

# Technical Data Sheet

Commutator motors F 458, F 458 EL, F 458-1



More than just pumps



## Advantages/characteristics:

- ▶ Compact design
- ▶ Extremely tough housing with aluminium double casing
- ▶ With corrosion-resistant paint, making these models particularly suitable for use in corrosive, vapour laden atmospheres
- ▶ Extremely low noise
- ▶ Fully closed
- ▶ Highest safety standard (protection class I or III)
- ▶ Optionally with integrated low-voltage protection: Prevents uncontrolled start-up of the pump after a power failure
- ▶ F 458 EL: with stepless speed setting to regulate the rising medium



Technical data/type	F 458	F 458 EL	F 458-1
Motor type	Single phase universal motor		
Housing, material	Aluminium, painted		
Venting	Externally ventilated		
Motor protection	Circuit breaker		
Low-voltage protection	Optional		
Speed setting, stepless	No	Yes	No
Power supply cable (100 - 240 V)	H 07 RN-F 3G 1,5		
Power supply cable (12 - 24 V)	H 07 RN-F 2X 4		
Power supply cable (42 V)	H 07 RN-F 2GX 1,5		
Standard cable length (m) <sup>1)</sup>	5		
Standard plug <sup>2)</sup>	CEE 7/7 <sup>3)</sup>		
Weight (kg)	5.1		5.9

Certificates	
Operation category as per EN 60034-1 (VDE 0530)	S1 (continuous operation)
Protection class as per DIN EN 60 529	IP 55
Operating range	
Operating temperature (°C)	-20 to +40

1) Other cable lengths available on request    2) Other plugs available on request    3) For applications outside hazardous areas

Nominal data for F 458, F 458 EL, output 460 Watt								
Nominal voltage (V) <sup>1)</sup>	240	230		120	110		24	12
Nominal frequency (Hz)	50	50	50 - 60	60	50	50 - 60	DC	DC
Nominal output (W)	460						410	230
Nominal speed (R/min)	8 500						7 700	6 000
Nominal current (A)	2.1	2.2	2.2	4.4	4.5	4.5	17.0	19.0
Protection class	I	I	I	I	I	I	III	III

Nominal data for F 458-1, output 700 Watt						
Nominal voltage (V) <sup>2)</sup>	240	230		120	110	
Nominal frequency (Hz)	50	50	50 - 60	60	50	50 - 60
Nominal output (W)	700					
Nominal speed (R/min)	9 500					
Nominal current (A)	3.3	3.4	3.4	6.8	7.0	7.0
Protection class	I	I	I	I	I	I

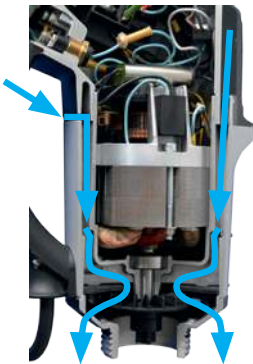
1) The 230 V and 110 V versions without low-voltage protection can also be operated with 60 Hz.  
The speed is reduced by approx. 5 - 8 % (with the same input power). Power consumption increases by 4 - 6 %.

2) The 230 V and 110 V versions without low-voltage protection can also be operated with 60 Hz.  
The speed is reduced by approx. 5 - 6 % (with the same input power). Power consumption increases by 3 - 4 %.

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## Design:

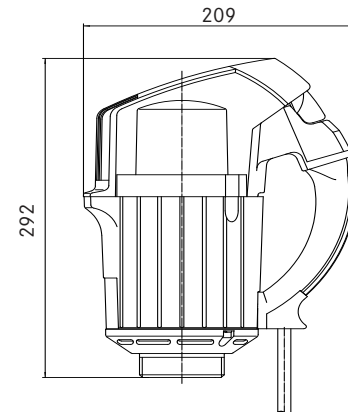


### F 458 externally ventilated with double housing.

The cooling air flows through the chambers of the double housing. The interior of the motor is thereby completely protected against corrosion of electrical components, e.g. from ambient air steam, like in electroplating units.

The arrows show the direction of the cooling air through the chambers of the double housing.

## Dimensions [mm]:



## Part numbers:

Voltage (Volt)	Frequency (Hz)	Output (Watt)	Cable length (m)	Plug CEE 7/7	Part no.	
<b>Motor F 458, without speed setting</b>					<b>Low-voltage protection</b>	
					<b>with</b>	<b>without</b>
240	50	460	5	Yes	10-458 00 005	10-458 00 000
			5	-	10-458 00 021	10-458 00 018
			-	-	10-458 00 013	10-458 00 008
230	50		5	Yes	10-458 00 006	10-458 00 001
			5	-	10-458 00 022	10-458 00 019
			-	-	10-458 00 014	10-458 00 009
120	50-60		5	Yes		10-458 00 025
	60		5	Yes		10-458 00 026*)
110	50		5	Yes	10-458 00 007	
			5	-	10-458 00 023	
			-	-	10-458 00 015	
	50-60		5	Yes		10-458 00 002
		5	-		10-458 00 020	
		-	-		10-458 00 010	
24	DC	410	5	-	10-458 00 003	
12		5	-	10-458 00 011		
		230	5	-	10-458 00 004	
			-	-	10-458 00 012	
<b>Motor F 458 EL, with speed setting</b>					<b>With low-voltage protection</b>	
230	50	460	5	Yes	10-458 00 027	
			-	-	10-458 00 028	
<b>Motor F 458-1, without speed setting</b>					<b>Low-voltage protection</b>	
					<b>with</b>	<b>without</b>
240	50	700	5	Yes	10-458 01 003	10-458 01 000
			5	-	10-458 01 017	10-458 01 014
			-	-	10-458 01 009	10-458 01 006
230	50		5	Yes	10-458 01 004	10-458 01 001
			5	-	10-458 01 018	10-458 01 015
			-	-	10-458 01 010	10-458 01 007
120	50-60		5	Yes		10-458 01 020
	60		5	Yes		10-458 01 021*)
110	50		5	Yes	10-458 01 005	
			5	-	10-458 01 019	
			-	-	10-458 01 011	
	50-60		5	Yes		10-458 01 002
		5	-		10-458 01 016	
		-	-		10-458 01 008	

\* Version for the USA