

(en) Electric current! Danger to life!
Only skilled or instructed persons may carry out the following operations.

(de) Lebensgefahr durch elektrischen Strom!

Nur Elektrofachkräfte und elektrotechnisch unterwiesene Personen dürfen die im Folgenden beschriebenen Arbeiten ausführen.

(fr) Tension électrique dangereuse !

Seules les personnes qualifiées et averties doivent exécuter les travaux ci-après.

(es) ¡Corriente eléctrica! ¡Peligro de muerte!

El trabajo a continuación descrito debe ser realizado por personas cualificadas y advertidas.

(it) Tensione elettrica: Pericolo di morte!

Solo persone abilitate e qualificate possono eseguire le operazioni di seguito riportate.

(zh) 触电危险!

只允许专业人员和受过专业训练的人员进行下列工作。

(ru) Электрический ток! Опасно для жизни!

Только специалисты или проинструктированные лица могут выполнять следующие операции.

(nl) Levensgevaar door elektrische stroom!

Uitsluitend deskundigen in elektriciteit en elektrotechnisch geïnstrueerde personen is het toegestaan, de navolgend beschreven werkzaamheden uit te voeren.

(da) Livsfare på grund af elektrisk strøm!

Kun uddannede el-installatører og personer der er instruerede i elektrotekniske arbejdsopgaver, må udføre de nedenfor anførte arbejder.

(el) Προσοχή, κίνδυνος ηλεκτροπληξίας!

Οι εργασίες που αναφέρονται στη συνέχεια θα πρέπει να εκτελούνται μόνο από ηλεκτρολόγους και ηλεκτροτεχνίτες.

(pt) Perigo de vida devido a corrente eléctrica!

Apenas electricistas e pessoas com formação electotécnica podem executar os trabalhos que a seguir se descrevem.

(sv) Livsfara genom elektrisk ström!

Endast utbildade elektriker och personer som undervisats i elektroteknik får utföra de arbeten som beskrivs nedan.

(fi) Hengenvaarallinen jännite!

Vain pätevät sähköasentajat ja opastusta saaneet henkilöt saavat suorittaa seuraavat työt.

(cs) Nebezpečí úrazu elektrickým proudem!

Níže uvedené práce smějí provádět pouze osoby s elektrotechnickým vzděláním.

(et) Eluhtlik! Elektrilöögiht!

Järgnevalt kirjeldatud töid tohib teostada ainult elektriala spetsialist või elektrotehnilise instrueerimise läbinud personal.

(hu) Életveszély az elektromos áram révén!

Csak elektromos szakemberek és elektrotechnikában képzett személyek végezhetik el a következőkben leírt munkákat.

(lv) Elektriskā strāva apdraud dzīvību!

Tālāk aprakstītos darbus drīkst veikt tikai elektro speciālisti un darbam ar elektrotehnikām iekārtām instruētās personas!

(lt) Pavojus gyvybei dėl elektros srovės!

Tik elektrikai ir elektrotechnikos specialistai gali atlikti žemiau aprašytus darbus.

(pl) Porażenie prądem elektrycznym stanowi zagrożenie dla życia!

Opisane poniżej prace mogą przeprowadzać tylko wykwalifikowani elektrycy oraz osoby odpowiednio poinstruowane w zakresie elektrotechniki.

(sl) Življenjska nevarnost zaradi električnega toka!

Spodaj opisana dela smejo izvajati samo elektrostrokovnjaki in elektrotehnično poučene osebe.

(sk) Nebezpečenstvo ohrozenia života elektrickým prúdom!

Práce, ktoré sú nižšie opísané, smú vykonávať iba elektroodborníci a osoby s elektrotechnickým vzdelaním.

(bg) Опасност за живота от електрически ток!

Операциите, описани в следващите раздели, могат да се извършват само от специалисти-електротехници и инструктиран електротехнически персонал.

(ro) Atenție! Pericol electric!

Toate lucrările descrie trebuie efectuate numai de personal de specialitate calificat și de persoane cu cunoștințe profunde în electrotehnică.

(hr) Opasnost po život uslijed električne struje!

Radove opisane u nastavku smiju obavljati samo stručni električari i osobe koje su prošle elektrotehničku obuku.

(tr) Elektrik akımı! Hayati tehlike!

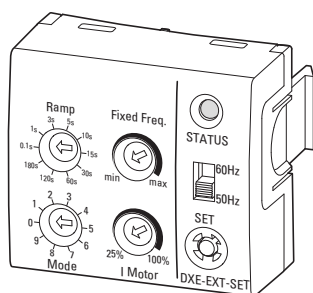
Aşağıdaki işlemleri yalnızca kalifiye veya eğitimli kişiler gerçekleştirebilir.

(uk) Електричний струм! Небезпечно для життя!

Виконувати означені далі операції дозволяється тільки кваліфікованим особам, що пройшли інструктаж.

(ar) تحذير! تيار كهربائي! خطر موت! لا تتم أعمال الصيانة والتركيب إلا من قبل العاملين المدربين!

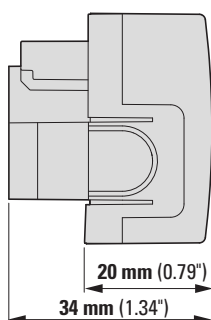
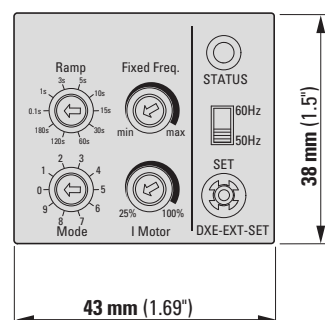
DXE-EXT-SET

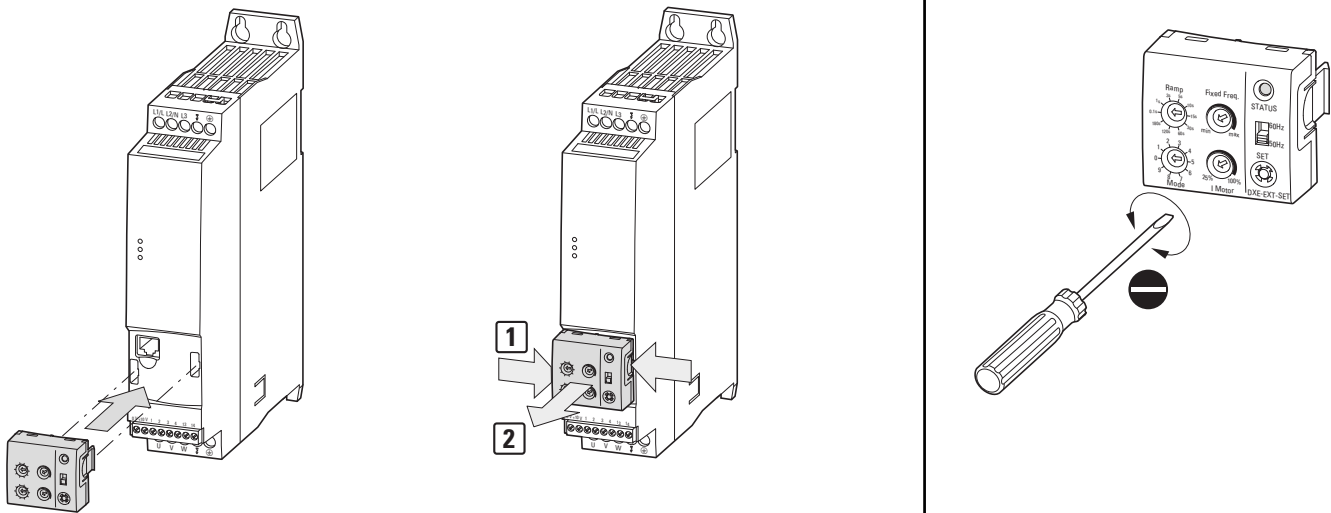


Eaton.com/documentation
MN040011... DE1, DE11



Eaton.com/EcoDesign-VFD
MZ040046EN





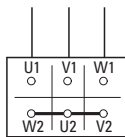
en		de	
	STATUS LED LED lights up = Ready for operation – Green, solid: Settings = DE1 parameter value – Yellow, solid: Settings ≠ DE1 parameter value – Green, flashing (three times for 2 s), then solid green = Parameter transfer – Green, flashing (4 Hz) = Fixed Freq. potentiometer (= f-Fix1) active	STATUS-LED LED leuchtet = betriebsbereit – grün, konstant: Einstellwerte = DE1-Parameterwert – gelb, konstant: Einstellwerte ≠ DE1-Parameterwert – grün, blinkend (3 x für 2 s), danach konstant grün = Parametertransfer – grün, blinkend (4 Hz) = Potenziometer Fixed Freq. (= f-Fix1) ist aktiv	
	Selector switch Supply frequency = f-max (50/60 Hz)	Wahlschalter Netzfrequenz = f-max (50/60 Hz)	
	SET button – Held down for 2 seconds (in STOP mode only) = Transfers all parameters to DE1 (LED flashes with a green light three times for 2 s) – Pressed for less than one second = Fixed Freq. potentiometer is active (LED flashes with a green light at 4 Hz) with direct parameter transfer to DE1 (= f-Fix1)		
	Selector switch (10 settings) for ramp times (acceleration = deceleration, P-03 = P-04), P-09 = 50/60 Hz	SET-Taste – 2 Sekunden gedrückt (nur im STOP-Modus) = Transfer aller Parameter zum DE1 (LED blinkt 3 x für 2 s grün) – < 1 Sekunde betätigt = Potenziometer Fixed Freq. ist aktiv (LED blinkt 4 Hz grün) mit direktem Parametertransfer zum DE1 (= f-Fix1)	
	Fixed Freq. potentiometer Stepless adjustment between the minimum and maximum output frequencies (f ₂).	Wahlschalter (10 Stufen) für Rampenzeiten (Beschleunigung = Verzögerung, P-03 = P-04), P-09 = 50/60 Hz	
	Potentiometer I Motor Stepless motor current adjustment between 25 % and 100 % of the DE1 rated operational current (P-08) for motor protection (I ² t).		
	Potentiometer Fixed Freq. stufenlos einstellbar zwischen der minimalen und maximalen Ausgangsfrequenz (f ₂).	Potentiometer I Motor Motorstrom stufenlos einstellbar zwischen 25 % und 100 % vom DE1-Bemessungsstrom (P-08) für den Motorschutz (I ² t).	

Example

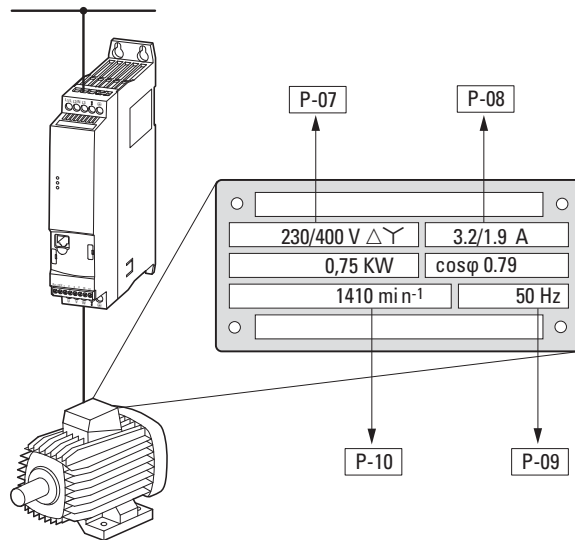
$U_{LN} = 3 \text{ AC } 400 \text{ V } (= \text{P-07})$

$\text{DE1-342D1} \dots \rightarrow 2.1 \text{ A } (= \text{P-08})$

$I_{\text{Motor}} = 1.9 \text{ A} \rightarrow \sim 90 \%$

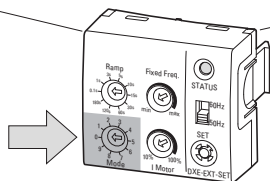


$U_{LN} = 400 \text{ V}$



Digital Inputs Function Select (Mode)

0 = FWD/REV/Select REF/f-Fix1/REF	5 = FWD/UP/EXTFLT/DOWN
1 = FWD/REV/EXTFLT/REF	6 = FWD/REV/UP/DOWN
2 = FWD/REV/Select f-Fix Bit0/Select f-Fix Bit1	7 = FWD/Select f-Fix Bit0/EXTFLT/Select f-Fix Bit1
3 = FWD/Select REF/f-Fix1/EXTFLT/REF	8 = START/DIR/Select REF/f-Fix1/REF
4 = FWD/UP/Select REF/f-Fix1/DOWN	9 = START/DIR/EXTFLT/REF



en Mode selector switch

(10 settings) for configuring the control signal terminals

- FWD = Clockwise rotating field (start command)
- REV = Counterclockwise rotating field (start command)
- f-Fix1 = Fixed frequency 1 (20 Hz = P-20)
- REF = Frequency reference value (0 - +10 V analog input)
- EXT FLT = External fault message (if the terminal is open)
- f-Fix Select B0, f-Fix Select B1 = Fixed frequencies (binary-coded)
- UP = Increase frequency reference value
- DOWN = Lower frequency reference value
- START = Enable signal in combination with DIR
- DIR = Operating direction reversal (L = FWD, H = REV)

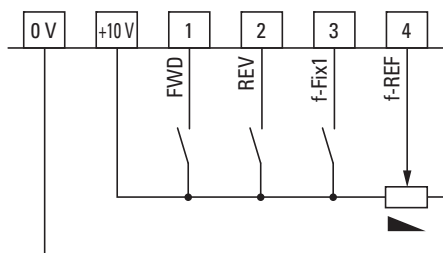
de Wahlschalter Mode

(10 Stufen) zur Konfiguration der Steuerklemmen

- FWD = Rechtsdrehfeld (Startbefehl)
- REV = Linksdrehfeld (Startbefehl)
- f-Fix1 = Festfrequenz 1 (20 Hz = P-20)
- REF = Frequenz-Sollwert (Analog-Eingang 0 - +10 V)
- EXT FLT = Externe Fehlermeldung (bei offenem Anschluss)
- f-Fix Select B0, f-Fix Select B1 = Festfrequenzen (binär codiert)
- UP = Frequenzsollwert erhöhen
- DOWN = Frequenzsollwert reduzieren
- START = Freigabesignal in Kombination mit DIR
- DIR = Drehrichtungsumkehr (L = FWD, H = REV)

Mode 0

- en Default setting
- de Werkseinstellung

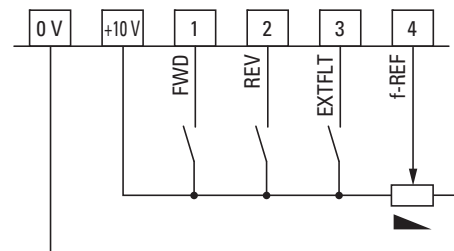
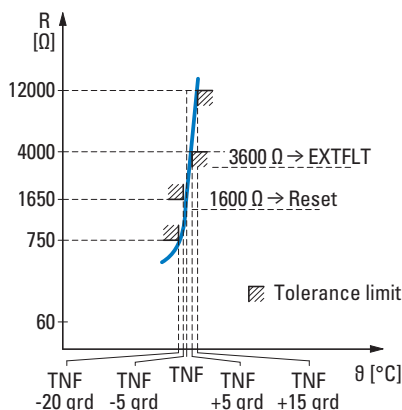
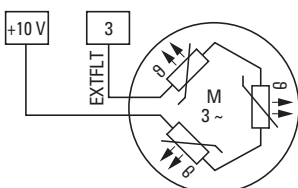


Mode 1

en EXTFLT = External error message
Example: thermistor

de EXTFLT = externe Fehlermeldung
Beispiel: Thermistor

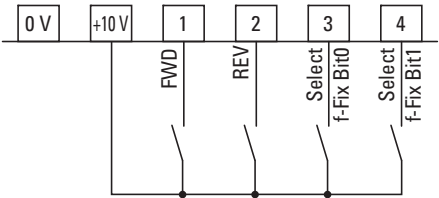
$3600 \Omega = \text{EXTFLT}$, $< 1600 \Omega = \text{Reset}$



Mode 2

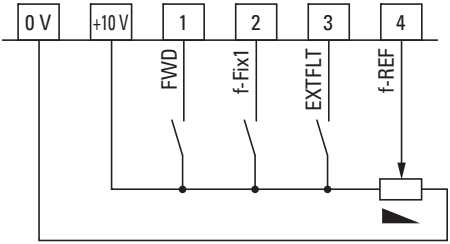
- Fixed frequencies 1
- Festfrequenzen 1

	f-Fix Select B0	f-Fix Select B1	f ₂	PNU
f-Fix1	L	L	20 Hz	P-20
f-Fix2	H	L	30 Hz	P-21
f-Fix3	L	H	40 Hz	P-22
f-Fix4	H	H	50 Hz	P-23



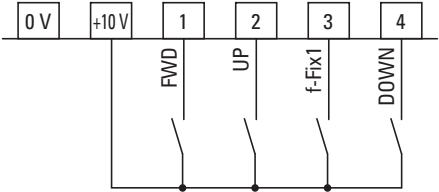
Mode 3

- One operating direction (FWD)
 - Eine Drehrichtung (FWD)
- (EXTFLT → Mode 1)



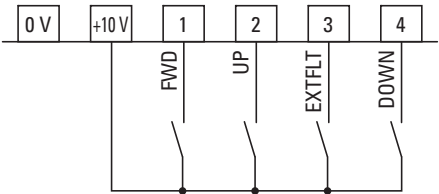
Mode 4

- Digital potentiometer 1
- Digitales Potenziometer 1



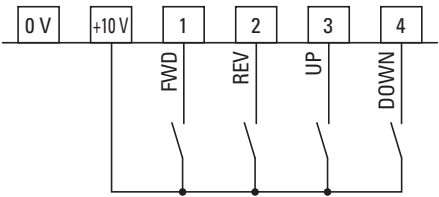
Mode 5

- Digital potentiometer 2
 - Digitales Potenziometer 2
- (EXTFLT → Mode 1)



Mode 6

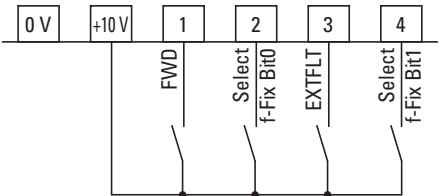
- Digital potentiometer 3
- Digitales Potenziometer 3



Mode 7

- Fixed frequencies 2
- Festfrequenzen 2

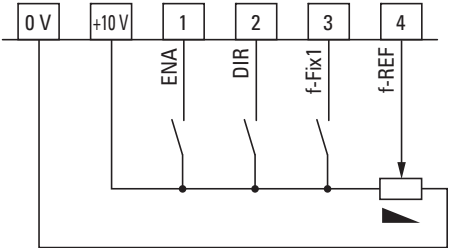
	f-Fix Select B0	f-Fix Select B1	f ₂	PNU
f-Fix1	L	L	20 Hz	P-20
f-Fix2	H	L	30 Hz	P-21
f-Fix3	L	H	40 Hz	P-22
f-Fix4	H	H	50 Hz	P-23



(EXTFLT → Mode 1)

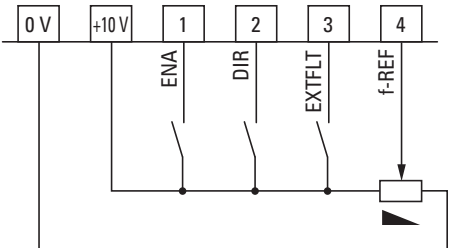
Mode 8

- Machine control 1
 - Maschinensteuerung 1
- ENA → FWD; DIR = L
ENA → REV; DIR = H



Mode 9

- Machine control 2
 - Maschinensteuerung 2
- ENA → FWD; DIR = L
ENA → REV; DIR = H
(EXTFLT → Mode 1)



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