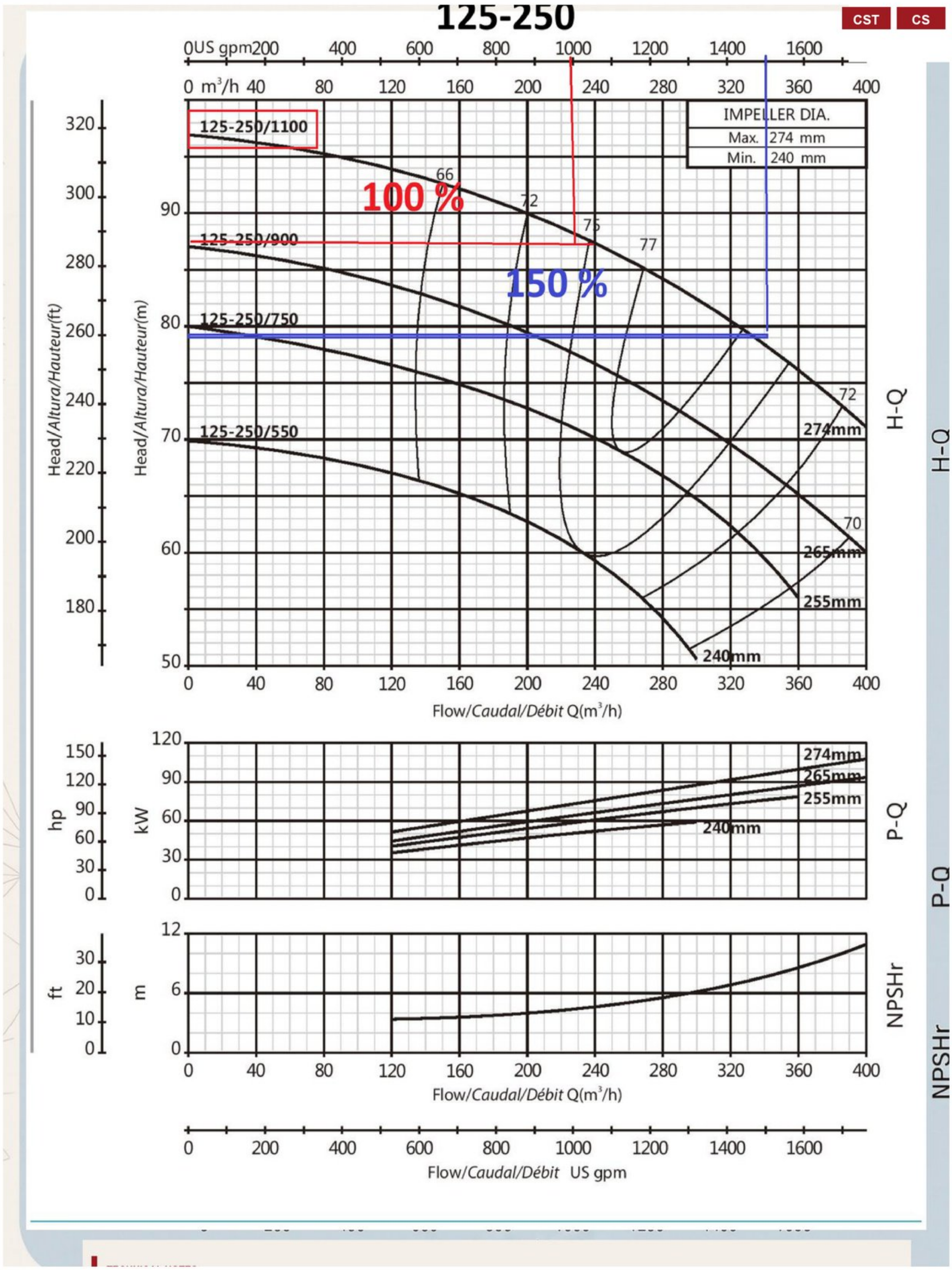
TECHNICAL NOTES:
- Industrial diesel engines specifically configured for stationary fire pump service.
- Direct fuel injection, water cooled, 12V / 24V electric start.

FREQUENCY	NOMINAL SPEED
50 Hz	n = 2900 1/min

PERFORMANCE CURVES / CURVAS DE RENDIMIENTO

CST / CS END SUCTION PUMPS

CST CS



TECHNICAL NOTES:

- Hydraulic performance curves according to ISO 9906:2012 Grade 3B test standards.
- Measurements carried out with clean water at 20°C and kinematic viscosity 1 mm²/s.

FREQUENCY **50 Hz**

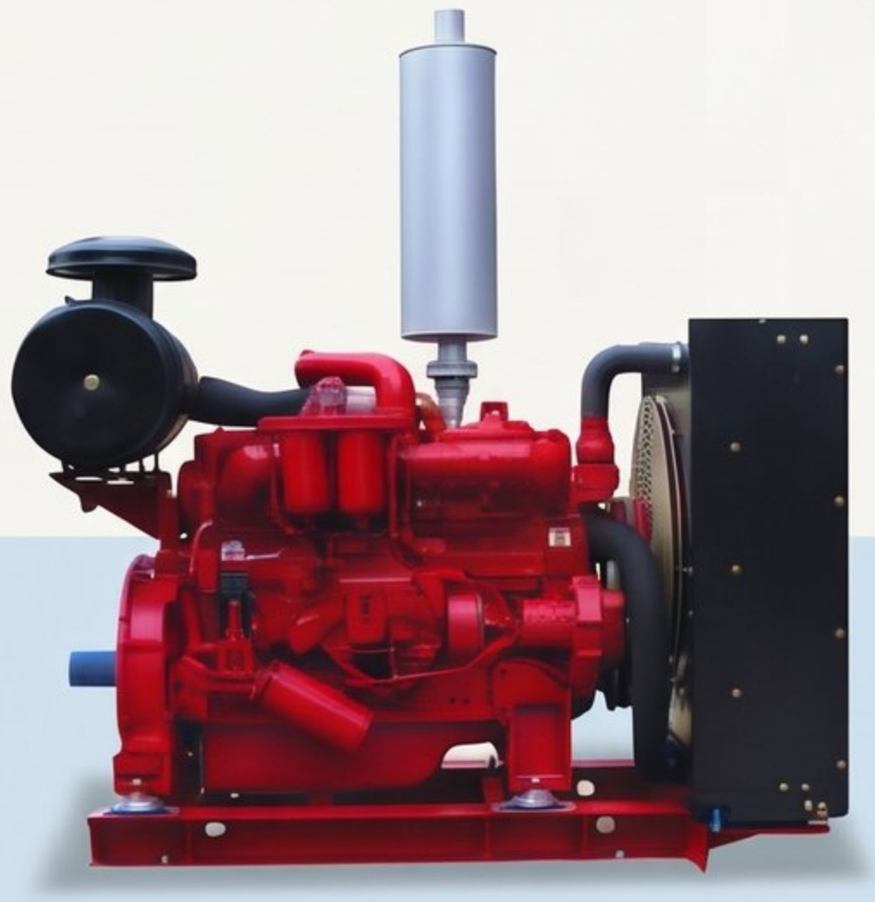
NOMINAL SPEED **n ≈ 2900 1/min**

PD — DIESEL ENGINE FOR PUMP /
MOTOR DIESEL PARA BOMBA / MOTEUR DIESEL POUR POMPE

Fire · Civil · Industry







NEW/*NUEVO/NOUVEAU*

DESCRIPTION/*DESCRIPCIONES/DESCRIPTION*

- Air-cooled 1-cylinder in-line naturally aspirated engines
- Water-cooling 3-to 6-cylinder naturally and turbo engines
- Advanced direct injection and combustion system
- Extremely compact dimensions, easy to assemble
- Noise-optimized technology, stronger power
- Meeting China III emission standard
- Low fuel consumption, environmental protective

- Refrigerados por aire de 1 cilindro en línea motores
- Refrigeración por aqua de 3 a 6 cilindres motores
- Sistéma avancada de inyección directa y combuctión
- Simensiones extramadamente compastas, féches de montar
- Tecnologie de ruido optimizado, potansia más luorre
- Cumple con el estánder de endsiones de China III
- Bajo consumo combuatible, protección del medio ambiente

- Moteurs 1 cylindre à aspiration naturelle refroidis par air
- Retroidissement par eau de 3 a 6 cylindre moteurs
- Système avancé dr eau de 3 à 6 cylindres moteurs
- Technologie optimisée pour la broit, puissance accrue
- Conforme à la norme d'emissiont, puissance accrue
- Bajo consumo combustible, protección del medio ambiente
- Fuible consummation de carborant

MODEL CODE/*CÓDIGO MODELO/CODE MODÈLE*

For example/Por ejemplo/Por exemple:

PD 4 102 Z

Z/T=Turbo-charging type
Tipo de turbocarga
Type de suralimentation
Blank=Naturally Aspirated
Blanco= *Naturalmente aspirado*
Blanc= *Naturellement aspiré*
N=Novel model
Modelo nuevo
Nouveau modèle
L=Large power type
Tipo de potencia grande
Type de puissance setcure
S=Larger power type
Tipo de potencia más grande
Type de puissance supériere

102=Bore size(mm)
Diámetro(mm)
Taille d'alésage(mm)

4=Cylinder number
Número de cilindro
Nombre de cylindre

PD=Diesel engine for pump
Motor diésel para bomba
Moteur diesel pour pompe

NFPA National Fire

CE

TECHNICAL NOTES: High performance TEFC motors: Fernny fuetory insted of 100% and 100% smiet 'EBC, KPrfP xives sniner cluege ; astles poinp pahly / EBC haare aghas bu rn pany • MART. Tet the mouiagomero pump.

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