

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⁾	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) ²⁾	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:

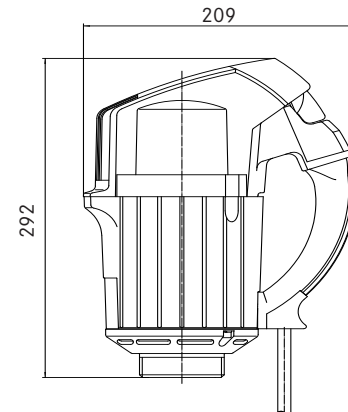


F 458 externally ventilated with double housing.

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	Plug	Part no.	
Motor F 458, without speed setting					Low-voltage protection	
					with	without
240	50	460	16 ft (5 m)	CEE 7/17	12-45830025	12-45830014
			16 ft (5 m)	-	12-45830004	Consult factory
-	-		10-45800041	10-45800035		
230	50		16 ft (5 m)	CEE 7/17	10-45800034	10-45800031
			16 ft (5 m)	-	12-45830020	12-45830019
			-	-	10-45800041	10-45800036
			50-60	16 ft (5 m)	CEE 7/17	-
120	60		16 ft (5 m)	NEMA 1-15P	-	10-45800044*
110	50		16 ft (5 m)	CEE 7/17	Consult factory	-
			16 ft (5 m)	-	12-45830005	-
			-	-	10-45800042	-
	50-60		16 ft (5 m)	CEE 7/17	-	Consult factory
			16 ft (5 m)	-	-	12-45830002
			-	-	-	10-45800037
24	DC	410	16 ft (5 m)	-	-	10-45800032
			-	-	-	10-45800038
12		230	16 ft (5 m)	-	-	10-45800033
			-	-	-	10-45800039
Motor F 458 EL, with speed setting					With low-voltage protection	
230	50	460	16 ft (5 m)	CEE 7/17	10-45800047	
			-	-	10-45800048	
Motor F 458-1, without speed setting					Low-voltage protection	
					with	without
240	50	700	16 ft (5 m)	CEE 7/17	12-45830013	Consult factory
			16 ft (5 m)	-	12-45830008	12-45830009
			-	-	10-45801030	10-45801027
230	50		16 ft (5 m)	CEE 7/17	10-45801026	10-45801025
			16 ft (5 m)	-	12-45830021	12-45830012
			-	-	10-45801031	10-45801028
120	50-60		16 ft (5 m)	CEE 7/17	-	12-45830010
	60		16 ft (5 m)	NEMA 1-15P	-	10-45801034*
110	50		16 ft (5 m)	CEE 7/17	12-45830006	-
			16 ft (5 m)	-	12-45830007	-
			-	-	10-45801032	-
	50-60		16 ft (5 m)	CEE 7/17	-	Consult factory
			16 ft (5 m)	-	-	10-45801033
			-	-	-	10-45801029

* Version for the USA

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