



**EBARA**



Lic. No. QEC22090

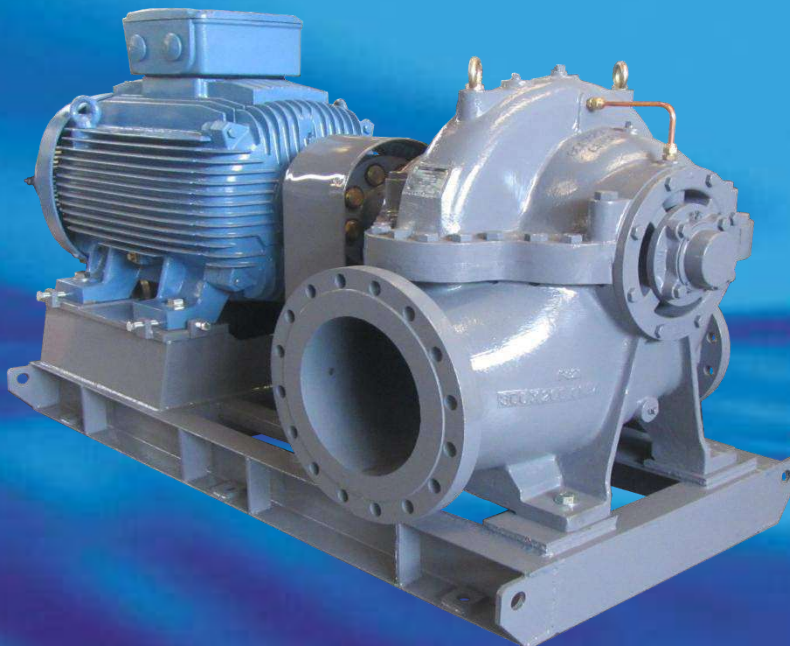
CN 8001-5N-A

# EBARA

## HORIZONTAL SPLIT CASE PUMP

MODEL CSA/CNA

50 Hz

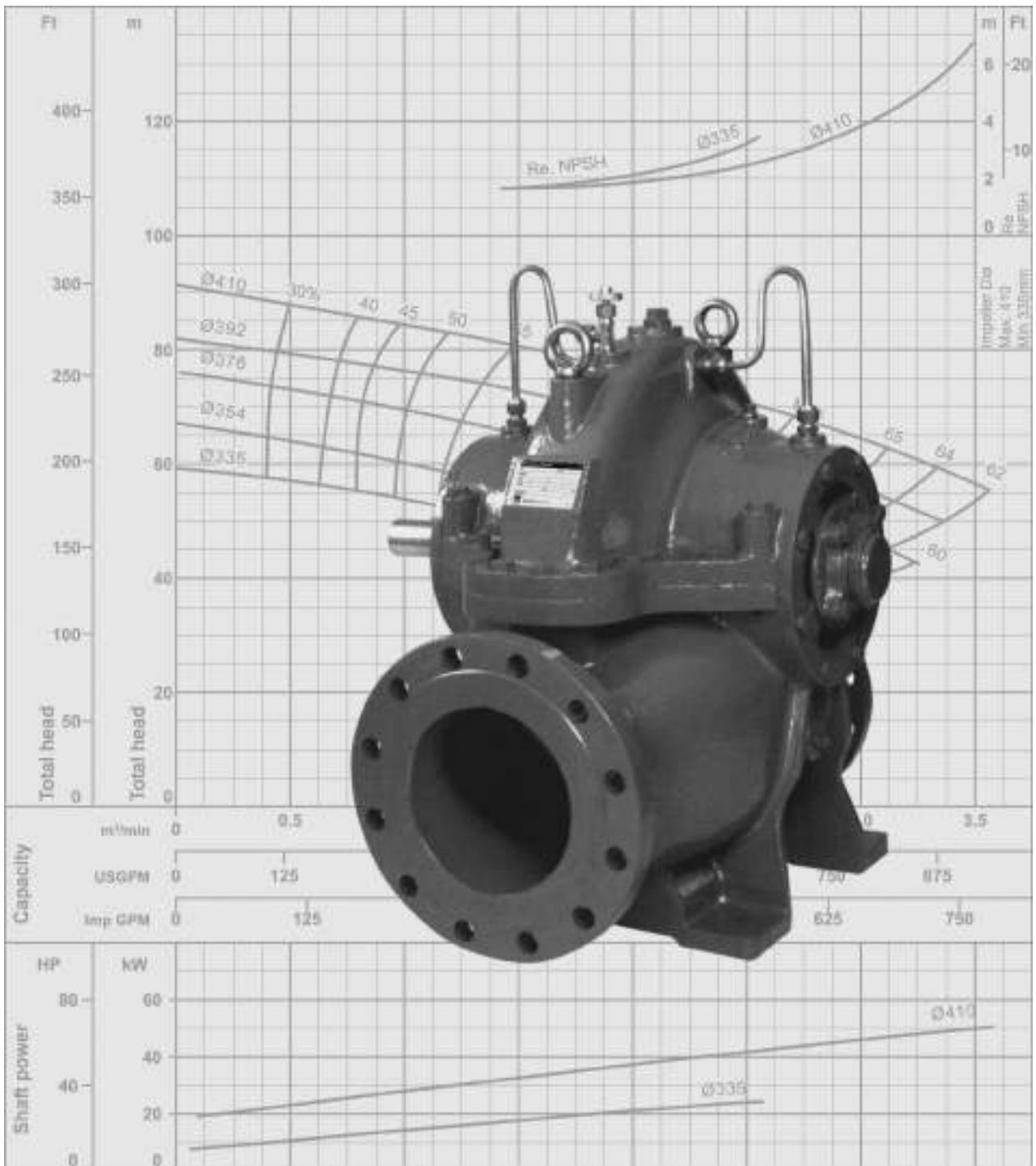




# TECHNICAL DATA BOOK

## HORIZONTAL SPLIT CASING PUMP

MODEL **CSA/CNA** SUCTION SIZE 100 ~ 400 MM 50Hz



## FEATURES

1. Very compact design for ease of installation and permits minimum maintenance.
2. Axially split casing allows the easy removal of the top casing for inspection and service.
3. A wider range of performance with head up to 150 m.
4. High speed drives and vertical mount available.
5. Anti-corrosion materials used on the rotating parts.
6. High quality sealed and cartridge type bearing unit provide high durability.
7. High allowable working pressure can ensure stable running.
8. Mechanical seal for easy maintenance.

### Casing

The rotating assembly can be removed without disturbing connected piping as the suction and discharge flanges are integrally

Casted into the lower casing half. Casing is *high pressure designed* and able to withstand against water surge.

### Recirculation

Recirculation pipe line for self-flushing are provided.

### Impeller

The hydraulic matching of casing and impeller minimizes axial thrust and recirculation, ensuring *high efficiency, low NPSH required* and *quiet performance* over the entire range of operation. *Bronze material standard.*

### Whirl Stopper

The cast whirl stopper direct flow into the impeller eye for more even suction distribution. The gradually accelerated inlet flow has low tendency for velocity distortion, ensuring a *quiet operation.*

### Shaft

*316 stainless steel materials* is standard, ensure long life against corrosion and wear. Short support span of bearing lengthen bearing life.

### Casing Wear Ring

*Replaceable bronze casing wear rings* are locked to prevent rotation. It protects the pump casing from wear, permits simple maintenance of proper running clearances to reduce maintenance cost and maintain high operating efficiency.

### Bearing

Replenish able grease lubricated deep-groove bearing units with low friction loss has a *long life* can easily inspected and replaceable. *Auto alignment structure* absorbs shaft deflection.

### Stuffing Box

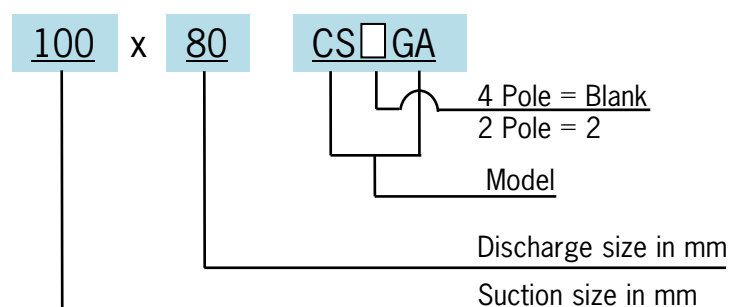
*John Crane type* mechanical seal is standard, easily obtainable in the market and replaceable without disturbing piping.

Gland packing is available as option.

## APPLICATIONS

1. Water supply.
2. Hot and cold water circulation.
3. For cooling tower.
4. Irrigation.
5. Industrial use.
6. Drainage
7. Sprinkling.
8. Air-conditioning.

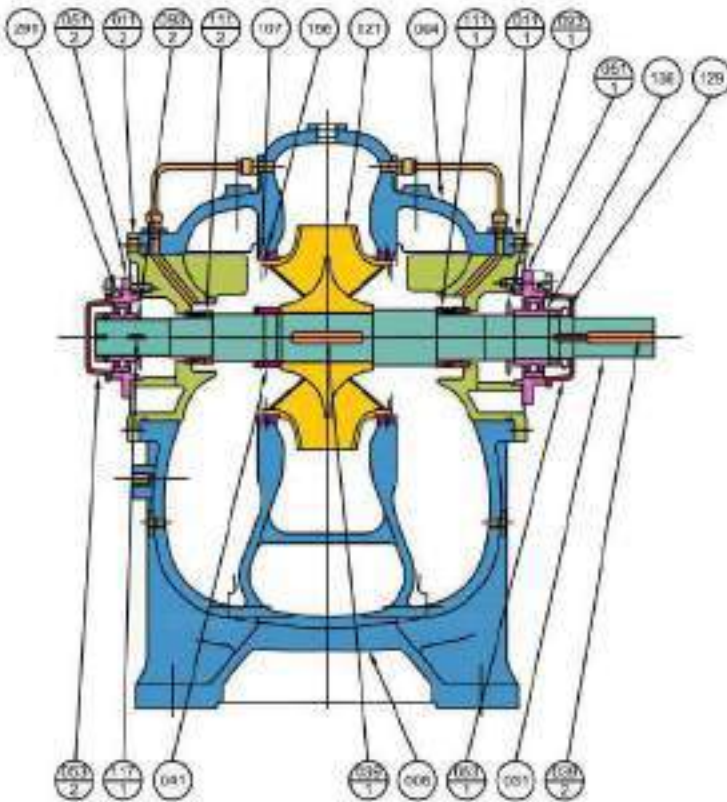
## MODEL CODE



# SPECIFICATION

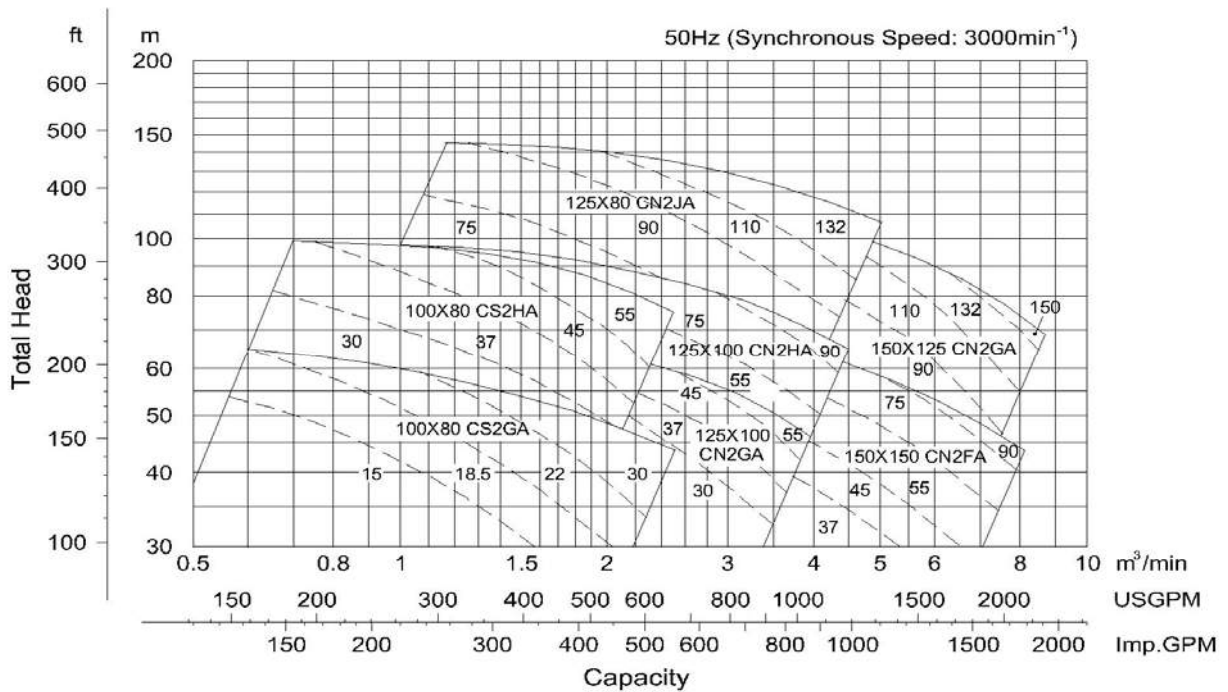
Decryptions		Standard	Option	
Model		CSA/CNA		
Liquid Handle	Type of Liquid	Fresh Water, Industrial Water, River Water		
	Temperature	Below 80°C (176°F)	81°C - 120°C (177°F - 248°F) (only applicable for Mechanical Seal Models)	
Max. Working Pressure		16 Bar	10 bar, 20 bar, 30 bar	
Construction	Shaft Seal	Mechanical Seal	Gland Packing	Mechanical Seal with Sleeve
	Bearing	Ball Bearing		
	Lubrication	Grease		
Material	Casing	Cast Iron	Ductile Cast Iron (FCD)	
	Impeller	- Bronze - SCS 13 For Model : 250x150 CNKA, 300x150 CNJA & 300x200 CNKA	SCS 13, SCS 14	
	Shaft	SUS 316	SUS 403, SUS 304	
	Shaft Sleeve	-	Bronze, SUS 304, SUS 316	
	Mechanical Seal	Ceramic - Carbon	SIC - SIC, SIC - Carbon	
Flange	Suction	JIS 16 KRF	JIS 10K, JIS 30K, ANSI 150, ANSI 250, DIN PN-16	
	Discharge	JIS 16 KRF	JIS 10K, JIS 30K, ANSI 150, ANSI 250, DIN PN-16	
<b>Accessories</b>				
Standard		Common Base, Shaft Coupling, Coupling Guard, Air Vent Piping, Flushing Pipe.		
Option		Anchor Bolt, Pressure Gauge, RTD Sensor, Tools for Pump Disassembly, Drain Bucket.		

# SECTIONAL VIEW

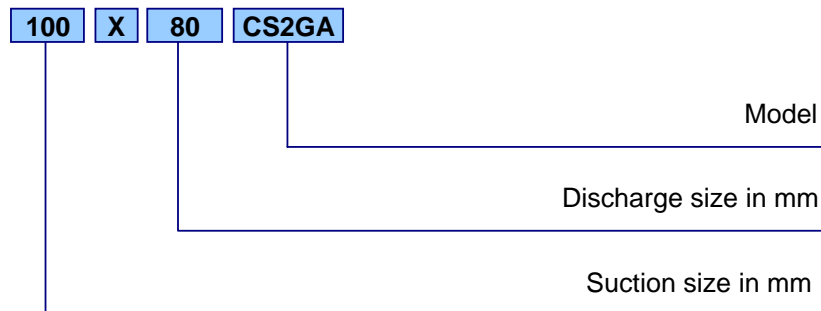


No	Part Name	Material	Qty
004	Casing Upper Half	FC250	1
006	Casing Lower Half		
011-1	Side Cover (CP Side)		
011-2	Side Cover (CCP Side)		
021	Impeller	BC6	1
031	Shaft	316 Stainless Steel	
039-1	Impeller Key		
039-2	Coupling Key	S50C	
041	Impeller Nut	BC6	1
051-1	Bearing Unit (CP Side)	FC200	
051-2	Bearing Unit (CCP Side)		
053-1	Bearing Cover (CP Side)		
053-2	Bearing Cover (CCP Side)	Rubber	1
093-1	Deflector (CP Side)		
093-2	Deflector (CCP Side)		
107	Casing Wear Ring	BC6	2
111-1	Mechanical Seal (CP Side)	-	1
111-2	Mechanical Seal (CCP Side)	-	
117-1	Gasket (Casing)	V#6500	
129	Bearing Nut	SS400	
136	Bearing Washer		2
156	Lock Pin	304 Stainless Steel	
291	Grease Nipple	C3604BD-F	





**Model Code**



Description		Standard	Optional	
Model		CSA/CNA.		
Liquid Handled	Type of liquid	Clean water, Industrial Water, River Water		
	Temperature	Below 80°C (176°F)	81°C-120°C (177°F-248°F) (only applicable for Mechanical Seal Models)	
Max. Working Pressure		16 bar (16.3 kgf/cm <sup>2</sup> )		
Construction	Shaft Seal	Mechanical Seal	Gland Packing	Mechanical Seal
	Bearing	Ball Bearing		
	Lubrication	Grease		
Material	Casing	Cast Iron	Ductile Cast Iron (FCD)	
	Impeller	Bronze (except 300x200 CNKA)	SCS 13, SCS 14	
		SCS 13 for 300x200 CNKA		
	Shaft	SUS 316	SUS 403	SUS304
Shaft Sleeve		Bronze	Bronze	
Flange	Suction	JIS 16 KRF		
	Discharge	JIS 16 KRF		
<b>Accessories</b>				
Standard		Air vent piping, M.Seal or G. Packing, flushing water piping, Lift bolts. Drain piping (only applicable for G. Packing models)		
Option		Common base, Anchor bolts, Shaft coupling, Coupling guard		