

Standardised “EN 733” centrifugal pumps

 Clean water

 Industrial use



PERFORMANCE RANGE

- Flow rate up to **3000 l/min** (180 m³/h)
- Head up to **24 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. pressure in pump body **10 bar** (PN10)
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



Pump body dimensions in compliance with **EN 733**

EU REGULATION N. 547/2012

INSTALLATION AND USE

- Water supply
- Pressure boosting
- Irrigation
- Water circulation in air-conditioning units
- Cleaning sets
- Firefighting sets
- Industrial applications
- Agricultural applications

Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

OPTIONS AVAILABLE ON REQUEST

- Counter flange KIT complete with bolts, nuts and washers
- Other voltages or 60 Hz frequency
- Compatibility with hotter or colder liquids
- Compatibility with hotter or colder environments

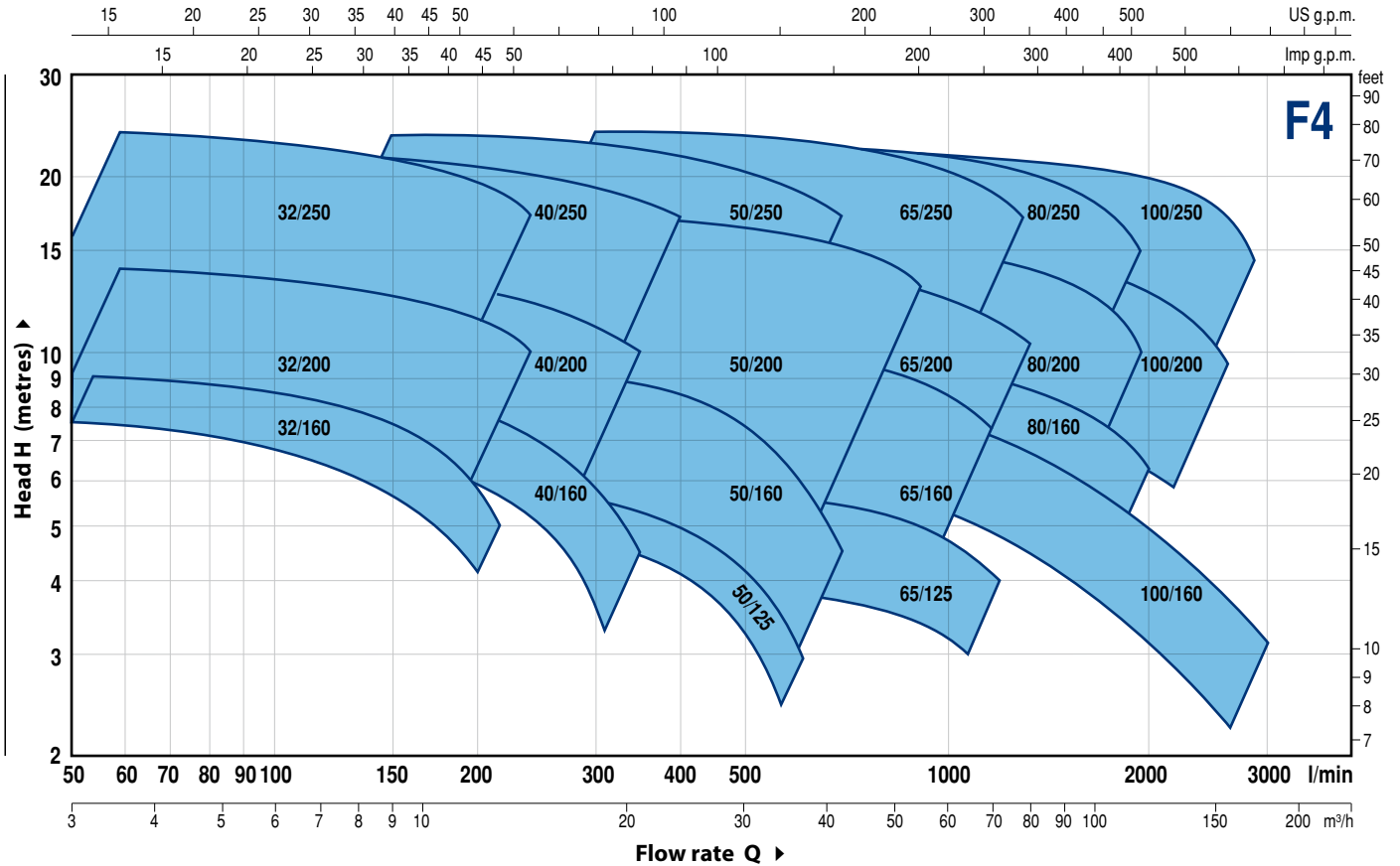
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY



PERFORMANCE RANGE

50 Hz n = 1450 min⁻¹



PERFORMANCE DATA

50 Hz n = 1450 min⁻¹

MODEL	POWER (P ₂)			PERFORMANCE	
	Three-phase	kW	HP ▲	Q l/min	H metres
F4-32/160B	0.37	0.5	IE2	50 – 200	7.5 – 4.5
F4-32/160A	0.37	0.5		50 – 225	9 – 5
F4-32/200B	0.75	1	IE3	50 – 250	12.5 – 9
F4-32/200A	1.1	1.5		50 – 250	14 – 10.5
F4-32/200BH	0.75	1	IE3	50 – 150	11.3 – 9.2
F4-32/200AH	0.75	1		50 – 160	13.8 – 11
F4-32/250C	1.1	1.5	IE3	50 – 220	18.4 – 15
F4-32/250B	1.5	2		50 – 250	21.7 – 17.4
F4-32/250A	2.2	3		50 – 270	23.8 – 18.7
F4-40/160B	0.37	0.5	IE2	50 – 320	7.5 – 3.5
F4-40/160A	0.55	0.75		50 – 350	9 – 4.5
F4-40/200B	0.75	1	IE3	50 – 350	11.5 – 7
F4-40/200A	1.1	1.5		50 – 350	13.8 – 10
F4-40/250C	1.1	1.5	IE3	50 – 400	15.5 – 10
F4-40/250B	1.5	2		50 – 400	17.5 – 12
F4-40/250A	2.2	3		50 – 400	22 – 17
F4-50/125B	0.55	0.75	IE2	150 – 600	5 – 2
F4-50/125A	0.55	0.75		150 – 600	6 – 3
F4-50/160B	0.75	1	IE3	150 – 650	8 – 3.8
F4-50/160A	1.1	1.5		150 – 700	9.3 – 4.5
F4-50/200C	1.5	2	IE3	200 – 850	11 – 7.5
F4-50/200B	2.2	3		200 – 850	13 – 9.5
F4-50/200A	2.2	3		200 – 900	15 – 11.2
F4-50/200AR	3	4	IE3	200 – 900	17 – 13.2
F4-50/250D	1.1	1.5		150 – 650	12.5 – 5
F4-50/250C	1.5	2		150 – 700	14 – 5
F4-50/250B	2.2	3	IE3	150 – 700	18 – 10.5
F4-50/250A	2.2	3		150 – 700	20 – 13
F4-50/250AR	3	4		150 – 700	23.5 – 17

MODEL	POWER (P ₂)			PERFORMANCE	
	Three-phase	kW	HP ▲	Q l/min	H metres
F4-65/125B	0.75	1	IE3	300 – 1100	4.7 – 3
F4-65/125A	1.1	1.5		300 – 1200	5.7 – 4
F4-65/160C	1.1	1.5	IE3	300 – 1100	7.5 – 5.5
F4-65/160B	1.5	2		300 – 1200	9.1 – 5.7
F4-65/160A	2.2	3	IE3	300 – 1200	10.1 – 7
F4-65/200A	2.2	3		300 – 1250	12 – 8.5
F4-65/200AR	3	4	IE3	300 – 1300	14 – 10
F4-65/250B	4	5.5		200 – 1250	21.8 – 15.5
F4-65/250A	5.5	7.5	IE3	200 – 1300	23.5 – 17
F4-80/160D	1.5	2		300 – 2000	6.3 – 2.5
F4-80/160C	2.2	3	IE3	300 – 2000	7.5 – 3.8
F4-80/160B	2.2	3		300 – 2000	8.8 – 5
F4-80/160A	3	4	IE3	300 – 2000	10 – 6.2
F4-80/200B	4	5.5		300 – 1800	14 – 9
F4-80/200A	5.5	7.5	IE3	300 – 1900	15.5 – 10.5
F4-80/250B	5.5	7.5		300 – 1800	19.5 – 13.5
F4-80/250A	7.5	10	IE3	300 – 1950	22 – 15
F4-100/160B	2.2	3		400 – 2600	8.3 – 3.5
F4-100/160A	3	4	IE3	400 – 2800	10 – 4.7
F4-100/200C	4	5.5		400 – 2300	12.7 – 7
F4-100/200B	5.5	7.5	IE3	400 – 2400	14.2 – 8.5
F4-100/200A	5.5	7.5		400 – 2600	15.8 – 9.5
F4-100/250B	7.5	10	IE3	400 – 2600	18.5 – 11.5
F4-100/250A	9.2	12.5		400 – 2900	22 – 13.5

Q = Flow rate

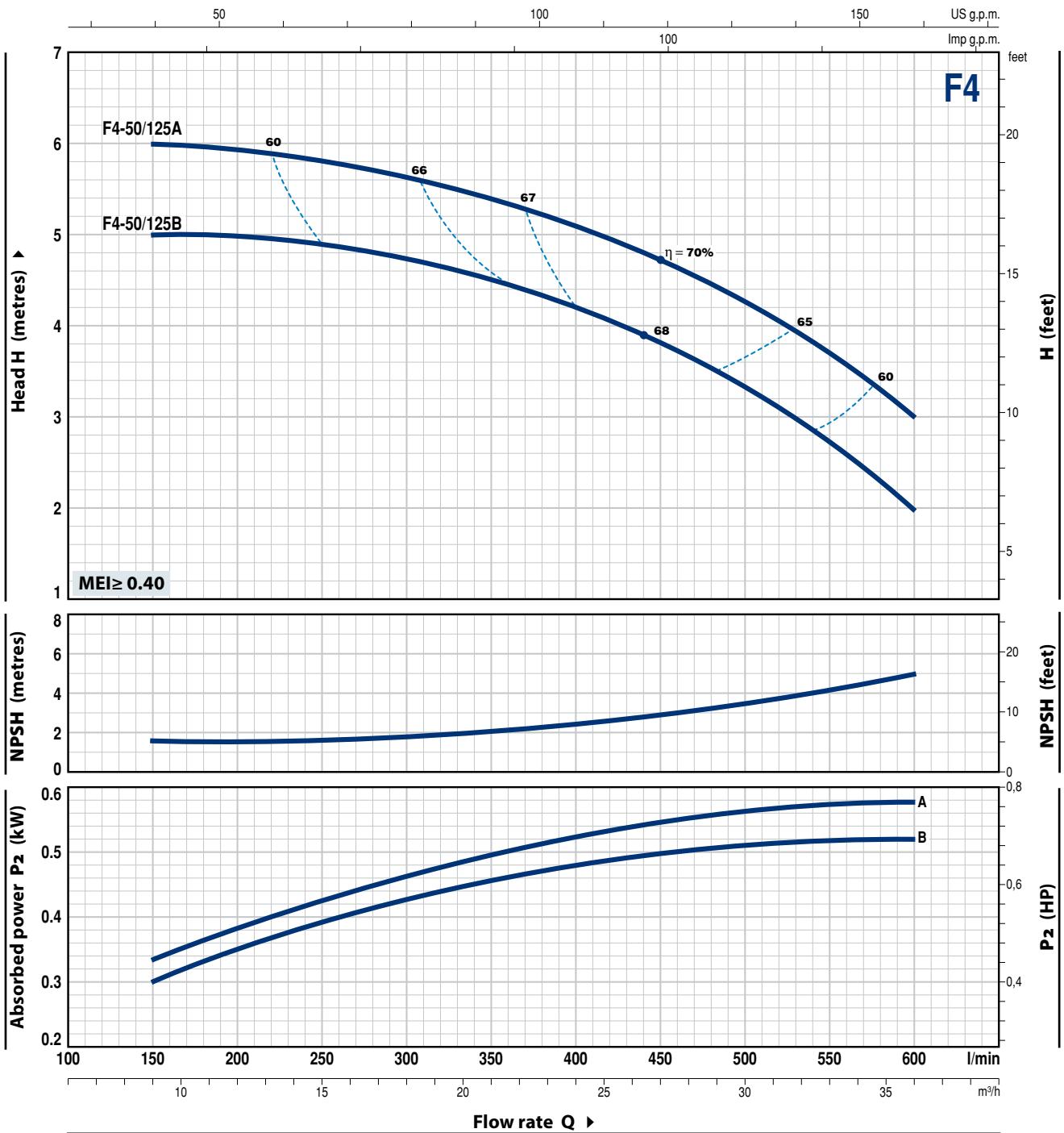
H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 1450 min⁻¹ HS = 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	9	12	15	17	21	24	27	30	33	36	
Three-phase			l/min	150	200	250	300	350	400	450	500	550	600		
F4-50/125B	0.55	0.75	H metres	5	5	4.9	4.7	4.5	4.2	3.8	3.3	2.7	2		
F4-50/125A	0.55	0.75		6	5.9	5.8	5.6	5.4	5.1	4.7	4.2	3.7	3		

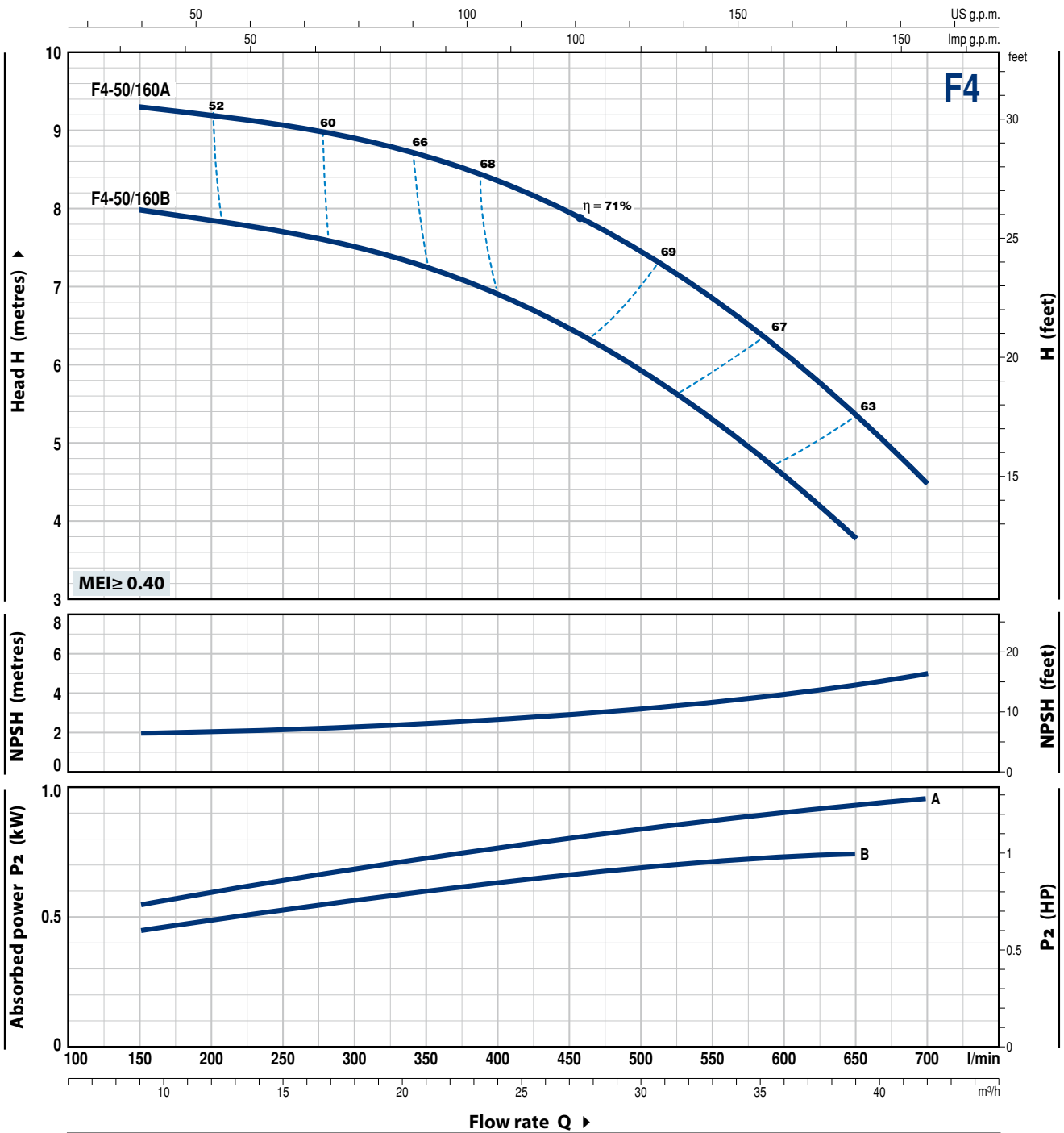
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-50/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 1450 min⁻¹ HS = 0 m



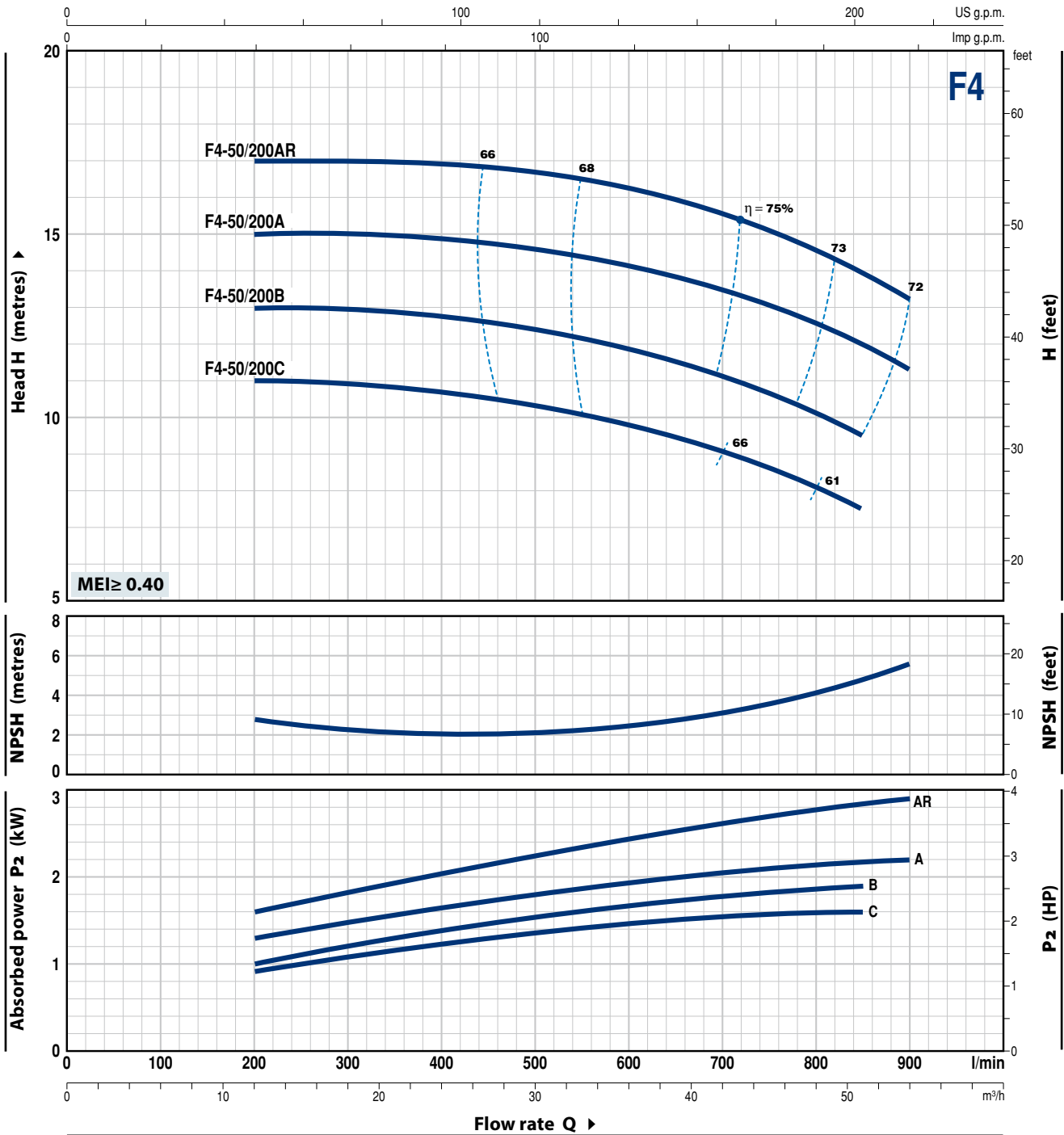
MODEL	POWER (P ₂)		Q	Flow rate													
	kW	HP		m ³ /h	9	12	15	17	21	24	27	30	33	36	39	42	
Three-phase			l/min	150	200	250	300	350	400	450	500	550	600	650	700		
F4-50/160B	0.75	1	H metres	8	7.8	7.7	7.5	7.2	6.9	6.5	5.9	5.3	4.6	3.8			
F4-50/160A	1.1	1.5		9.3	9.2	9.1	8.9	8.7	8.4	8	7.4	6.8	6.2	5.4	4.5		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 1450 min⁻¹ HS = 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	12	17	24	30	36	42	48	51	54		
Three-phase			l/min	200	300	400	500	600	700	800	850	900			
F4-50/200C	1.5	2	H metres	11	11	10.8	10.3	9.8	9	8	7.5				
F4-50/200B	2.2	3		13	13	12.8	12.4	11.9	11.1	10.1	9.5				
F4-50/200A	2.2	3		15	15	14.9	14.6	14.1	13.5	12.5	12	11.2			
F4-50/200AR	3	4		17	17	16.9	16.7	16.2	15.5	14.5	14	13.2			

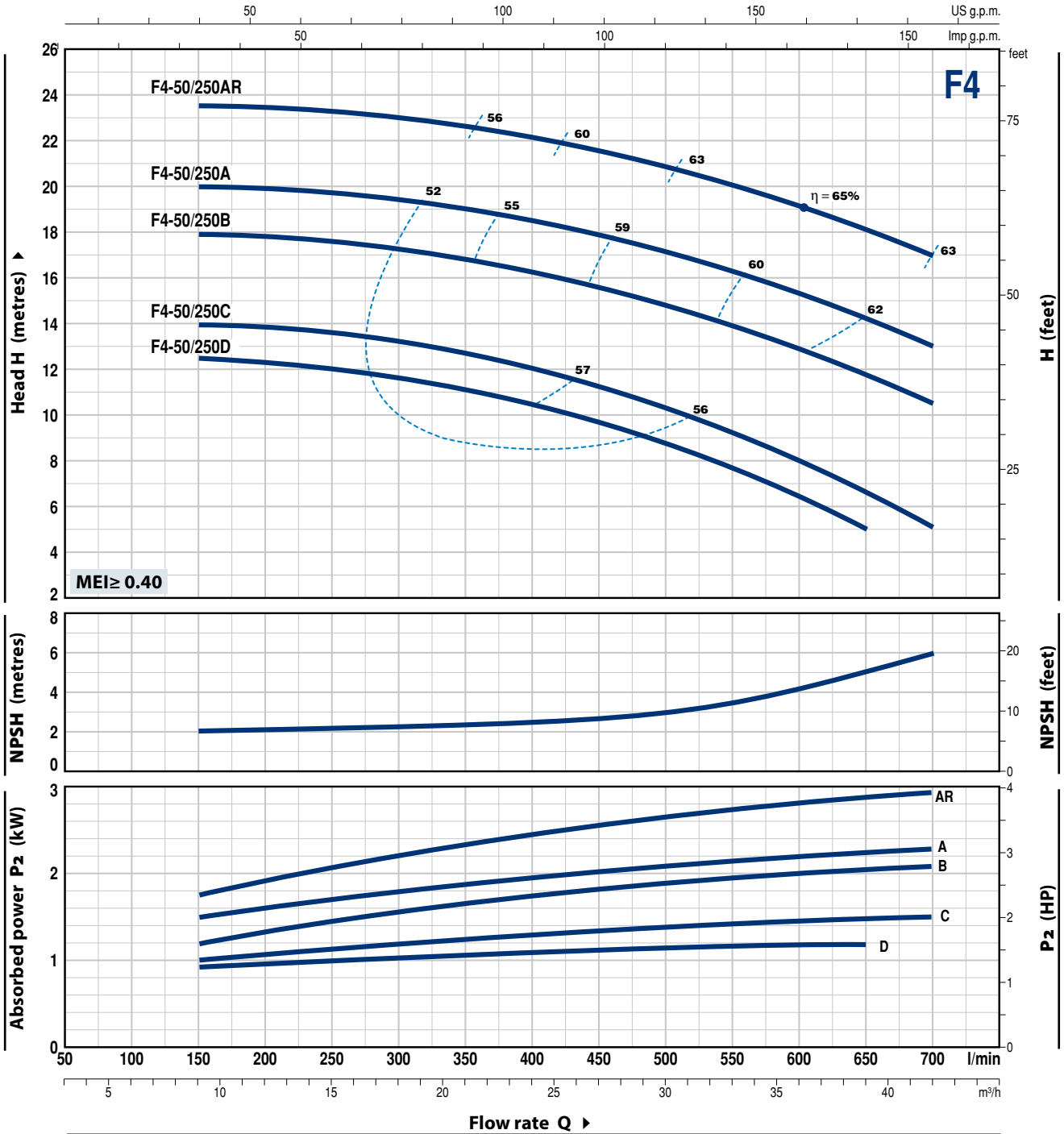
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-50/250

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 1450 min⁻¹ HS = 0 m



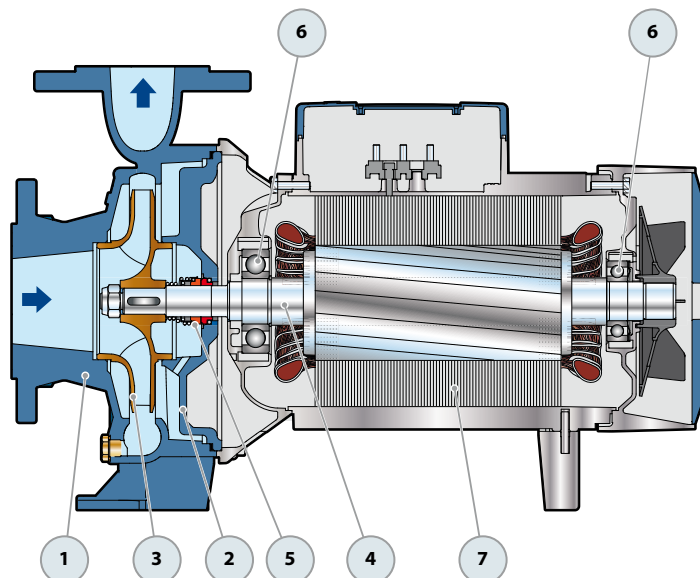
MODEL	POWER (P ₂)		Q	Flow rate													
	kW	HP		m ³ /h	9	12	15	18	21	24	27	30	33	36	39	42	
Three-phase			l/min	150	200	250	300	350	400	450	500	550	600	650	700		
F4-50/250D	1.1	1.5	H metres	12.5	12.3	12	11.5	11.1	10.5	9.8	8.8	7.8	6.5	5			
F4-50/250C	1.5	2		14	13.9	13.6	13.2	12.8	12	11.2	10.2	9.2	8	6.6	5		
F4-50/250B	2.2	3		18	17.9	17.6	17.2	16.8	16.2	15.5	14.8	14	13	11.8	10.5		
F4-50/250A	2.2	3		20	19.9	19.7	19.5	19	18.5	18	17.2	16.2	15.3	14.2	13		
F4-50/250AR	3	4		23.5	23.4	23.2	23	22.6	22.1	21.6	21	20	19	18	17		

Q = Flow rate H = Total manometric head HS = Suction height

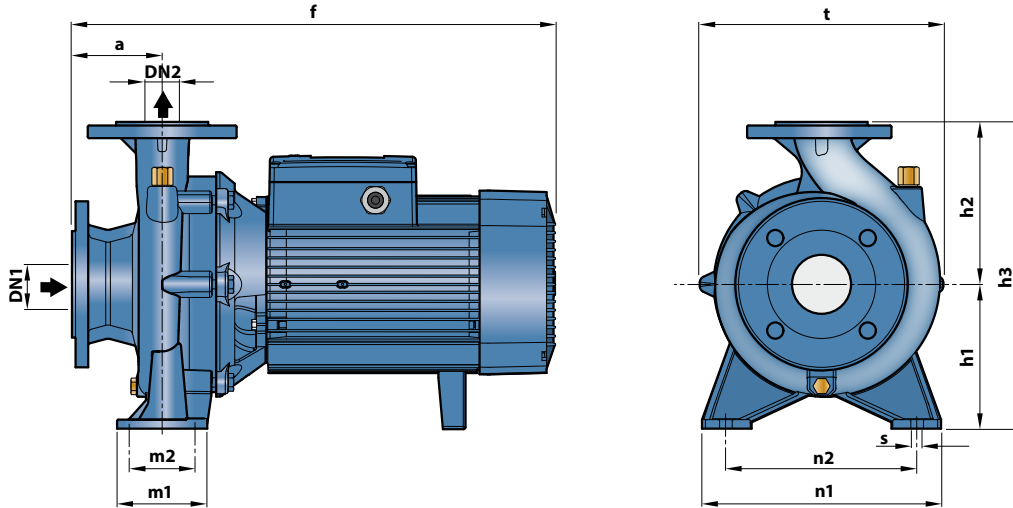
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron, complete with flanged suction and delivery ports					
2 BODY BACKPLATE	Cast iron					
3 IMPELLER	Brass for F4-32/160, 32/200, 40/160, 40/200, 50/125, 50/160					
4 MOTOR SHAFT	Stainless steel AISI 431					
5 MECHANICAL SEAL	Pump Model	Seal Model	Shaft Diameter	Stationary ring	Rotational ring	Elastomer
	F4-32/160 F4-40/160	F4-50/125	FN-20	Ø 20 mm	Graphite	Ceramic NBR
	F4-32/200 F4-40/200	F4-50/160 F4-65/125	FN-24	Ø 24 mm	Graphite	Ceramic NBR
	F4-50/200 F4-65/200 F4-65/160	F4-80/160 F4-100/160	FN-32 NU	Ø 32 mm	Graphite	Ceramic NBR
	F4-32/250 F4-40/250	F4-50/250	FN-38	Ø 38 mm	Graphite	Ceramic NBR
	F4-65/250 F4-80/200	F4-100/200	FN-40 NU	Ø 40 mm	Graphite	Ceramic NBR
	F4-80/250	F4-100/250	FH-45 NU	Ø 45 mm	Graphite	Ceramic NBR
6 BEARINGS	Pump Model	Model	Pump Model	Model		
	F4-32/160 F4-40/160 F4-50/125	6206 ZZ-C3 / 6204 ZZ	F4-32/250 F4-40/250 F4-50/200 F4-50/250 F4-65/160 F4-65/200 F4-80/160 F4-100/160	6208 ZZ-C3 / 6206 ZZ-C3		
	F4-32/200 F4-40/200 F4-50/160 F4-65/125	6307 ZZ-C3 / 6206 ZZ-C3	F4-65/250 F4-80/200 F4-80/250 F4-100/200 F4-100/250	6310 ZZ-C3 / 6308 ZZ-C3		
7 ELECTRIC MOTOR	F4: with 4 poles three-phase 230/400 V - 50 Hz ➔ The three-phase pumps are fitted with high performance motors up to P₂=0.37 kW in class IE2 and from P₂=0.75 kW in class IE3 (IEC 60034-30-1) – Insulation: class F – Protection: IP 55					

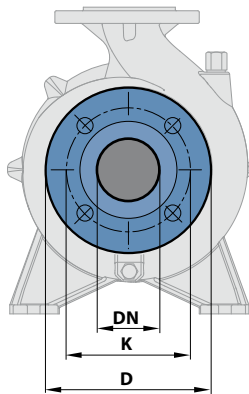


DIMENSIONS AND WEIGHT



MODEL	DIMENSIONS mm											kg									
	DN1	DN2	a	f	h3	h1	h2	t	n2	n1	m1		m2	s							
Three-phase																					
F4-32/160B	50	32	80	412	292	132	160	242	190	240	100	70	14	31.2							
F4-32/160A																	31.2				
F4-32/200B																		43.4			
F4-32/200A																		43.5			
F4-32/200BH					100	469	340	160	180	270				95		42.3					
F4-32/200AH																42.4					
F4-32/250C							522	405	180	225	330	250		320	125	95	64.1				
F4-32/250B							568										63.1				
F4-32/250A													68.7								
F4-40/160B	65	40	80	412	292	132	160	240	190	240	100	70	14	32.5							
F4-40/160A																	32.9				
F4-40/200B					100	489	340	160	180	275	212	265				46.0					
F4-40/200A																46.2					
F4-40/250C							522	405	180	225	328	250		320	125	95	59.7				
F4-40/250B							568										60.1				
F4-40/250A													72.4								
F4-50/125B	65	50	100	431	292	132	160	242	190	240	100	70	14	32.2							
F4-50/125A																		32.2			
F4-50/160B							489	340	160	180				269					44.4		
F4-50/160A							529												44.6		
F4-50/200C						576	360	160	200	316	212	265				59.2					
F4-50/200B																68.3					
F4-50/200A						576	360	160	200	316	212	265				68.5					
F4-50/200AR																68.8					
F4-50/250D						522										59.9					
F4-50/250C																63.3					
F4-50/250B						568	405	180	225	337	250	320		125	95	68.7					
F4-50/250A																69.1					
F4-50/250AR																78.0					
F4-65/125B			80	65	100	511	340	160	180	291	212	280		125	95	14	50.2				
F4-65/125A																				50.4	
F4-65/160C							533	360	160	200			300								55.0
F4-65/160B							579														58.7
F4-65/160A							582	405	180	225			340				250	320			65.0
F4-65/200A							582	405	180	225			340				250	320			72.0
F4-65/200AR															78.4						
F4-65/250B						627	450	200	250	373	280	360	160	120	18		111.2				
F4-65/250A															139.6						
F4-80/160D	100	80			125	565					280	360	125	95	14		65.8				
F4-80/160C																				67.3	
F4-80/160B							611	405	180	225						330	250	320			70.0
F4-80/160A							655	430	180	250						360	280	345			76.4
F4-80/200B						673	480	200	280	405	315	400	160	120		18	100.0				
F4-80/200A																130.2					
F4-80/250B																149.5					
F4-80/250A																137.6					
F4-100/160B	125	100	125	622				362	280	360	160	120	18	91.0							
F4-100/160A																				97.0	
F4-100/200C					140	657	480	200		391						122.0					
F4-100/200B																116.0					
F4-100/200A							694	505	225		422	315		400			124.1				
F4-100/250B							789										143.0				
F4-100/250A													159.3								

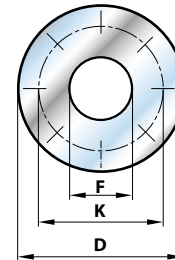
FLANGED PORTS



DN FLANGES mm	D mm	K mm	HOLES	
			N°	Ø (mm)
32	140	100	4	18
40	150	110		
50	165	125		
65	185	145		
80	200	160	8	
100	220	180		
125	250	210		

COUNTER FLANGES

(CAN BE ORDERED SEPARATELY)



DN FLANGES mm	F COUNTERFLANGES	D mm	K mm	HOLES	
				N°	Ø (mm)
32	1¼"	140	100	4	18
40	1½"	150	110		
50	2"	165	125		
65	2½"	185	145		
80	3"	200	160	8	
100	4"	220	180		
125	5"	250	210		

ABSORPTION

MODEL	VOLTAGE	
	230–240 V	400–415 V
Three-phase		
F4-32/160B	1.9 A	1.1 A
F4-32/160A	1.9 A	1.3 A
F4-32/200B	3.6 A	2.1 A
F4-32/200A	4.0 A	2.3 A
F4-32/200BH	3.3 A	1.9 A
F4-32/200AH	3.5 A	2.0 A
F4-32/250C	5.7 A	2.6 A
F4-32/250B	7.3 A	3.3 A
F4-32/250A	7.8 A	5.2 A
F4-40/160B	2.1 A	1.2 A
F4-40/160A	2.8 A	1.6 A
F4-40/200B	3.6 A	2.1 A
F4-40/200A	4.2 A	2.4 A
F4-40/250C	5.5 A	2.6 A
F4-40/250B	6.1 A	3.5 A
F4-40/250A	8.5 A	5.2 A
F4-50/125B	2.3 A	1.4 A
F4-50/125A	2.6 A	1.5 A
F4-50/160B	3.3 A	2.1 A
F4-50/160A	4.2 A	2.4 A
F4-50/200C	6.1 A	3.5 A
F4-50/200B	8.0 A	4.6 A
F4-50/200A	9.0 A	5.2 A
F4-50/200AR	10.6 A	6.8 A
F4-50/250D	4.9 A	2.8 A
F4-50/250C	5.9 A	3.4 A
F4-50/250B	8.5 A	4.9 A
F4-50/250A	9.9 A	5.7 A
F4-50/250AR	11.8 A	6.8 A

MODEL	VOLTAGE	
	230–240 V	400–415 V
Three-phase		
F4-65/125B	3.6 A	2.1 A
F4-65/125A	4.5 A	2.6 A
F4-65/160C	5.2 A	2.7 A
F4-65/160B	5.9 A	3.4 A
F4-65/160A	7.8 A	4.5 A
F4-65/200A	9.0 A	5.2 A
F4-65/200AR	11.8 A	6.8 A
F4-65/250B	17.3 A	9.5 A
F4-65/250A	21.7 A	13.5 A
F4-80/160D	5.9 A	3.4 A
F4-80/160C	8.1 A	4.7 A
F4-80/160B	9.2 A	5.3 A
F4-80/160A	10.6 A	6.8 A
F4-80/200B	13.8 A	9.5 A
F4-80/200A	18.2 A	12.8 A
F4-80/250B	20.8 A	13.5 A
F4-80/250A	25.6 A	14.8 A
F4-100/160B	9.0 A	5.2 A
F4-100/160A	11.2 A	6.5 A
F4-100/200C	14.2 A	9.5 A
F4-100/200B	17.8 A	12.1 A
F4-100/200A	20.8 A	13.5 A
F4-100/250B	26.8 A	15.9 A
F4-100/250A	34.1 A	19.7 A