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)[1]	5		
Standard plug[2]	CEE 7/7[3]		
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)[1]	230 - 240	120	110		24	12
Nominal frequency (Hz)	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)	2.2	4.4	4.5	4.5	17.0	19.0
Protection class	I				III	

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

1) The 110 V version 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 110 V version 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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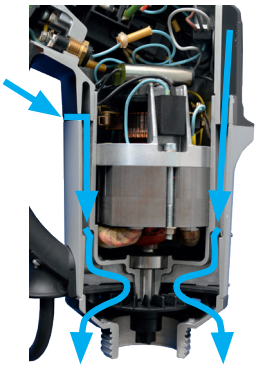
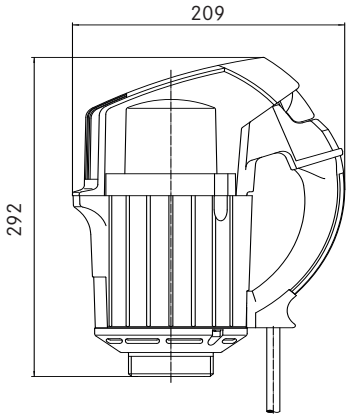
Design:



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.	
Motor F 458, without speed setting					**Low-voltage protection**	
					with	**without**
230-240	50-60	460	5	CEE 7/7	10-458 00 034	10-458 00 031
				-	12-458 30 020	12-458 30 003
120	60			NEMA 5-15 P		10-458 00 044*)
110	50			CEE 7/7	12-458 30 034	
				-	12-458 30 005	
	50-60			CEE 7/7		12-458 30 035
				-		12-458 30 002
24	DC	410		-		10-458 00 032
12		230		-		10-458 00 033
Motor F 458 EL, with speed setting					**With low-voltage protection**	
230-240	50-60	460	5	CEE 7/7	10-458 00 047	
Motor F 458-1, without speed setting					**Low-voltage protection**	
					with	**without**
230-240	50-60	700	5	CEE 7/7	10-458 01 026	10-458 01 025
				-	12-458 30 021	12-458 30 012
				CEE 7/7		12-458 30 010
120	60			NEMA 5-15 P		10-458 01 034*)
110	50			CEE 7/7	12-458 30 006	
				-	12-458 30 007	
	50-60			CEE 7/7		12-458 30 033
				-		10-458 01 033

* Version for the USA

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