

# NC SERIES

## SUBMERSIBLE NON-CLOG PUMPS

The FPS NC Series Non-Clog Pumps are available in single- and three-phase power options to provide a rugged, maintenance-friendly wastewater transfer solution with flows up to 610 gpm. Featuring a field adjustable wear plate and factory standard dual silicon carbide mechanical seals, the NC Series also comes fully supported by an industry-leading team of technical support and service professionals.





# NC SERIES PUMPS

## APPLICATIONS

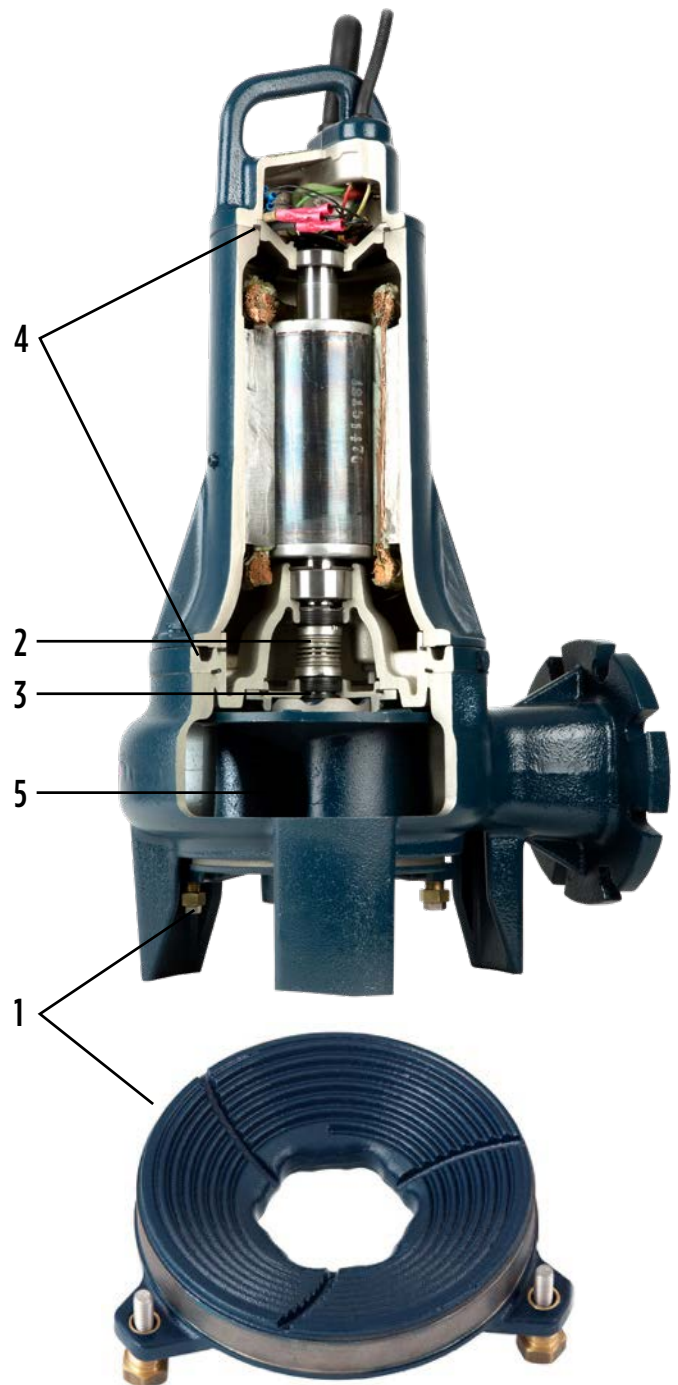
- Used for a multitude of purposes in commercial and industrial applications such as sewage, effluent, irrigation, and general de-watering

## FEATURES

- **Simplified On-Site Maintenance:** Field adjustable wear plate provides clearance between the impeller and volute for simplified maintenance, minimizing operational downtime while maximizing profit without the need and additional cost of a replaceable wear ring
- **Up To 6 Times Longer Seal Life:** Factory standard dual silicon carbide mechanical seals have low thermal expansion and higher abrasion resistance than carbon versus ceramic commonly used for both seals
- **Factory standard exclusion seal provides a first line of defense.** If the exclusion seal and first mechanical seal is breached, the Seal Fail probe will send a signal to the control panel providing an alert for service.
- **Premium Heat & Chemical Resistance:** Motor enclosure sealing system utilizes Fluoroelastomer (FKM) O-Rings to offer added chemical and temperature resistance
- **Corrosion Resistance Comes Standard:** All castings are powder coated, while ductile iron casted impellers provide added corrosion resistance and are less brittle when handling rigid debris versus competitive cast iron versions
- **Fully Supported:** Comes fully supported by an industry-leading team of Technical Support and Service professionals
- All Single-Phase Non-Clog Pumps require a specific starter kit from FPS, matched to the pump for proper operation and third-party approval.

## SPECIFICATIONS

Series	3NC	4NC
Flange Discharge	3" horizontal (125# ANSI flange)	4" horizontal (125# ANSI flange)
Maximum Solids Size	2.5"	3"
Cables	Power: 8/4 - type S00W	
	Sensor: 16/4 - type S00W	
Motor	60 Hz, Class F insulation, 1750 RPM	
	Continuous duty (104 °F maximum)	
	Lower double row ball bearing	
	AISI 420 SST shaft	
	300 Series SST fasteners	
Seals	Cast iron motor housing, volute, and seal chamber	
	Seal-fail indication probe	
	Fluoroelastomer (FKM) sealing system for motor enclosure	
	Dual silicon carbide mechanical seals	
Agency Listing	Additional exclusion seal	
	cCSAus	



# NC SERIES PUMPS

## 3NC SERIES PUMP DIMENSIONS

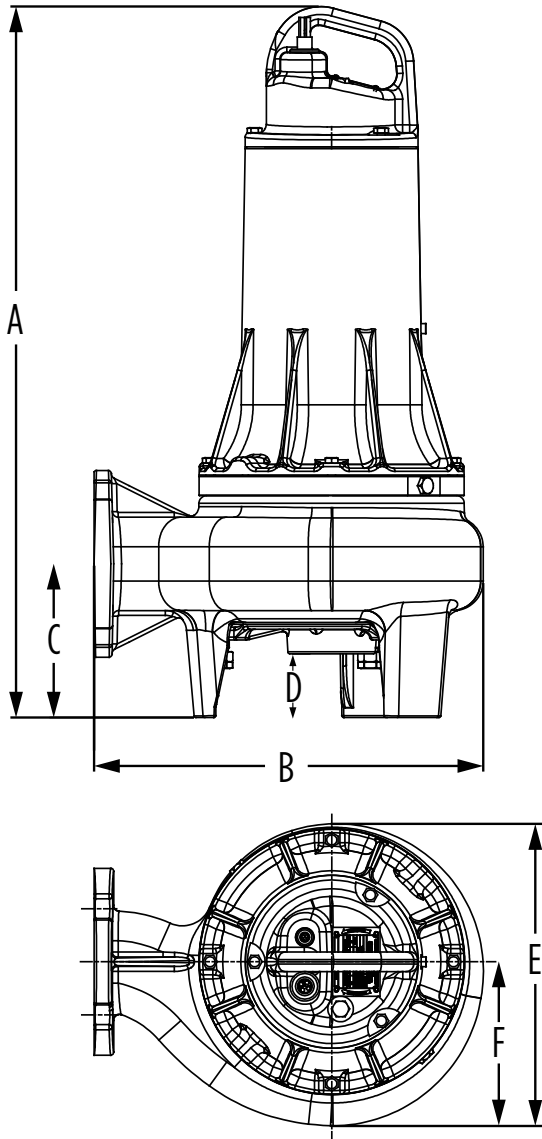
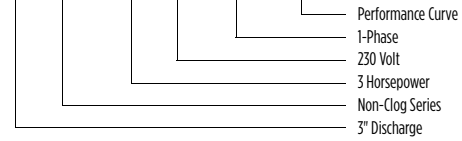
HP/Phase	A	B	C	D	E	F
3/5 HP, 1-PH	28.5" (724 mm)	15.6"	6.2"	2.56"	12.1"	6.57"
3/5 HP, 3-PH	26.7" (678 mm)	(396 mm)	(157 mm)	(65 mm)	(307 mm)	(167 mm)

## 4NC SERIES PUMP DIMENSIONS

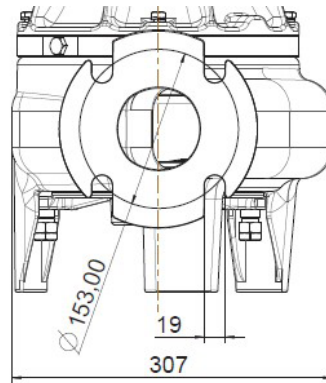
HP/PHASE	A	B	C	D	E	F
3/5 HP, 1-PH	28.9" (734 mm)	16.4"	6.4"	3.45"	12.1"	6.57"
3/5 HP, 3-PH	27.2" (690 mm)					
7.5/10 HP, 3-PH	28.9" (734 mm)					

## NOMENCLATURE EXAMPLE

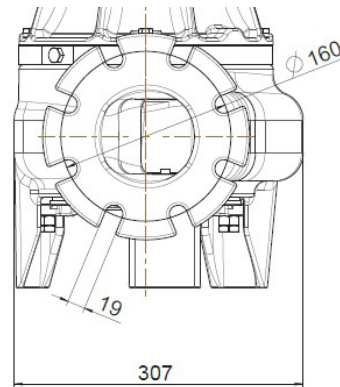
# 3NC-323P1-184



3NC FLANGE



4NC FLANGE





## 3NC SERIES PUMPS

### MODEL INFORMATION

#### SINGLE-PHASE\*

Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.
87109896-00	3NC-323P1-184	25	3	230	30	235	7.24" (184 mm)
87109896-01	3NC-323P1-184				50	250	7.24" (184 mm)
87109897-00	3NC-323P1-172	22.5			30	240	6.77" (172 mm)
87109897-01	3NC-323P1-172				50	255	6.77" (172 mm)
87109898-00	3NC-323P1-160	19			30	240	6.3" (160 mm)
87109898-01	3NC-323P1-160				50	255	6.3" (160 mm)
87110366-00	3NC-523P1-190	28.5			30	240	7.48" (190 mm)

\*Single-phase motors require FPS Control Panel or Starter Kit for proper operation and warranty.

### MODEL INFORMATION

#### SINGLE-PHASE\*

Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.
87110366-01	3NC-523P1-190	28.5	5	230	50	255	7.48" (190 mm)
87110367-00	3NC-523P1-184	25			30	235	7.24" (184 mm)
87110367-01	3NC-523P1-184				50	250	7.24" (184 mm)
87110368-00	3NC-523P1-172	22.5			30	245	6.77" (172 mm)
87110368-01	3NC-523P1-172				50	260	6.77" (172 mm)
87110369-00	3NC-523P1-160	19			30	245	6.3" (160 mm)
87110369-01	3NC-523P1-160		50	260	6.3" (160 mm)		

\*Single-phase motors require FPS Control Panel or Starter Kit for proper operation and warranty.

### MODEL INFORMATION

#### THREE-PHASE

Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.		
87109899-00	3NC-323P3-184	16/15	3	200/230	30	240	7.24" (184 mm)		
87109899-01	3NC-323P3-184	14.5/13.5			50	255	7.24" (184 mm)		
87110358-00	3NC-323P3-172				30	240	6.77" (172 mm)		
87110358-01	3NC-323P3-172	50			255	6.77" (172 mm)			
87110359-00	3NC-323P3-160	13.5/12			30	240	6.3" (160 mm)		
87110359-01	3NC-323P3-160				50	255	6.3" (160 mm)		
87110360-00	3NC-346P3-184	7.5		460	30	235	7.24" (184 mm)		
87110360-01	3NC-346P3-184				50	250	7.24" (184 mm)		
87110361-00	3NC-346P3-172	6.5			30	235	6.77" (172 mm)		
87110361-01	3NC-346P3-172				50	250	6.77" (172 mm)		
87110362-01	3NC-346P3-160	6			30	235	6.3" (160 mm)		
87110362-01	3NC-346P3-160	6			50	250	6.3" (160 mm)		
87110363-00	3NC-357P3-184			5.5	575	30	235	7.24" (184 mm)	
87110363-01	3NC-357P3-184	50				250	7.24" (184 mm)		
87110364-00	3NC-357P3-172	4.5		30		235	6.77" (172 mm)		
87110364-01	3NC-357P3-172			50		250	6.77" (172 mm)		
87110365-00	3NC-357P3-160	21/18.5		5		200/230	30	235	6.3" (160 mm)
87110365-01	3NC-357P3-160						50	250	6.3" (160 mm)
87110370-00	3NC-523P3-196	16/15	30		245		7.72" (196 mm)		
87110370-01	3NC-523P3-196		50		260		7.72" (196 mm)		
87110371-00	3NC-523P3-184		30		235		7.24" (184 mm)		

### MODEL INFORMATION

#### THREE-PHASE

Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.	
87110371-01	3NC-523P3-184	16/15	5	200/230	50	250	7.24" (184 mm)	
87110372-00	3NC-523P3-172	14.5/13.5			30	235	6.77" (172 mm)	
87110372-01	3NC-523P3-172				50	250	6.77" (172 mm)	
87110373-00	3NC-523P3-160	13.5/12			30	235	6.3" (160 mm)	
87110373-01	3NC-523P3-160				50	250	6.3" (160 mm)	
87110374-00	3NC-546P3-196	9.5			460	30	245	7.72" (196 mm)
87110374-01	3NC-546P3-196			50		260	7.72" (196 mm)	
87110375-00	3NC-546P3-184	8		30		235	7.24" (184 mm)	
87110375-01	3NC-546P3-184			50		250	7.24" (184 mm)	
87110376-00	3NC-546P3-172	6.5		30		235	6.77" (172 mm)	
87110376-01	3NC-546P3-172			50		250	6.77" (172 mm)	
87110377-00	3NC-546P3-160	6		575	30	235	6.3" (160 mm)	
87110377-01	3NC-546P3-160				50	250	6.3" (160 mm)	
87110378-00	3NC-557P3-196	7.5			575	30	245	7.72" (196 mm)
87110378-01	3NC-557P3-196					50	260	7.72" (196 mm)
87110379-00	3NC-557P3-184	6				30	235	7.24" (184 mm)
87110379-01	3NC-557P3-184					50	250	7.24" (184 mm)
87110380-00	3NC-557P3-172	5.5		30		235	6.77" (172 mm)	
87110380-01	3NC-557P3-172		50	250		6.77" (172 mm)		
87110381-00	3NC-557P3-160	4.5	30	235	6.3" (160 mm)			
87110381-01	3NC-557P3-160		50	250	6.3" (160 mm)			

## 4NC SERIES PUMPS

### MODEL INFORMATION

#### SINGLE-PHASE\*

Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.
87110382-00	4NC-323P1-170	24	3	230	30	245	6.69" (170 mm)
87110382-01	4NC-323P1-170				50	260	6.69" (170 mm)
87110383-00	4NC-323P1-160	21.5			30	245	6.30" (160 mm)
87110383-01	4NC-323P1-160				50	260	6.30" (160 mm)
87110384-00	4NC-323P1-146	17.5			30	245	5.75" (146 mm)
87110384-01	4NC-323P1-146				50	260	5.75" (146 mm)

\*Single-phase motors require FPS Control Panel or Starter Kit for proper operation and warranty.

### MODEL INFORMATION

#### SINGLE-PHASE\*

Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.
87110394-00	4NC-523P1-176	30	5	230	30	250	6.93" (176 mm)
87110394-01	4NC-523P1-176				50	265	6.93" (176 mm)
87110395-00	4NC-523P1-170	24			30	245	6.69" (170 mm)
87110395-01	4NC-523P1-170				50	260	6.69" (170 mm)
87110396-00	4NC-523P1-160	21.5			30	245	6.30" (160 mm)
87110396-01	4NC-523P1-160				50	260	6.30" (160 mm)
87110397-00	4NC-523P1-146	17.5	5	230	30	245	5.75" (146 mm)
87110397-01	4NC-523P1-146				50	260	5.75" (146 mm)

# 4NC SERIES PUMPS (CONT.)

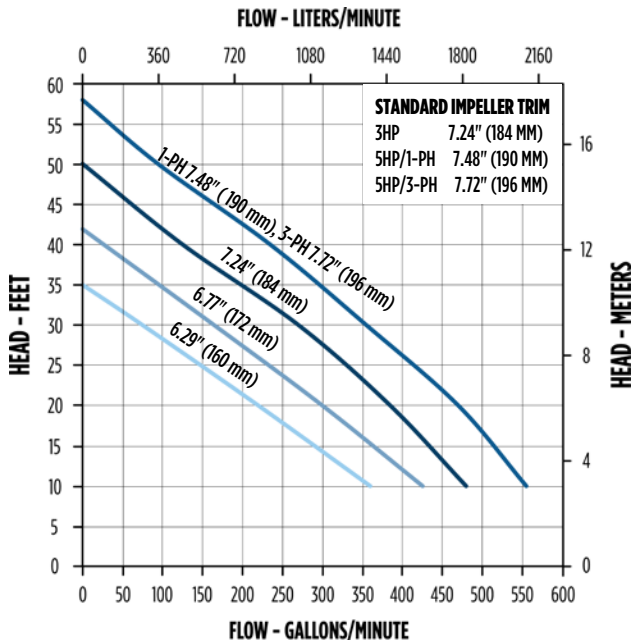
MODEL INFORMATION			THREE-PHASE							
Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.			
87110385-00	4NC-323P3-170	16/14	3	200/230	30	245	6.69" (170 mm)			
87110385-01	4NC-323P3-170				50	260	6.69" (170 mm)			
87110386-00	4NC-323P3-160	13.5/13			460	30	245	6.30" (160 mm)		
87110386-01	4NC-323P3-160					50	260	6.30" (160 mm)		
87110387-00	4NC-323P3-146	12/11				575	30	245	5.75" (146 mm)	
87110387-01	4NC-323P3-146						50	260	5.75" (146 mm)	
87110388-00	4NC-346P3-170	7		460			30	245	6.69" (170 mm)	
87110388-01	4NC-346P3-170						50	260	6.69" (170 mm)	
87110389-00	4NC-346P3-160	6.5			575		30	245	6.30" (160 mm)	
87110389-01	4NC-346P3-160						50	260	6.30" (160 mm)	
87110390-00	4NC-346P3-146	5.5				460	30	245	5.75" (146 mm)	
87110390-01	4NC-346P3-146						50	260	5.75" (146 mm)	
87110391-00	4NC-357P3-170	5.5	575	30			245	6.69" (170 mm)		
87110391-01	4NC-357P3-170			50			260	6.69" (170 mm)		
87110392-00	4NC-357P3-160	5		460	30		245	6.30" (160 mm)		
87110392-01	4NC-357P3-160				50		260	6.30" (160 mm)		
87110393-00	4NC-357P3-146	4.5			575	30	245	5.75" (146 mm)		
87110393-01	4NC-357P3-146					50	260	5.75" (146 mm)		
87110398-00	4NC-523P3-182	21/17	5			200/230	30	250	7.17" (182 mm)	
87110398-01	4NC-523P3-182						50	265	7.17" (182 mm)	
87110399-00	4NC-523P3-170	16/14		460			30	245	6.69" (170 mm)	
87110399-01	4NC-523P3-170						50	260	6.69" (170 mm)	
87110400-00	4NC-523P3-160	13.5/13			575		30	245	6.30" (160 mm)	
87110400-01	4NC-523P3-160						50	260	6.30" (160 mm)	
87110401-00	4NC-523P3-146	12/11				460	30	245	5.75" (146 mm)	
87110401-01	4NC-523P3-146						50	260	5.75" (146 mm)	
87110402-00	4NC-546P3-182	9		575			30	250	7.17" (182 mm)	
87110402-01	4NC-546P3-182						50	265	7.17" (182 mm)	
87110403-00	4NC-546P3-170	7			460		30	245	6.69" (170 mm)	
87110403-01	4NC-546P3-170						50	260	6.69" (170 mm)	
87110404-00	4NC-546P3-160	6.5	575			30	245	6.30" (160 mm)		
87110404-01	4NC-546P3-160					50	260	6.30" (160 mm)		
87110405-00	4NC-546P3-146	5.5		460		30	245	5.75" (146 mm)		
87110405-01	4NC-546P3-146					50	260	5.75" (146 mm)		
87110406-00	4NC-557P3-182	7			575	30	250	7.17" (182 mm)		
87110406-01	4NC-557P3-182					50	265	7.17" (182 mm)		
87110407-00	4NC-557P3-170	5.5	460			30	245	6.69" (170 mm)		
87110407-01	4NC-557P3-170					50	260	6.69" (170 mm)		
87110408-00	4NC-557P3-160	5		575		30	245	6.30" (160 mm)		
87110408-01	4NC-557P3-160					50	260	6.30" (160 mm)		
87110409-00	4NC-557P3-146	4.5			460	30	245	5.75" (146 mm)		
87110409-01	4NC-557P3-146					50	260	5.75" (146 mm)		
87110410-00	4NC-7523P3-190	22/22.5	7.5			200/230	30	250	7.48" (190 mm)	
87110410-01	4NC-7523P3-190						50	265	7.48" (190 mm)	
87110411-00	4NC-7523P3-182	21/21						30	250	7.17" (182 mm)

MODEL INFORMATION			THREE-PHASE						
Item No.	Model No.	Amps	HP	Volts	Cord (ft)	Wt. (lb)	Impeller Dia.		
87110411-01	4NC-7523P3-182	21/21	7.5	200/230	50	265	7.17" (182 mm)		
87110412-00	4NC-7523P3-170	18/18.5			460	30	250	6.69" (170 mm)	
87110412-01	4NC-7523P3-170					50	265	6.69" (170 mm)	
87110413-00	4NC-7523P3-160	16/17				575	30	250	6.30" (160 mm)
87110413-01	4NC-7523P3-160						50	265	6.30" (160 mm)
87110414-00	4NC-7546P3-190	11					460	30	250
87110414-01	4NC-7546P3-190			50				265	7.48" (190 mm)
87110415-00	4NC-7546P3-182	10.5		575	30			250	7.17" (182 mm)
87110415-01	4NC-7546P3-182				50			265	7.17" (182 mm)
87110416-00	4NC-7546P3-170	9			460	30		250	6.69" (170 mm)
87110416-01	4NC-7546P3-170					50		265	6.69" (170 mm)
87110417-00	4NC-7546P3-160	8				575	30	250	6.30" (160 mm)
87110417-01	4NC-7546P3-160		50				265	6.30" (160 mm)	
87110418-00	4NC-7557P3-190	8.5	460	30			250	7.48" (190 mm)	
87110418-01	4NC-7557P3-190			50			265	7.48" (190 mm)	
87110419-00	4NC-7557P3-182	8		575	30		250	7.17" (182 mm)	
87110419-01	4NC-7557P3-182				50		265	7.17" (182 mm)	
87110420-00	4NC-7557P3-170	7			460	30	250	6.69" (170 mm)	
87110420-01	4NC-7557P3-170					50	265	6.69" (170 mm)	
87110421-00	4NC-7557P3-160	6.5	575			30	250	6.30" (160 mm)	
87110421-01	4NC-7557P3-160					50	265	6.30" (160 mm)	
87110422-00	4NC-1023P3-206	26/26		200/230		30	255	8.11" (206 mm)	
87110422-01	4NC-1023P3-206					50	270	8.11" (206 mm)	
87110423-00	4NC-1023P3-190	22/22.5			460	30	250	7.48" (190 mm)	
87110423-01	4NC-1023P3-190					50	265	7.48" (190 mm)	
87110424-00	4NC-1023P3-182	21/21	575			30	250	7.17" (182 mm)	
87110424-01	4NC-1023P3-182					50	265	7.17" (182 mm)	
87110425-00	4NC-1023P3-170	18/18.5		460		30	250	6.69" (170 mm)	
87110425-01	4NC-1023P3-170					50	265	6.69" (170 mm)	
87110426-00	4NC-1046P3-206	13			575	30	255	8.11" (206 mm)	
87110426-01	4NC-1046P3-206					50	270	8.11" (206 mm)	
87110427-00	4NC-1046P3-190	11	460			30	250	7.48" (190 mm)	
87110427-01	4NC-1046P3-190					50	265	7.48" (190 mm)	
87110428-00	4NC-1046P3-182	10.5		575		30	250	7.17" (182 mm)	
87110428-01	4NC-1046P3-182					50	265	7.17" (182 mm)	
87110429-00	4NC-1046P3-170	9			460	30	250	6.69" (170 mm)	
87110429-01	4NC-1046P3-170					50	265	6.69" (170 mm)	
87110430-00	4NC-1057P3-206	10.5	575			30	255	8.11" (206 mm)	
87110430-01	4NC-1057P3-206					50	270	8.11" (206 mm)	
87110431-00	4NC-1057P3-190	8.5		460		30	250	7.48" (190 mm)	
87110431-01	4NC-1057P3-190					50	265	7.48" (190 mm)	
87110432-00	4NC-1057P3-182	8			575	30	250	7.17" (182 mm)	
87110432-01	4NC-1057P3-182					50	265	7.17" (182 mm)	
87110433-00	4NC-1057P3-170	7	460			30	250	6.69" (170 mm)	
87110433-01	4NC-1057P3-170					50	265	6.69" (170 mm)	



## 3NC SERIES PUMPS

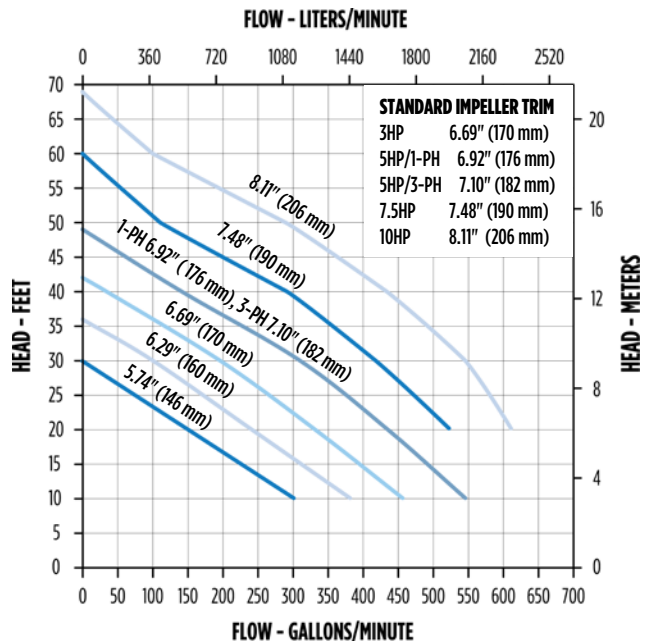
### PERFORMANCE



Impeller Dia.	Performance GPM @ Height in Feet					
	10'	20'	30'	40'	50'	Shut-Off
6.29" (160 mm)	360	220	75	-	-	35'
6.77" (172 mm)	425	300	165	-	-	42'
7.24" (184 mm)	480	385	270	125	-	50'
1-PH 7.48" (190 mm) 3-PH 7.72" (196 mm)	555	470	355	235	95	58'

## 4NC SERIES PUMPS

### PERFORMANCE



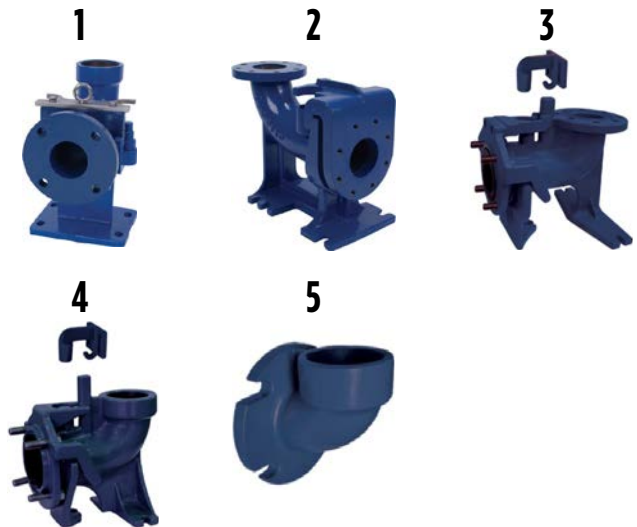
Impeller Dia.	Performance GPM @ Height in Feet						
	10'	20'	30'	40'	50'	60'	Shut-Off
5.74" (146 mm)	300	150	0	-	-	-	30'
6.29" (160 mm)	380	240	100	-	-	-	36'
6.69" (170 mm)	455	330	195	34	-	-	42'
1-PH 6.92" (176 mm) 3-PH 7.10" (182 mm)	545	434	309	141	-	-	49'
7.48" (190 mm)	-	520	420	290	130	-	60'
8.11" (206 mm)	-	610	540	430	290	100	68'

## ACCESSORIES

Bases & Elbows		
115930103	3.00" Base Elbow, NPT Discharge	Image 1
115930104	4.00" Base Elbow, Flanged Discharge	Image 2
87109916-00	3.00" Base Elbow, Flanged Discharge (Single Rail)	Image 3
87109917-00	4.00" Base Elbow, Flanged Discharge (Single Rail)	Image 3
87109788-00	3.00" Base Elbow, NPT Discharge (Single Rail)	Image 4
87109789-00	3.00" Bolt-on Elbow, NPT Discharge	Image 5
115930126	4" Bolt-On Elbow FNPT Discharge	Not Shown

### NC SERIES STARTER KIT

Item No.	Model No.	Model No.	Volts
520851		NC-CK	230



# INTRINSICALLY SAFE NON-CLOG CONTROL PANELS

## APPLICATIONS

- Designed exclusively for the for the NC and NCX Series Submersible Non-Clog Pumps

## FEATURES

- Adjustable overload
- Seal fail indication circuitry
- Thermal cut-out circuitry
- Audible alarm with silence switch
- Red visual alarm beacon
- Separate alarm and control fuses
- Hand / Off / Auto switch
- IEC motor contactor
- Pump selector switch offers “Check-It” troubleshooting functionality
- “Check-It” feature displays all float and pump statuses and allows manual pump operation
- Dead inner door
- Waterproof NEMA 4X enclosure
- UL 508A listing
- Lockable latch
- Alarm flasher
- Auxiliary alarm contacts

## OPTIONS

- Event counter
- Elapsed time meter
- Lightning protection
- Redundant off float
- Low level cut-off
- Anti-condensation heater



Three-Phase Simplex



Single-Phase Simplex



Three-Phase Duplex



Single-Phase Duplex

