



Uninterruptible Motor drive type UMD C100

Rated Power 2,2 - 30kW @ 3x400V_{AC}

The UMD C100 is a complete system for uninterruptible motor drive for three phase AC-motors. For applications where high availability is required, e.g. oil pumps, fans, sluice gates etc.

Mains and battery supplied

Secures operation of AC-motors in critical processes from both the mains and battery supply.

Uninterruptible operation

Transition without interruption between mains and battery supply at full power. Quicker start up compared to a DC motor.

Energy saving

Based on frequency converters with speed control saves energy and battery capacity.

Compact and robust

Designed for easy installation with minimal space requirements in any environment, wall mounted up to 7.5kW and in floor cabinet up to 30kW

High availability

UMD C100 with an AC motor increases system availability and reduces maintenance cost compared to additional standby systems with starter and DC motors.

Operator Friendly

Simple setting and distinct indication of operation mode with advanced control panel.

Uninterruptable motor drive - C100

General

UMD C100 is intended together with an external DC system to provide uninterruptible motor drive. Typical applications are pumps and fans. UMD C100 is made in two designs depending on the DC systems voltage: 110/125VDC or 220VDC.

Enclosure

Type: Wall or floor cabinet
 Cable entrance (wall): from bottom
 Cable entrance (floor): from bottom or above
 Size: Se table
 Color: RAL 7035 light grey
 IP-enclosure: IP21
 Ventilation: Natural (fans in drive and DC/DC modules)

Environment

Ambient temperature: Operation, 0 to +40 °C
 Storage, -40 to +70 °C
 Humidity: < 90 % RH, non-condensed
 Altitude a.s.l.: < 1000 m, ≤2000 m by derating

Input DC

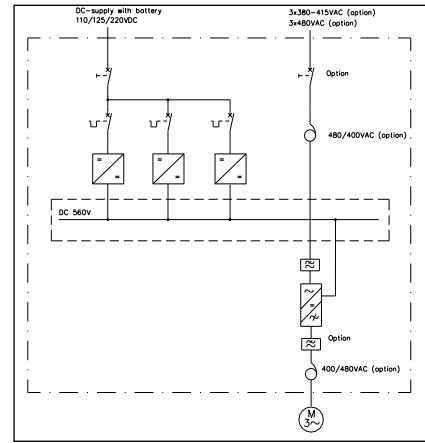
Input voltage: 110V_{DC}, -15%
 125 V_{DC}, +16%
 220V_{DC}, ±15%
 Connection: Terminal block
 Other: See table 1 & 2

Input AC (Option)

Input voltage: 3x380/480V_{AC}, +10%/-15%
 Frequency: 45 – 65 Hz
 Power factor: > 0.95 at 3x400 V_{AC}, full load
 Connection: Terminal block
 Other: See table 1 & 2



Operator's control panel



Single line diagram UMD C100

Output AC

Type: Frequency converter
 Output voltage, nominal: 3x380/480V_{AC}, +10%/-15%
 Connection: Terminal block
 Other: See table 1 & 2

Disconnect switch

DC switch: In cabinet
 AC switch: In cabinet (AC-option)

Standards

Safety: EN 50178:1997
 EMC, immunity: EN/EC 61800-3:2004
 EMC, emission: EN/EC 61800-3:2004
 Battery installations: EN 50272-2

Operator interface

Control signals: Start signal
 External error
 Ready
 Running
 Error
 External indication: Door mounted control panel
 Local control: Door mounted control panel
 Local indication: Door mounted control panel

Options

AC supply
 Thermistor relay
 Control of stand still heater
 Bus communication: PROFIBUS, CANopen, DeviceNet, EtherNet/IP, ModBus/TC

IP-enclosure

Temperature: IP43-IP54 (floor cabinet)
 0-50°C by derating

Commissioning

Extended approval: UL (USA)
 CSA (Canada)

Output data 3x400V _{AC}		Input data DC		Input data AC (option)	Size	Weight
Motor power	Current	Current	Current	Rated current***	HxWxD	
		-110	-220		(1)wall, (2)floor	
(kW)	(A)	(A)*	(A)**	(A)	(mm)	(kg)
2,2	5	33	17	7,8	1120x400x400 (1)	37
3	7	48	24	9,8	1120x400x400 (1)	37
4	8,7	60	30	12	1120x400x400 (1)	37
5,5	12	84	42	15	1120x400x400 (1)	44
7,5	16	114	57	20	1120x400x400 (1)	44
11	24	170	85	20	2100x700x600 (2)	210
15	31	224	112	27	2100x700x600 (2)	220
18,5	40	289	145	33	2100x700x600 (2)	225
22	46	336	168	39	2100x700x600 (2)	230
30	54,7	395	198	55	2100x700x600 (2)	250

*Max @ 93,5V_{DC} ** Max @ 187V_{DC} ***@ 3x400V_{AC}

Table 1, Rated power and cabinet size for 3x400V_{AC} motor drive.

Output data 3x480V _{AC}		Input data DC		Input data AC (option)	Size	Weight
Motor power	Current	Current	Current	Rated current***	HxWxD	
		-110	-220		(1) wall, (2) floor	
(kW/Hp)	(A)	(A)*	(A)**	(A)	(mm)	(kg)
2,2/3	4,4	46	23	7	2100x700x600 (2)	220
3,7/5	7,5	71	36	11	2100x700x600 (2)	250
5,5/7,5	10	96	48	15	2100x700x600 (2)	270
7,5/10	15	140	70	22	2100x700x600 (2)	310
11/15	19,5	177	89	28	2100x700x600 (2)	330
15/20	25	229	115	36	2100x700x600 (2)	370
18,5/25	32	283	142	44	2100x700x600 (2)	400
22/30	37	330	165	51	2100x700x600 (2)	420
30/40	55	443	221	67	2100x1500x600 (2)	680

*Max @ 93,5V_{DC} ** Max @ 187V_{DC} ***@ 3x480V_{AC}

Table 2, Rated power and cabinet size for 3x480V_{AC} motor drive.



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