

# PATROL

## SUBMERSIBLE PUMPS



### DOUBLE-CHANNEL

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



### PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 m<sup>3</sup>/h)
- Head up to **25 m**

### APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
  - up to **Ø 50 mm** for PATROL /50
  - up to **Ø 70 mm** for PATROL /70
- Minimum immersion depth for continuous service:
  - **390 mm** for PATROL /50
  - **430 mm** for PATROL /70

### CONSTRUCTION AND SAFETY STANDARDS

- Power cable
- External float switch and control box for single-phase versions

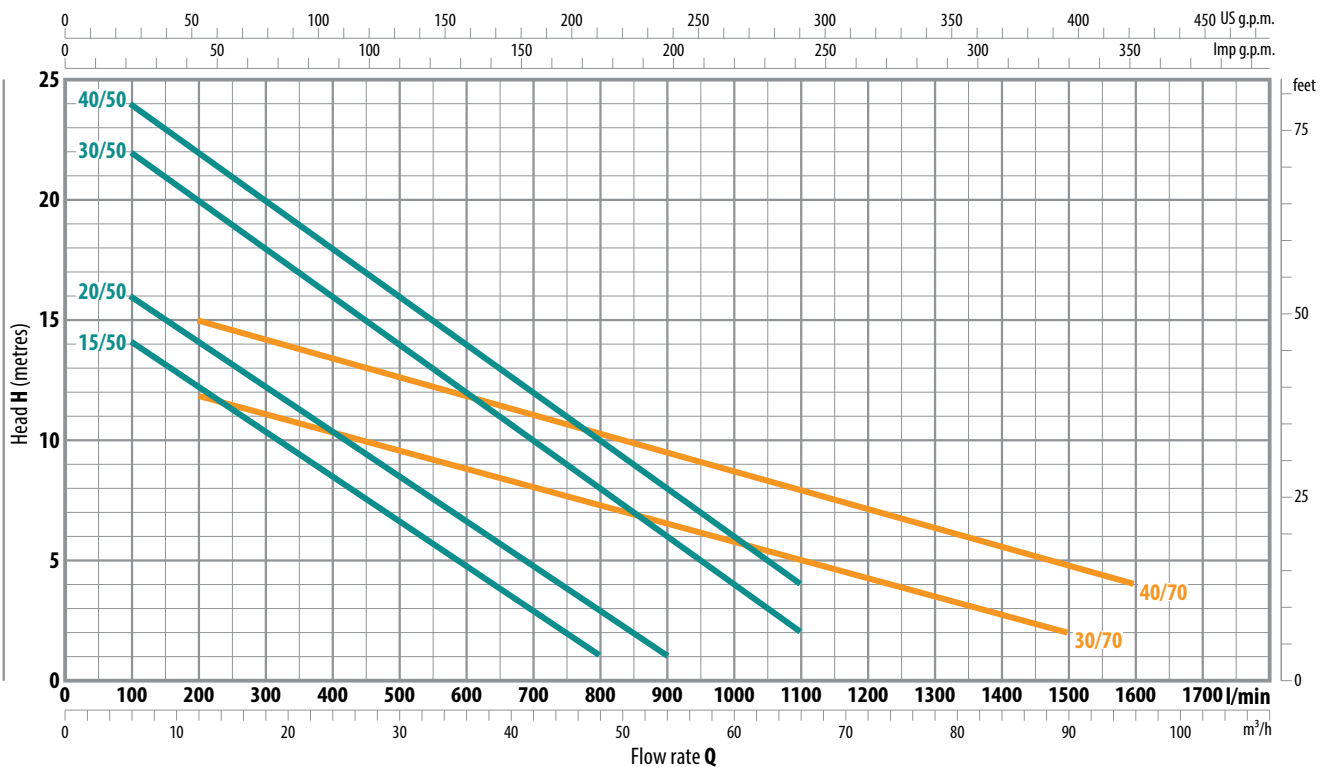
EN 60335-1  
IEC 60335-1  
CEI 61-150

EN 60034-1  
IEC 60034-1  
CEI 2-3



## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz | n= 2900 min<sup>-1</sup>



MODEL		POWER (P <sub>2</sub> )		Q	Flow rate																		
Single-phase	Three-phase	kW	HP		0	6	12	18	24	30	36	42	48	54	60	66	72	90	96				
				H metres	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1600				
PATROL 15/50M	PATROL 15/50	1.1	1.5	H metres	16	14	12.5	10.5	8.5	6.5	4.5	3	1										
PATROL 20/50M	PATROL 20/50	1.5	2		18	16	14	12.5	10.5	8.5	6.5	5	3	1									
PATROL 30/50M	PATROL 30/50	2.2	3		24	22	20	18	16	14	12	10	8	6	4	2							
–	PATROL 40/50	3	4		25	24	22	20	18	16	14	12	10	8	6	4							
PATROL 30/70M	PATROL 30/70	2.2	3		13	–	12	11	10.5	9.7	9	8	7.5	6.5	6	5	4.5	2					
–	PATROL 40/70	3	4		17	–	15	14	13.5	12.5	12	11	10.5	9.5	8.5	8	7	4.8	4				

Q = Flow rate  
H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

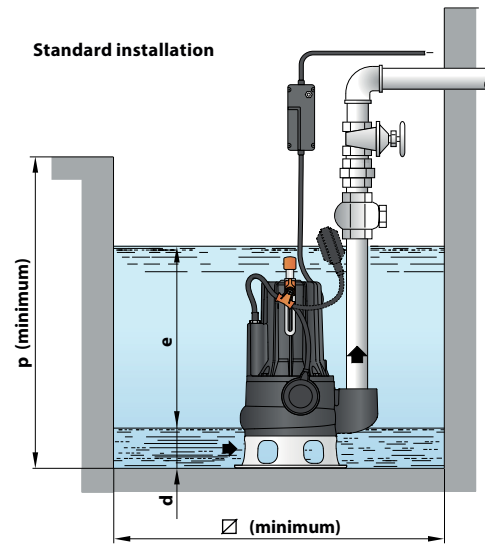
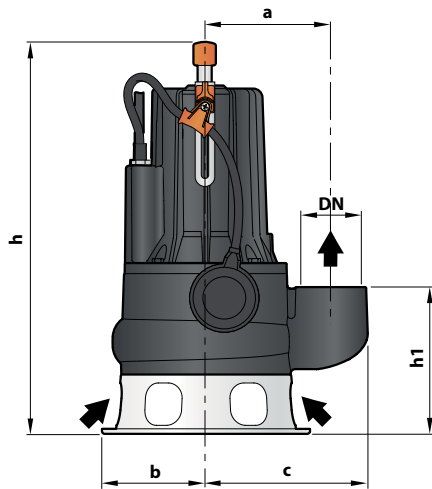
## INSTALLATION AND USE

PATROL series pumps, made from heavy gauge robust cast iron, resistant to abrasion and long-lasting, are fitted with a DOUBLE-CHANNEL impeller and are capable of pumping liquids containing short fibred suspended solids. They are ideal for pumping sewage, waste water, water mixed with mud, groundwater and surface water in locations such as blocks of flats, public buildings, factories, multi-storey and underground car parks, washing areas, etc.

## CONSTRUCTION CHARACTERISTICS

<b>PUMP BODY</b>	Cast iron with threaded port in compliance with ISO 228/1
<b>IMPELLER</b>	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type
<b>MOTOR SHAFT</b>	Stainless steel AISI 431
<b>TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER</b>	<b>Motor side:</b> Ceramic - Graphite - NBR <b>Pump side:</b> Silicon carbide - Silicon carbide - NBR
<b>POWER CABLE</b>	H07 RN-F type 10 m long power cable

## DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~
PATROL 15/50M	PATROL 15/50	2½"	Ø 50 mm	162	135	210	509	191	75	variable	800	800	36.7	35.4
PATROL 20/50M	PATROL 20/50						522/509						37.7	36.4
PATROL 30/50M	PATROL 30/50						522						41.9	38.6
-	PATROL 40/50						562/548						-	42.2
PATROL 30/70M	PATROL 30/70	3"	Ø 70 mm	180	150	237	562/548	233	85				45.0	41.7
-	PATROL 40/70						562						-	45.3

## ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
PATROL 15/50M	9.0 A	8.9 A
PATROL 20/50M	10.5 A	10.4 A
PATROL 30/50M	15.2 A	15.1 A
PATROL 30/70M	15.2 A	15.1 A

MODEL	VOLTAGE		
Three-phase	230÷240 V	400÷415 V	690÷720 V
PATROL 15/50	6.1 A	3.5 A	2.0 A
PATROL 20/50	7.4 A	4.3 A	2.5 A
PATROL 30/50	9.9 A	5.7 A	3.3 A
PATROL 40/50	13.5 A	7.8 A	4.5 A
PATROL 30/70	10.2 A	5.9 A	3.4 A
PATROL 40/70	13.5 A	7.8 A	4.5 A

## PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
PATROL 15/50M	PATROL 15/50	16	24
PATROL 20/50M	PATROL 20/50	16	24
PATROL 30/50M	PATROL 30/50	16	24
-	PATROL 40/50	16	24
PATROL 30/70M	PATROL 30/70	12	12
-	PATROL 40/70	12	12