

# CHARACTERISTIC CURVE

REV : 1

DATE : 2013.02.07

ITEM No. : 112-P-103A/B

DOC No. : VP-2017-112-P103AB-002

CUSTOMER : N.I.O.C

SERVICE : OXIDATION CIRCULATION PUMPS

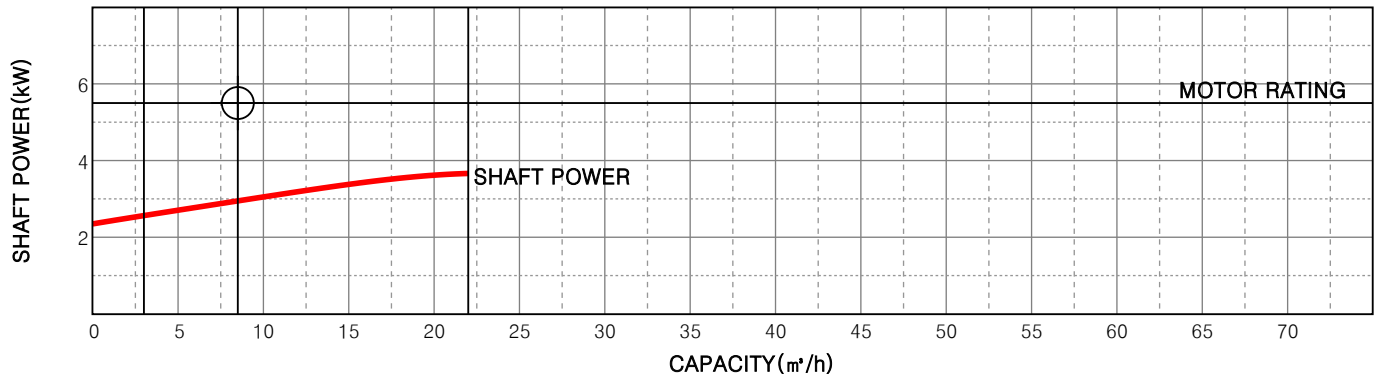
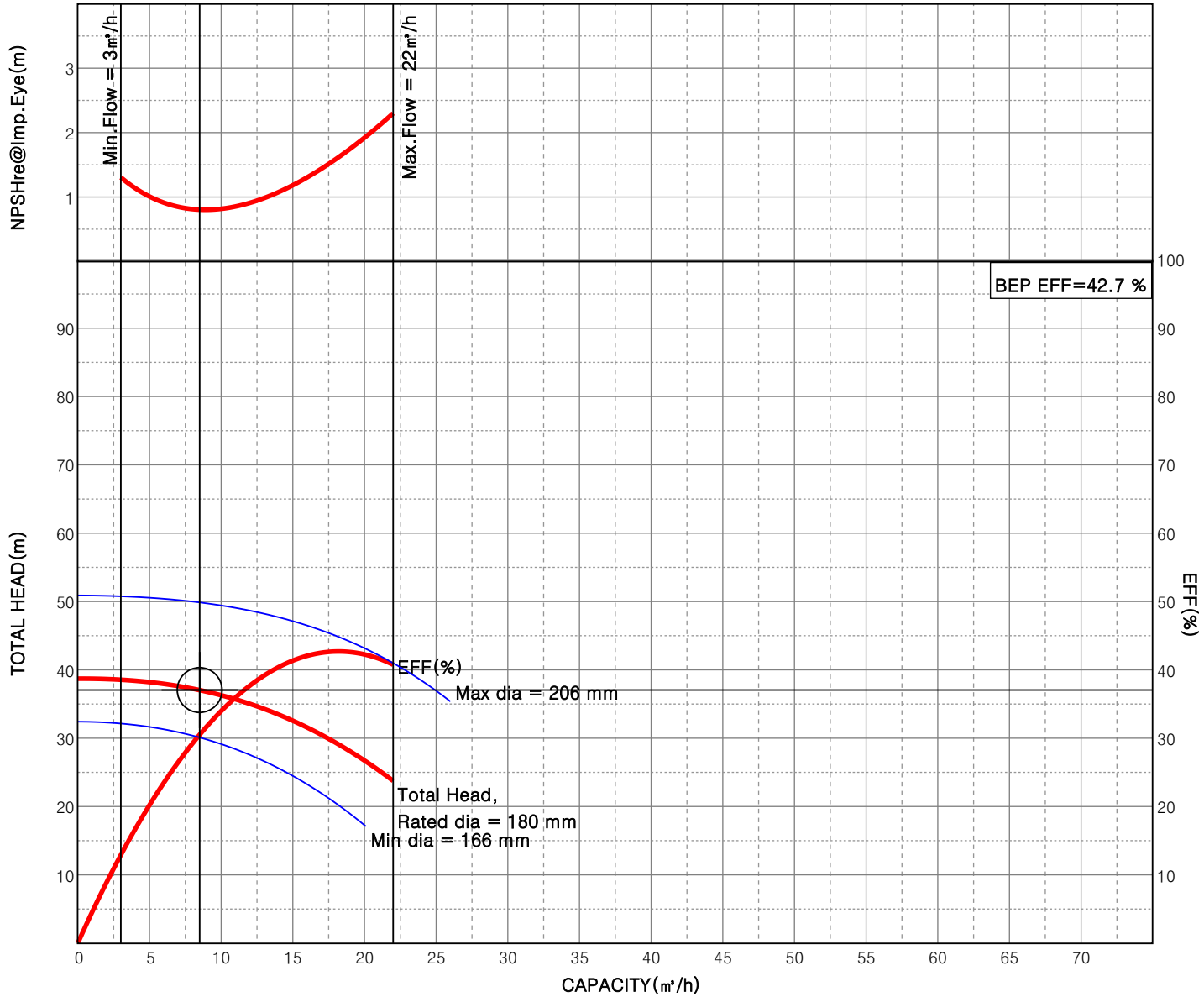
SERIAL No. : 1101053-003

MODEL : USP25-200

SPECIFIED ITEMS :  $8.5 \text{ m}^3/\text{h} \times 37.05 \text{ m} \times 2895 \text{ rpm} \times 5.5 \text{ kW} \times 50 \text{ Hz} \times 2 \text{ Pole}$

(Rated/Max Q) BHP=( 3 / 3.7 ) kW, EFF=( 30.5 / 40.8 ) %, NPSHre=( 0.9 / 2.3 ) m

(LIQUID HANDLED = CAUSTIC SOLUTION 5% ,  $\gamma$  = 1.05 kg/ℓ , TEMP= 57 °C, VIS= 0.5435 cP )



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# CHARACTERISTIC CURVE

REV : 1

DATE : 2013.02.07

ITEM No. : 112-P-108A/B

DOC No. : VP-2017-112-P108AB-002

CUSTOMER : N.I.O.C

SERVICE : REGENERATED CAUSTIC PUMPS

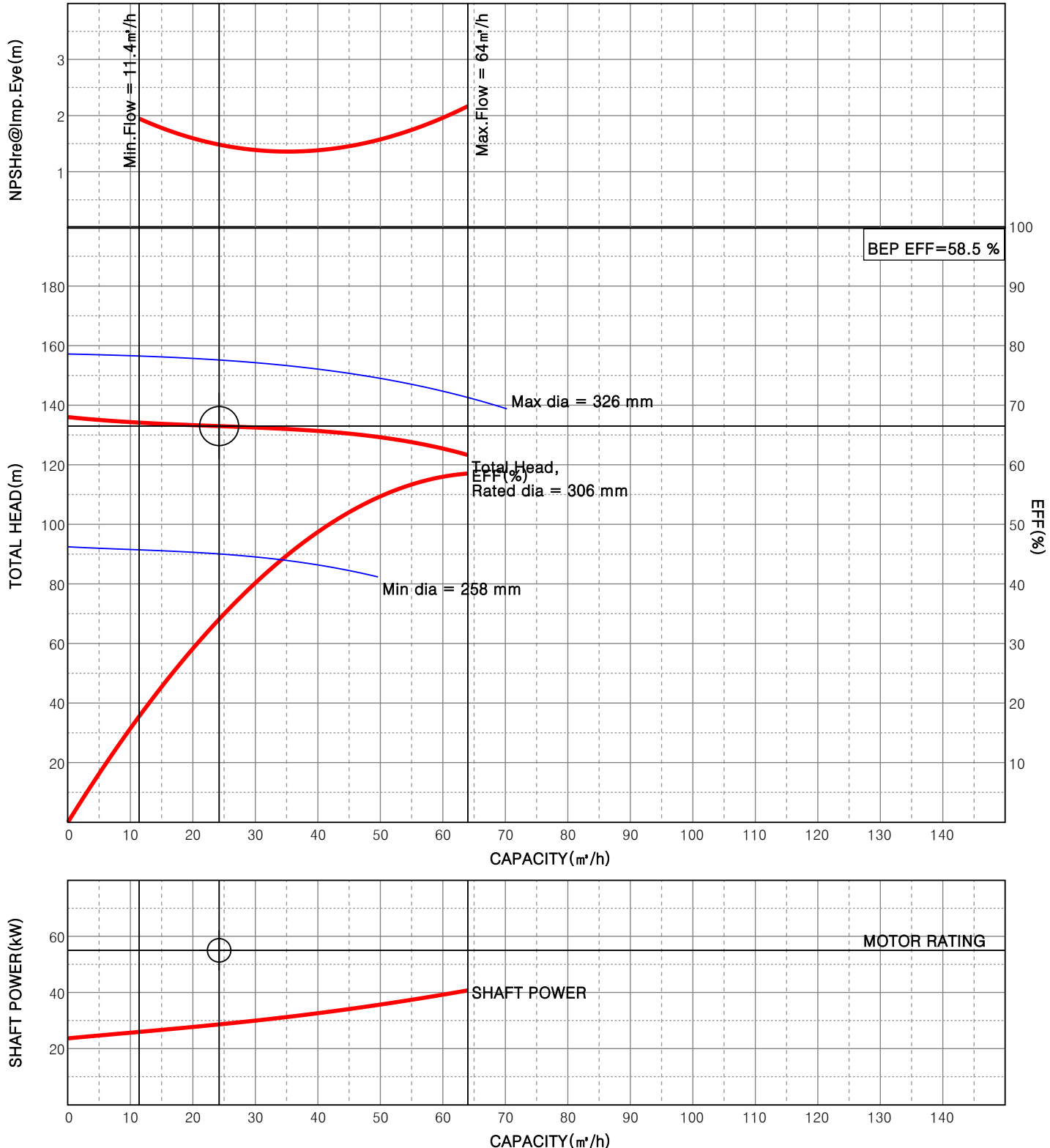
SERIAL No. : 1101053-007

MODEL : USP50-320N

SPECIFIED ITEMS : 24.2 m<sup>3</sup>/h × 133 m × 2960 rpm × 55 kW × 50 Hz × 2 Pole

(Rated/Max Q) BHP=( 28.7 / 40.8 ) kW, EFF=( 34 / 58.5 ) %, NPSHre=( 1.5 / 2.2 ) m

(LIQUID HANDLED = CAUSTIC SOLUTION 5~10% ,  $\gamma$  = 1.11 kg/ℓ , TEMP= 60 ℃, VIS= 0.5149 cP )



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# CHARACTERISTIC CURVE

REV. : 1

DATE : 2013.02.07

ITEM No. : 112-P-110A/B

DOC. No. : VP-2017-112-P110AB-002

CUSTOMER : N.I.O.C

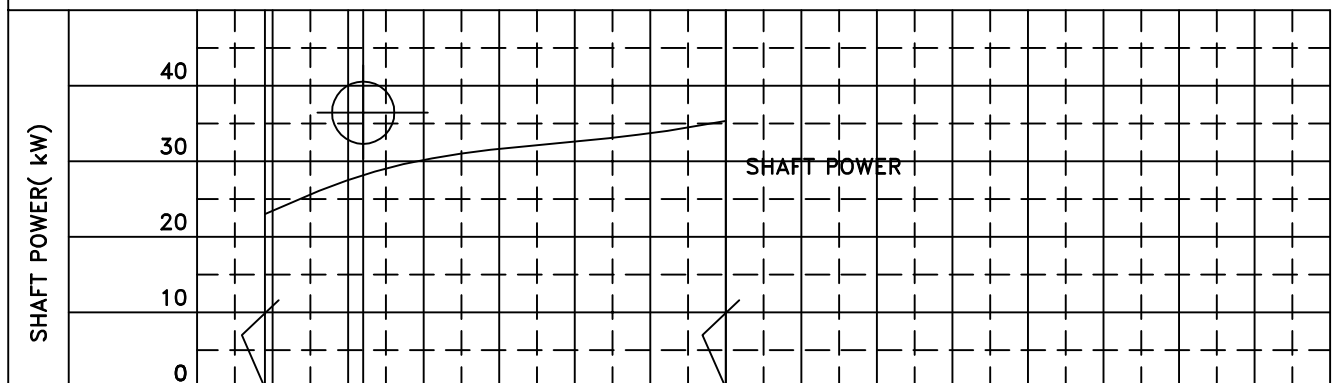
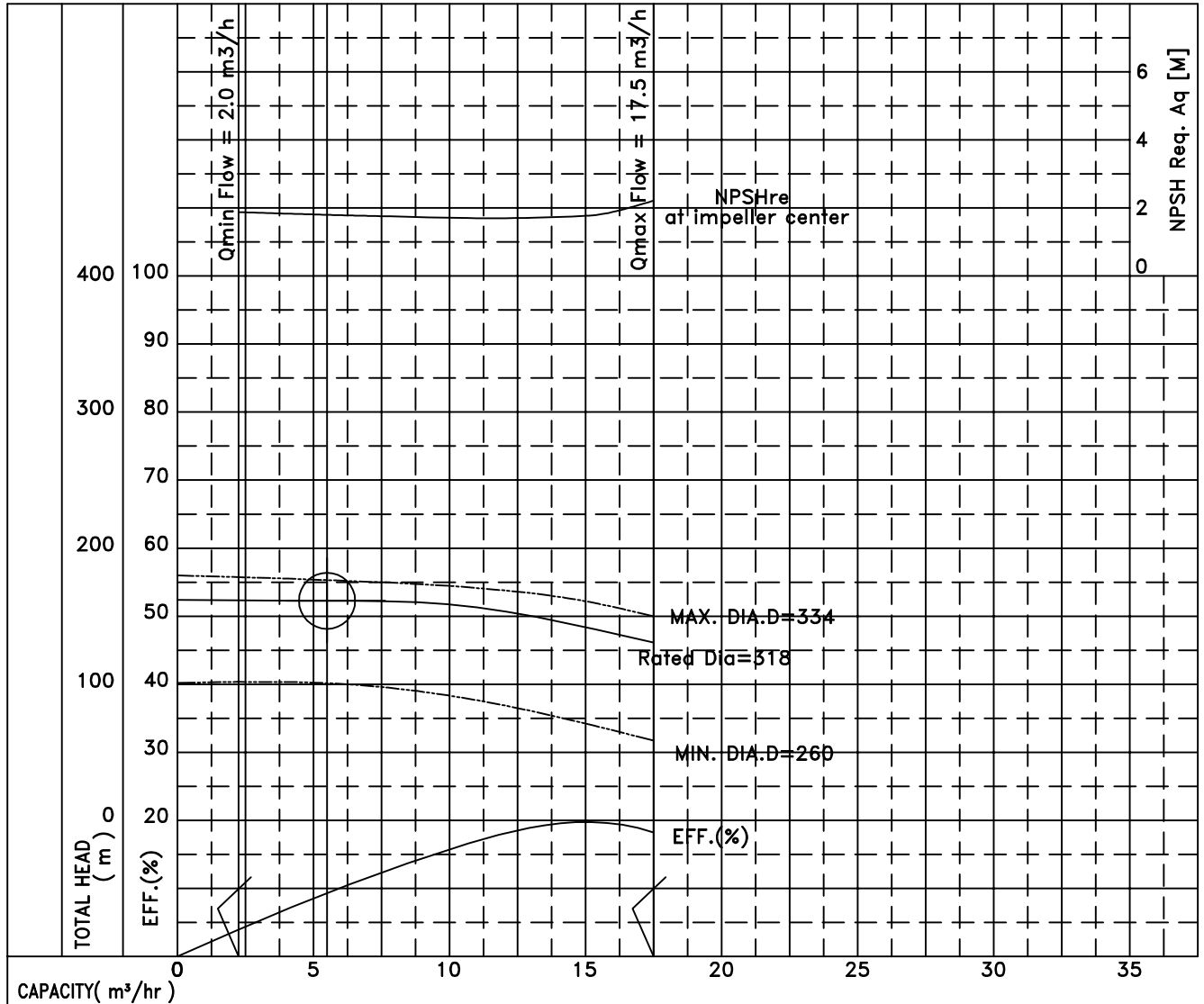
SERVICE : 5% CAUSTIC SOLUTION PUMPS

HECO SER. No. : 1101053-009

MODEL : USP25-330

SPECIFIED ITEMS : 5.5 m<sup>3</sup>/hr x 161.32 m x 2940 rpm x 37 kW BHP/Eff. = 28.2 kW/9% NPSHre = 1.8 m

[LIQUID HANDLED= CAUSTIC SOLUTION  $\gamma = 1.05 \text{ kg/L}$  TEMP= 40 °C VIS.= - cP ]



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CHK'D BY  
S.T.KIM

PREP'D BY  
B.C.KOO



HYOSUNG GOODSPRINGS.INC

# CHARACTERISTIC CURVE

REV : 1

DATE : 2013.02.07

ITEM No. : 112-P-116A/B

DOC No. : VP-2017-112-P116AB-002

CUSTOMER : N.I.O.C

SERVICE : STEAM CONDENSATE PUMPS

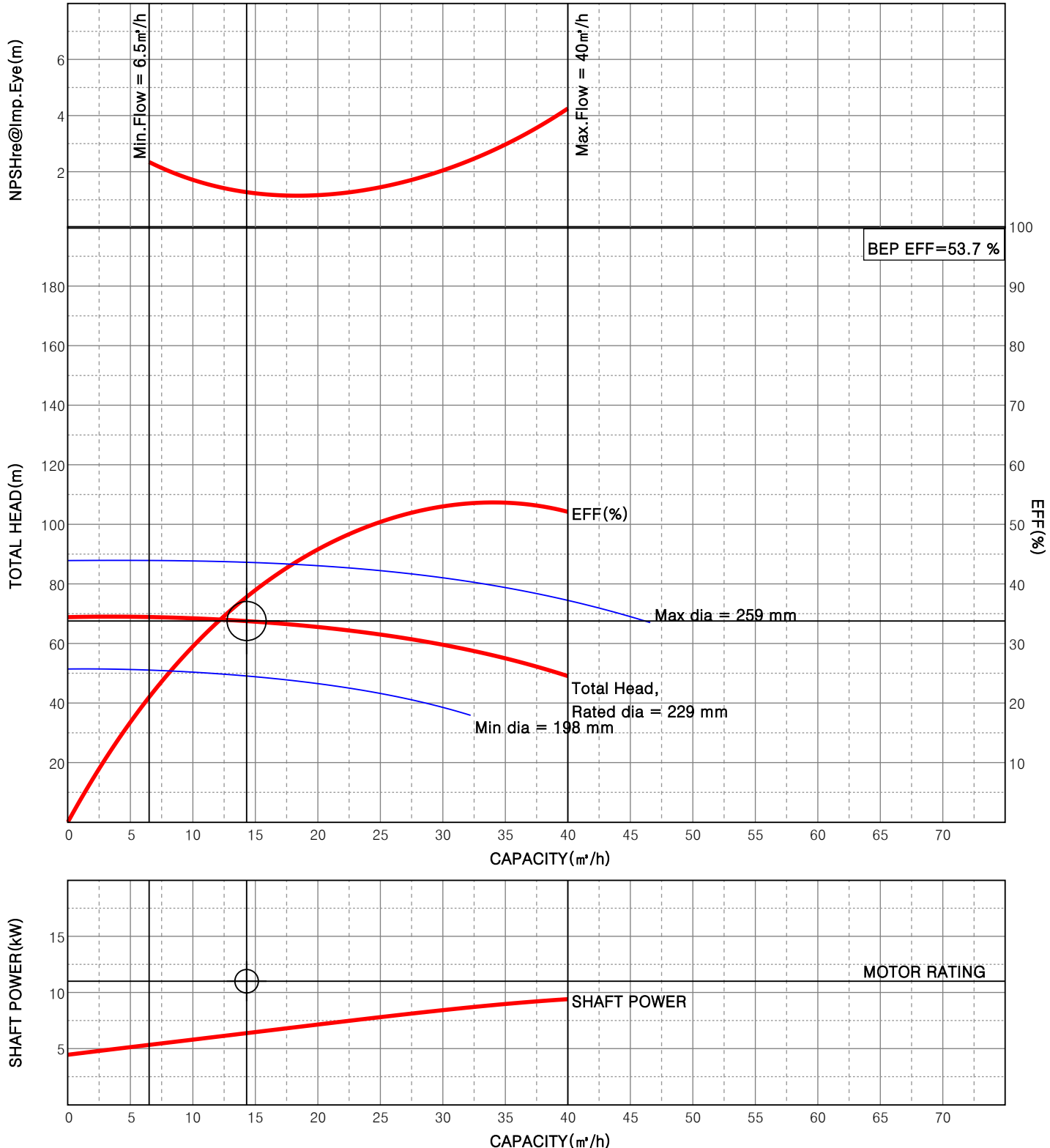
SERIAL No. : 1101053-012

MODEL : USP40-250

SPECIFIED ITEMS : 14.3 m<sup>3</sup>/h × 67.54 m × 2910 rpm × 11 kW × 50 Hz × 2 Pole

(Rated/Max Q) BHP=( 6.4 / 9.5 ) kW, EFF=( 37.8 / 52.1 ) %, NPSHre=( 1.3 / 4.3 ) m

(LIQUID HANDLED = STEAM CONDENSATE ,  $\gamma$  = 0.917 kg/ℓ , TEMP= 135 °C, VIS= 0.2027 cP )



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