ebitt
FLUID TECHNOLOGIES

RCE SERIES

Electronically Controlled Inverter Driven Circulation Pump











EBITT was born from “an idea” and turned into “an ideal”

EBITT is a specialized organization with deep expertise in pump and fluid technologies, capable of accurately interpreting both Turkish and global market demands and translating them into the right solutions.

Founded to be the ideal intersection of supply and demand in fluid technologies, EBITT goes beyond developing and marketing products. It represents a holistic business model built to meet expectations at the highest level.

More than a company, EBITT is a perspective, a system, and a spirit. Its foundation is human capital and accumulated expertise, transferred sustainably like a relay race rather than treated as a traditional capital asset.

For EBITT, innovation is not limited to technological advancement. It is a creative, value-driven approach that prioritizes responsibility, customer expectations, business efficiency, and uncompromising standards for health and safety. Every innovation emerges from this integrated understanding.
Quality, for EBITT, is a non-negotiable standard in all areas involving water and fluids—throughout life. Together with its suppliers, customers, and team members who share this philosophy, EBITT builds long-term, sustainable win-win relationships.

With this mindset, EBITT offers a wide range of products and systems, from basic solutions to process-specific equipment, serving residential, industrial, agricultural, irrigation, pool, treatment, and specialized applications. Beyond standard products, EBITT also delivers tailor-made solutions that maximize added value.

EBITT believes the ideal solution is not always the most expensive one, but the most rational—optimizing needs in the most efficient way.
Positioning itself as a trusted solution provider, EBITT stands out with its values, flexibility, and dynamic structure, ready to respond to evolving demands.

RCE SERIES

ELECTRONICALLY CONTROLLED
INVERTER DRIVEN CIRCULATION PUMP

RCE 25/32

RCE Series is high efficiency energy saving variable speed circulation pump driven by a permanent magnet synchronous motor controlled by on board inverter.

ErP READY 2015 APPLIES TO EUROPEAN DIRECTIVE FOR ENERGY RELATED PRODUCTS

Application

- Heating systems (constant and/or variable flow)
- Air-conditioning system
- Industrial circulation system
- Domestic hot water and drinking water supply system
- Floor heating system

Motor

- Synchronous motor with permanent magnet
- Motor: variable speed
- Standard voltage: Single phase 230V (+6%,-10%)
- Frequency: 50-60 Hz
- Protection: IP44
- Insulation Class: F
- Class II appliance
- Cable: phases and neutral and earth
- Constructed in accordance with: EN 60335-1, EN 60335-2-51

Materials

- Pump casing: Cast iron
- Impeller: Composite PES
- Shaft: Ceramic
- Bearings: Carbon
- Thrust Bearing: Ceramic
- Rotor: Stainless steel jacket
- Winding: Class H copper wire
- Gasket EPDM

Operating Conditions

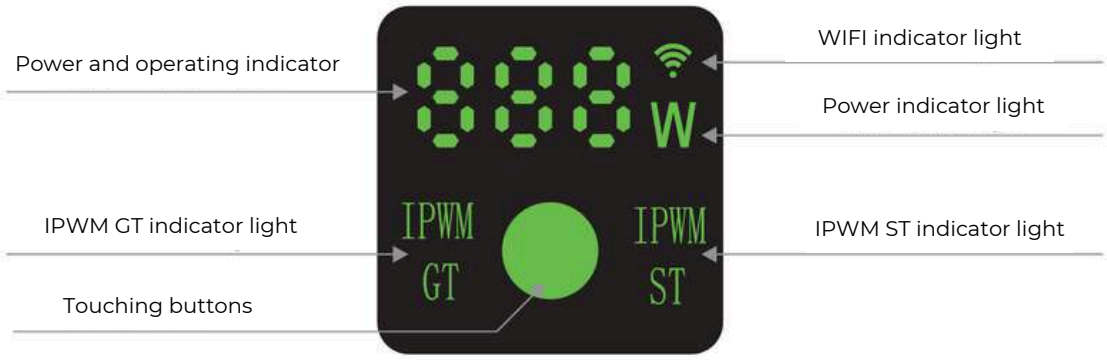
- Liquid temperature from +2°C to +95°C
- Ambient temperature from 0°C to +40°C
- Maximum system pressure ≤10 bar
- Storage: -20°C / +70°C max. relative humidity 95% at 40°C.
- Certifications in conformity with CE requirements.
- Sound pressure ≤43 dB(A)
- Minimum suction pressure: 0,05 bar < 85°C
  1 bar at 95°C
- Maximum glycol quantity: 40%
- EMC according to: EN 55014-1, EN 55014-2 and EN 61000-3-2, EN 61000-3-3
- Connections: Threaded parts ISO228: G"/2" (RCE 25), G2" (RCE 32)
- Circulator pump can consume low the power, with the EEI ≤0,023
- The benchmark for most efficient circulators is EEI ≤0,20

Designation

RCE 25 - 12 / 180

- Connection size mm
- Max. head in m (Hm)
- DN parts in mm
- Series

Operation Interface

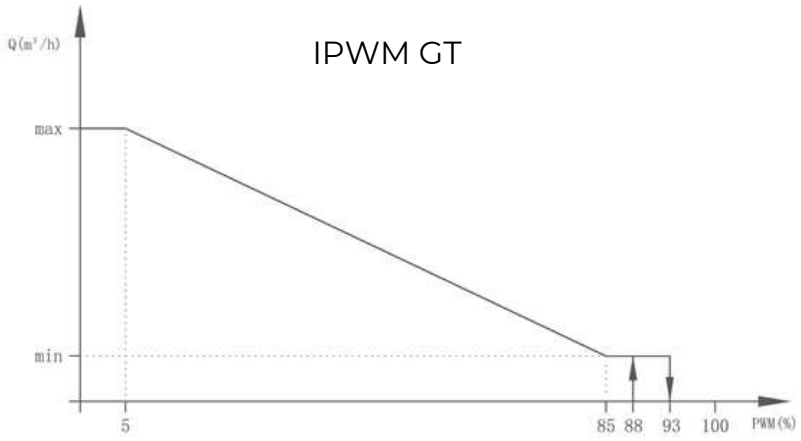


Panel Working Modes

SP1, SP2, SP3:	Speed I, Speed II, Speed III: Manual fix speeds.
ECO mode:	The pump automatically adjusts the appropriate power according to the flow.
PP1, PP2, PP3, PP4:	Proportion Pressure modes: Pump running under PP modes; the greater the flow, the higher the head.
CP1, CP2, CP3, CP4:	Constant Pressure modes: Pump running under CP modes; the pressure is constant, no matter what the flow rate is.
888 W:	Display the actual working power when running.

Button instruction	Working mode switch	Press for short seconds, switch the working mode of the pump in turn

PWM Performance

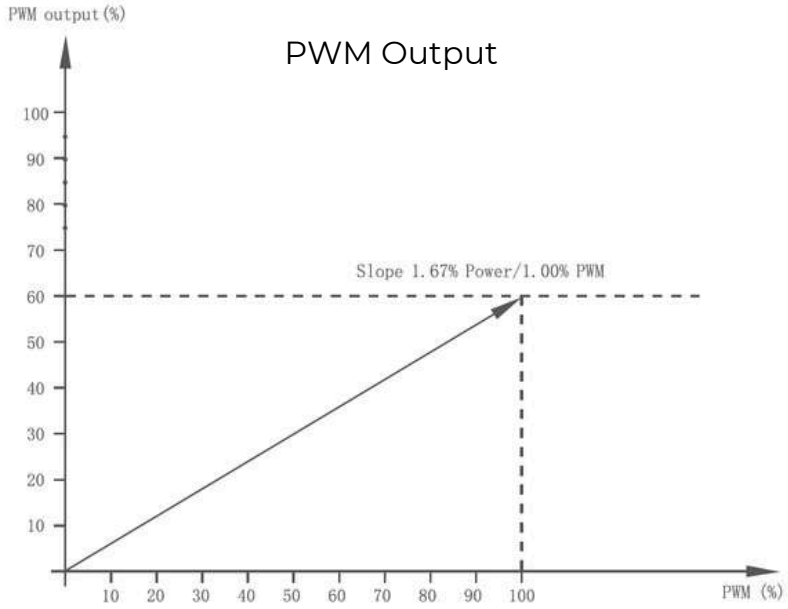


PWM signal input (%)

<5: Pump runs at max. speed
5-85: Pump linear runs from max to min
85-93: Pump runs at minimum speed (running)
85-88: Pump runs at minimum speed (start)
93-100: Pump stop

PWM signal input (%)

0-7: Pump stop
7-15: Pump runs at minimum speed (running)
12-15: Pump runs at minimum speed (start)
15-95: Pump linear runs from min. to max.
>95: Pump runs at max. speed



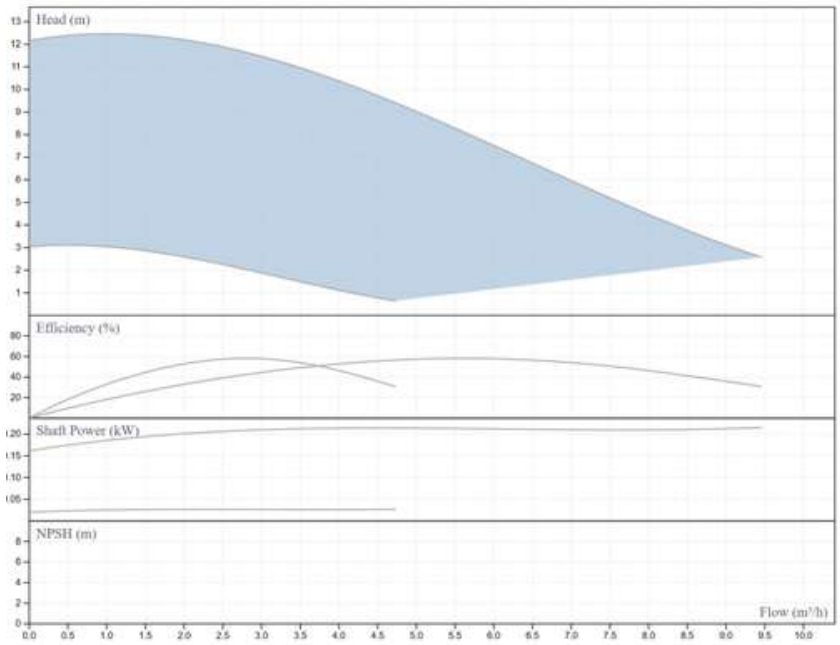
PWM signal input (%)

0-60: power0-100%. (slope 1.67% power/ 1.00% PWM
75: Other alarm
85: Motor alarm (short circuit, over current)
90: Block alarm
95: Motor stop (PWM control)

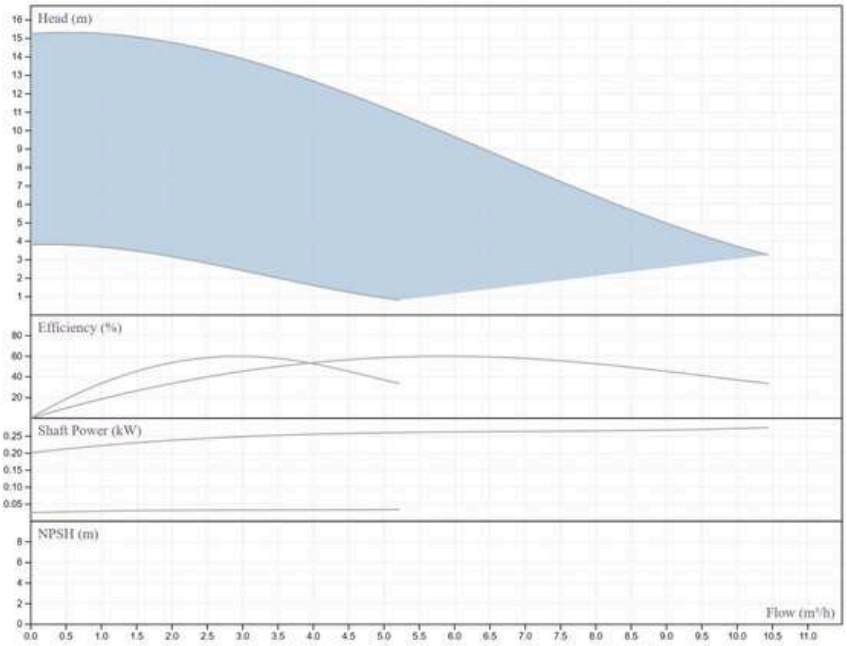
Technical Data & Performance Curves

Model	Max. Power (W)	Max. Flow (m³/h)	Max. Head (m)	Max. Current (A)	Inlet/Outlet (inch)
RCE 25-12/180	220	9.5	12	1,7	G1 1/2"
RCE 32-15/180	280	10.2	15	2,2	G2"
RCE 32-18/180	360	11	18	2,8	G2"

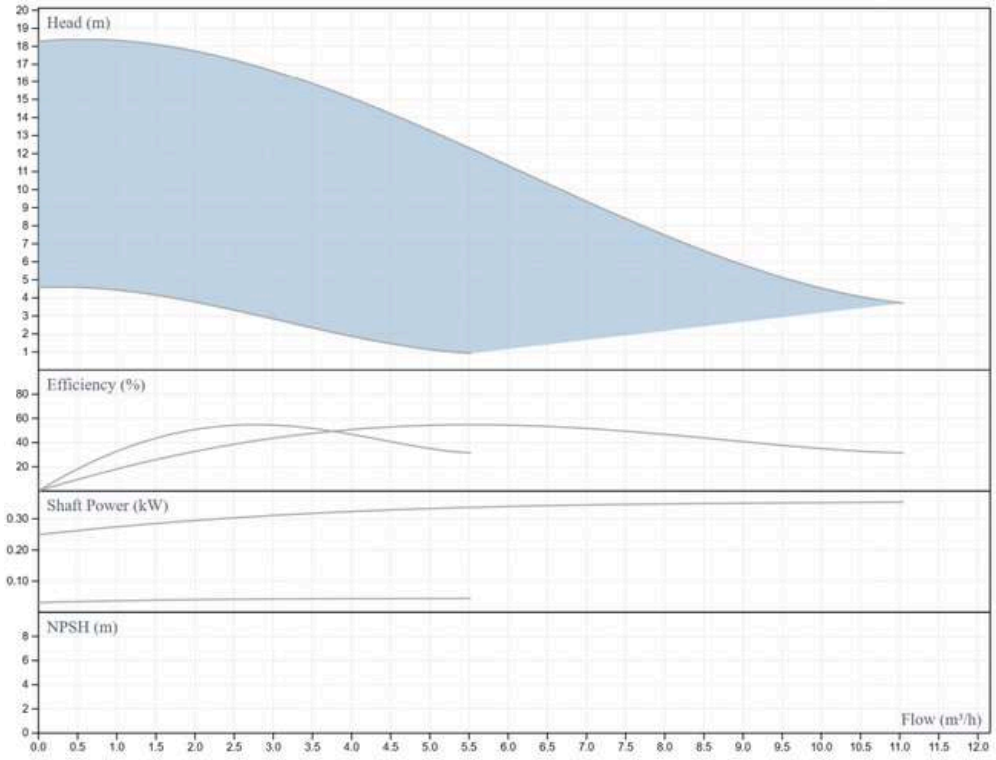
RCE 25-12/180



RCE 32-15/180

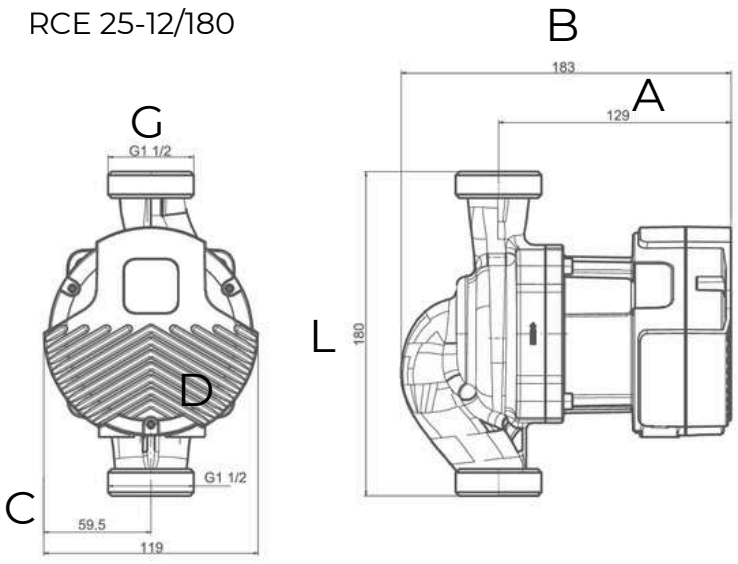


RCE 32-18/180



Overall Dimensions

RCE 25-12/180



Model	Dimensions (mm)					
	A	B	C	D	L	G
RCE 25-12/180	129	183	75	134	180	1 1/2"
RCE 32-15/180	129	183	75	134	180	2"
RCE 32-18/180	129	183	75	134	180	2"

RCE SERIES

ELECTRONICALLY CONTROLLED
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RCE 40/50/65

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- Synchronous motor with permanent magnet
- Motor: variable speed
- Standard voltage: Single phase 230V (+6%,-10%)
- Frequency: 50-60 Hz
- Protection: IP44
- Insulation Class: F
- Class II appliance
- Cable: phases and neutral and earth
- Constructed in accordance with: EN 60335-1, EN 60335-2-51

Materials

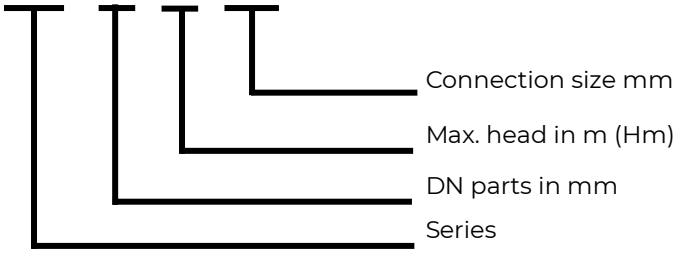
- Pump casing: Cast iron
- Impeller: Composite PES
- Shaft: Carbon Steel
- Bearings: Carbon
- Thrust Bearing: Ceramic
- Rotor: Stainless steel jacket
- Winding: Class H copper wire
- Gasket: EPDM

Operating Conditions

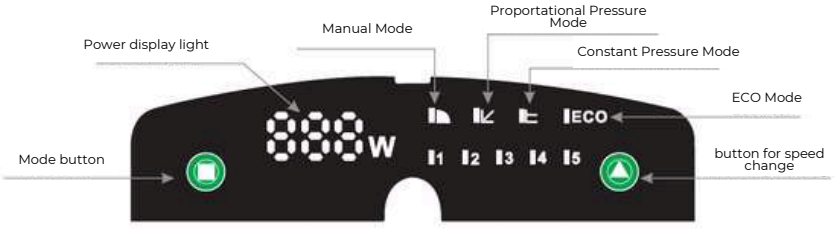
- Liquid temperature from +2°C to +95°C
- Ambient temperature from 0°C to +40°C
- Maximum system pressure ≤10 bar
- Storage: -20°C / +70°C max. relative humidity 95% at 40°C.
- Certifications in conformity with CE requirements.
- Sound pressure ≤43 dB(A)
- Minimum suction pressure: 0,05 bar < 85°C
  1 bar at 95°C
- Maximum glycol quantity: 40%
- EMC according to: EN 55014-1, EN 55014-2 and EN 61000-3-2, EN 61000-3-3
- Connections: Flange Type, EN 1092-2
- Circulator pump can consume low the power, with the EEI ≤0,023
- The benchmark for most efficient circulators is EEI ≤0,20
-

Designation

RCE 50 - 12 / 180



Operation Interface



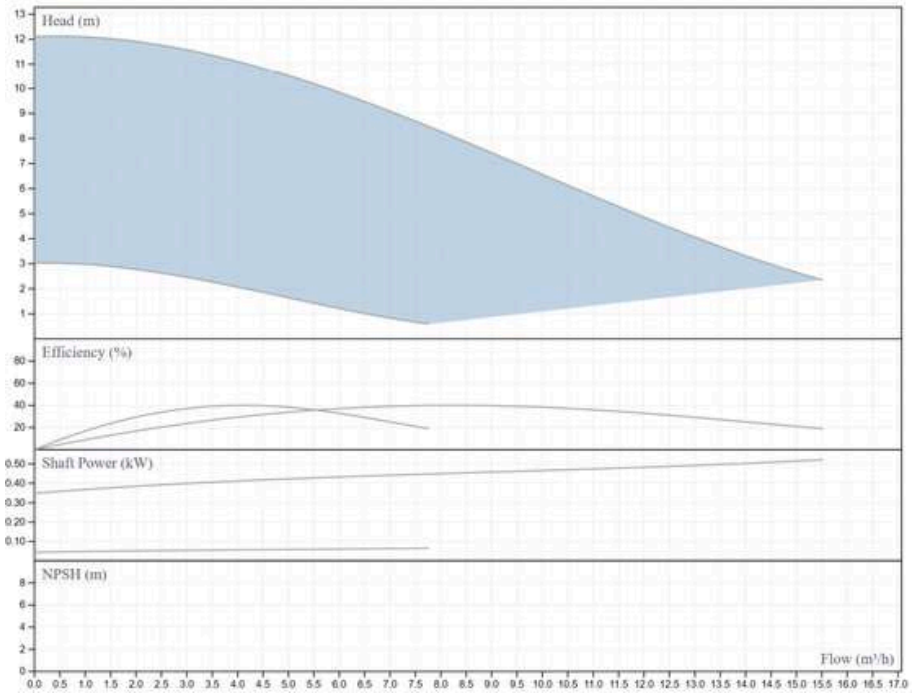
	Manual Mode
	Proportational Pressure Mode
	Constant Pressure Mode
ECO	ECO Mode
I1 I2 I3 I4 I5	Light for each speeds
	Mode button
	Button for speed change
W	Power display light

Panel Working Modes

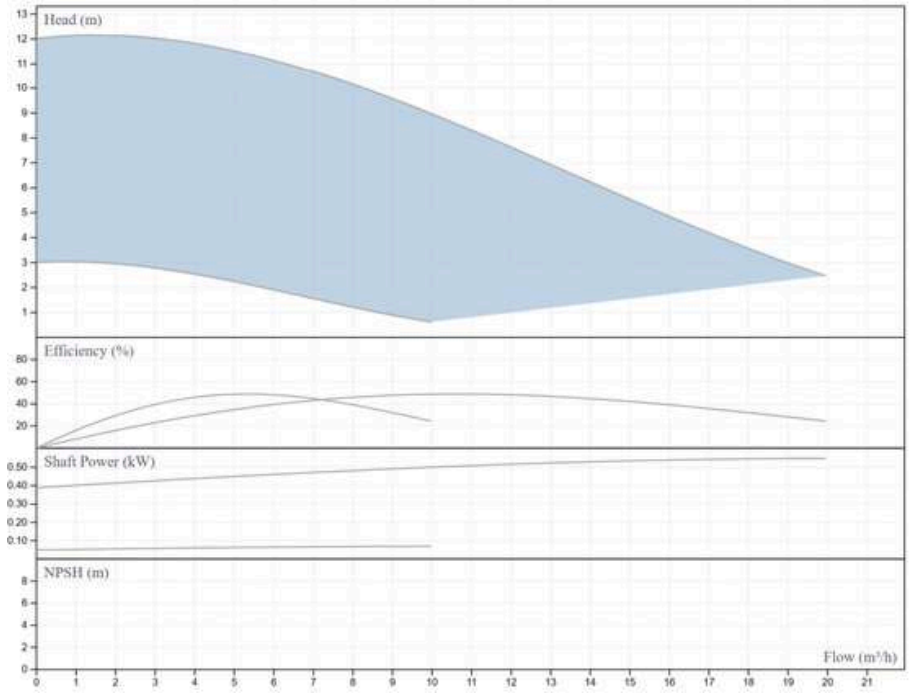
CP2, CP3, CP4:	The operating point moves back and forth on the curve according to the volume of flow from the system. As shown in the graph, the pump pressure remains constant, not affected by the volume demands of flow.
CP1-Min Speed CP5-Max Speed	The two speeds are the min. and the max. ones under constant pressure, the curve shown as in the graph, cannot keep constant, it rises and goes down as manual operation.
PP2, PP3, PP4:	The operating point moves back and forth on the proportional pressure curve according to the volume of flow from the system. As shown in the graph, the pump pressure is directly proportional to the flow demands.
ECO:	This mode use working as “autoadoptation”. It confines the performance of the pumps in aimed scope. As shown in the graph: 1. Performance can be adjusted according to the scale of the system. 2. Perfomance can be adjusted according to the changing of load during a specific period. Under the mode of “ECO”, the pump is controlled by means of proportional pressure.

Technical Data - Performance Curves - Overall Dimensions

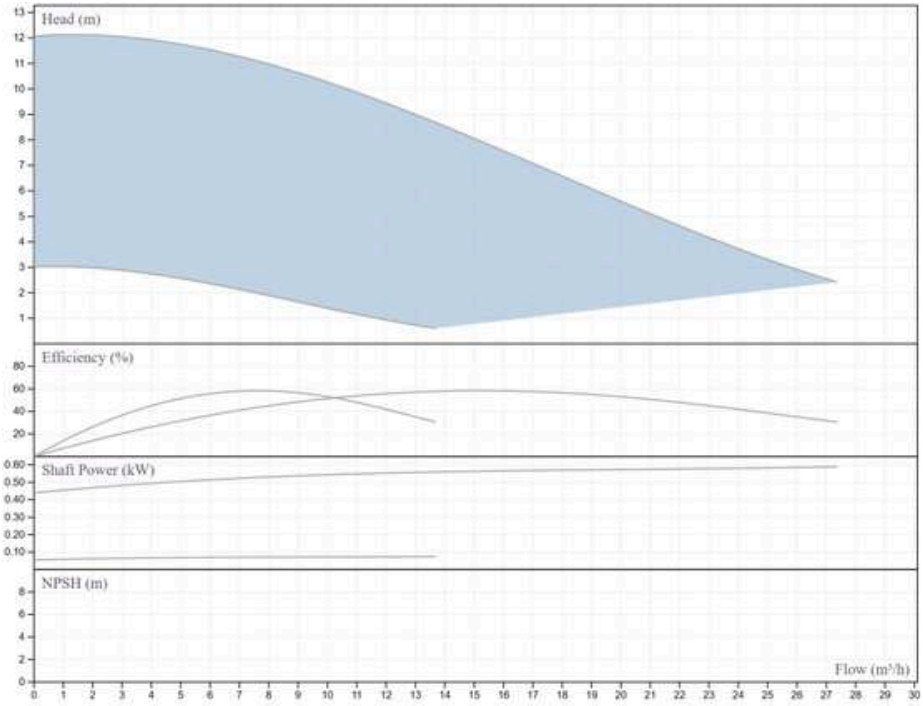
RCE 40-12/250



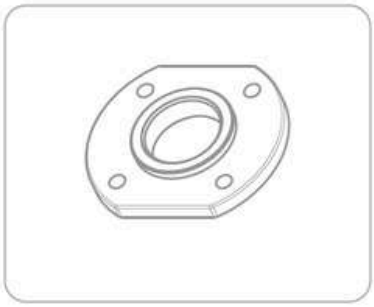
RCE 50-12/280

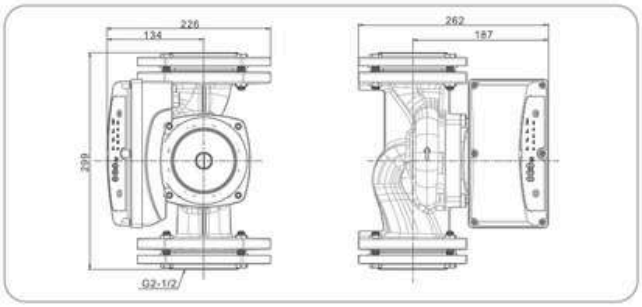


RCE 65-12/340

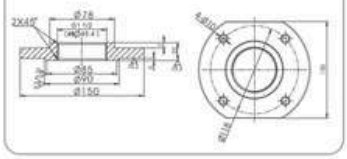


Model	Connection Size (DN)	Rated Flow (m³/h)	Rated Head (m)	Max. Head (m)	Rated Power (W)	Input Power (W)
RCE 40-12/350	DN40	7	9.5	12	600	600
RCE 50-12/280	DN50	12	9.5	12	600	600
RCE 65-12/340	DN65	13	9.5	12	600	600

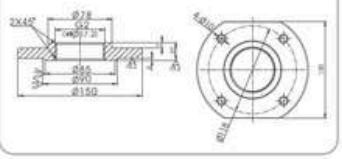




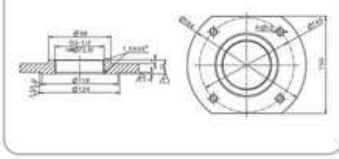
RCE 40-12/250



RCE 50-12/280



RCE 65-12/340



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EBITT EUROPE KFT
H-6782 Mórahalom, Szegedi út 108. Hungary Phone: +3662-280-926
Fax: +3662-280-927
export@ebitteurope.com
www.ebitteurope.com

EBITTME PUMPS ENGINES VALVES & SPARE PARTS TRADING CO. L.L.C.
ALSUAIDI, Al Suwaidi Bldg, Al Murar - Deira
P.O. Box 453929 Dubai, UAE
emea@ebitteurope.com
+971 55-454 4187

EBITT FINDUSTRIE (ZHE JIANG) INDUSTRIAL ENGINEERING LIMITED COMPANY
Hangzhou City, Zhejiang Province, China
info@ebitt.com.cn
+86 15168651662

EBITT ASIA PACIFIC PTE LTD (EAP Singapore)
226 Jalan Eunos #04-128. Singapore 415869 Phone: (65) 98393745
info@ebitt-asiapac.com

EBITT TÜRKİYE
Koçullu Mah. Doğru Sok. No:6 34799 Çekmeköy / İstanbul
info@ebitt.com.tr
www.ebitt.com.tr