

PERIPHERAL AND CENTRIFUGAL PUMPS - 50Hz





C.R.I. PUMPS

Pumping trust. Worldwide.

T H E B E G I N N I N G

OF C.R.I., WAY BACK IN 1961, WAS A RESOLUTE ATTEMPT TO PRODUCE A FEW IRRIGATION EQUIPMENTS USING THE LIMITED FACILITIES OF AN IN-HOUSE FOUNDRY. EVENTUALLY THE FOUNDER'S DREAM WAS COMING TRUE AS THE SMALL PRODUCTION UNIT HE STARTED KEPT GROWING RAPIDLY. NOW, AFTER MORE THAN FIVE EVENTFUL DECADES, IT IS AN ENORMOUS, WIDELY REPUTED ORGANIZATION, WHICH PRODUCES MORE THAN 2300 VARIETIES OF PERFECTLY

C . R . I . I S O N E A M O N G

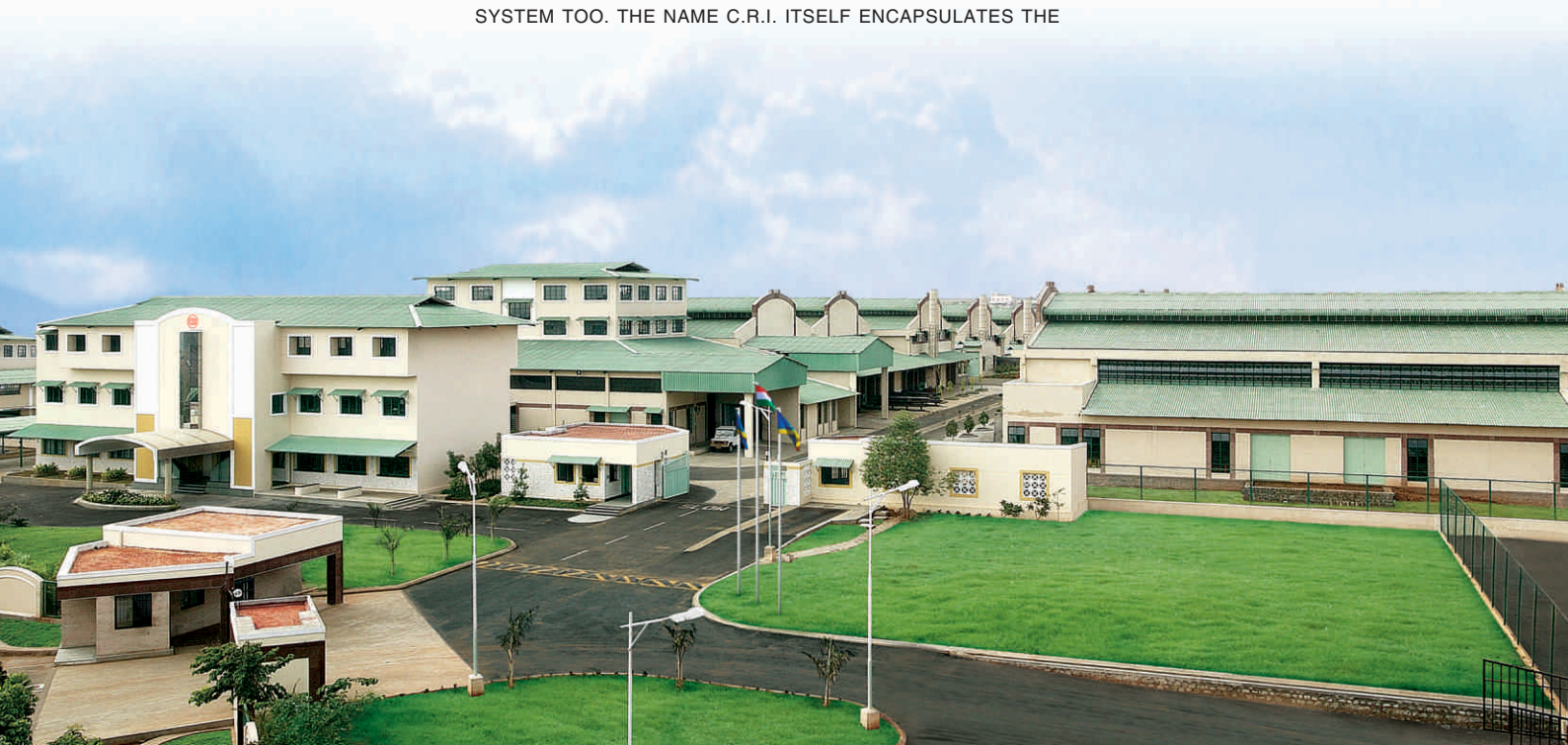
THE FEW PIONEERS IN THE WORLD TO PRODUCE 100% STAINLESS STEEL SUBMERSIBLE PUMPS. HAVING ACHIEVED A RECORD PRODUCTION CAPACITY OF OVER 2 MILLION PUMPS PER ANNUM, TODAY C.R.I. IS RUBBING ITS SHOULDERS WITH THE BEST BRANDS IN THE WORLD, WITH ADVANCED

T H E I N F R A S T R U C T U R E

OF C.R.I. IS PRETTY COMPREHENSIVE WITH STATE-OF-THE-ART MACHINERIES AND HIGH POTENTIAL IN-HOUSE R&D RECOGNISED BY THE MINISTRY OF SCIENCE AND TECHNOLOGY, GOVT. OF INDIA - ALL WITHIN ITS OWN COVERED AREA OF 300,000 SQUARE METRES. THE PRODUCTION ENVIRONMENT IS ACCREDITED WITH ISO 9001, ISO 14001 & OHSAS 18001 CERTIFICATIONS AND THE PRODUCTS ARE CE, UR/UL, IEC, TSE & ISI CERTIFIED. THE R&D

N E E D L E S S T O S A Y ,

BEHIND THIS LEGENDARY GROWTH LIES THE UNTIRING, INNOVATIVE, ENTHUSIASTIC AND DEDICATED TEAM WORK. AND, OF COURSE, A FLAWLESSLY MAINTAINED VALUE SYSTEM TOO. THE NAME C.R.I. ITSELF ENCAPSULATES THE



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GENERAL INFORMATION

IMPORTANT NOTES :

1. Read our operator's manual carefully before installation.
2. Pump should not be operated dry. Install dry run preventor to protect the pumpset from dry running.
3. Use appropriate size, good quality cable and starter / protection devices.
4. Use low friction good quality pipes / foot valve / bends / elbows.
5. The pipe diameters must never be smaller than the pump connections.
6. Install pump according to the recommended operating head range.
7. Reduce number of bends, elbows, T-bends as much as possible in the pipe line.
8. Pump should run for few minutes atleast once in 2 days to prevent from seizing.
9. All pumps employ a prime mover motor suitable for 230 volts single phase or 380-415 volts three phase, 50 Hz, A.C supply.
10. Avoid fatal electrical shock or injury by disconnecting power before working on or around the pumping system. Only technically qualified personnel must perform the works complying with local electricity rules and regulations. To reduce the risk of electrical shock during operation, an appropriate earthing is mandatory.
11. Maximum permissible supply voltage should lie between $\pm 10\%$.
12. The performance data and curves are at rated voltage and only indicative.
13. All pumps are only suitable for pumping clear, cold, fresh, non-aggressive, non-explosive water without abrasives, solid particles or fibres. Clear cold water shall mean water having the following characteristics.

a)	Temperature	50°C (max.)
b)	Permissible amount of sand	25 gm / m ³ (max.)
c)	Chlorine ion density	500 ppm (max.)
d)	Allowable solids	3000 ppm (max.)
e)	Specific gravity	1.004 (max.)
f)	Hardness (Drinking water)	300 (max.)
g)	Viscosity	1.75 x 10 ⁻⁶ m ² / Sec. (max.)
h)	Turbidity	50 ppm silica scale (max.)
i)	pH	6.5 to 8.5

14. The given performance data are common for both single phase & three phase. The last digit of the pump models "M" denotes Single Phase and it will be replaced with "T" in case of Three Phase.
15. In view of continuous developments the information / performance / descriptions / specifications / illustrations are subject to change without notice.

PERFORMANCE CURVE CONDITIONS :

The conditions below apply to the curves in this booklet.

- Curve tolerance according to ISO 9906, 3B.
- The performance are at rated voltage and are only indicative. Actual discharge depends on availability of water in well / tank, height of water column from the suction pipe end.
- The measurements were made with airless water at 20°C. When pumping liquids with a density higher than of water, motors with correspondingly higher outputs must be used.
- The bold curves indicate the recommended performance range.
- Pipe friction losses have not been included in the performance curves & performance tables.
- The pipe connection threads are given as per BSP standard.
- The main scales of the performance curve are metre and m³/h which have been given for head and flow respectively.

Peripheral Pumps

PE SERIES



DESCRIPTION

C.R.I. Peripheral pump's volute chamber and impellers are designed to give the best possible hydraulic efficiency and suction lift characteristics. The S.S inserts provided inside the pump casing reduces wear & tear and this give longer life and prevent the pump from seizing if it is kept idle for long period. Motor stator is made of low watt loss steel laminations. The windings are of high grade enameled copper wire and are varnish impregnated. Dynamically balanced rotor ensure vibration and noise free operations. Construction of motor frames and usage of quality materials result in high performance and low temperature rise thereby increasing the life cycle of the motor.

SPECIFICATIONS

Power Range	: 0.37 kW & 0.75 kW
Speed	: 2900 rpm
Version	: Single phase, 230V, 50Hz, A.C. Supply (Permanent split capacitor-PSC)
Type of Duty	: S1 (Continuous)
Direction of Rotation	: Clockwise viewed from driving end
Degree of Protection	: IP 54
Class of Insulation	: 'B'
Suction and Delivery Size	in mm : 25 x 25

FEATURES

- Sturdy and compact.
- Quiet and maintenance free.
- Incorporated with thermal overload protector.
- Dynamically balanced rotating parts

MATERIALS OF CONSTRUCTION

Pump Casing	: Cast iron
Motor Frame	: Aluminium
Impeller	: Brass
Pump Bracket	: Cast Iron
Shaft	: S.S. 410
Water Filling Plug	: Brass
Mechanical Seal	: Carbon & Ceramic
'O'Ring	: NBR

PUMP OPERATING LIMITS

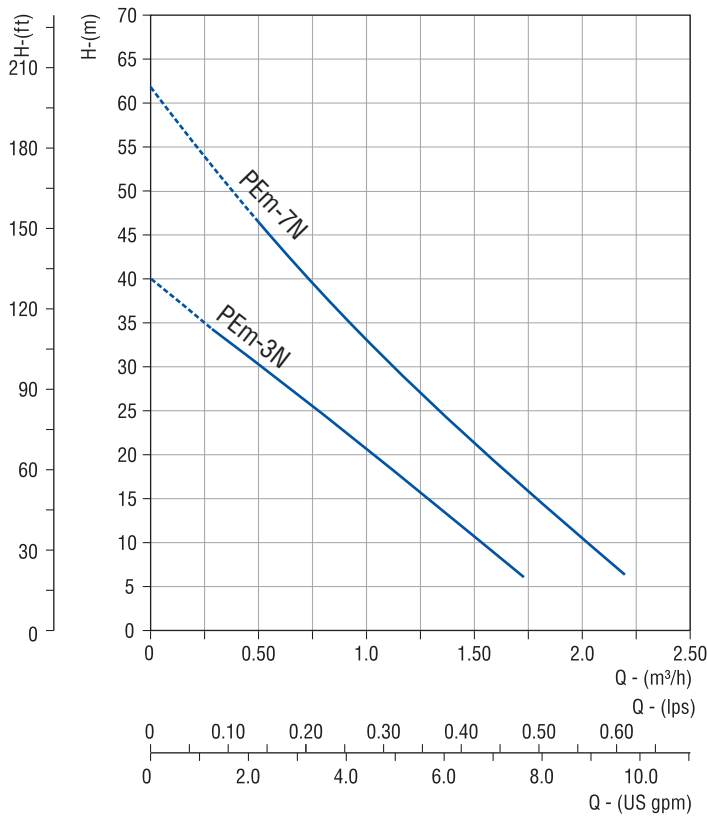
Maximum Suction Lift upto	: Upto 7 m
Flow Rate upto	: 2.2 m ³ /h
Maximum Head upto	: 61m
Maximum Operating Pressure	: 6 bar.
Maximum Liquid Temperature	: 33°C.
Maximum Ambient Temperature	: 40°C.

APPLICATIONS

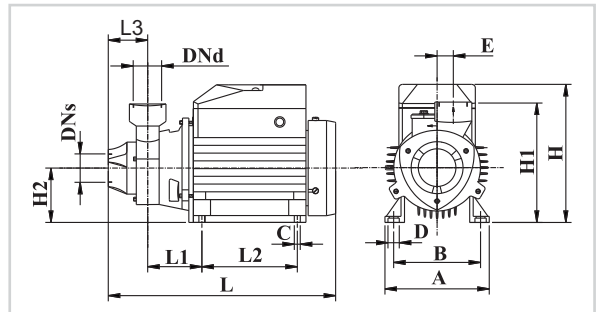
Residential, Gardens, Pressure Boosting for Individual Houses.

PERFORMANCE CURVES

PE SERIES



DIMENSIONAL DRAWING



PERFORMANCE CHART

PUMP MODEL	MOTOR POWER		RATED CURRENT (A) 1Ph 230V	NOMINAL PUMP SIZE IN INCHES (Suc x Del)	SUCTION LIFT IN m	DISCHARGE IN lps / m³/h														
	kW	HP				lps	0	0.1	0.2	0.3	0.4	0.5	0.6							
PEm-3N	0.37	0.5	2.5	1 x 1	7	Total head in metres	0	0.4	0.7	1.1	1.4	1.8	2.2	40	33	27	18	12	5	
PEm-7N	0.75	1.0	5.2	1 x 1	7		61	51	41	31	23	14	6							

DIMENSIONAL DATA

PUMP MODEL	MOTOR kW	DNs	DNd	L1	L2	L	A	B	C	D	E	H	H1	H2	L3	APPROX NETT WEIGHT kg
PEm-3N	0.37	1"	1"	61	80	265	118	100	10	10	20	151	138	63	45	5.3
PEm-7N	0.75	1"	1"	66	90	305	136	112	10	10	21	181	150	73	90	10

* All Dimensions are in mm.

Centrifugal Monoblock Pumps

CT SERIES

DESCRIPTION

C.R.I. Centrifugal Monoblock pump's volute chamber and impellers are carefully designed to give the best possible hydraulic efficiency and suction lift characteristics. Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw material, dynamically balanced impellers, seals and ball bearings to ensure long life. Dynamically balanced rotor ensure vibration and noise free operations. Shaft is made of quality steel, precision ground of ample size for transmitting the rated Horse power

SPECIFICATIONS

Power Range	: 0.37kW-2.2kW
Speed	: 2900 rpm.
Degree of Protection	: IP 44 / IP 54
Class of Insulation	: 'B'
Versions	: Single phase - 230V, 50Hz, A.C. Supply (Permanent split capacitor-PSC) Incorporated with Thermal Overload Protector. Three phase - 380-415V, 50Hz A.C. supply
Type of Duty	: S1 (Continuous).
Direction of Rotation	: Clockwise viewed from driving end.
Nominal Delivery Size in mm	: 25 to 80
Nominal Suction Size in mm	: 25 to 80
Connection	: Screw / Flange type (BSP)

MATERIALS OF CONSTRUCTION

Pump Casing	: Cast Iron
Motor Frame	: Aluminium / Cast Iron
Impeller	: Cast Iron / S.S / Brass / Bronze
Shaft	: S.S 410 / S.S 304 / Carbon Steel
Sealing	: Mechanical Seal (Carbon & Ceramic)

PUMP OPERATING LIMITS

Maximum Head	: 52.5m
Maximum Suction Lift	: Upto 7m
Maximum Liquid Temperature	: 33°C
Maximum Ambient Temperature	: 40°C

FEATURES

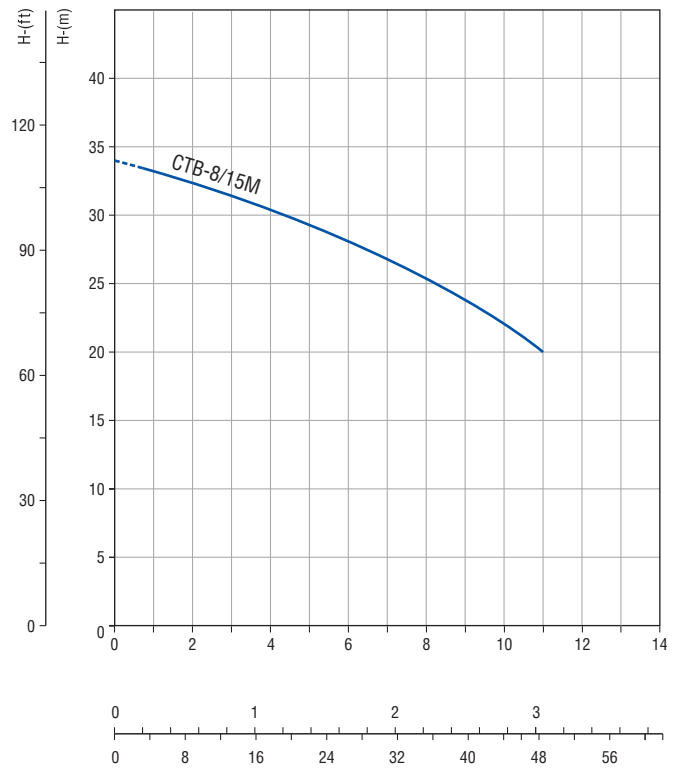
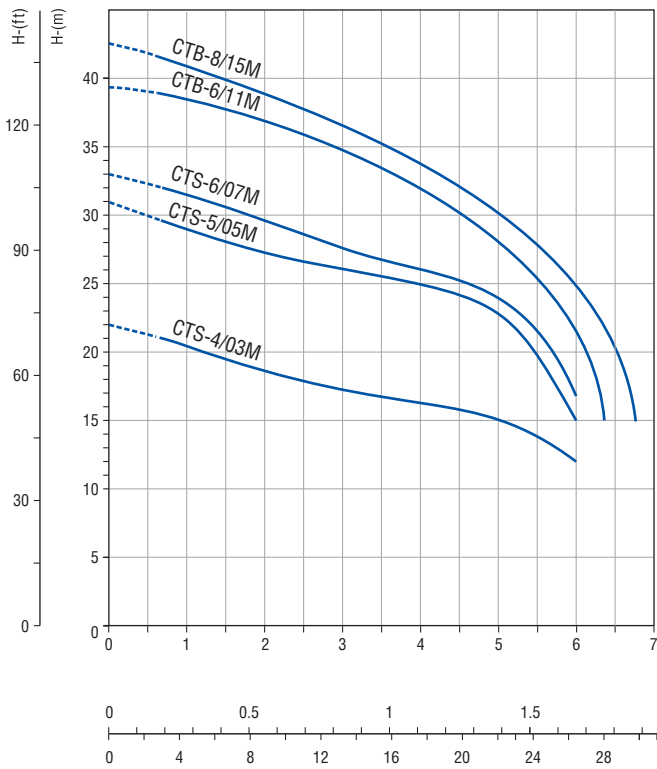
High Operating efficiency resulting in lower power consumption.
Dynamically balanced rotating parts. Ensure noise and vibration free operation.
Inbuilt thermal overload protector in all single phase pumps.

APPLICATIONS

Residential, Irrigation, Farms, Utility Water Supply in Industries, General Water Supply, Drip & Sprinkler Irrigation Systems and Water treatment plants.

PERFORMANCE CURVES

CT SERIES



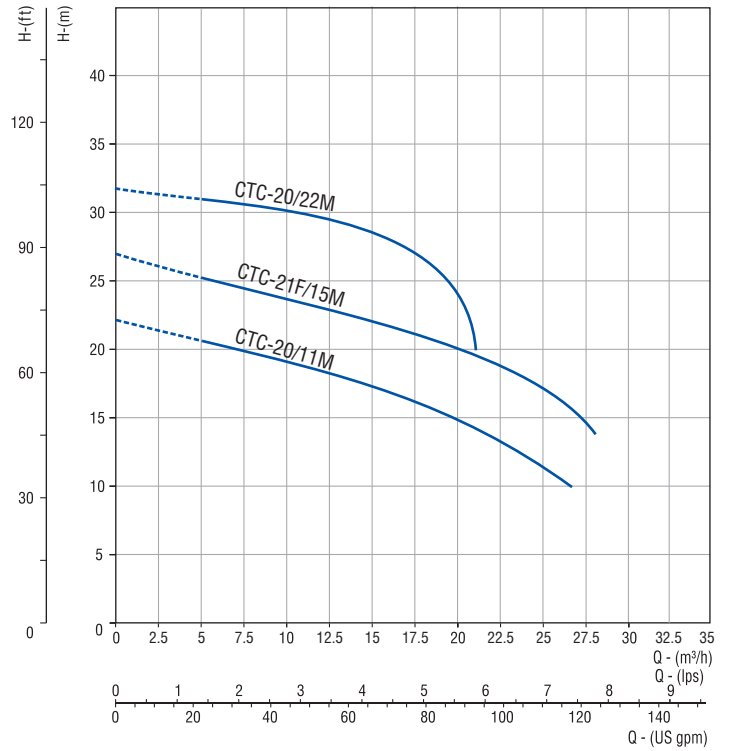
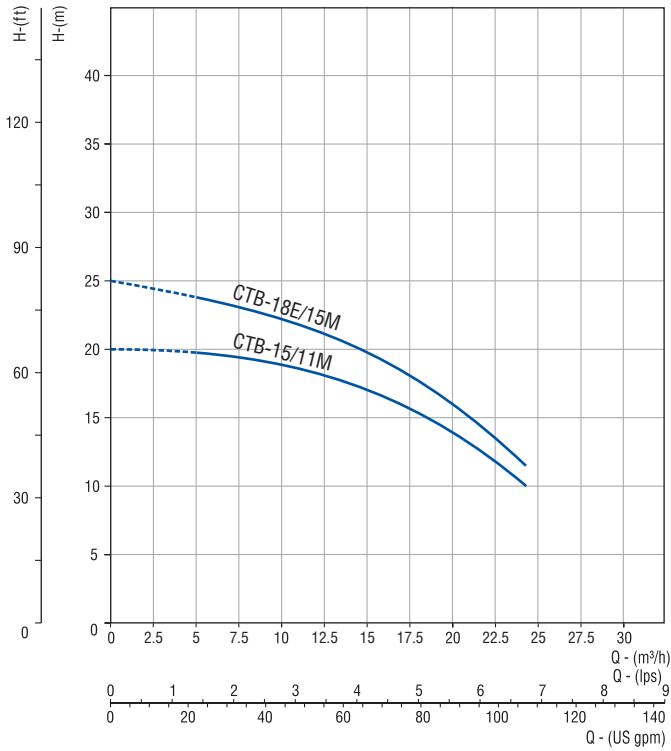
PERFORMANCE CHARTS

PUMP MODEL	MOTOR POWER		RATED CURRENT(A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m ³ /h							
						0	0.3	0.6	0.8	1.1	1.4	1.7	1.9
	kW	HP	1Ph 230V	3Ph 380V		0	1	2	3	4	5	6	7
CTS-4/03M	0.37	0.5	4.6	1.6	1 x 1	22	20.5	18.5	17	16.5	14	12	
CTS-5/05M	0.55	0.75	5.5	2	1 x 1	31	30	27	26	25	24	15	
CTS-6/07M	0.75	1.0	6.4	2.5	1 x 1	33	31.5	29.5	27.5	26	23	15	
CTB-6/11M	1.1	1.5	8.85	2.65	1 x 1	39	38	37	34.5	32	28	22	15 (6.3m ³ /h)
CTB-8/15M	1.5	2.0	9.38	3.51	1 x 1	43	42	38.5	37	33	30	25	15 (6.7m ³ /h)

PUMP MODEL	MOTOR POWER		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m ³ /h											
				0	0.6	0.8	1.1	1.4	1.7	1.9	2.2	2.5	2.8	2.5	
	kW	HP		0	2	3	4	5	6	7	8	9	10	11	
CTB-7/11M	1.1	1.5	1¼ x 1	34	33	32	30.5	29	28	27	25	24	23	20	

PERFORMANCE CURVES

CT SERIES



PERFORMANCE CHARTS

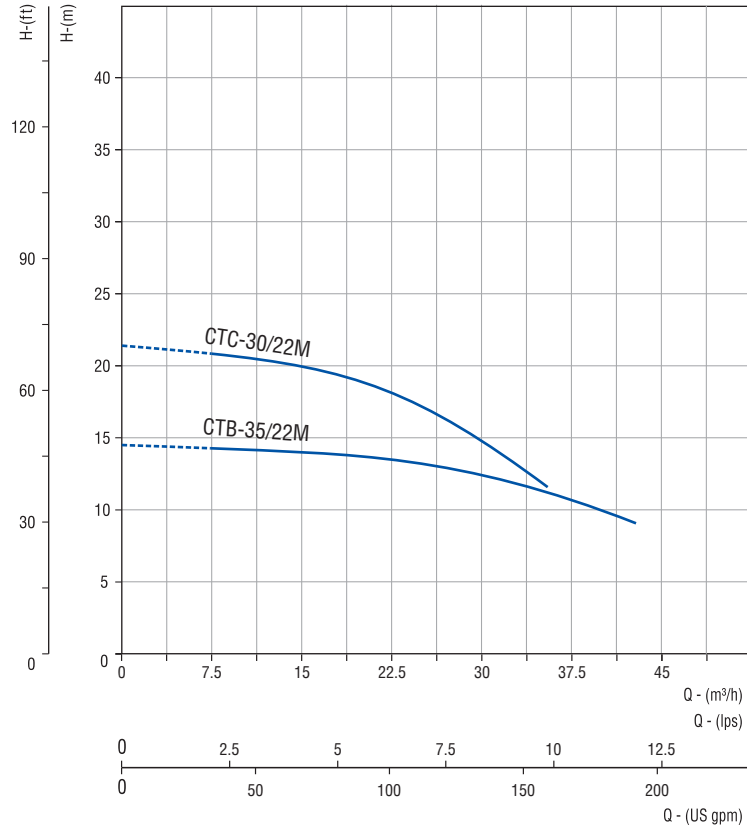
PUMP MODEL	MOTOR POWER		RATED CURRENT(A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h							
						0	1.4	2.1	2.8	3.5	4.2	5.6	6.7
						0	5	7.5	10	12.5	15	20	24
TOTAL HEAD IN METRES													
CTB-15/11M	1.1	1.5	7.5	2.8	2 x 2	20	20	19.5	18.5	18	17.5	14	10
CTB-18E/15M	1.5	2.0	11	4	2 x 2	25	24	23	22	21	20	16	11.5

PUMP MODEL	MOTOR POWER		RATED CURRENT(A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h										
						0	2.8	3.3	3.9	4.4	5	5.6	6.1	6.7	7.2	7.8
						0	10	12	14	16	18	20	22	24	26	28
TOTAL HEAD IN METRES																
CTC-20/11M*	1.1	1.5	9.5	3	2 x 1½	22	19.2	18	17.7	17	16	15	13.6	12.5	10.4	-
CTC-21F/15M*	1.5	2.0	12.5	4	2 x 2	27	23.8	23	22.5	22	21	20	19	17.5	16	14
CTC-20/22M*	2.2	3.0	18	5.2	2 x 2	32	30	29.5	28.5	27.5	26	24	20 (21m³/h)			

* Flange type Connection

PERFORMANCE CURVES

CT SERIES



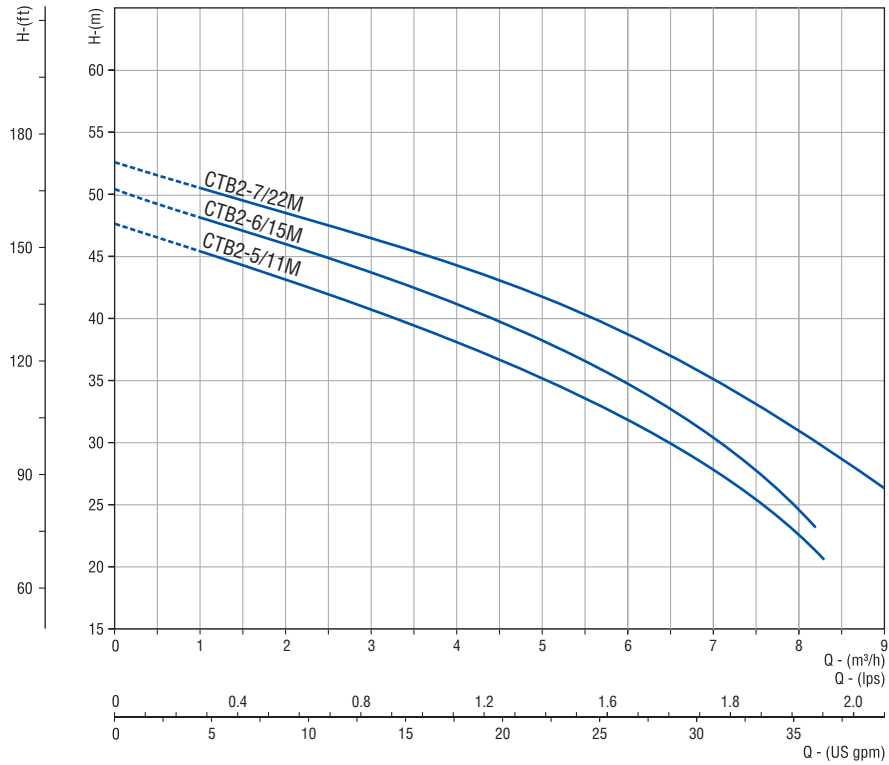
PERFORMANCE CHARTS

PUMP MODEL	MOTOR POWER		RATED CURRENT(A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h									
						0	2.8	4.17	5.56	6.94	8.33	9.72	11.11	12.5	
	kW	HP	1Ph 230V	3Ph 380V		0	10	15	20	25	30	35	40	45	
						TOTAL HEAD IN METRES									
CTC-30/22M*	2.2	3.0	18	5.2	2½ x 2	22	21	20	18.5	17.5	15	13	12 (36m³/h)		
CTB-35/22M	2.2	3.0	14	5.5	3 x 3	14.5	14	14	13.5	13	12.5	11.5	10	9 (42m³/h)	

* Flange type Connection

PERFORMANCE CURVES

CT SERIES
TWIN IMPELLER

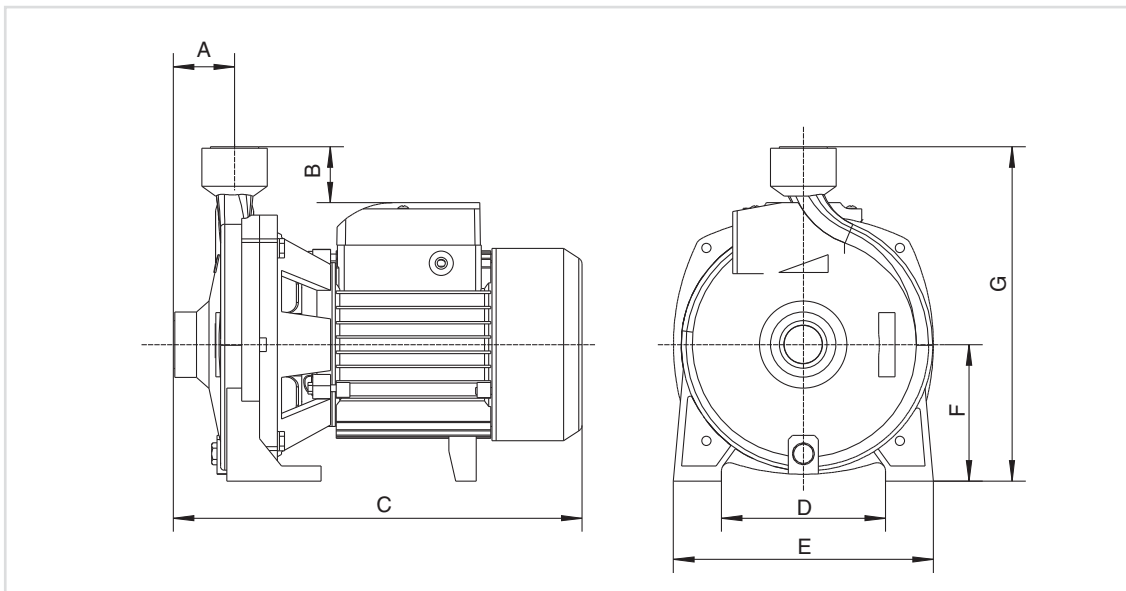


PERFORMANCE CHARTS

PUMP MODEL	MOTOR POWER		RATED CURRENT (A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h								
						0	0.6	0.8	1.1	1.4	1.7	1.9	2.2	2.5
	kW	HP	1Ph 230V	3Ph 380V		0	2	3	4	5	6	7	8	9
						TOTAL HEAD IN METRES								
CTB2-5/11M	1.1	1.5	8.32	2.65	1¼ x 1	47.5	43	41	38	35.5	32	27.5	22	
CTB2-6/15M	1.5	2	10.13	4.2	1¼ x 1	50.5	47	43	41	38	35	30	25	
CTB2-7/22M	2.2	3	13.43	5.2	1¼ x 1	52.5	48.5	46	44	42	38.5	35	31	26

DIMENSIONAL DRAWINGS

CT SERIES



DIMENSIONAL DATA

PUMP MODEL	MOTOR POWER		A	B	C	D	E	F	G	APPROX. NETT WT in kg
	kW	HP								
CTS-4/03M	0.37	0.5	46	20	285	113	150	84	207	9.5
CTS-5/05M	0.55	0.75	48	27	320	140	182	100	240	15
CTS-6/07M	0.75	1.0	48	27	320	140	182	100	240	15.5
CTB-6/11M	1.1	1.5	44	46	352	180	220	115	284	21.5
CTB-7/11M	1.1	1.5	50	25	302	140	200	105	255	19
CTB-8/15M	1.5	2.0	44	46	363	180	220	115	284	22.5
CTB-15/11M	1.1	1.5	60	20	375	160	207	112	159	22
CTB-18E/15M	1.5	2.0	57	44	385	135	182	107	218	23
CTB-35/22M	2.2	3.0	68	65	435	190	240	120	312	30
CTB2-5/11M	1.1	1.5	81	20	387	170	210	117	264	21.5
CTB2-6/15M	1.5	2.0	81	20	387	170	210	117	264	22.5
CTB2-7/22M	2.2	3.0	90	38	450	190	240	135	300	30.5

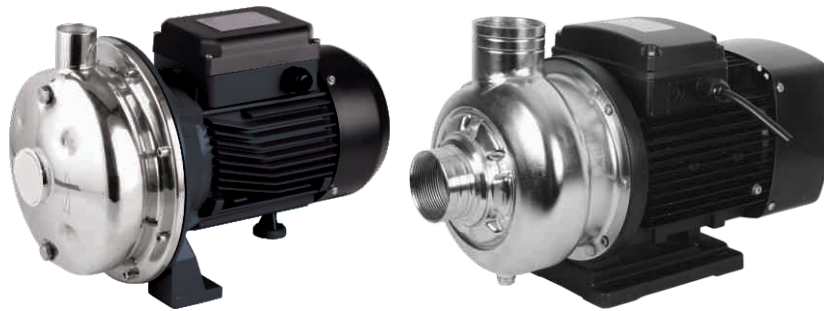
* Flange type Connection

* All Dimensions are in mm.

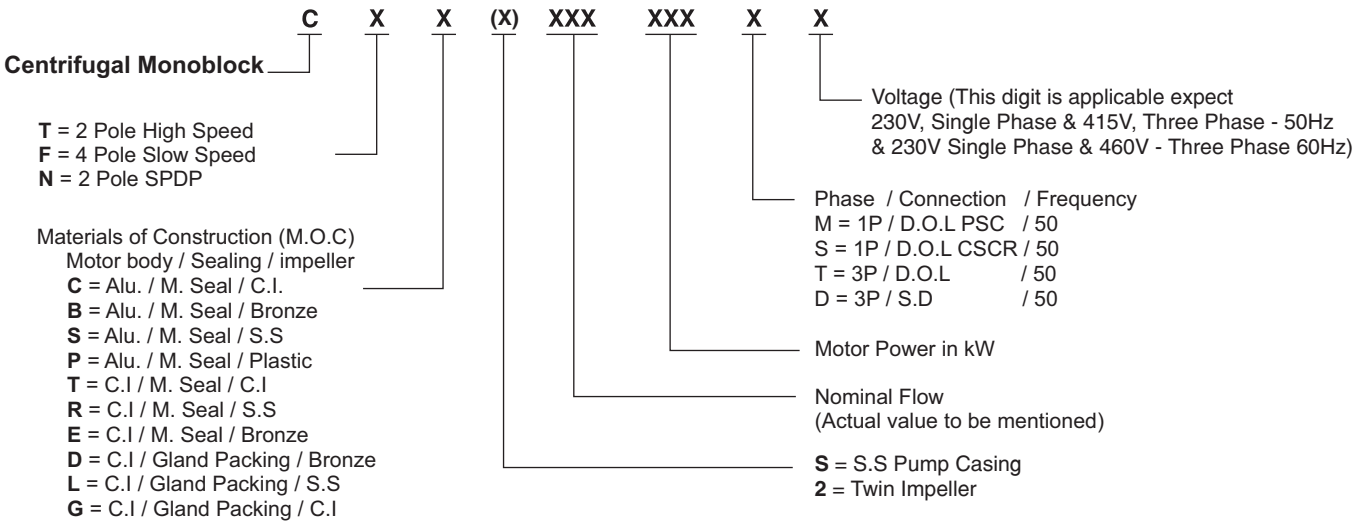
STAINLESS STEEL

Centrifugal Pumps

CTSS SERIES



MODEL IDENTIFICATION CODE



DESCRIPTION

C.R.I. Centrifugal pump's volute chamber and impellers are carefully designed to give the best possible hydraulic and suction lift characteristics. Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw material, dynamically balanced rotors & shaft ensure longer life and noise free operation. Shaft is made of quality steel & precisely grounded to ample size for transmitting the rated horse power, without any transmission loss.

SPECIFICATIONS

Power Range	: 0.37kW - 3.0kW
Speed	: 2900 rpm
Degree of Protection	: IP 54 / IP 55
Class of Insulation	: 'B' / 'F'
Versions	: Single phase - 230V, 50Hz, A.C. Supply (Permanent split capacitor-PSC) Three phase - 380-415V, 50Hz A.C. supply
Direction of Rotation	: Clockwise viewed from driving end
Type of Duty	: S1 (Continuous)
Nominal Suction Size in mm	: 32 to 50
Nominal Delivery Size in mm	: 25 to 50

MATERIALS OF CONSTRUCTION

Pump Casing	: S.S 304
Motor Frame	: Aluminium
Impeller	: S.S 304
Shaft	: S.S 304 / Carbon Steel
Sealing	: Mechanical Seal (Carbon & Ceramic)

PUMP OPERATING LIMITS

Maximum Head	: 35.5 m
Maximum Suction Lift	: upto 7m
Maximum Liquid Temperature	: 33°C
Maximum Ambient Temperature	: 40°C

FEATURES

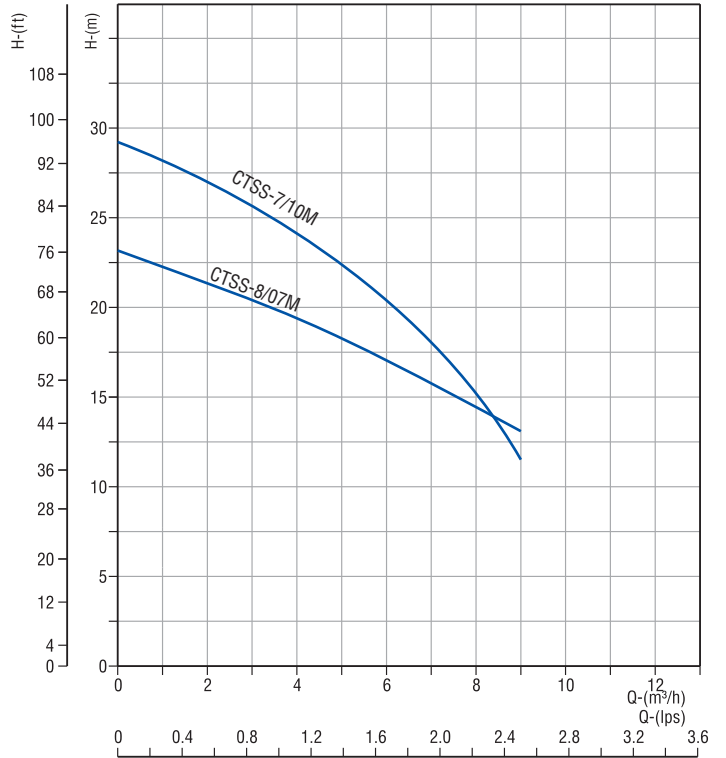
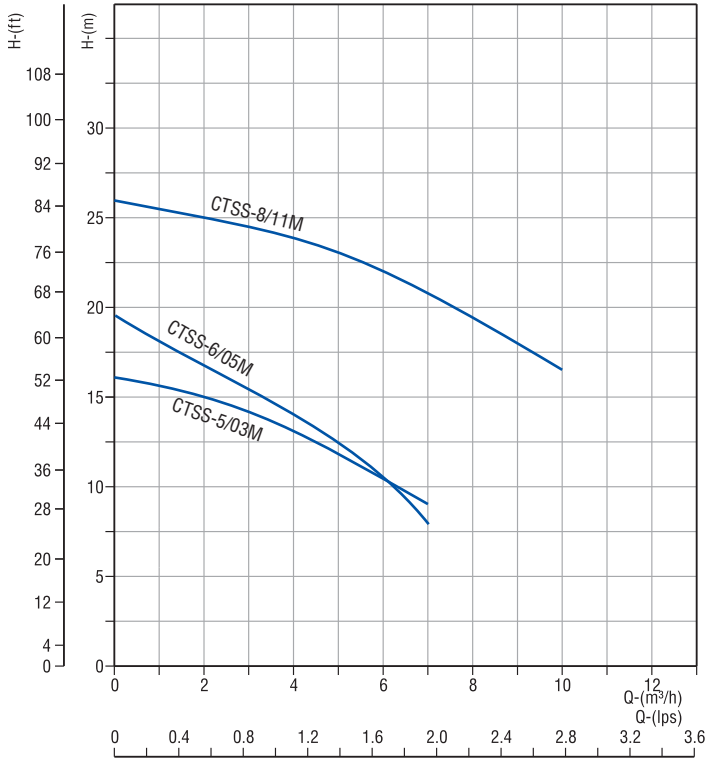
- High Operating efficiency resulting in lower power consumption.
- Dynamically balanced rotating parts.
- Inbuilt thermal overload protector in all single phase pumps.
- Complete SS construction more suitable for potable water.

APPLICATIONS

Residential, Irrigation, Small Farms, Pressure Boosting Units, Utility supply in Industrial, Food Processing Industries, Washing Systems.

PERFORMANCE CURVES

CTSS SERIES

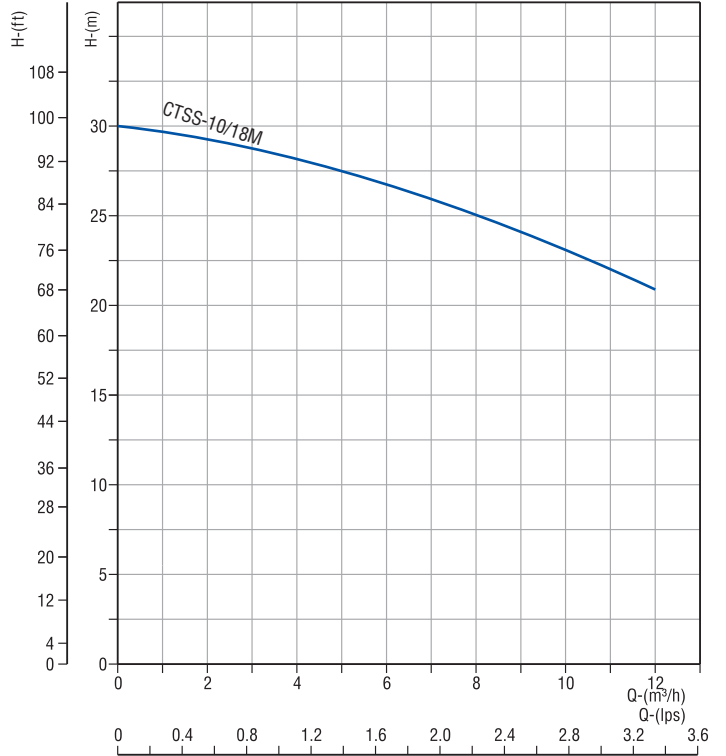
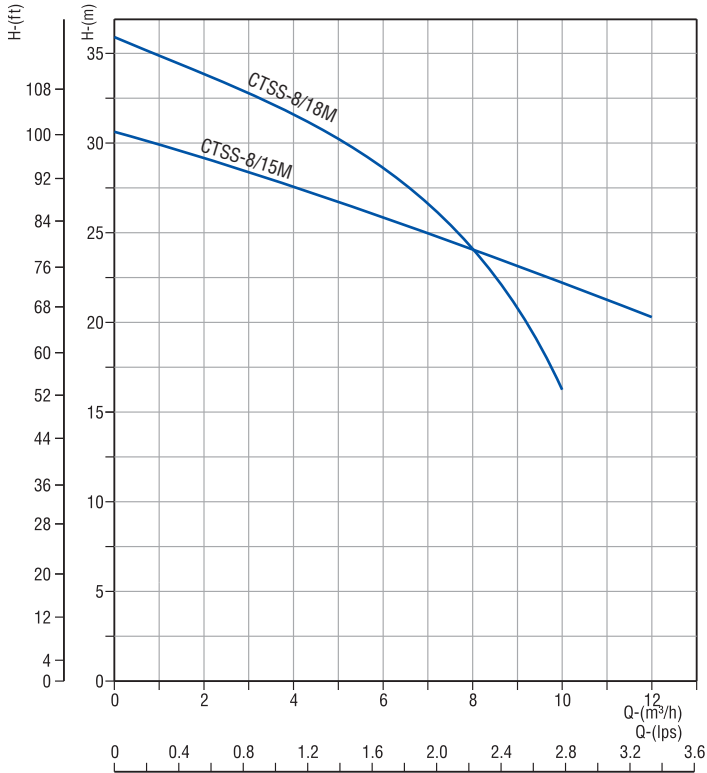


PERFORMANCE CHARTS

PUMP MODEL		MOTOR POWER		RATED CURRENT (A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h											
							0	0.27	0.55	0.83	1.1	1.3	1.6	1.9	2.2	2.5	2.9	
230V	380V	kW	HP	1Ph 230V	3Ph 380V		0	1	2	3	4	5	6	7	8	9	10	
							TOTAL HEAD IN METRES											
CTSS-5/03M	CTSS-5/03T	0.37	0.5	2.4	-	1½ x 1	16	15.5	15	14.5	13	11.5	10.5	9				
CTSS-6/05M	CTSS-6/05T	0.55	0.75	3.8	1.4	1½ x 1	19.5	18	17	15.5	13.5	12.5	11	8				
CTSS-8/07M	CTSS-8/07T	0.75	1.0	5.2	1.8	1½ x 1	23	22	21.5	20.5	19.5	18	17	16	14.5	13		
CTSS-7/10M	CTSS-7/10T	1.0	1.3	6.2	2.4	1½ x 1	29	28	26.5	25.5	24	22.5	20.5	18.5	15.5	11.5		
CTSS-8/11M	CTSS-8/11T	1.1	1.5	7	2.6	1½ x 1	26.5	26	25.5	25	24.5	23.5	22	20.5	19.5	18	17	

PERFORMANCE CURVES

CTSS SERIES

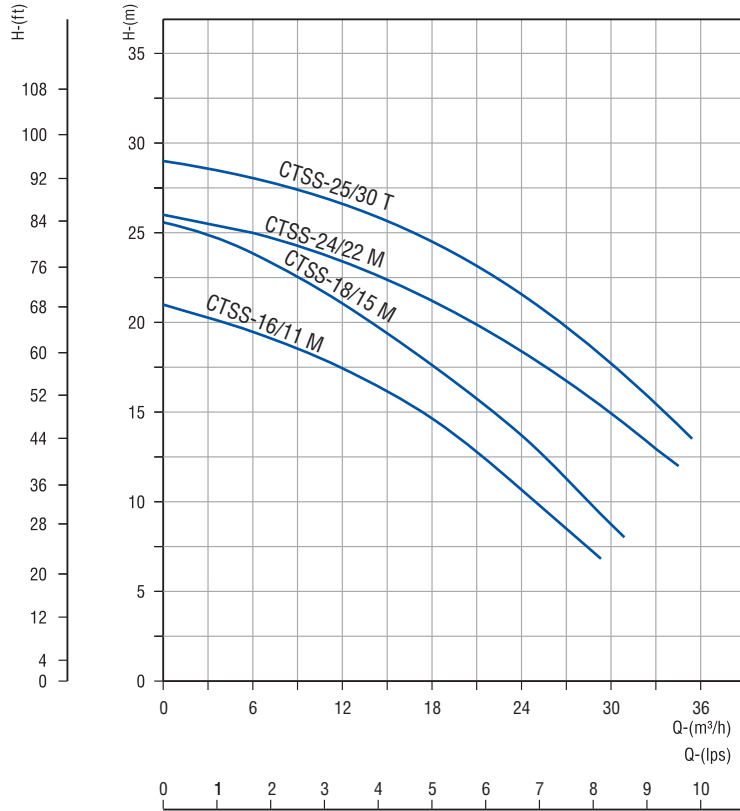


PERFORMANCE CHARTS

PUMP MODEL		MOTOR POWER		RATED CURRENT (A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h											
							0	0.27	0.55	0.83	1.1	1.3	1.6	1.9	2.2	2.5	2.9	3.3
230V	380V	kW	HP	1Ph 230V	3Ph 380V		0	1	2	3	4	5	6	7	8	9	10	12
							TOTAL HEAD IN METRES											
CTSS-8/15M	CTSS-8/15T	1.5	2.0	9.2	3.5	1¼ x 1	31	30	29	28.5	27.5	27	26	25	24.5	23	22	20.5
CTSS-8/18M	CTSS-8/18T	1.8	2.5	13	4.1	1¼ x 1	36.5	35	34	33	32	30	28.5	27	24	20.5	16.5	
CTSS-10/18M	CTSS-10/18T	1.8	2.5	13	4.1	1¼ x 1	30	29.5	29	28.5	28	27.5	27	26	25	24	23	21

PERFORMANCE CURVES

CTSS SERIES

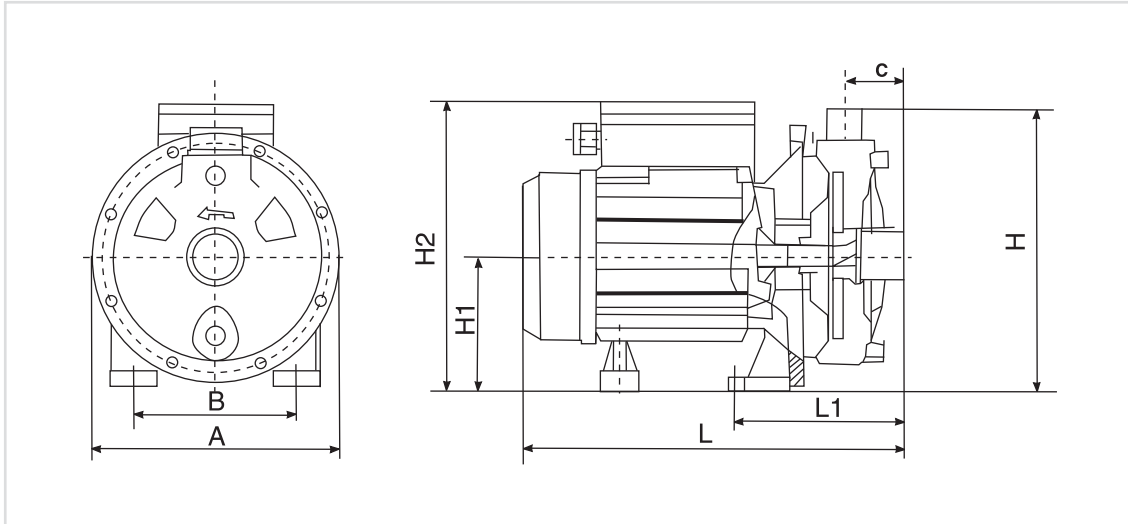


PERFORMANCE CHARTS

PUMP MODEL		MOTOR POWER		RATED CURRENT (A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h													
							0	0.8	1.7	2.5	3.3	4.2	5.0	5.8	6.7	7.5	8.3	9.2	10	
230V	380V	kW	HP	1Ph 230V	3Ph 380V		0	3	6	9	12	15	18	21	24	27	30	33	36	
							TOTAL HEAD IN METRES													
CTSS-16/11M	CTSS-16/11T	1.1	1.5	7	2.6	2 x 2	21	20	19	18.5	17.5	16.5	14.5	13	11	8.5	7 (29m³/h)			
CTSS-18/15M	CTSS-18/15T	1.5	2.0	9.2	3.5	2 x 2	25.5	25	23.5	22.5	21	19	17.5	16	13.5	11	8.5	8 (31m³/h)		
CTSS-24/22M	CTSS-24/22T	2.2	3.0	14	4.9	2 x 2	26	25.5	25	24.5	23.5	22.5	21.5	20	18.5	17	15	13	12 (34m³/h)	
-	CTSS-25/30T	3.0	4.0	-	6.3	2 x 2	29	28.5	28	27.5	26.5	25.5	24.5	23	22	20	17.5	15.5	13.5 (35m³/h)	

DIMENSIONAL DRAWING

CTSS SERIES



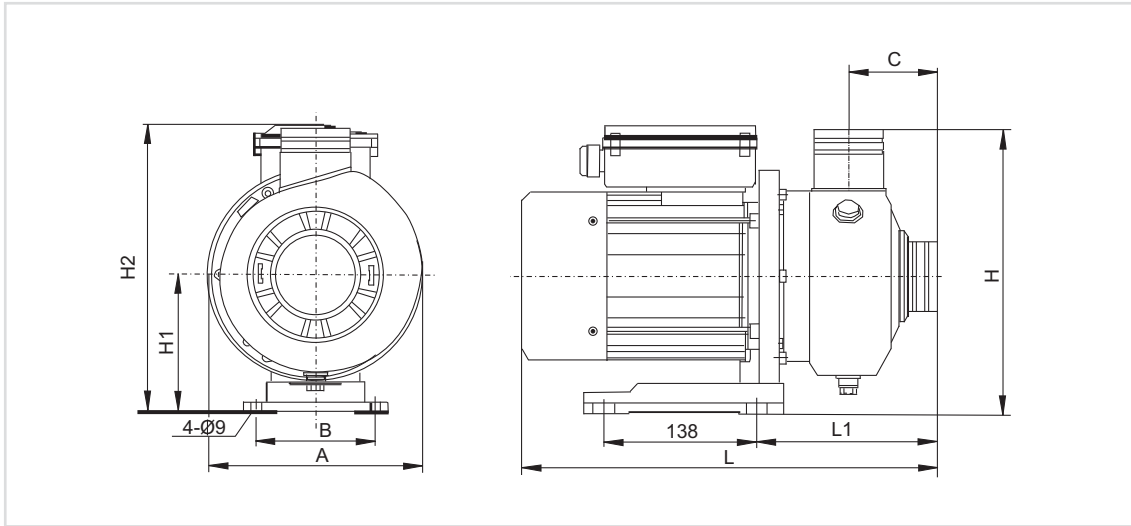
DIMENSIONAL DATA

PUMP MODEL		MOTOR POWER		A	B	C	H	H1	H2	L	L1	APPROX. NETT WT in kg
230V	380V	kW	HP									
CTSS-5/03M	CTSS-5/03T	0.37	0.5	170	100	50	180	84	186	270	120	6.5
CTSS-6/05M	CTSS-6/05T	0.55	0.75	213	140	47	222	110	242	313	138	12.5
CTSS-8/07M	CTSS-8/07T	0.75	1.0	213	140	47	222	110	242	313	138	13.5
CTSS-7/10M	CTSS-7/10T	1.0	1.3	213	140	47	222	110	242	313	138	15.5
CTSS-8/11M	CTSS-8/11T	1.1	1.5	213	140	47	222	110	242	313	138	15.5
CTSS-8/15M	CTSS-8/15T	1.5	2.0	234	150	49	240	120	251	337	140	18.5
CTSS-8/18M	CTSS-8/18T	1.8	2.5	234	150	49	240	120	251	337	140	22.0
CTSS-10/18M	CTSS-10/18T	1.8	2.5	231	140	47	222	110	255	366	138	21.5

* All Dimensions are in mm.

DIMENSIONAL DRAWING

CTSS SERIES



DIMENSIONAL DATA

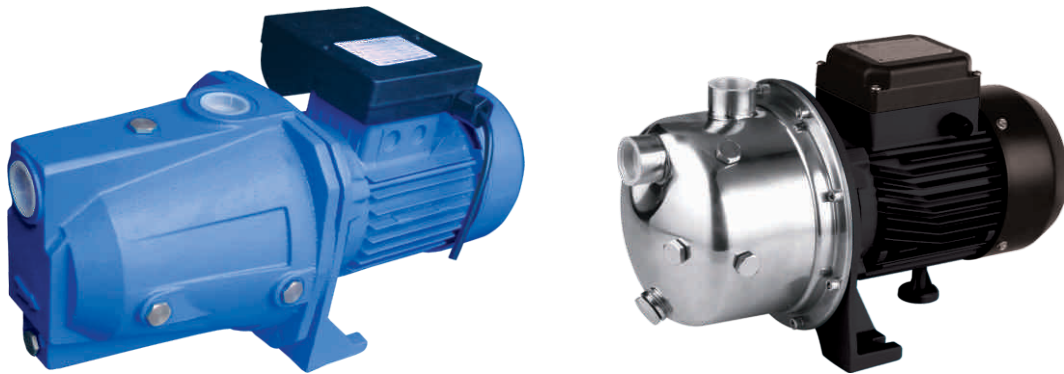
PUMP MODEL		MOTOR POWER		A	B	C	H	H1	H2		L	L1	APPROX. NETT WT in kg
230V	380V	kW	HP						1Ph	3Ph			
CTSS-16/11M	CTSS-16/11T	1.1	1.5	193	108	82	258	125	265	235	378	165	16.5
CTSS-18/15M	CTSS-18/15T	1.5	2.0	193	108	82	258	125	265	235	378	165	18
CTSS-24/22M	CTSS-24/22T	2.2	3.0	193	108	82	258	125	242	242	415	165	22
-	CTSS-25/30T	3.0	4.0	193	108	82	258	125	-	242	432	165	23

* All Dimensions are in mm.

STAINLESS STEEL

Self - Priming Jet Pumps

JT SERIES



DESCRIPTION

C.R.I. Self-Priming Jet pump's casing and ejector unit are designed carefully to give the best possible hydraulic efficiency and suction lift characteristics. Mechanical seals are made of carbon & ceramic which is precisely grounded to close tolerances. Shaft is made of quality steel & precisely grounded to ample size for transmitting the rated horse power, without any transmission loss. Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw materials & dynamically balanced impellers, rotors & shafts ensure longer life and noise free operation. The JTS series pumps are made of complete stainless steel construction which are more suitable for potable water. All single phase motors incorporated with thermal overload protector.

SPECIFICATIONS

Power Range	: JTS : 0.37 kW - 1.1 kW JTB : 0.45 kW - 1.5 kW
Speed	: 2900 rpm
Degree of Protection	: JTB : IP 44 JTS : IP 54 / IP 55 (Optional)
Class of insulation	: "B" / "F"
Versions	: Single phase - 230V, 50Hz A.C. supply (Permanent Split Capacitor-PSC) Incorporated with thermal overload protector Three phase - 380-415V, 50Hz A.C. supply
Direction of Rotation	: Clock wise viewed from driving end
Type of Duty	: S1 (Continuous)
Nominal Suction Size in mm	: 25 & 32
Nominal Delivery Size in mm	: 25

MATERIALS OF CONSTRUCTION

	JTS	JTB
Pump Casing	: S.S 304	Cast Iron
Motor Frame	: Aluminum	Aluminum
Impeller	: S.S 304	Bronze / Brass / Aluminium*
Shaft	: S.S 304	S.S 304
Mechanical Seal	: Carbon & Ceramic	Carbon & Ceramic

PUMP OPERATING LIMITS

Maximum Head	: 48 m
Maximum Suction lift	: upto 7 m
Maximum liquid Temperature	: 33°C
Maximum Ambient Temperature	: 40°C

FEATURES

- High operating efficiency resulting in lower power consumption.
- Dynamically balanced rotating parts.
- Inbuilt thermal overload protector in all single phase pumps.

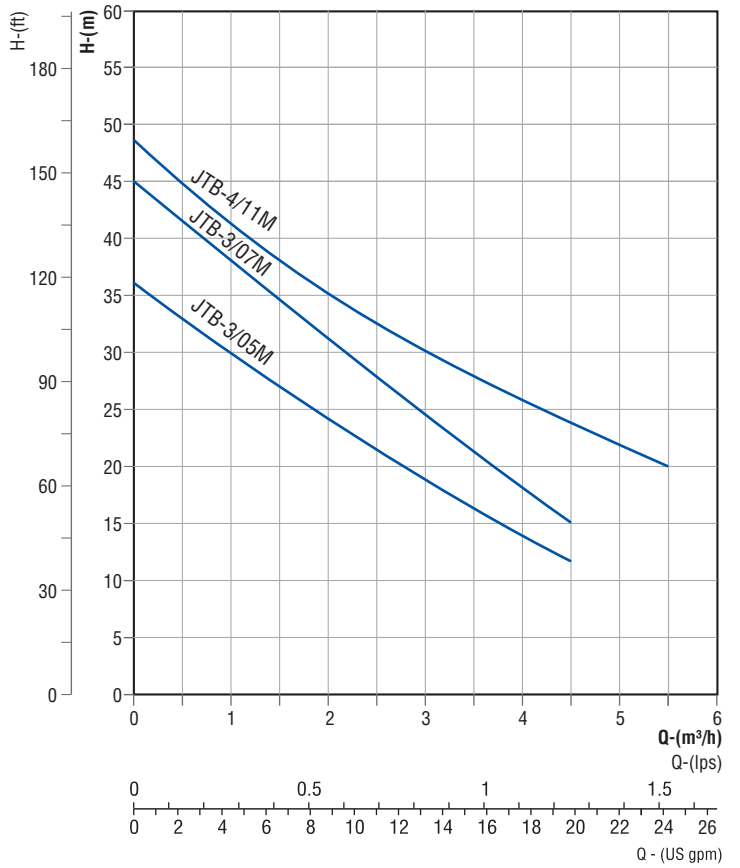
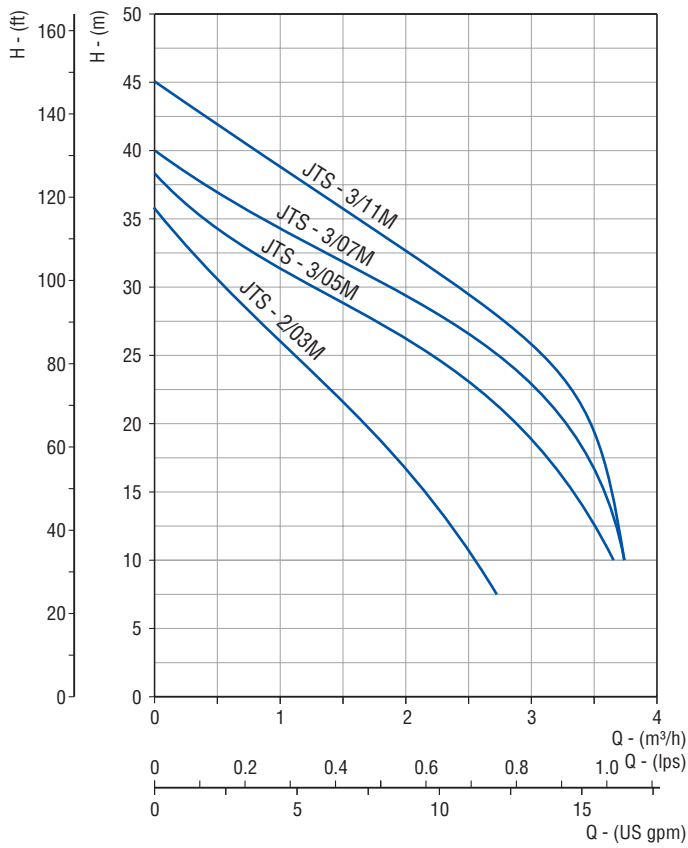
APPLICATIONS

Residential, Irrigation, Small Farms, Pressure Boosting Units, Utility water supply in Industries, Food Processing Industries.

* For Aluminium impeller pump models the third digit of the model name will be replaced with "A".

PERFORMANCE CURVES

JT SERIES



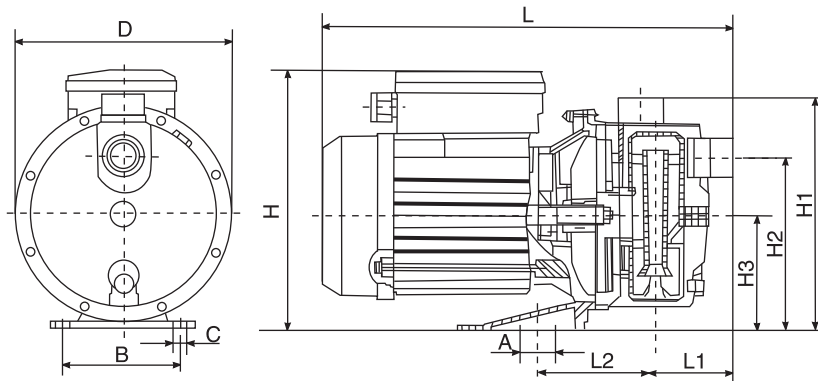
PERFORMANCE CHARTS

PUMP MODEL		MOTOR POWER		RATED CURRENT(A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h									
							0	0.1	0.3	0.4	0.6	0.7	0.8	1.0	1.04	
230V	380V	kW	HP	1Ph 230V	3Ph 380V		0	0.5	1	1.5	2	2.5	3	3.5	3.75	
							TOTAL HEAD IN METRES									
JTS-2/03M	JTS-2/03T	0.37	0.5	3.1	0.93	1 x 1	36	31	26.5	21.5	17	11	7 (2.75m³/h)	-	-	
JTS-3/05M	JTS-3/05T	0.55	0.75	4.3	1.49	1 x 1	38	34	31.5	28.5	26.5	23	18.5	12.5	10 (3.7m³/h)	
JTS-3/07M	JTS-3/07T	0.75	1.0	4.5	1.63	1 x 1	40	37	34	32	29	26.5	23	17	10	
JTS-3/11M	JTS-3/11T	1.1	1.5	5.3	2.65	1 x 1	45	42	38.5	36	32.5	29.5	26.5	19.5	10	

PUMP MODEL		MOTOR POWER		RATED CURRENT(A)		NOMINAL PUMP SIZE in Inches (Suc x Del)	DISCHARGE IN lps / m³/h							
							0	0.3	0.6	0.8	1.1	1.4	1.6	
230V	380V	kW	HP	1Ph 230V	3Ph 380V		0	1	2	3	4	5	6	
							TOTAL HEAD IN METRES							
JTB-3/05M	JTB-3/05T	0.55	0.75	4.6	1	1" x 1"	36	32	24	19	14	12 (4.5m³/h)	-	
JTB-3/07M	JTB-3/07T	0.75	1	5	1.6	1" x 1"	45	38	31.5	24.5	18	15 (4.5m³/h)	-	
JTB-4/11M	JTB-4/11T	1.1	1.5	7.5	2	1¼" x 1"	48	41.5	35	30	26	22	20 (5.5m³/h)	

DIMENSIONAL DETAILS

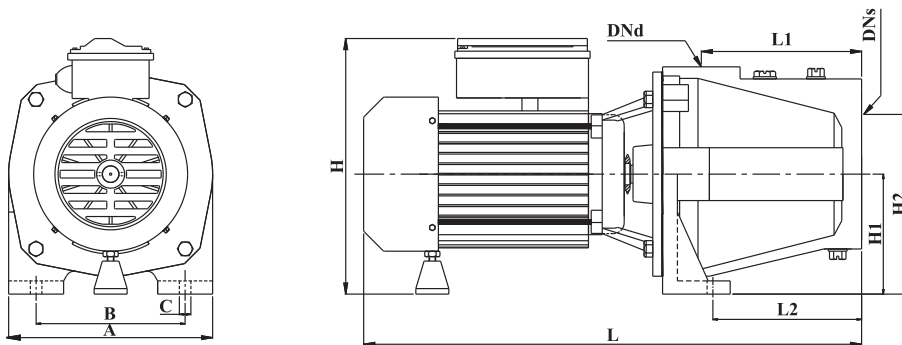
JTS SERIES



PUMP MODEL		MOTOR POWER		A	B	C	D	H	H1	H2	H3	L	L1	L2	APPROX. NETT WT in kg
230V	380V	kW	HP												
JTS-2/03M	JTS-2/03T	0.37	0.5	7	160	8	196	218	206	161	105	380	88	109	9
JTS-3/05M	JTS-3/05T	0.55	0.75	20	160	8	196	218	206	161	105	380	80	80	10
JTS-3/07M	JTS-3/07T	0.75	1.0	20	160	8	196	218	206	161	105	380	80	80	11
JTS-3/11M	JTS-3/11T	1.1	1.5	-	160	8	196	218	206	161	105	380	97	-	11.5

* All Dimensions are in mm.

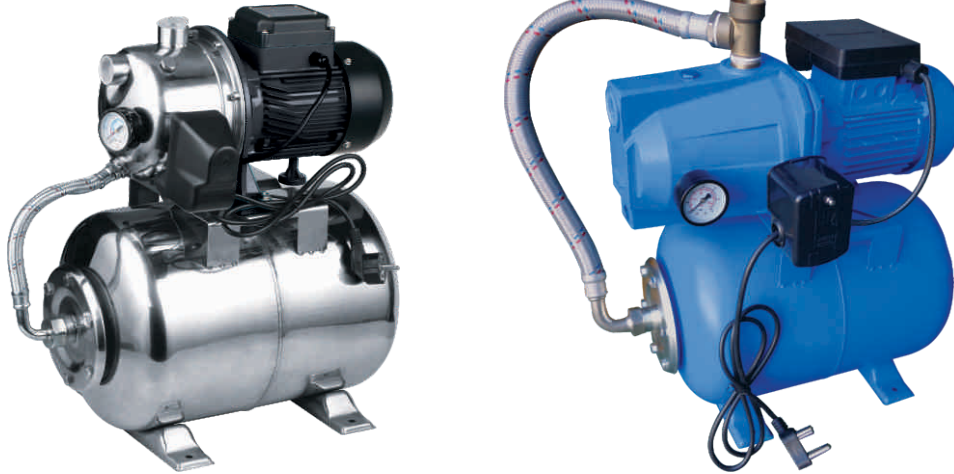
JTB SERIES



PUMP MODEL		MOTOR POWER		Dns	DNd	DIMENSIONS IN mm									APPROX. NETT WT in kg
230V	380V	kW	HP			L	L1	L2	A	B	C	H1	H2	H	
JTB-3/05M	JTB-3/05T	0.55	0.75	1"	1"	440	140	235	181	140	10	100	158	213	15
JTB-3/07M	JTB-3/07T	0.75	1	1"	1"	395	112.5	133	182	142	10	97	152.5	210	15.5
JTB-4/11M	JTB-4/11T	1.1	1.5	1 1/4"	1"	395	112.5	133	182	142	10	97	152.5	210	16.5
JTB-4/15M	JTB-4/15T	1.5	2	1 1/4"	1"	530	160	285	200	160	10	120	165	240	16.5

* All Dimensions are in mm.

Automatic Pressure Booster System



DESCRIPTION

C.R.I. Automatic pressure booster systems comprises of Self priming Jet pump (JTS / JTB - Series), Pressure tank, Mechanical Pressure switch & other accessories designed ingeniously for delivering optimal performance. This system eliminates the need of over-head tanks & float switch. The electro mechanical control device switches ON & OFF the pump automatically whenever the pressure reaches the minimum and maximum preset levels. It maintains uniform pressurized water in the pipelines suitable for all domestic applications.

FEATURES

- Sets free from operating the pump every time manually
- Eliminates need of overhead tank & float switch
- Ensures uninterrupted water supply with adequate pressure always
- Saves water, electricity & time
- Designed for easy installation.

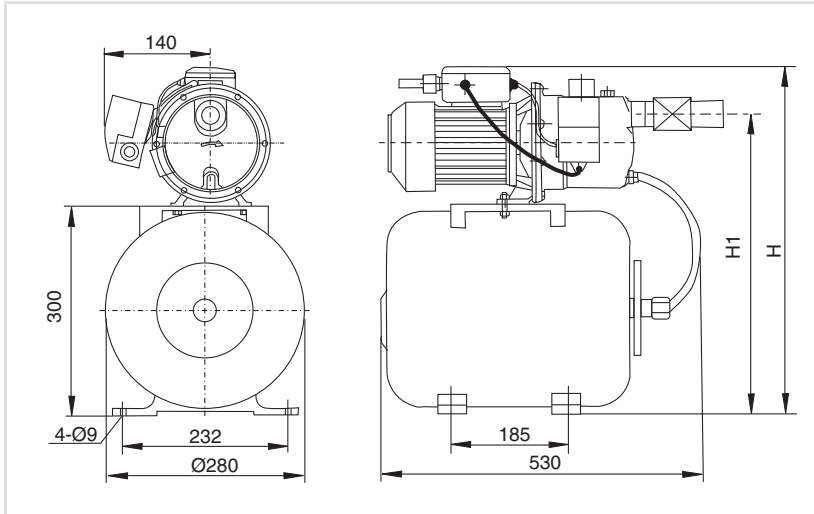
APPLICATION

For all pressure boosting applications in Houses, Villas, Gardens, Commercial centers, Hotels, Restaurants, etc.,

SPECIFICATIONS

Power Range	: JTS : 0.55 kW - 0.75 kW JTB : 0.55 kW - 0.75 kW
Speed	: 2900 rpm
Degree of Protection	: JTB : IP 44 JTS : IP 54 / IP 55 (Optional)
Class of insulation	: "B" / "F"
Versions	: Single phase - 230V, 50Hz A.C. Supply (Permanent Split Capacitor)
Direction of Rotation	: Clock wise viewed from driving end
Type of Duty	: S1 (Continuous)
Nominal Suction Size in mm	: 25 x 25
Nominal Delivery Size in mm	: 25 x 25

DIMENSIONAL DETAILS



MODEL	Dimensions in mm		Weight in kg
	H	H1	
P24-JTS-3/05M	428	495	14.5
P24-JTS-3/07M	452	540	15.5

* All Dimensions are in mm.

PERFORMANCE DETAILS

Pressure Booster System with Stainless Steel Pumps

MODEL	TANK CAPACITY in lts	MOTOR POWER		Inlet & Outlet Size in Inches	Suction Lift	l/s	0.42	0.61	0.66	Pressure switch setting (bar)		Pressure level in pressure tank (PSI)
		kW	HP							ON	OFF	
P24-JTS-3/05M	24	0.55	0.75	1 x 1	7	Head in metres	25	22	19	1	2.5	15 - 18
P24-JTS-3/07M	24	0.75	1.0	1 x 1	7		31	28	25	2.1	3.5	15 - 18

MODEL	TANK CAPACITY in lts	MOTOR POWER		Inlet & Outlet Size in Inches	Head (Suc) in m	l/s	0.42	0.61	0.66	Pressure switch setting (bar)		Pressure level in pressure tank (PSI)
		kW	HP							ON	OFF	
P24-JTB-3/05M	24	0.55	0.75	1 x 1	7	Head in metres	27	23	22	1.4	2.8	15 - 18
P24-JTB-3/07M	24	0.75	1.0	1 x 1	7		33	29	26	2.1	3.5	15 - 18

The above models can be supplied with 60 ltrs tank also.

CONVERSION TABLE

FLOW RATE

LITRE PER SECOND L/S	LITRE PER MINUTE L/MIN	CUBIC METER PER HOUR M ³ /H	CUBIC FOOT PER HOUR FT ³ /H	CUBIC FOOT PER MINUTE FT ³ /MIN	IMP.GALLON PER MINUTE IMP.GAL./MIN	US GALLON PER MINUTE US GAL./MIN	US BARREL PER DAY IS BARREL/D (PETROLEUM)
1	60	3.6	127.133	2.1189	13.2	15.85	543.439
0.017	1	0.06	2.1189	0.0353	0.22	0.264	9.057
0.278	16.667	1	35.3147	0.5886	3.666	4.403	150.955
0.008	0.472	0.0283	1	0.0167	0.104	0.125	4.275
0.472	28.317	1.6990	60	1	6.229	7.480	256.475
0.076	4.546	0.2728	9.6326	0.1605	1	1.201	41.175
0.063	3.785	0.2271	8.0209	0.1337	0.833	1	34.286
0.002	0.110	0.0066	0.2339	0.0039	0.024	0.029	1

LIQUID

CUBIC METER M ³	LITRE L	MILLI LITRE ML	IMP. GALLON IMP. GAL	US GALLON US GAL	CUBIC FOOT FT ³
1	1000	1 x 10 ⁶	220	264.2	35.3147
0.001	1	1000	0.22	0.2642	0.0353
1 x 10 ⁻⁶	0.001	1	2.2 X 10 ⁻⁴	2.642 x 10 ⁻⁴	3.53 x 10 ⁻⁵
0.00455	4.546	4546	1	1.201	0.1605
0.00378	3.785	3785	0.8327	1	0.1337
0.0283	28.317	28317	6.2288	7.4805	1

LIQUID HEAD AND PRESSURE

NEWTON PER SQUARE METER N/M ² (PA)	KILO PASCAL KPA	BAR	KILOGRAM FORCE PER SQUARE CENTIMETER KGF/CM ²	POUND FORCE PER SQUARE INCH PSI	FOOT FOR WATER FT H ₂ O	METER OF WATER M H ₂ O	MILLIMETER OF MERCURY MM HG	INCH OF MERCURY IN HG
1	0.001	1 x 10 ⁻⁵	1.02 x 10 ⁻⁵	1.45 X 10 ⁻⁴	3.35 X 10 ⁻⁴	1.02 X 10 ⁻⁴	0.0075	2.95 x 10 ⁻⁴
1000	1	0.01	0.0102	0.145	0.335	0.102	7.5	0.295
1 x 10 ⁻⁵	100	1	1.02	14.5	33.52	10.2	750.1	29.53
98.067	98.07	0.981	1	14.22	32.81	10	735.6	28.96
6895	6.895	0.069	0.0703	1	2.31	0.703	51.72	2.036
2984	2.984	0.03	0.0305	0.433	1	0.305	22.42	0.882
9789	9.789	0.098	0.1	1.42	3.28	1	73.42	2.891
133.3	0.133	0.0013	0.0014	0.019	0.045	0.014	1	0.039
3386	3.386	0.0338	0.0345	0.491	1.133	0.0345	25.4	1

LENGTH

MILLIMETER MM	CENTIMETER CM	METER M	INCH IN	FEET FT	YARD YD
1	0.1	0.001	0.0394	0.0033	0.0011
10	1	0.01	0.3937	0.0328	0.0109
1000	100	1	39.3701	3.2808	1.0936
25.4	2.54	0.0254	1	0.0833	0.0278
304.8	30.48	0.3048	12	1	0.3333
914.4	91.44	0.9144	36	3	1

1 KILOMETER = 1000 METRES = 0.62137 MILES 1 MILE = 1609.37 METRES -- 1.60934 KILOMETERS

MASS

KILOGRAM KG	POUND LB	HUNDRED WEIGHT (cwt)	TONNE T	TON LONG TN	SHORT TON SH TN
1	2.205	0.0197	0.001	9.84 x 10 ⁻⁴	0.0011
0.454	1	0.0089	4.54 x 10 ⁻⁴	4.46 x 10 ⁻⁴	5.0 x 10 ⁻⁴
50.802	112	1	0.0508	0.05	0.056
1000	2204.6	19.684	1	0.9842	1.1023
1016	2240	20	1.0161	1	1.102
907.2	2000	17.857	0.9072	0.8929	1

TEMPERATURE

TO CONVERT FROM	TO	USE FORMULA
TEMPERATURE CELSIUS, TC	TEMPERATURE KELVIN, TK	K = TC + 273.15
TEMPERATURE FAHRENHEIT, TF	TEMPERATURE KELVIN, TK	K = (TF + 459.67 / 1.8)
TEMPERATURE CELSIUS, TC	TEMPERATURE FAHRENHEIT, TF	F = 1.8 TC + 32
TEMPERATURE FAHRENHEIT, TF	TEMPERATURE CELSIUS, TC	C = (TF - 32) / 1.8
TEMPERATURE KELVIN, TK	TEMPERATURE CELSIUS, TC	C = TK - 273.15
TEMPERATURE KELVIN, TK	TEMPERATURE FAHRENHEIT, TF	F = 1.8TK - 459.67

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