



**SEW**  
**EURODRIVE**

# MOVIDRIVE<sup>®</sup> MD\_60A

**Edition**

*09/2001*



**Operating Instructions**

1053 2617 / EN



### 3.3 Unit design, size 2

MD\_60A-5A3 (400/500 V units): 0055 – 0110

MD\_60A-2A3 (230 V units): 0055 / 0075

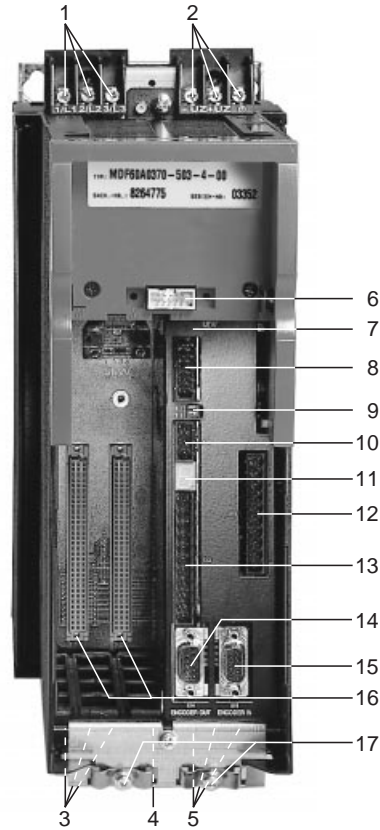


Fig. 5: Unit design, MOVIDRIVE® size 2

00895BXX

1. X1: Mains connection L1 (1) / L2 (2) / L3 (3)
2. X4: DC link connection  $-U_Z$  /  $+U_Z$  and PE connection
3. X2: Motor connection U (4) / V (5) / W (6) (not visible)
4. Connection for power shield clamp (not visible)
5. X3: Braking resistor connection R+ (8) / R- (9) and PE connection (not visible)
6. TERMINAL: Option slot for DBG11A keypad or USS21A serial interface
7. Control pcb on CONTROL option slot
8. X11: Electronics terminal strip (setpoint input AI1 and 10 V reference voltage)
9. Switch S11 (signal type AI1) and switch S12 (system bus terminating resistor)
10. X12: Electronics terminal strip system bus (SBus)
11. 7-segment display
12. X10: Electronics terminal strip binary outputs and TF/TH input
13. X13: Electronics terminal strip binary inputs and RS-485 interface
14. Only MDV/MDS, X14: Incremental encoder simulation or external encoder input (9-pin sub D plug)
15. Only MDV/MDS, X15: Motor encoder input (9-pin sub D socket)
16. OPTION1 and OPTION2: Option slots 1 and 2
17. Connection for electronics shield clamps



### 3.4 Unit design, size 3

MD\_60A-503 (400/500 V units): 0150 – 0300

MD\_60A-203 (230 V units): 0110 / 0150

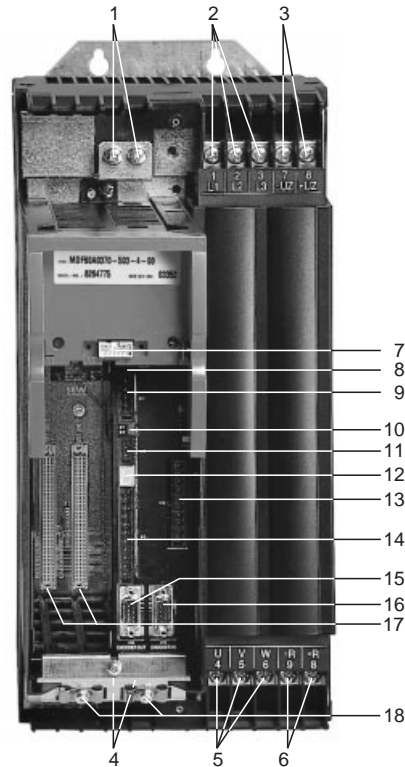
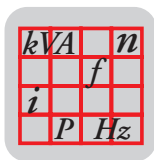


Fig. 6: Unit design, MOVIDRIVE® size 3

01248BXX

1. PE connections
2. X1: Mains connection L1 (1) / L2 (2) / L3 (3)
3. X4: DC link connection -U<sub>Z</sub> / +U<sub>Z</sub>
4. PE connections (not visible)
5. X2: Motor connection U (4) / V (5) / W (6)
6. X3: Braking resistor connection R+ (8) / R- (9)
7. TERMINAL: Option slot for DBG11A keypad or USS21A serial interface
8. Control pcb on CONTROL option slot
9. X11: Electronics terminal strip (setpoint input AI1 and 10 V reference voltage)
10. Switch S11 (signal type AI1) and switch S12 (system bus terminating resistor)
11. X12: Electronics terminal strip system bus (SBus)
12. 7-segment display
13. X10: Electronics terminal strip binary outputs and TF/TH input
14. X13: Electronics terminal strip binary inputs and RS-485 interface
15. Only MDV/MDS, X14: Incremental encoder simulation or external encoder input (9-pin sub D plug)
16. Only MDV/MDS, X15: Motor encoder input (9-pin sub D socket)
17. OPTION1 and OPTION2: Option slots 1 and 2
18. Connection for electronics shield clamps





## Size 2

MOVIDRIVE® MD_60A		0055-5A3-4-0_	0075-5A3-4-0_	0110-5A3-4-0_
<b>INPUT</b>				
Supply voltage	$V_{in}$	3 × 380 V <sub>AC</sub> -10 % – 3 × 500 V <sub>AC</sub> +10 %		
Supply frequency	$f_{in}$	50 Hz – 60 Hz ±5 %		
Rated system current <sup>1)</sup> $I_{in}$ (at $V_{in} = 3 \times 400$ V <sub>AC</sub> )	100 %	11.3 A <sub>AC</sub>	14.4 A <sub>AC</sub>	21.6 A <sub>AC</sub>
	125 %	14.1 A <sub>AC</sub>	18.0 A <sub>AC</sub>	27.0 A <sub>AC</sub>
<b>OUTPUT</b>				
Output rated power <sup>2)</sup> (at $V_{in} = 3 \times 380 - 500$ V <sub>AC</sub> )	$P_N$	8.7 kVA	11.2 kVA	16.8 kVA
Output rated current <sup>1)</sup> (at $V_{in} = 3 \times 400$ V <sub>AC</sub> )	$I_N$	12.5 A <sub>AC</sub>	16 A <sub>AC</sub>	24 A <sub>AC</sub>
Current limitation	$I_{max}$	Motor and regenerative 150 % $I_N$ , duration depending on the capacity utilization		
Internal current limitation		$I_{max} = 0 - 150$ % can be set in menu (P303 / P313)		
Minimum permitted brake resistance value (4Q operation)	$R_{BRmin}$	47 Ω		22 Ω
Output voltage	$V_{out}$	max. $V_{in}$		
PWM frequency	$f_{PWM}$	Adjustable with VFC: 4/8/12/16 kHz (P860 / P861); with CFC/SERVO fixed at 8 kHz		
Speed range / resolution	$n_A / \Delta n_A$	-5000 – 0 – +5000 rpm / 0.2 rpm across the entire range		
<b>GENERAL</b>				
Power loss at $P_N$	$P_{Vmax}$	220 W	290 W	400 W
Cooling air consumption		80 m <sup>3</sup> /h (48 ft <sup>3</sup> /min)		
Weight		6.6 kg (14.55 lb)		
Dimensions	$W \times H \times D$	130 × 336 × 325 mm (5.12 × 13.23 × 12.80 in)		

1) The system and output currents must be reduced by 20 % from the nominal values for  $V_{in} = 3 \times 500$  V<sub>AC</sub>.

2) MDF and MDV units in VFC operating modes: The performance data apply to  $f_{PWM} = 4$  kHz (factory setting).

MDF60A standard type (VFC)	0055-5A3-4-00	0075-5A3-4-00	0110-5A3-4-00
Part number	826 468 6	826 470 8	826 472 4
MDF60A technology type (VFC)	0055-5A3-4-0T	0075-5A3-4-0T	0110-5A3-4-0T
Part number	827 326 X	827 327 8	827 328 6
 Constant load Rec. motor power $P_{Mot}$	5.5 kW (7.5 HP)	7.5 kW (10 HP)	11 kW (15 HP)
 Variable torque load or constant load without overload Rec. motor power $P_{Mot}$	7.5 kW (10 HP)	11 kW (15 HP)	15 kW (20 HP)
Continuous output current = 125 % $I_N I_D$ (at $V_{in} = 3 \times 400$ V <sub>AC</sub> and $f_{PWM} = 4$ kHz)	15.6 A <sub>AC</sub>	20.0 A <sub>AC</sub>	30.0 A <sub>AC</sub>

MDV60A standard type (VFC/CFC)	0055-5A3-4-00	0075-5A3-4-00	0110-5A3-4-00
Part number	826 485 6	826 487 2	826 489 9
MDV60A technology type (VFC/CFC)	0055-5A3-4-0T	0075-5A3-4-0T	0110-5A3-4-0T
Part number	827 340 5	827 341 3	827 342 1
VFC operating mode	Recommended motor power → MDF60A		
CFC operating mode			
Continuous output current = 100 % $I_N I_D$	12.5 A <sub>AC</sub>	16 A <sub>AC</sub>	24 A <sub>AC</sub>
Recommended motor power	→ System Manual, Sec. Project Planning, CFC motor selection		

MDS60A standard type (SERVO)	0055-5A3-4-00	0075-5A3-4-00	0110-5A3-4-00
Part number	826 502 X	826 504 6	826 506 2
MDS60A technology type (SERVO)	0055-5A3-4-0T	0075-5A3-4-0T	0110-5A3-4-0T
Part number	827 354 5	827 355 3	827 356 1
Continuous output current = 100 % $I_N I_D$	12.5 A <sub>AC</sub>	16 A <sub>AC</sub>	24 A <sub>AC</sub>
Recommended motor power	→ System Manual, Sec. Project Planning, SERVO motor selection		