

The Grundfos MLE is a motor and variable frequency drive integrated into one unit that substantially reduces or eliminates problems associated with the following:

- VFD and motor compatability
- Radio Frequency Interference (RFI)
- Peak voltages
- Harmonic distortion
- Incorrect drive setup
- Voltage imbalance



TECHNICAL DATA

2-POLE PROGRAM											
HP	VOLTAGE	PH	NEMA FRAME	SERVICE FACTOR	FULL LOAD EFF (%)*	INS. CLASS	TEMP RISE CLASS	FULL LOAD AMPS**	SERVICE FACTOR AMPS	POWER FACTOR	NOM/MAX SPEED (RPM)
1/2	208-230	1	56C	1.0	71.0	F	B	2.80	-	0.96	3400
3/4	208-230	1	56C	1.0	74.0	F	B	3.90	-	0.97	3400
1	208-230	1	56C	1.0	76.0	F	B	5.20	-	0.97	3400
	460-480	3	56C	1.25	78.0	F	B	1.70	2.10	0.73	3500
1-1/2	208-230	1	56C	1.0	77.0	F	B	7.50	-	0.97	3400
	208-230	3	56C	1.0	76.8	F	B	4.20	-	0.94	3480
	460-480	3	56C	1.15	80.0	F	B	2.15	2.50	0.83	3480
2	208-230	3	56C	1.0	78.3	F	B	5.60	-	0.95	3460
	460-480	3	56C	1.15	82.0	F	B	2.70	3.10	0.87	3460
3	208-230	3	182TC	1.0	79.5	F	B	8.10	-	0.95	3460
	460-480	3	182TC	1.15	84.0	F	B	3.70	4.30	0.91	3460
5	208-230	3	182TC	1.0	79.7	F	B	13.4	-	0.94	3470
	460-480	3	184TC	1.15	85.0	F	B	6.10	7.00	0.92	3470
7-1/2	208-230	3	182TC	1.0	82.5	F	B	19.7	-	0.94	3450
	460-480	3	215TC	1.15	85.0	F	B	8.90	10.3	0.94	3470
10	460-480	3	215TC	1.15	86.0	F	B	12.0	13.8	0.93	3480

4-POLE PROGRAM											
HP	VOLTAGE	PH	NEMA FRAME	SERVICE FACTOR	FULL LOAD EFF (%)*	INS. CLASS	TEMP RISE CLASS	FULL LOAD AMPS**	SERVICE FACTOR AMPS	POWER FACTOR	NOM/MAX SPEED (RPM)
1/3	208-230	1	56C	1.0	67.0	F	B	2.00	-	0.94	1690
3/2	208-230	1	56C	1.0	70.0	F	B	2.80	-	0.96	1690
3/4	208-230	1	56C	1.0	72.0	F	B	4.00	-	0.96	1690
1	208-230	1	56C	1.0	73.0	F	B	5.40	-	0.97	1690

* This is the combined full load efficiency of the motor and variable frequency drive.

** At 208 volts for 208-230 volt motors and at 460 volts for 460-480 volt motors.

STANDARD CONTROL FEATURES

Set-Point Signal (1)

0-10 VDC (+10 VDC supply to sensor, 2.5 mA max.)
4-20 mA (+24 VDC supply to sensor, 40 mA max.)

Sensor Signal (1)

0-10 VDC (+10 VDC supply to sensor, 2.5 mA max.)
4-20 mA (+24 VDC supply to sensor, 40 mA max.)

Signal Output (1)

Dry Contact (Potential free changeover)
Maximum Contact Load: 250 VAC, 2 A
Minimum Contact Load: 5 VDC, 10 mA

Start/Stop (1)

Dry Contact (Potential free)
5 VDC, <5 mA

Digital Input (1)

Dry Contact (Potential free)

ENCLOSURE CLASS

Motor: TEFC (IP55)

Drive: NEMA Type 3R (IP55)

ENVIRONMENT

-4° to +104° F (-20° to +40° C)

Relative air humidity: 95%

PROTECTION/ALARM FEATURES

- Excessive motor temperature
- Excessive drive temperature
- Undervoltage
- Overvoltage
- Too many restarts (after faults)
- Overload (motor hp exceeded, pump blocked)
- Sensor signal outside signal range
- Setpoint signal outside signal range
- External fault (via digital input)
- Communication fault (Duty/Standby)

All motors have thermal protection
(IEC 34-11: TP211)

EMC (electromagnetic compatibility): EN 61 800-3

STANDARD PUMP RELATED FEATURES

Built-in PI controller for:

- Constant Pressure Control (CRE Series Pumps)
- Constant Level Control (CRE Series Pumps)
- Constant Flow Control (CRE Series Pumps)
- Temperature Control (CRE/TPE Series Pumps)
- Constant Differential Pressure Control (TPE Series Pumps)
- Proportional Pressure Control (TPE Series Pumps)

Built-in No-Flow Shut-down for:

- Constant Pressure Control (CRE Series Pumps)

Duty/Standby (3-phase only):

- Automatic alternation between two pumps via fieldbus connection

APPROVALS



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Subject to alterations