



# ITT

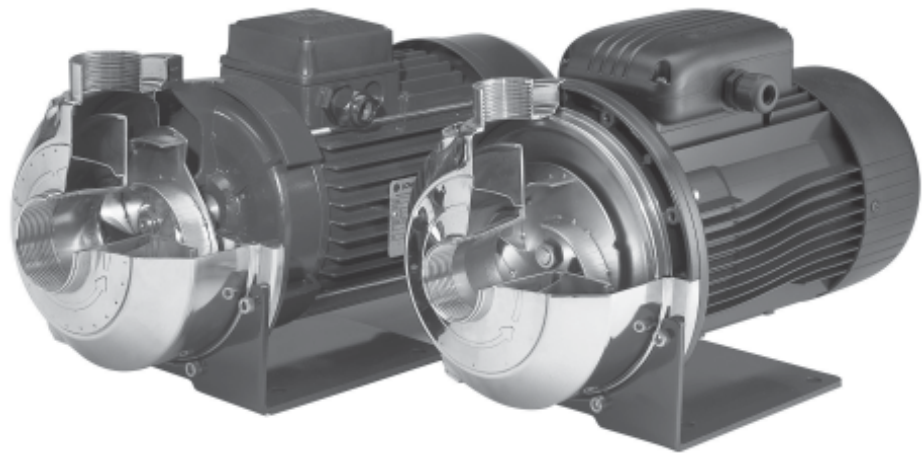
Lowara

Update - New IE2 motors

## CO Series

Centrifugal pumps  
with open impeller

**60 Hz**



*Engineered for life*

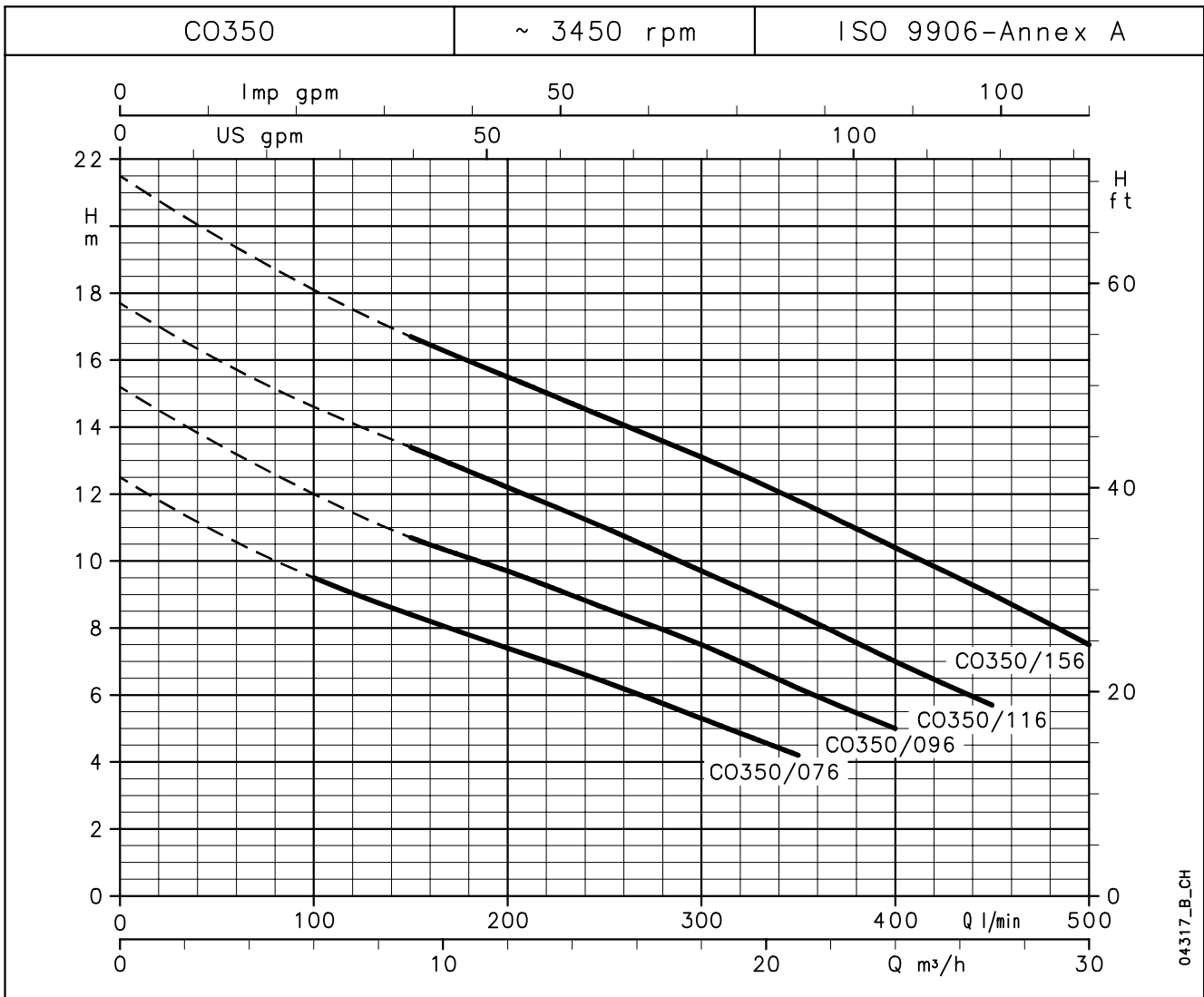
WEB 07-2011



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# Lowara

## CO 350 SERIES OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



### HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = DELIVERY									
			l/min 0	100	150	200	250	300	350	400	450	500
			m³/h 0	6	9	12	15	18	21	24	27	30
		H = TOTAL HEAD METRES COLUMN OF WATER										
	kW	HP										
CO(M) 350/076	0,75	1	12,5	9,5	8,4	7,4	6,4	5,3	4,2	-	-	-
CO(M) 350/096	0,9	1,2	15,2	-	10,7	9,7	8,6	7,5	6,2	5	-	-
CO(M) 350/116	1,1	1,5	17,7	-	13,4	12,2	11,0	9,7	8,4	7	5,7	-
CO(M) 350/156	1,5	2	21,5	-	16,7	15,5	14,3	13,1	11,8	10,4	9	7,5

### ELECTRICAL DATA AT 60 Hz, 2 POLES

co350-2p60-en\_a\_th

PUMP TYPE	MOTOR TYPE	INPUT POWER*	INPUT CURRENT* 220-230 V	CAPACIT.* µF / 450 V	PUMP TYPE	MOTOR TYPE	INPUT POWER*	INPUT CURRENT* 220-230 V	INPUT CURRENT* 380-400 V
		kW	A				kW	A	A
COM350/076	SM71BG/1076	1,01	4,62	20	CO350/076	SM80BG/307HE	0,98	3,21	1,85
COM350/096	SM71BG/1096	1,23	5,57	25	CO350/096	SM80BG/311HE	1,15	3,77	2,18
COM350/116	SM80BG/1116	1,53	7,09	30	CO350/116	SM80BG/311HE	1,44	4,48	2,58
COM350/156	SM80BG/1156	2,00	9,29	40	CO350/156	PLM90BG/315	1,77	5,37	3,1

\*Maximum value in specified range

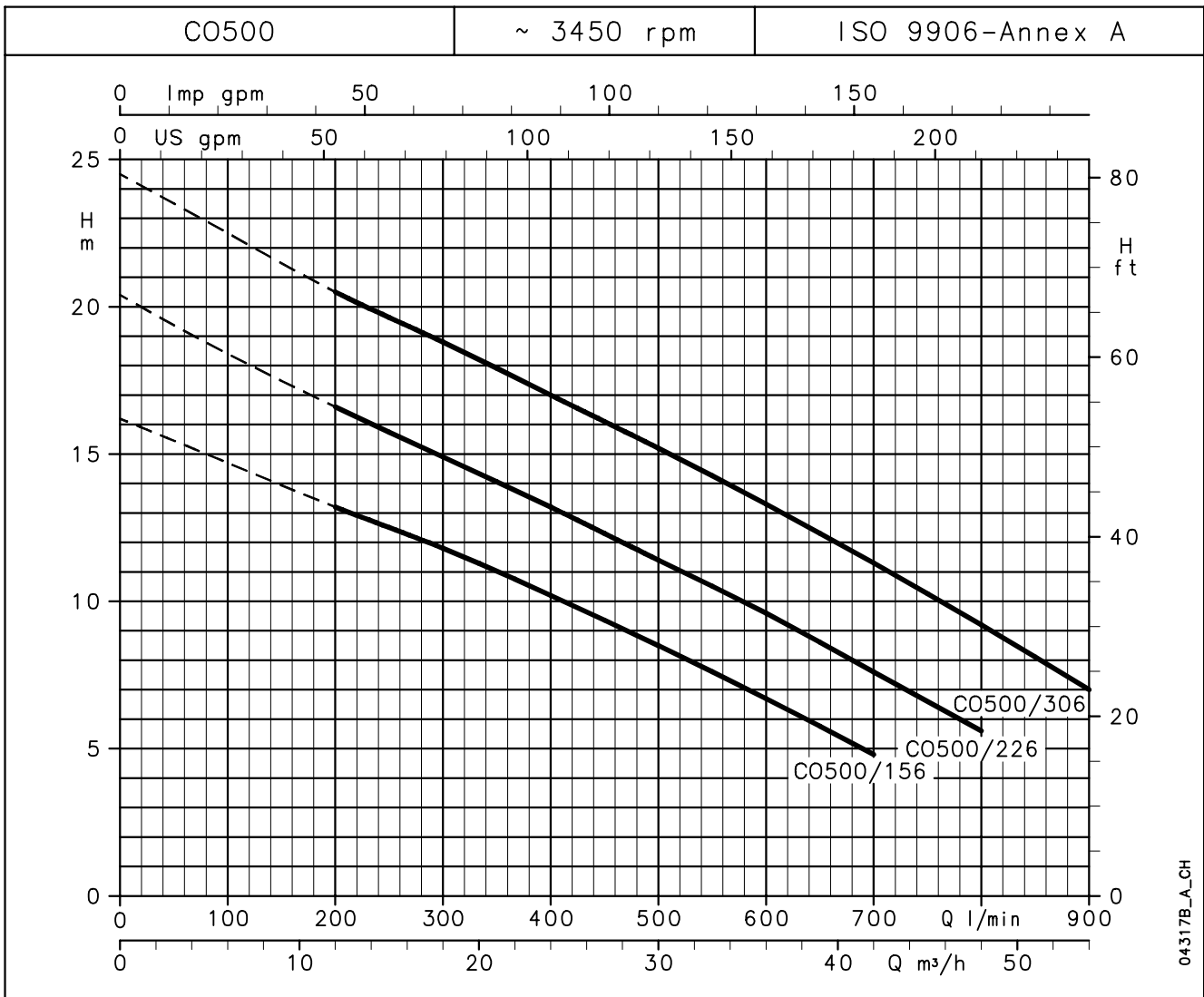
co350-2p60-en\_c\_te



# ITT

# Lowara

## CO 500 SERIES OPERATING CHARACTERISTICS AT 60 Hz, 2 POLES



### HYDRAULIC PERFORMANCE TABLE AT 60 Hz, 2 POLES

PUMP TYPE	RATED POWER		Q = DELIVERY									
			l/min 0	200	250	300	400	500	600	700	800	900
			m <sup>3</sup> /h 0	12	15	18	24	30	36	42	48	54
			H = TOTAL HEAD METRES COLUMN OF WATER									
CO(M) 500/156	1,5	2	16,2	13,2	12,5	11,8	10,2	8,5	6,7	4,8	-	-
CO(M) 500/226	2,2	3	20,4	16,6	15,7	14,9	13,2	11,4	9,6	7,6	5,6	-
CO 500/306	3	4	24,5	20,5	19,6	18,8	17	15,2	13,3	11,3	9,2	7

### ELECTRICAL DATA AT 60 Hz, 2 POLES

co500-2p60-en\_a\_th

PUMP TYPE	MOTOR TYPE	INPUT POWER*	INPUT CURRENT* 220-230 V	CAPACIT. μF / 450 V	PUMP TYPE	MOTOR TYPE	INPUT POWER*	INPUT CURRENT* 220-230 V	INPUT CURRENT* 380-400 V
COM500/156	SM80BG/1156	2,04	9,45	40	CO 500/156	PLM90BG/315	1,81	5,49	3,17
COM500/226	PLM90BG/1226	2,61	12,2	60	CO 500/226	PLM90BG/322	2,63	8,28	4,78
-	-	-	-	-	CO 500/306	PLM90BG/330	3,47	10,8	6,22

\*Maximum value in specified range

co500-2p60-en\_c\_te

**MOTORS FOR CO SERIES**

**Standard supplied IE2 three-phase surface motors  $\geq 0,75$  kW are compliant with Regulation (EC) no. 640/2009 and IEC 60034-30.**

Electrical performances according to EN 60034-1.

Insulation class 155 (F). IP55 protection. Condensate drain plugs on standard version.

Cooling by fan according to EN 60034-6.

Cable gland metric size according to EN 50262. Standard voltage:

- **Single-phase** version: 220-230 V 60 Hz (incorporated automatic-reset overload protection).
- **Three-phase** version : 220 V  $\Delta$ , 380 V Y, 60 Hz (overload protection to be provided by the user).

**SINGLE-PHASE MOTORS AT 60 Hz, 2 POLES**

P <sub>N</sub> kW	MOTOR TYPE	IEC SIZE	Construction Design	INPUT CURRENT I <sub>N</sub> (A)	CAPACITOR		DATA FOR 220 V 50 Hz VOLTAGE						
					$\mu$ F	V	min <sup>-1</sup>	I <sub>s</sub> / I <sub>N</sub>	$\eta$ %	cos $\phi$	T <sub>n</sub> Nm	T <sub>s</sub> /T <sub>n</sub>	T <sub>m</sub> /T <sub>n</sub>
0,75	SM71BG/1076	71	SPECIAL	4,98-4,88	20	450	3380	3,90	69,8	0,98	2,12	0,64	1,91
0,9	SM71BG/1096	71		6,04-5,96	25	450	3370	3,80	72,9	0,98	2,69	0,58	1,86
1,1	SM80BG/1116	80		6,94-6,89	30	450	3435	4,54	74,2	0,97	3,06	0,62	2,03
1,5	SM80BG/1156	80		9,28-9,35	40	450	3455	4,91	76,3	0,96	4,14	0,49	2,19
2,2	PLM90BG/1226	90		12,3-11,7	60	450	3455	4,99	83,4	0,98	6,08	0,54	2,06

co-motm-2p60-en\_a\_te

**THREE-PHASE MOTORS AT 60 Hz, 2 POLES**

P <sub>N</sub> kW	Efficiency $\eta_N$ %												IE	Year of construction
	$\Delta$ 220 V Y 380 V			$\Delta$ 230 V Y 400 V			$\Delta$ 380 V Y 660 V			$\Delta$ 400 V Y 690 V				
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4		
0,75	75,5	75,0	70,0	75,5	75,0	70,0	75,5	75,0	70,0	75,5	75,0	70,0	2	By June 2011
0,9	82,8	80,9	76,0	82,8	80,9	76,0	82,8	80,9	76,0	82,8	80,9	76,0		
1,1	82,8	80,9	76,0	82,8	80,9	76,0	82,8	80,9	76,0	82,8	80,9	76,0		
1,5	84,0	84,0	83,3	84,0	84,0	83,3	84,0	84,0	83,3	84,0	84,0	83,3		
2,2	85,5	85,5	84,5	85,5	85,5	84,5	85,5	85,5	84,5	85,5	85,5	84,5		
3	87,8	88,0	86,0	87,8	88,0	86,0	87,8	88,0	86,0	87,8	88,0	86,0		

P <sub>N</sub> kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f <sub>N</sub> Hz	Data for 380 V / 60 Hz				
	Lowara srl Unipersonale Reg. No. 341820260 Montecchio Maggiore Vicenza - Italia						cos $\phi$	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> /T <sub>N</sub>	T <sub>m</sub> /T <sub>N</sub>
	Model										
0,75	SM80BG /307 HE		80	SPECIAL	2	60	0,80	9,44	2,05	4,96	4,49
0,9	SM80BG /311 HE		80				0,83	9,79	3,01	4,88	4,39
1,1	SM80BG /311 HE		80				0,83	9,79	3,01	4,88	4,39
1,5	PLM90BG /315		90				0,86	8,86	4,10	3,24	3,48
2,2	PLM90BG /322		90				0,83	9,59	6,00	3,80	4,02
3	PLM90BG /330		90				0,84	9,12	8,22	3,52	3,65

P <sub>N</sub> kW	Voltage U <sub>N</sub> V								n <sub>N</sub> min <sup>-1</sup>	See note.	Operating conditions **		
	$\Delta$		Y		$\Delta$		Y				Altitude above sea Level (m)	T. amb min/max °C	ATEX
	220 V	230 V	380 V	400 V	380 V	400 V	660 V	690 V					
	I <sub>N</sub> (A)												
0,75	3,23	3,21	1,86	1,85	1,86	1,85	1,07	1,07	3495 ÷ 3505	1000	-15 / 40	No	
0,9	4,30	4,24	2,48	2,45	2,48	2,46	1,43	1,42	3490 ÷ 3500				
1,1	4,30	4,24	2,48	2,45	2,48	2,46	1,43	1,42	3490 ÷ 3500				
1,5	5,21	5,08	3,01	2,93	3,00	2,94	1,73	1,70	3490 ÷ 3505				
2,2	8,14	8,12	4,70	4,69	4,69	4,68	2,71	2,70	3495 ÷ 3505				
3	10,7	10,5	6,19	6,06	6,20	6,11	3,58	3,53	3480 ÷ 3495				

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

co-ie2-mott-2p60-en\_a\_te

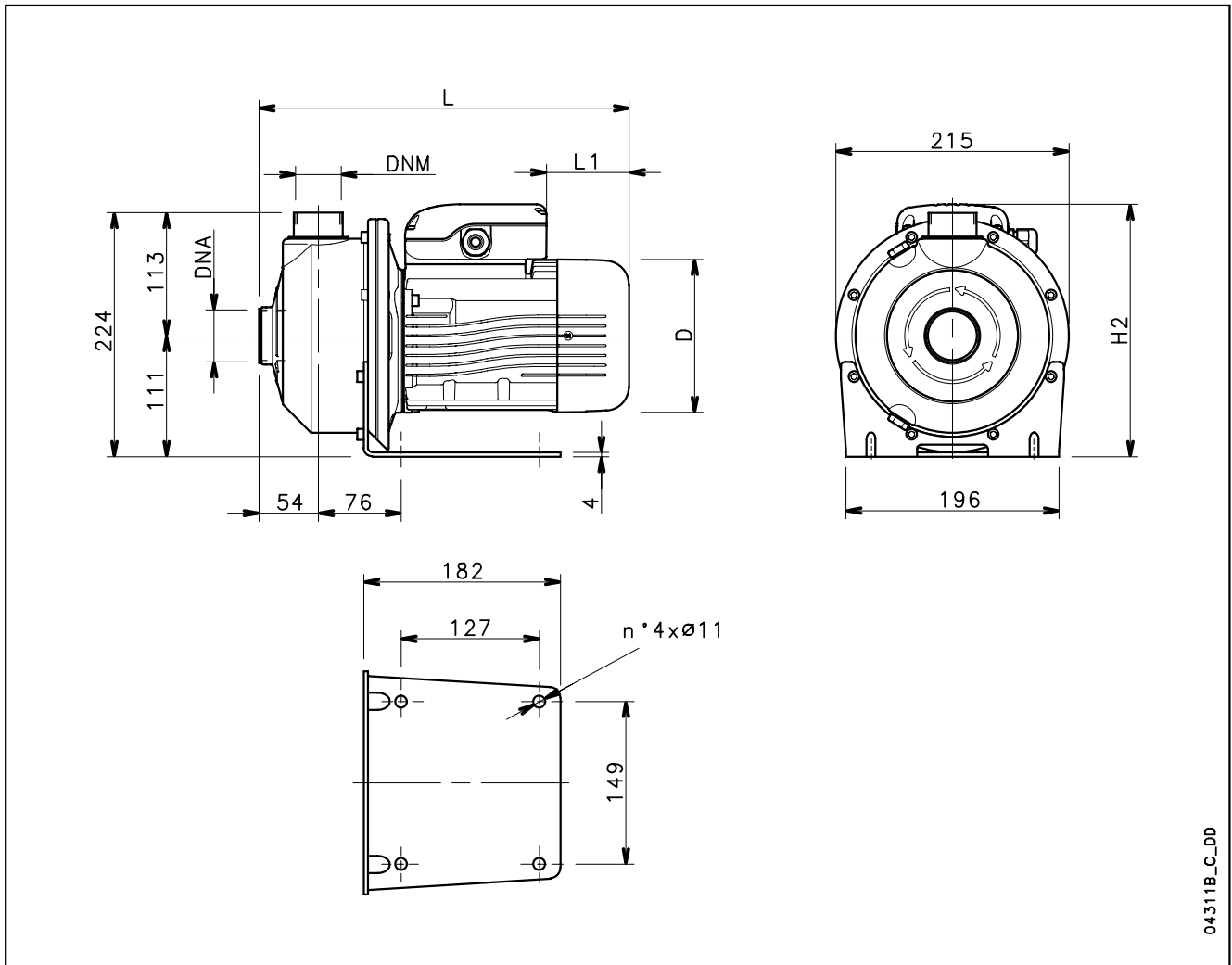
\*\* Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.



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## CO SERIES DIMENSIONS AND WEIGHTS AT 60 Hz, 2 POLES



04311B\_C\_DD

PUMP TYPE	DIMENSIONS (mm)				DNA	DNM	WEIGHT kg
	D	H2	L	L1			
COM 350/076	140	232	339	76	Rp 1½	Rp 1¼	12,6
COM 350/096	140	241	339	31	Rp 1½	Rp 1¼	13,2
COM 350/116	155	248	385	69	Rp 1½	Rp 1¼	14,5
COM 350/156	155	248	385	69	Rp 1½	Rp 1¼	16,2
COM 500/156	155	248	385	69	Rp 2	Rp 1½	16,2
COM 500/226	174	262	430	84	Rp 2	Rp 1½	17,8
CO 350/076	155	240	385	114	Rp 1½	Rp 1¼	15,8
CO 350/096	155	240	385	114	Rp 1½	Rp 1¼	15,8
CO 350/116	155	240	385	114	Rp 1½	Rp 1¼	17,5
CO 350/156	174	245	430	172	Rp 1½	Rp 1¼	21
CO 500/156	174	245	430	172	Rp 2	Rp 1½	21
CO 500/226	174	245	430	172	Rp 2	Rp 1½	23
CO 500/306	174	245	430	172	Rp 2	Rp 1½	23

co-2p60-en\_c\_td



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