

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 ¹⁾	16 FT (5 m)		
Standard plug ²⁾	CEE 7/7 ³⁾		
Weight	11.2 lbs (5.1 kg)		13 lbs (5.9 kg)

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	-4 - 104°F (-20 - 40°C)

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	

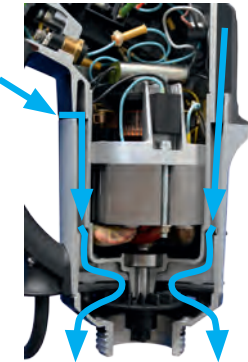
Nominal data for F 458-1, output 700 Watt				
Nominal voltage (V) ²⁾	230 - 240		120	110
Nominal frequency (Hz)	50 - 60		60	50 50 - 60
Nominal output (W)	700			
Nominal speed (R/min)	9,500			
Nominal current (A)	3.4		6.8	7.0 7.0
Protection class	I			

- 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:

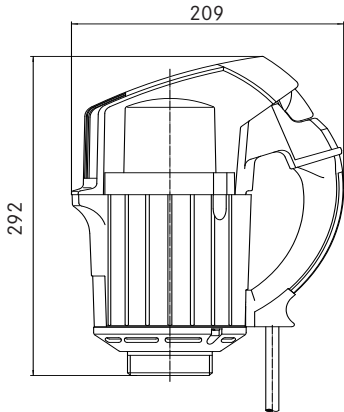


F 458 externally ventilated with double housing.

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	Plug CEE 7/7	Part no		
Motor F 458, without speed setting					Low-voltage protection		
					with	without	
230-240	50-60	460	16 ft (5m)	CEE 7/7	10-45800034	10-45800031	
120	60			-	12-45830020	12-45830003	
110	50			NEMA 5-15 P		10-45800044*	
	50-60			CEE 7/7	12-45830034		
				-	12-45830005		
24	DC	CEE 7/7			12-45830035		
12		-			12-45830002		
		-			10-45800032		
		230			-		10-45800033

Motor F 458 EL, with speed setting					With low-voltage protection	
230-240	50-60	460	16 ft (5m)	CEE 7/7	10-45800047	

Motor F 458-1, without speed setting					Low-voltage protection	
					with	without
230-240	50-60	700	16 ft (5m)	CEE 7/7	10-45801026	10-45801025
120	60			-	12-45830021	12-45830012
	50			CEE 7/7		12-45830010
				NEMA 5-15 P		10-45801034*
110	50-60			CEE 7/7	12-45830006	
		-		12-45830007		
		CEE 7/7			12-45830033	
				-		10-45801033

* Version for the USA